THE BREAKING THE CYCLE SCHEME IN URBAN SCHOOLS: FINAL EVALUATION REPORT

Susan Weir, Lisa Milis, & Catherine Ryan

May, 2002

Educational Research Centre
St Patrick's College, Dublin

THE BREAKING THE CYCLE SCHEME IN URBAN SCHOOLS: FINAL EVALUATION REPORT

ACKNOWLEDGEMENTS

The help and co-operation of principals, teachers and pupils in the collection of data are gratefully acknowledged. Special thanks are due to Maura Grant, Emer Egan, Colm Ó Maoláin, and the members of the Department of Education and Science Inspectorate for their assistance throughout the evaluation.

Many of the staff at the Educational Research Centre were involved in various aspects of the evaluation. Thanks are due, in particular, to Mary Rohan, Hilary Walshe, and John Coyle. Finally, thanks are due to Thomas Kellaghan for his help and guidance at all stages of the evaluation.

CONTENTS

THE BREAKING THE CYCLE SCHEME IN URBAN SCHOOLS:

FINAL EVALUATION REPORT

Executive Summary

The *Breaking the Cycle* scheme was introduced in 1996/97 to 33 urban schools to assist them in addressing problems associated with catering for large numbers of pupils from disadvantaged backgrounds. The scheme provides for reduced class size at junior level; grants for the purchase of books, teaching materials and equipment; enhanced capitation grants; and incareer development programmes for teachers. The aim of the evaluation of the scheme was to assess the scheme's overall effectiveness, to identify models of good practice, and to examine how participation affected schools, teachers, and pupils. An evaluation report in 1998 provided information on schools, teachers, and pupils in the year before the scheme began and in its first year of operation. An interim report on the scheme in 2000 described some of the early effects of the scheme, and provided baseline data on the Junior Cycle completion rates of a cohort of pupils who had received their primary education in the selected schools prior to the introduction of the scheme. The present report describes the scheme's effects on participants over the five years of its pilot phase.

At the time of applying to participate in *Breaking the Cycle*, schools undertook to develop a five-year plan designed to respond to the needs of children from disadvantaged backgrounds. Data on the planning process in the areas of curriculum, school organisation, and home-school liaison were gathered on two occasions, once in 1998, and again in 2001 at the end of the pilot phase of the scheme. The majority of schools in 2001 cited English as their curriculum priority, with about two-thirds focusing primarily on oral language development. The most common home-school priorities were the promotion of parental support of children's education, followed by increasing parental involvement in school activities. The improvement of within-school communication was the most frequently cited organisational priority, followed by improving discipline within the school. The data collected indicate that the effects of the planning process on schools were very beneficial. Apart from the fact that the majority of schools perceived improvements in prioritised areas, other positive outcomes were noted. For example, the planning process required that schools identify challenges, set targets, and decide on methods of evaluating the success of the chosen strategies. Furthermore, the planning process was described by some as having led to a greater sense of connectedness and community among school staff.

As a result of their participation in the scheme, schools were much better resourced in terms of personnel than was the case prior to the scheme. However, although the number of teachers in participating schools increased, schools experienced considerable difficulties with staff shortages and turnover. Furthermore, significant numbers of teaching posts were occupied by unqualified teachers. A survey of schools in 2001/2002 revealed that 72% of schools employed such teachers. This

combined with the high staff turnover rate suggests that it might be worth considering the introduction of measures to render teaching posts in participating schools more attractive (e.g., by providing financial incentives for teachers).

In terms of materials and equipment, schools were much better resourced than had been the case prior to the scheme. The additional funding provided enabled schools to purchase a wide range of necessary items over the first five years, and school staff cited the extra funding for materials and equipment as one of the most important benefits of the scheme, especially in light of the difficulties of fundraising in disadvantaged areas.

The importance of fostering and maintaining links between the home and the school is widely acknowledged, and all schools in *Breaking the Cycle* are also participating in the Home-School-Community Liaison scheme (HSCL) scheme. While it is impossible to separate the effects on home-school links of participation in *Breaking the Cycle* from those of the HSCL scheme, data collected from principals over the first four years of the scheme indicate that parents had a good deal of contact with schools, and were involved in a wide range of school-related activities. These ranged from participating in educational courses to assisting in the running of events such as concerts, sports days, and homework clubs. Furthermore, in the fourth year of the scheme, principals perceived a decrease in the percentage of parents that lacked an interest in the educational progress of their children, as well as in the percentage that had low educational expectations for their children. However, there is further scope for improving parents' educational expectations, as in the fifth year of the scheme, almost one in five principals reported that the vast majority of parents had low educational expectations for their children.

Principals were unanimous in their agreement that *Breaking the Cycle* had had a beneficial overall effect on their schools, while virtually all said that teaching practice had been positively affected by participation, as had staff morale. Principals also noted a range of beneficial effects on pupils, which included improvements in academic achievement, increases in self-esteem, and improved standards of social interaction. All principals in the final year of the pilot phase indicated that pupils had benefited from participation in the scheme, citing the reduced pupil-teacher ratio at junior level as a key factor. Principals felt that the extra individual attention given to pupils in small groups was of benefit, and that this had facilitated teachers in the early identification of problems. However, more than one-third of principals thought that the reduced pupil-teacher ratios should be extended to other classes in the school, as they felt that the benefits of being taught in a small class were negated when pupils were subsequently placed in a much larger class.

Teachers' perceptions of the scheme were also, in the main, positive. Most thought that the scheme had improved their understanding of the nature of educational disadvantage, and that their attitudes and teaching practices had changed as a result of participating in the scheme. However, the data suggest that, towards the end of the pilot phase, teachers became more sceptical of their ability to influence pupils' performance, and were more likely than at the beginning of the scheme to attribute

their success or failure in teaching pupils to factors beyond their control rather than to their own efforts or abilities as teachers. They also held relatively low expectations for pupils, and were more likely to agree that the scheme had impacted on pupils personally and socially rather than academically. It should be noted that inservice training for teachers was severely curtailed during the last two years of the pilot phase due to the requirement that teachers attend inservice training related to the introduction of the new curriculum. This is an important factor, as one of the main provisions of the scheme was targeted inservice training for teachers. Furthermore, because the staff turnover rate was high in schools, it is likely that a significant proportion of teachers would not have had any targeted inservice training associated with *Breaking the Cycle.* Targeted incareer training would seem particularly important for Junior class teachers to permit them to maximise the educational opportunities provided in small classes.

The scheme's effect on pupils is clearly of critical importance in judging its effectiveness. However, the range of potential effects at pupil level is broad, and may include a reduction in absenteeism, improvements in behaviour and discipline, changes in attitudes towards school and schoolwork, and improved achievement. The evaluation attempted to assess the extent to which each of these was affected by participation in the scheme.

Pupil attendance did not improve over the pilot phase of the project. The average attendance rate in *Breaking the Cycle* schools of about 86% compares unfavourably with the daily attendance rates of 90-91% in all Dublin city schools over the same period. Furthermore, absenteeism among 3rd and 6th class pupils was high on the days of achievement testing in 1997 and 2000. Attendance during testing was lower at 6th class level than at 3rd, and lower in 2000 than in 1997. If principals are correct in attributing problems with attendance to parents, further work with parents is indicated.

Data collected from principals indicate that, at Senior level, the prevalence of late arrival at school and absenteeism increased significantly between 1995/96 and 1999/2000. In contrast, there were no significant increases in the incidence of various types of misbehaviour among Junior and Middle classes since the introduction of the scheme. Evidence of a general decline in discipline problems since the beginning of the scheme comes from data on the number of pupil suspensions from school as a result of serious breaches of discipline. The data indicate that about half as many suspensions were applied to pupils in 1999/2000 as were applied in the year immediately preceding the scheme. This finding, combined with the fact that more than a quarter of principals reported improvements in discipline in their school in 2000/01, suggests that the scheme had a positive impact on discipline levels, at least among Junior and Middle grade pupils. The problem of rising levels of certain forms of misbehaviour among Senior pupils, however, remains a matter of concern.

Standardised achievement tests in reading and Mathematics were administered to pupils in 3rd and 6th classes in the first and fourth years of the scheme. Test results in 1997 indicated that the achievements of pupils were significantly lower than those of pupils nationally. Tests administered to the same grade levels three years later recorded no improvement in average achievement, and, indeed,

that there was a statistically significant decrease in the average literacy and numeracy achievements of pupils in 6th class between 1997 and 2000. More than one-third of pupils in 6th class scored below the 10th percentile in reading, while over 40% scored at that level in Mathematics. Furthermore, there were very few high-achieving pupils, with only about 1% of pupils achieving scores above the 90th percentile. The failure of the scheme to effect improvements in the key area of pupil achievement may be the result of a combination of factors, which may include poor pupil attendance, high teacher turnover, the presence of relatively large numbers of unqualified teachers, teachers' instructional priorities, a decrease in the amount of teaching time devoted to English, insufficient targeted inservice training for teachers, and low expectations for pupils on the part of teachers and parents.

A questionnaire administered to pupils in 6th class revealed that they held very positive attitudes towards school and schoolwork. Furthermore, there is some evidence that pupils' attitudes improved between 1997 and 2000, with significantly more pupils in 2000 indicating that they were proud of their schoolwork, liked to be asked questions in class, and felt that they were doing well at school. There was no increase, however, in liking for school between 1997 and 2000. Girls were more positive towards school than were boys, with twice as many boys as girls claiming to dislike school 'a lot'. The educational aspirations of girls (i.e., how long they wished to remain in full-time education) also exceeded those of boys, although there was no gender difference in their educational expectations (i.e., the length of time they thought they would *actually* remain in education).

Due to its multi-faceted nature, the effects of the *Breaking the Cycle* intervention are likely to be wide-ranging. Some of the scheme's effects might be expected in the long-term rather than in the short-term. For example, to examine the scheme's effects on rates of early school leaving, the Junior Cycle completion rates in 2007 of pupils who were in Junior Infants when the scheme began will be compared with those of a sample of pupils who received their primary education in participating schools prior to the introduction of the scheme. It is also possible that the effects of the scheme on pupil achievement will not manifest themselves immediately, and, for this reason, it is intended to continue to monitor the achievements of pupils in participating schools.

1. INTRODUCTION

This section of the report describes briefly the background to the scheme, and how schools were selected to participate. Characteristics of schools at the start of the scheme (based on their application data in 1996) are also described. Finally, the aims and objectives of the scheme are outlined, as are the evaluation activities undertaken during the five years of the pilot phase of the scheme.

1.1. BACKGROUND TO THE SCHEME

An earlier evaluation report (Weir & Eivers, 1998) provided a detailed description of the background to the introduction of *Breaking the Cycle* in 1996. In that report, the concept of educational disadvantage was reviewed, and the history of attempts to address educational disadvantage in Ireland was described. This report, therefore, will describe only the immediate antecedents of the scheme.

In early 1995, the Combat Poverty Agency approached the Educational Research Centre to undertake an investigation of the criteria used in designating urban and rural schools as disadvantaged. Specifically, the terms of reference of the study were to: (a) consider and report on the rationale which should underlie designation as disadvantaged; (b) assess the appropriateness of current indicators and, if necessary, suggest improvements and/or other measures; and (c) review existing support measures, and if necessary, suggest improvements and/or other measures.

Following investigations of the above, the *Scheme of Assistance to Schools in Designated Areas of Disadvantage* was deemed to be in need of reform, and several recommendations were put forward for consideration (Kellaghan, Weir, Morgan & Ó hUallacháin, 1995). A key recommendation was that resources should be targeted on a limited number of schools with high concentrations of pupils from disadvantaged backgrounds and low levels of achievement. The envisaged intervention would be a comprehensive and multi-faceted approach to meeting the needs of educationally disadvantaged children (e.g., the approach was conceived as involving appropriate curriculum adaptation, a reduction in the class size of junior classes in urban areas to facilitate individual attention to pupils, and the reform of school organisation to develop a unity of purpose and build on existing strengths of teachers and pupils). In addition, it was suggested that the participation of selected schools in the scheme should be supported by appropriate advice and specially tailored inservice training for school staffs.

It was further proposed that acceptance into the scheme should be dependent on the school undertaking to formulate a five-year plan of action. The plan was to be based on an examination of problems in the school, and should describe the existing deployment of resources in the school and how additional resources would be used. Implicit in this school plan was the setting of targets to be met during the five-year period of intervention, as well as the monitoring of progress towards the attainment of the targets.

The Department of Education responded to these recommendations by engaging the Educational Research Centre to develop revised criteria for selecting schools for participation in a new scheme targeting schools serving pupils in acutely disadvantaged areas. The proposed scheme was envisaged as catering in very different ways to the needs of small and large schools. Therefore, specially tailored criteria were developed for use in the selection of rural and urban schools.

1.2. THE SELECTION PROCEDURE IN URBAN SCHOOLS

The indicators used to select schools for the new scheme were in accordance with the suggestions outlined by Kellaghan et al. (1995). Based on investigations of the appropriateness of existing criteria (used to select schools for the Department of Education's *Scheme of Assistance to Schools in Designated Areas of Disadvantage*), it was recommended that the number of indicators used to identify schools in disadvantaged areas be increased, and that the relative weightings given to each indicator be re-evaluated.

The analysis of existing criteria revealed that family possession of a medical card and residence in local authority housing consistently carried more weight than other indicators in predicting student achievement and attainment (both key correlates of educational disadvantage). To reflect their significance in disadvantage, medical card possession was accorded a weight of 3 and residence in local authority housing a weight of 2. The need to break the cycle of intergenerational poverty was also seen to be of key importance, and because children of long-term unemployed parents were considered to be especially vulnerable, family long-term unemployment was accorded a weight of 2. Two new indicators (each assigned single weighting) relating to the educational attainments of pupils' parents were included. These were designed to take into account the close relationship observed in previous studies between parental educational level, poverty, and children's educational achievements. Finally, an indicator relating to lone-parent families (used at second level in the designation of schools as disadvantaged) was included. In addition to the indicators relating to families, schools were allocated up to a maximum of 200 points for a school plan submitted with their application. On the basis of responses to these questions, an index of disadvantage was computed for each applicant school. The indicators used to select urban schools, along with their relative weightings, are shown in Table 1.1.

Schools were also asked to provide information in a range of other areas including the numbers of pupils and teachers in the school, the school's membership of schemes to assist disadvantaged pupils, the availability of additional accommodation in the school, the school's willingness to prepare a five-year plan, willingness to participate in additional inservice, and willingness to participate in the administration of achievement tests to pupils.

The selection of schools for participation in the *Breaking the Cycle* scheme was carried out during the summer of 1996. Application forms to join the scheme were posted to 221 urban schools in *the Scheme of Assistance to Schools in Designated Areas of Disadvantage.* Of the schools that

received application forms, completed applications for inclusion in *Breaking the Cycle* were returned from 190 schools (86% of eligible schools).

Table 1.1. Indicators (and their associated weights) used to rank order schools (when summed) for selection for the urban dimension of *Breaking the Cycle*.

Indicator	**Points**
% of pupils in reception class whose mother did not take at least the Group or Intermediate Certificate Examination[1]	(100 points)
% of pupils in reception class whose father did not take at least the Group or Intermediate Certificate Examination[1]	(100 points)
% of pupils in reception class living in a family in which the main breadwinner was unemployed for a year or more[2]	(200 points)
% of pupils in reception class living in local authority housing[2]	(200 points)
% of pupils in reception class living in a family that holds a medical card[3]	(300 points)
% of pupils in reception class living in a lone-parent household[1]	(100 points)
School plan	(200 points)
	Maximum total: 1200 points

[1] Single weighting; [2] Double weighting; [3] Treble weighting

1.3. CHARACTERISTICS OF SELECTED SCHOOLS ON THE APPLICATION INDICATORS.

It is of interest to examine the extent to which schools that were successful in their applications were characterised by each of the indicators of disadvantage. Data showing the percentage of pupils in the selected schools that were characterised by each of the application indicators are presented in Table 1.2.

Table 1.2. Percentage of long-term unemployed[1] breadwinners, medical card holders, residents in rented local authority housing, lone-parent families, and mothers and fathers with low educational attainments among the families of entry grade pupils in selected schools in 1996 (*N*=33).

Application variables					
% L.T. unemployed breadwinner	**% holding medical card**	**% local authority housing**	**% lone-parent family**	**% mothers no Inter / Group cert.**	**% fathers no Inter / Group cert.**
Mean	***Mean***	***Mean***	***Mean***	***Mean***	***Mean***
82.8% (12.0)	**90.3% (10.1)**	**92.9% (9.9)**	**45.7% (20.2)**	**81.2% (17.2)**	**78.4% (19.6)**

[1]In 1996, the rate of long-term unemployment nationally was 6.9% (Ireland, 1999).

As Table 1.2 shows, the profile of the population served by the selected schools is an extremely disadvantaged one. At a time when the rate of long-term unemployment nationally was almost 7%, the average percentage of long-term unemployed breadwinners in families served by these

schools was almost 83%. According to the 1996 Census of Population, in 1996, 11.2% of all private households were classified as lone-parent households (National Economic and Social Forum, 2001). This compares with a figure of almost 47% – more than four times the rate – among families served by *Breaking the Cycle* schools. Nearly all pupils served by the selected schools resided in local authority housing, and principals indicated that 4 out of every 5 parents had not achieved at least an Intermediate Certificate or Group Certificate qualification.

1.4. AIMS AND OBJECTIVES OF BREAKING THE CYCLE

The new scheme, to be known as *Breaking the Cycle of Educational Disadvantage*, was described by the (then) Minister for Education, Niamh Bhreathnach, in September 1996 as "…an important new initiative which seeks to break the cycle of educational disadvantage in selected urban and rural areas". The Minister proceeded to describe the aim of the scheme as follows: "This *Breaking the Cycle* initiative seeks to discriminate positively in favour of schools in selected urban and rural areas which have high concentrations of children who are at risk of not reaching their potential in the education system because of their socio-economic backgrounds" (Ireland, 1996).

It is clear from these statements that the aims of the scheme, as initially conceptualised, are broad in nature. In order to "break the cycle of educational disadvantage", one might think in terms of breaking the cycle of intergenerational poverty. While it is clearly beyond the scope of the scheme to bring this about directly, the scheme should aim, at the very least, to improve the educational experiences of children, so that they are better than those of their parents. Indeed, it is possible that such improvements would have a positive effect on children's life chances generally, including their economic prospects as adults.

It is also possible to infer some of the aims of the scheme from the issues of concern to the evaluation. For example, an effective scheme would be expected to produce some improvement in the observable effects of disadvantage, such as poor achievement levels and rates of early school leaving. Indeed, in a thesis which examined the early implementation of the scheme, Grant (1998) stated that:

> Broadly speaking, the aim of *Breaking the Cycle* is to effect improvements in attainment, attendance and participation in education for the pupils identified in the targeted schools. The overall aim of the project is to strengthen the ability of each participating school to provide quality education for all its pupils by supporting each school in developing improvement strategies which are designed to break the deterministic social mould which surrounds educational disadvantage. There is an expectation on the part of the Department of Education and Science that the opportunities being offered will enable schools to break the cycle of school failure and that benefits will accrue in terms of the attainments of pupils, their attendance at school and their level of participation in the education system. (p.8)

As the achievement gap between disadvantaged and non-disadvantaged pupils tends to widen as pupils progress through the school system (Douglas, 1964; Martin, 1979), an effective scheme might be expected to reduce this gap. It might also be expected to make the school environment more

pleasant for pupils, which could positively impact on attendance and retention levels. Furthermore, a successful intervention might be expected to increase teachers' expectations of their pupils, as well as pupils' educational expectations and aspirations. It should be noted that the schools themselves, through their five-year plan for *Breaking the Cycle*, have identified priority areas in which they expect to bring about positive change (see Chapter 2). Many of the strategies adopted by schools to address their curricular, home-school, and organisational priorities depend on the supports (e.g., funding and personnel) made available under the scheme. Furthermore, the incareer development opportunities available to staffs in the target schools, which are specially tailored to the needs of teachers working with disadvantaged pupils, might lead to an enhanced understanding of disadvantage, and, ultimately, positively impact on pupils.

1.5. EVALUATION ACTIVITIES OVER THE FIVE YEARS OF THE PILOT PHASE OF THE SCHEME

The large numbers of schools and teachers involved in the urban and rural dimensions of *Breaking the Cycle* meant that the possibilities for one-to-one interviews with school staff were limited. Consequently, a great deal of the evaluation data were collected using questionnaires. Questionnaires seeking information on a wide range of school variables were sent to school principals towards the end of each year of the 5-year pilot phase of the scheme. Selected data from these questionnaires are presented in Chapter 5. In the final year (2000/2001), principals were sent a school planning questionnaire to complete in consultation with their class teachers. Information derived from responses to this questionnaire is presented in Chapter 2. In addition, all class teachers were sent questionnaires in each of years one to four of the scheme, and selected findings (with a particular focus on classroom variables), are presented in Chapter 6.

The achievements of pupils in participating schools were measured at two points during the pilot phase of the scheme: All 3rd and 6th class pupils in urban schools were tested in English reading and Mathematics in 1997, and again in 2000. The testing of pupils in 1997, although it took place shortly after the scheme had started, was done with a view to treating the results as baseline data. (Although this is a limitation of the evaluation, it was outside the control of the evaluators, as the request to evaluate the scheme was not made until after the scheme had started). At the time of testing (in both 1997 and 2000), 6th class pupils responded to a pupil questionnaire designed to elicit their attitudes to school, self, and home. A summary description of pupil achievements is presented in Chapter 3, while Chapter 4 describes pupils' attitudes, and the relationship between their attitudes and their achievements. Throughout the course of the report, attempts are made to assess the impact of the scheme on schools, teachers, and pupils in light of the aims outlined in section 1.4. For example, pupil achievement levels are examined to investigate if there is any evidence that the gap between the achievements of senior pupils and those of pupils nationally is greater than that between junior level pupils and pupils nationally, in line with suggestions by Douglas (1964) and Martin (1979).

Furthermore, the availability of test results in the first and fourth years of the scheme permits an examination of any changing trends in achievement.

Apart from gathering information in questionnaire format, the views of school staffs on the operation of the scheme were sought during visits to a selection of schools in Dublin, Cork and Limerick. These visits were described in an earlier evaluation report (Weir & Ryan, 2000), and so will not be described here. Evaluators also visited a limited number of schools during the achievement-testing phases of the evaluation in 1997 and 2000. The evaluators were conscious that it was desirable to keep school personnel appraised of evaluation findings, and, for this reason, summaries of both the preliminary and interim reports on the scheme (submitted to the Department in 1998 and 2000 respectively) were circulated to all schools. Test results for each child who participated in the achievement testing were sent to their class teacher, along with a guide to interpreting them. When appropriate and practicable, evaluators attended inservice training sessions organised by the Department of Education and Science for teachers and principals. Occasionally, evaluators attended special events at participating schools. For example, in one school, teachers and pupils produced a video on the local history of the area served by the school, and the evaluators attended its launch. A highlight of the scheme in its final year, also attended by the evaluators, was a concert held in the National Concert Hall in which learning through the arts was celebrated. Pupils from all participating schools performed for an invited audience, which included President Mary McAleese, and the Minister for Education and Science, Michael Woods T.D., as well as parents.

In addition to the above, the evaluators were in regular contact with principals and teachers. For example, during the 1996/97 school year, more than 300 telephone calls were either received from, or made to, participating schools. The nature of the contact was extremely varied, but included calls from teachers seeking clarification of questionnaire items, organising schedules for pupil testing, advising of staffing changes, and discussing the results of achievement testing.

2. SCHOOL PLANNING FOR *BREAKING THE CYCLE*

Participation in the *Breaking the Cycle* scheme was contingent upon the school undertaking to formulate a five-year plan of action. It was recommended that the plan be based on an examination of the problems in the school, and that it describe how existing and additional resources would be deployed. Implicit in the School Plan was the setting of targets to be met during the five-year period of intervention, as well as the monitoring of progress towards the attainment of these targets. It was recognised that these plans would not be fixed and rigid; if new priorities were identified, or if strategies and evaluation methods were found to be ineffective, than the plan would ideally be revised accordingly.

Principals were asked a series of open-ended questions about their five-year School Plan first in the 1997/98 School Questionnaire[1], and again in the 2000/01 Planning Questionnaire (i.e., in the last year of the pilot phase of the scheme). Items in both questionnaires were designed to elicit information on schools' curriculum priorities, organisational priorities and home-school priorities. Principals were also asked to describe the strategies that were employed to achieve objectives associated with the priorities, and the methods that were used to evaluate the success or failure of the strategies. As the 2000/01 questionnaire was completed towards the end of the pilot phase of the scheme, principals were also asked to report on the positive and negative outcomes of the strategies.

Of the 32 principals who returned completed School Questionnaires in 1997/98, 31 (96.9%) provided details of their curriculum priorities, 26 (81.3%) detailed their organisational priorities, and 26 (81.3%) reported on their home-school priorities. Twenty-seven principals (87.1%) returned completed Planning Questionnaires in 2000/01, and all 27 provided descriptions of their school's curriculum, organisational, and home-school priorities.

It was hoped that comparison of principals' responses in 1997/98 and 2000/01 would provide an indication of any shifts in schools' priorities, strategies, and evaluation techniques. Furthermore, it was expected that data on *outcomes*, which were collected in the 2000/01 questionnaire, would provide insight into the general success or failure of the initiatives outlined in the five-year plan. Clearly the fact that the number of respondents is small imposes constraints on the kind of statistical analysis that is possible. For this reason, this section is largely descriptive.

[1]While all schools included a plan in their initial application to join the scheme in 1996, it was felt that information collected on the School Plans in 1997/98 would be more informative for the evaluation, as the plans which were developed in 1996 were prepared before schools were admitted to the scheme and before staff had received training on school development planning.

2.1. CURRICULUM PRIORITIES

Thirty-one principals (96.9%) in 1997/98 provided descriptions of their curriculum priorities, compared to 27 (87.1%) in 2000/01. Table 2.1 shows the frequency with which each curriculum area was identified by principals in both years.

Table 2.1. Numbers and percentages of principals in 1997/98 and 2000/01 reporting their school's curriculum priorities, by curriculum area.

Curriculum Area	**Number % 1997/98** (*N*=31)*	**Number % 2000/01** (*N*=27)**
English	24 (77.4%)	23 (85.2%)
Maths	11 (35.5%)	5 (18.5%)
P.E.	2 (6.5%)	-
Irish	1 (3.2%)	-
Other	3 (9.7%)	-

*Numbers do not sum to 31 as 6 principals described more than one curriculum priority.
**Numbers do not sum to 27 as 1 principal described both an English *and* a Mathematics curriculum priority.

Because the 1997/98 School Questionnaire simply asked principals to *describe their curriculum priority*, six principals detailed more than one curriculum priority. English was the most frequently cited priority in 1997/98 (77.4%), followed by Mathematics (35.5%). Two principals described P.E. as a priority, stating, for example, that they hoped to improve pupils' co-ordination and co-operative skills. One school sought to raise the standard of Gaeilge in the school, while three principals reported priorities which were classified as "other"; for example, one school sought to "bring about sustainable improvements in the educational attainment of the children".

To solve the problem of principals reporting on more than one curriculum priority, the wording of the 2000/01 Planning Questionnaire was altered slightly. Specifically, when asked to describe a curriculum priority, principals were given a choice of describing *only one English or one Mathematics* curriculum priority[2]. Thus, in 2000/01, 85.2% of principals described an English curriculum priority, and 18.5% described a Mathematics curriculum priority. The English and Mathematics curriculum priorities reported on in 1997/98 and 2000/01 are presented in Sections 2.1.1 and 2.1.2.

2.1.1. Mathematics curriculum priorities

Eleven principals in 1997/98 (35.5%) and five in 2000/01 (18.5%) identified Mathematics as a curriculum priority in their five-year school plan. Schools' Mathematics curriculum priorities in 2000/01, the types of strategies employed to achieve the objectives associated with the priorities, and the methods of evaluating these strategies are outlined in Figure 2.1, followed by a review and comparison of the 1997/98 and 2000/01 Mathematics curriculum priorities.

[2]In order to assess the scheme's impact on pupils, data were collected on the Mathematics and English achievements of a sample of pupils participating in the scheme. Thus, it was felt that information relating to English or Mathematics curriculum priorities would be the most informative. Also, it was clear from principals' responses in 1997/98 that English and Mathematics were the most common priority areas.

Figure 2.1. Number of principals in 2001 reporting various Mathematics priorities, types of strategies used to achieve objectives associated with the priorities, methods of evaluating the strategies, and positive and negative outcomes of the strategies.

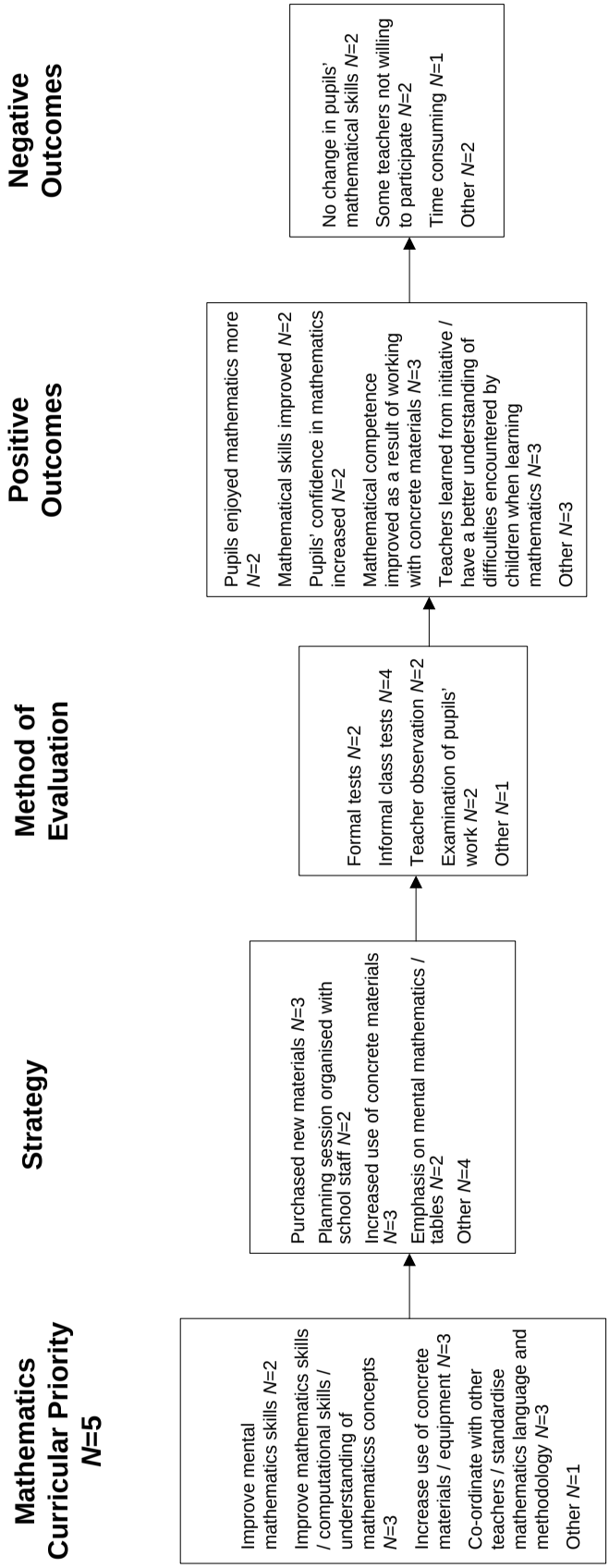


Table 2.2 shows the main types of Mathematics curriculum priorities reported by principals in 1997/98 and 2000/01.

Table 2.2. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various Mathematics curriculum priorities.

Type of priority (aims and objectives)	**Number %* 1997/98** (*N*=11)	**Number %* 2000/01** (*N*=5)
Improve Mathematical skills (general) / improve understanding of Mathematical concepts / computational skills	7 (63.6%)	3 (60.0%)
Co-ordinate with other teachers /standardise Mathematics language and methodologies	1 (9.1%)	3 (60.0%)
Increase use of concrete materials / equipment	-	3 (60.0%)
Improve mental Mathematical skills (e.g., tables)	-	2 (40.0%)
Determine pupil weaknesses / focus on remedial Mathematics	4 (36.4%)	-
Improve Mathematics vocabulary / emphasise oral development in Mathematics	3 (27.2%)	-
Other (e.g., to develop an appropriate program of work)	-	1 (20.0%)

*Percentages do not sum to 100% as principals were permitted to give more than one response.

As Table 2.2 demonstrates, the improvement of pupils' general Mathematical skills and understanding of Mathematical concepts was the most common aim in 1997/98 (*n*=7), and remained one of the top aims in 2000/01 (*n*=3). Two schools also sought to improve pupils' mental Mathematical skills. For example, one school's objective was "to develop pupils' mental Mathematical skills so that they can use them in everyday situations, e.g., shopping, estimating, calculating".

Although the small number of principals who described a Mathematics curriculum priority imposes constraints on the conclusions that can be drawn, a comparison of principals' responses in 1997/98 and 2000/01 seems to suggest that some schools shifted their focus away from identifying *individual* pupils' needs, and instead concentrated on making adjustments at the school level. Specifically, while a focus on remedial Mathematics and pupils' weaknesses was cited as an objective by four principals in 1997/98, no principals reported this objective in 2000/01. In contrast, three principals listed the standardisation of Mathematics language and methodologies and co-ordination of teachers as their main Mathematics curriculum priority in 2000/01. This finding is somewhat consistent with the finding that there was an increase in 2000/01 in the number of schools which listed as their organisational priority the improvement of communication within the school (see Section 2.2).

Principals were also asked to describe the strategies that they adopted to achieve their Mathematics curriculum objectives (Table 2.3). That the purchase of new Mathematics materials was the most frequently cited strategy in both 1997/98 and 2000/01 (45.5% and 60.0% respectively) seems to suggest that the additional funding available to schools under the scheme was beneficial in helping them to achieve their priorities. The use of concrete materials was also a commonly used strategy in

2000/01. Principals in both years also described strategies which entailed emphasising mental Mathematics and holding planning sessions among staff. Finally, two principals described strategies which were classified as "other". For example, one school held "a series of workshops for teachers so that they could become familiar with the materials themselves and feel competent and at ease in their use".

Table 2.3. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various types of strategies to be used in implementing the school's Mathematics curriculum priorities.

Strategy	**Number % 1997/98** (*N*=11)*	**Number % 2000/01** (*N*=5)*
Purchase new Mathematics materials	5 (45.5%)	3 (60.0%)
Use of concrete materials	2 (18.2%)	3 (60.0%)
Planning session among members of staff	4 (36.4%)	2 (40.0%)
Emphasis on mental Mathematics / tables	-	2 (40.0%)
Include parents	3 (27.3%)	-
Use games / fun approach	2 (18.2%)	-
Other (e.g., encourage daily practice, in-service, Maths group)	2 (18.2%)	2 (40.0%)

*Percentages do not sum to 100% as principals were permitted to give more than one response.

Several methods of evaluation were used to assess the effectiveness of strategies (Table 2.4). Two principals in 2000/01 reported using teachers' observations as a means of evaluation, compared to six principals in 1997/98. Alternatively, informal class tests were the most frequently cited method of evaluation in 2000/01 (*n*=4), followed by formal tests, and pupils' work.

Of interest is the finding that five principals in 1997/98 reported strategies or evaluation methods which involved parents, while no principals in 2000/01 did so. However, it is possible that the wording of the 1997/98 questionnaire, which asked principals to specify *who* would be involved in the strategy, prompted principals to include this information in 1997/98. The 2000/01 questionnaire, on the other hand, simply asked principals to describe their strategy. Thus, it is likely that the data do not represent an actual decrease in parental involvement in 2000/01.

Table 2.4. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various methods of evaluating the success of attempts to meet objectives within Mathematics curriculum priorities.

Method of evaluation	**Number % 1997/98** (*N*=11)*	**Number % 2000/01** (*N*=5)*
Informal tests (class tests)	5 (45.5%)	4 (80.0%)
Teacher observation	6 (54.5%)	2 (40.0%)
Formal tests (including pupil profiling)	5 (45.5%)	2 (40.0%)
Examination of pupils' work	-	2 (40.0%)
Parental feedback	2 (18.2%)	-
Other (e.g., quizzes / role play)	2 (18.2%)	1 (20.0%)

*Percentages do not sum to 100% as principals were permitted to give more than one response.

As the 2000/01 Planning Questionnaire was completed towards the end of the pilot phase of the initiative, two additional items regarding the positive and negative outcomes of the strategies were included in the questionnaire. Two principals reported that pupils enjoyed Mathematics more, and two felt that pupils' confidence in Mathematics had improved. Furthermore, three principals reported that children's Mathematical competence had improved as a result of working with concrete materials, and two principals reported improvements in pupils' Mathematical skills (Table 2.5). At the same time, two principals indicated there were no such improvements among pupils (Table 2.6). Similarly, three principals felt that teachers had benefited. According to one principal:

> Teachers [are] more confident in doing group work and activity work and see the value in it. Even one teacher who had no time for this work has now taken it on. It has created a buzz of discussion among teachers and a genuine interest in an alternative way of working with Maths besides just workbooks.

Nonetheless, two principals felt that some staff were not willing to take on the extra work involved, and one felt that the work was too time-consuming. For the most part, however, principals detailed more positive than negative outcomes.

Table 2.5. Number of principals in 2000/01 reporting various positive outcomes of strategies introduced to address Mathematics curriculum priorities (*N*=5)*.

Comment	**Number**
Mathematical competence improved as a result of working with concrete materials	3
Teachers have a better understanding of problems encountered by children when learning Maths / more confident and willing to adopt new strategies	3
Pupils enjoyed Mathematics more	2
Mathematical skills have improved	2
Pupils confidence in Mathematics has improved	2
Other (e.g., adapted the curriculum to suit the needs of our children at different stages)	3

*Numbers do not sum to 5 as principals were permitted to give more than one response.

Table 2.6. Number of principals in 2000/01 reporting various negative outcomes of strategies introduced to address Mathematics curriculum priorities (*N*=5)*.

Comment	**Number**
No improvements in Mathematical competence	2
Some staff not willing to take on extra work involved in initiative	2
Time consuming	1
Other (e.g., booklet not yet distributed / waiting for new textbooks)	2

*Numbers do not sum to 5 as principals were permitted to give more than one response.

2.1.2. English curriculum priorities

Schools' English curriculum priorities in 2000/01, the types of strategies employed to achieve the objectives associated with the priorities, and the methods of evaluating these strategies are outlined in Figure 2.2. A review and comparison of schools' 1997/98 and 2000/01 English curriculum priorities follows.

Figure 2.2. Number of principals in 2001 reporting various English priorities, types of strategies used to achieve objectives associated with the priorities, methods of evaluating the strategies, and positive and negative outcomes of the strategies.

As can be seen in Figure 2.2, 22 of the 27 principals who returned completed Planning Questionnaires in 2000/01 (81.5%) described an English curriculum priority. Similarly, 24 of the 31 principals who provided details of their curriculum priorities in 1997/98 (77.4%) reported English as their main priority. That the majority of schools in both years detailed an English curriculum priority is consistent with the finding that, in each of the first four years of the scheme (i.e., 1996/97 to 1999/2000), teachers reported spending the most class time per week on English (see Section 6.1).

As Table 2.7 demonstrates, the majority of principals in 1997/98 and 2000/01 (70.8% and 63.6% respectively) listed the improvement of pupils' oral language and communication skills as their main English curriculum priority. For example, one principal wrote:

> The pupil should be enabled to express himself clearly, correctly, and confidently…to use correct pronunciation and grammar…to project his voice well…to enjoy conversation and vocal performance…

Approximately one third of principals in both years (33.3% in 1997/98 and 31.8% in 2000/01) reported that their objective was to improve pupils' reading skills. Given that the English achievement data presented in Chapter 3 reflects pupils' *reading* skills, the finding that most schools concentrated on improving pupils' *oral language* skills may help to explain why 3rd and 6th class pupils' English achievement scores did not improve between 1997 and 2000, despite the fact that a majority of schools cited English as a curriculum priority.

Table 2.7. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various English curriculum priorities.

Type of priority (aims and objectives)	**Number % in 1997/98** (*N*=24)*	**Number % in 2000/01** (*N*=22)**
Oral language and communication skills: teach children to express themselves/ extend vocabulary and use more descriptive language / improve fluency and comprehension / improve use of language / enjoy listening to and using oral language / improve comprehension / receptive (listening) skills / also develop thinking skill, self-confidence	17 70.8%	14 63.6%
Reading skills: Learn to read for pleasure / age appropriate reading / improve comprehension / know how to look for information / introduce new reading scheme to school / promote more individual approach to teaching reading / promote positive attitudes to reading / give children a feeling of success	8 33.3%	7 31.8%
Other (e.g., focus on poetry, improve writing skills)	1 4.2%	4 18.2%

*Numbers do not sum to 24 as two principals described reading *and* oral language as English curriculum aims.
** Numbers do not sum to 22 as several principals provided more than one English curriculum aim.

Principals were also asked to report on the strategies their school adopted to achieve their English curriculum priorities. Table 2.8. illustrates the main types of strategies utilised by schools to achieve their objective of improving pupils' oral and verbal language skills.

Table 2.8. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various strategies to achieve their objective of improving pupils' oral and verbal language skills.

English: Oral language	**Number %* in 1997/98** (*N*=17)	**Number %* in 2000/01** (*N*=14)
Circle time	4 23.5%	9 64.3%
Drama productions/ role play / speech and drama teacher employed	4 23.5%	7 50.0%
Emphasise oral language in other curriculum areas / emphasis on Arts	2 11.7%	7 50.0%
Development / introduction of language programmes, specific (e.g., Pirates Language Development Programme), or general (e.g., staff developed a whole school language programme)	11 64.7%	6 42.9%
Discussions / debates on topics of interest to children / real-life situations	-	6 42.9%
Purchased new books / wide range of literature available	7 41.2%	5 35.7%
Equipment (other than books) used (e.g., software, games)	1 5.9%	5 35.7%
Involved parents in specific programme (e.g., Help your child to learn)	2 11.7%	3 21.5%
Used out-of-school activities to encourage self-expression	1 5.9%	2 14.3%
Used word / language games to increase vocabulary and stimulate	1 5.9%	2 14.3%
Other (e.g., Visits to library, structured and unstructured play, competitions, in-service, visits to other schools for examples of good practice, individual and small group work)	7 41.2%	10 71.4%

*Percentages do not sum to 100% as principals were permitted to describe more than one strategy.

There was an increase in 2000/01 in the number of principals who reported using circle time to help improve pupils' oral language skills (23.5% in 1997/98 vs. 64.3% in 2000/01). Furthermore, half of principals in 2000/01 reported strategies which involved emphasising oral language in other curriculum areas, particularly in the Arts, and using drama productions and role playing. The development and introduction of both specific and general language programmes was also a frequently cited strategy to improve oral language in both 1997/98 and 2000/01 (64.7% and 42.9% respectively). While there was a decrease between 1997/98 and 2000/01 in the number of principals who reported purchasing new *books* (41.2% vs. 35.7% respectively), a higher proportion of principals in 2000/01 than in 1997/98 (35.7% vs. 5.9% respectively) reported purchasing new *equipment*, such as software. Indeed, this is consistent with the trend in urban *Breaking the Cycle* schools towards expanding their computer facilities and increasing pupils' use of computers (see Section 5.1.2). A minority of principals in both years also reported involving parents, using out-of-school activities to promote self-expression, and using word and language games. Seven principals in 1997/98 and 10 principals in 2000/01 also listed "other" strategies, including, for example, visiting other schools to compare best practice, providing in-service to teachers, and holding competitions.

There was little change between 1997/98 and 2000/01 in the strategies employed by schools to meet their objective of strengthening pupils' reading skills (Table 2.9)

Table 2.9. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various strategies to achieve their objective of improving pupils' reading skills.

English: Reading	**Number %* in 1997/98** (*N*=8)	**Number %* in 2000/01** (*N*=7)
Specific programme introduced (e.g., phonics, Oxford Reading Scheme, Reading to learn)	4 50.0%	4 57.1%
Recreational reading encouraged: home-school library established / trips to library	3 37.5%	4 57.1%
New reading material purchased	3 37.5%	3 42.8%
Help sought from learning support teacher / change in the role of Learning Support teacher	2 25.0%	3 42.8%
School or class library set-up / renovated	1 12.5%	3 42.8%
Pupils received one-to-one reading instruction daily / given time in class to read silently	2 25.0%	1 14.3%
Other (e.g., referrals to therapists, write a book project, assembly)	1 12.5%	4 57.1%

*Percentages do not sum to 100% as principals were permitted to describe more than one strategy.

In both 1997/98 and 2000/01, the introduction of a specific programme was a popular strategy utilised by schools to improve pupils' reading skills (50.0% and 57.7% respectively). Schools also encouraged recreational reading, for example by establishing home-school libraries or providing trips to the local library (*n*=3 in 1997/89 and *n*=4 in 2000/01). Three schools in both years also reported purchasing new materials. Other strategies employed in both 1997/98 and 2000/01 included seeking help from a learning support teacher, establishing or renovating a school or class library, making class time available for reading, and adopting a whole-school approach. Some schools also employed a combination of strategies to achieve their objectives. For example, one principal stated:

> …Pupils are given a purpose and time to read- subsequent discussion follows to find out if the material read is understood….Pupils are taught to make inferences, anticipate what will happen, make comparisons…verify facts…form opinions and make judgements. Everyday reference material is used, i.e., form filling, computer instructions…telephone directory…bus timetables, encyclopaedias…

Finally, four principals in 1997/98 listed strategies which involved parents, while no principals in 2000/01 did so. Again, this finding may be due in part to the wording of the questionnaire, rather than an actual lack of parental involvement in 2000/01, as the 1997/98 questionnaire asked principals to specify *who* would be involved in the initiatives, while the 2000/01 questionnaire did not.

In addition to improving reading and oral language skills, four principals in 2000/01 gave details of "other" English curriculum priorities, including, for example, fostering pupils' understanding of poetry, helping pupils to develop a legible and fluent style of writing, and providing children with skills in abstract thinking. Specific strategies to meet these objectives were also

described. For example, to encourage pupils to read and write poetry, poems were displayed prominently around the school and recited at assemblies. To assist pupils with their writing ability, the school assessed existing writing skills, used charts of letters, and established a reward system.

As well as outlining their English curriculum objectives and strategies, principals were asked to describe the methods of evaluation that were used to assess the effectiveness of the strategies. The range of evaluation techniques reported by principals are presented in Table 2.10.

Table 2.10. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various methods of evaluating the success of attempts to meet objectives within English curriculum priorities.

Methods of Evaluation	**Number % in 1997/98** (*N*=24) *	**Number % in 2000/01** (*N*=22) *
Teacher observation (e.g., of class work)	5 20.8%	15 68.2%
Formal tests	9 37.5%	11 50.0%
Oral questioning of pupils / taped work	3 12.5%	9 40.9%
Informal tests	8 33.3%	7 31.8%
Discussion among school staff	13 54.2%	5 22.7%
Written work (e.g., book reviews)	1 4.2%	4 18.2%
Parental observation	1 4.2%	3 13.6%
Monitored level of interest in reading	1 4.2%	3 13.6%
Feedback from other professionals (psychologists / speech and drama teacher)	1 4.2%	3 13.6%
Pupil profiles	2 8.3%	3 13.6%
Pupils' attitude to reading / learning	-	2 9.1%
Feedback from parents	4 16.7%	2 9.1%
Pupils' opinions	1 4.2%	-
Other (e.g., staged a celebration at end of term for parents and pupils,)	4 16.7%	6 27.3%

*Percentages do not sum to 100% as principals were permitted to describe more than one strategy.

The data suggest that schools in 2000/01 continued to rely, to a large extent, on the opinions of teachers and staff when evaluating the success or failure of their attempts to achieve their English curriculum objectives. Specifically, in 2000/01, a majority of schools (68.2%) used teacher observation, and almost a quarter of schools (22.7%) used staff discussion as a means of evaluating their strategies. However, there was an increase in the number of principals who reported using formal tests (50.0% in 2000/01 vs. 37.5% in 1997/98). Furthermore, that an increasing number of schools used oral questioning of pupils and taped work to assess the effectiveness of their strategies (40.9% in 2000/01 vs. 12.5% in 1997/98) is not surprising, given the emphasis that most schools placed on developing pupils' oral language and communication skills. There was little change between 1997/98 and 2000/01 in the number of schools that relied on informal tests to assess the effectiveness of their strategies (33.3% and 31.8% respectively). Other techniques used by schools to evaluate the success or failure of the strategies involved evaluating pupils' written work, assessing pupils' level of interest in reading, and developing pupil profiles. Indeed, that many of the schools utilised a combination of evaluation techniques is positive, and suggests that schools appreciated the importance of gathering accurate and comprehensive information to evaluate progress.

The outcomes of the strategies associated with the English curriculum priorities were in the main positive, as over half of principals (54.5%) reported improvements in pupils' oral language skills and nearly one third (31.2%) reported improvements in pupils' writing and reading skills (Table 2.11). Furthermore, over a quarter of principals indicated that pupils' self-confidence had improved (27.3%), and that children were more interested in reading (27.3%). In addition to noting improvements among pupils, principals commented on changes among both parents and teachers. For example, four principals felt that teachers were more focused on oral language development (18.2%), and three believed that parents were more involved in their children's education (13.6%). Other positive comments provided by principals related to positive feedback from visitors, pupils' positive attitudes towards school, the benefits of out-of-school activities for pupils, and teachers' team efforts. Finally, 12 principals made comments which were difficult to classify. For example, one principals commented that:

> Teachers observe that application to task has improved, especially in 3rd classes which could relate to the positive outcomes of the smaller class size in the junior school.

Table 2.11. Numbers and percentages of principals in 2000/01 reporting various positive outcomes of strategies introduced to address English curriculum priorities (*N*=22)*.

Comment	**Number %**
Oral language skills have improved (e.g., as measured by BIAP) / children better able to express themselves / children more likely to use complete sentences	12 54.5%
Reading / writing skills improved (e.g., as measured by Drumcondra Vocabulary test / vocabulary and comprehension skills improved / language skills improved	7 31.2%
Pupils' self-confidence improved	6 27.3%
Children more interested in and more motivated to read / greater use of library	6 27.3%
Teachers more focused on oral language development / realise need to draw up language development plan / sense of ownership of language programme	4 18.2%
Out-of-school activities gave children new experiences / enriched children culturally / children introduced to new topics by teacher in classroom – broadened knowledge base	4 18.2%
Parents more involved in children's education / realise importance of oral language development	3 13.6%
Positive feedback from visitors	3 13.6%
Pupils have more positive attitude to school work: written assignments / reading	3 13.6%
Parents satisfied with children's progress	2 9.1%
Children developed research skills / realised books were source of information	2 9.1%
Teachers worked together / team effort	2 9.1%
Other (e.g., enjoyable experience for everyone)	12 54.5%

*Percentages do not sum to 100% as principals were permitted to give more than one response.

When asked about the negative outcomes of the strategies, four principals (18.2%) indicated that there were no negative outcomes whatsoever. However, four principals indicated that the improvement among pupils was not as great as expected. For example, one principal commented that:

> Children attending learning support haven't shown significant improvement in reading tests. However it is felt that they have developed skills for coping with reading difficulties.

A further four felt that the programme was too ambitious, for example, noting that the work was too challenging for pupils. Practical factors, such as time constraints, and specific factors, such as apathy among pupils, were also seen to limit the success of the initiative. Finally, ten principals provided "other" comments which were difficult to classify. For example, one principal noted that the effectiveness of the initiative was limited by the constant staff turnover, while another stated that teachers were unsure of progress given the efforts expended in teaching. Indeed, comments such as

these are consistent with other findings presented in this report (e.g., the high turnover among teachers in urban *Breaking the Cycle* schools, and the finding that teachers were increasingly sceptical in 1999/2000 about their ability to influence pupils' academic performance; see Chapter 6). Overall, however, it appears that principals were in the main positive about the outcomes of the strategies employed to achieve their English curriculum objectives.

Table 2.12. Numbers and percentages of principals in 2000/01 reporting various negative outcomes of strategies introduced to address English curriculum priorities.

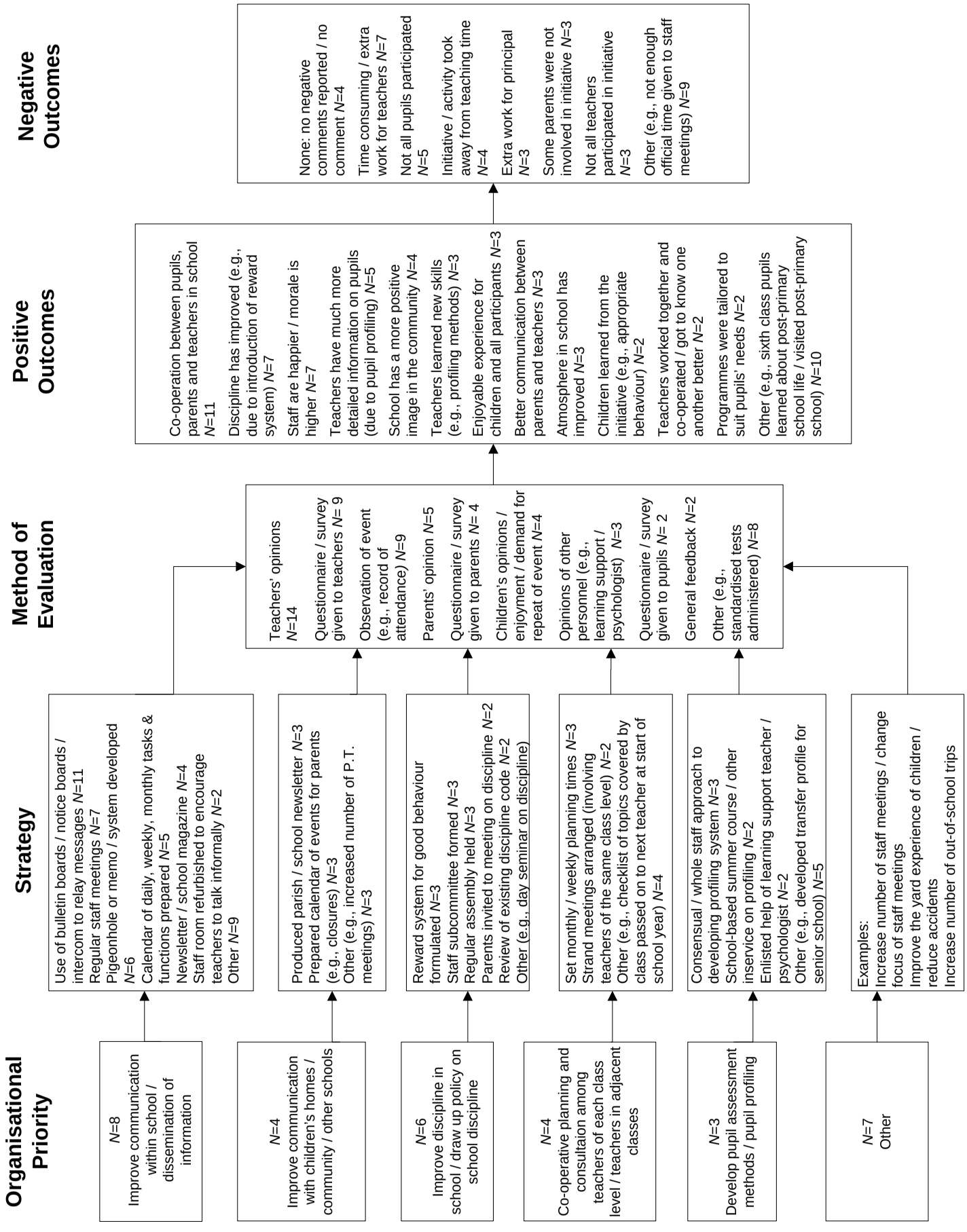
Comment	**Number % in 2000/01** (*N*=22)*
None	4 18.2%
Improvement was not as great as was expected (no change in reading ages) / disappointment / initiative did not achieve desired results	4 18.2%
Programme too ambitious (e.g., some of the workbooks were too difficult for pupils)	4 18.2%
Difficult to maintain strategies	3 13.6%
Time consuming to design, implement, monitor and review	3 13.6%
Difficult to evaluate initiatives	3 13.6%
Expensive to replace library books	2 9.1%
Specific factors became apparent and hindered the success of the initiative (e.g., apathy among pupils to participate in initiative, improve listening skills)	2 9.1%
Other (e.g., Pupils could produce "good" writing when it was demanded. Some pupils reverted to "bad" writing if unsupervised. Good writing not always synonymous with good work; lack of interest on part of parents)	10 45.5%

*Percentages do not sum to 100% as principals were permitted to give more than one response.

2.2. ORGANISATIONAL PRIORITIES

Twenty-six principals in 1997/98 provided descriptions of their school's organisational priority, compared to 27 principals in 2000/01. Schools' organisational priorities in 2000/01, the types of strategies employed to achieve the objectives associated with the priorities, and the methods of evaluating these strategies are outlined in Figure 2.3. A review and comparison of schools' 1997/98 and 2000/01 organisational priorities follows.

Figure 2.3. Number of principals in 2001 reporting various organisational priorities, types of strategies used to achieve objectives associated with the priorities, methods of evaluating the strategies, and positive and negative outcomes of the strategies.



As with curriculum priorities, some principals gave details of more than one organisational priority. Table 2.13 outlines the main types of organisational priority reported by principals in both 1997/98 and 2000/01.

Table 2.13. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various categories of aims and objectives associated with their organisational priorities.

Type of priority (aims and objectives)	**Number %* in 1997/98** (*N*=26)	**Number %* in 2000/01** (*N*=27)
Improve communication within school / dissemination of information to all staff members	4 15.4%	8 29.6%
Improve discipline in school / draw up policy on school discipline / address pupil attendance	5 19.2%	6 22.2%
Increase staff meetings / co-operative planning and consultation among teachers of each class level / teachers in adjacent classes	5 19.2%	4 14.8%
Improve communication with children's homes, community and other schools / involve parents	10 28.5%	4 14.8%
Develop pupil assessment methods / pupil profiling	1 3.9%	3 11.1%
Staff development / in-service	6 23.1%	-
Other (e.g., equipment purchases / management / improve facilities; emphasise IT / computer / keyboarding skills for pupils and staff)	8 30.8%	7 25.9%

*Percentages do not sum to 100% as principals were permitted to give more than one response.

In both 1997/98 and 2000/01, the majority of principals cited organisational objectives which related to improving communication. However, while in 1997/98 schools tended to focus on improving communication *between* schools, communities, and homes, in 2000/01, schools were more likely to emphasise improving communication *within* schools. Furthermore, five schools in 1997/98 (19.2%) and four in 2000/01 (14.8%) listed co-operative planning and consultation among teachers as their main organisational priority. Indeed, one might speculate that this shift in organisational priorities is related to the high turnover among teachers in urban *Breaking the Cycle* schools (see Section 6.5.1). Given that high teacher turnover impedes communication between staff members, it is not surprising that an increasing number of schools focused on developing more effective and efficient systems of communication within schools. Improving discipline in the school was the second most frequently cited organisational priority (19.2% in 1997/98 and 22.2% in 2000/01). Several principals listed priorities which were categorised as "other". For example, three principals in 1997/98 and two in 2000/01 reported the purchase and management of equipment and improvement of facilities as their main organisational priority, while three schools in 1997/98 listed as their organisational priority the development of I.T. and computer skills.

Overall, a wide variety of strategies to implement the organisational priorities were reported by principals (Figure 2.3). As Table 2.14 illustrates, schools tended to employ strategies of a practical nature in order to improve communication within schools in 2000/01. For example, principals reported using bulletin boards, notice boards and intercoms to relay messages (*n*=11), holding regular staff meetings (*n*=7), developing a pigeonhole or memo system (*n*=6), preparing calendars of daily, weekly, and monthly tasks (*n*=5), and producing newsletters and magazines (*n*=4). Two schools also planned to refurbish the staff room in order to encourage teachers to talk informally, and nine schools reported "other" strategies.

Table 2.14. Number of principals in 1997/98 and 2000/01 reporting various types of strategies used to achieve the organisational objective of improving communication within school / dissemination of information.

Improve communication within school / dissemination of information	**Number in 1997/98** (*N*=4)*	**Number in 2000/01** (*N*=8)*
Use of bulletin boards / notice boards / intercom to relay messages	2	11
Regular staff meetings	2	7
Pigeonhole or memo system developed	-	6
Calendar of daily, weekly, monthly tasks and functions prepared	-	5
Newsletter / school magazine	-	4
Staff room refurbished to encourage teachers to talk informally	-	2
Other	3	9

*Principals were permitted to give more than one response.

To improve communication between schools and children's homes, the community, and other schools in 2000/01, three principals planned to produce newsletters and three schools prepared a calendar of events for parents. Also, three principals listed "other" strategies, for example, targeting parents of children most at risk.

As Table 2.15 illustrates, the use of a system to reward good behaviour remained a popular strategy for improving discipline in schools in 2000/01. Three schools in 2000/01 reported forming subcommittees or holding regular assemblies to meet their objective of improving discipline in the school, while two schools reviewed the existing discipline code. The involvement of parents was also cited as a strategy by two schools.

Table 2.15. Number of principals in 1997/98 and 2000/01 reporting various types of strategies used to achieve the organisational objective of improving discipline in school.

Improve discipline in school / draw up policy on school discipline	**Number in 1997/98** (*N*=5)*	**Number in 2000/01** (*N*=6)*
Reward system for good behaviour formulated	4	3
Staff subcommittee formed	-	3
Regular assembly held	2	3
Parents invited to meeting on discipline	2	2
Review of existing discipline code	1	2
Other (e.g., day seminar on discipline, sanctions)	5	4

*Principals were permitted to give more than one response.

In both 1997/98 and 2000/01, schools planned to set monthly and weekly planning times (*n*=3 and *n*=1 respectively) in order to implement their organisational objective to improve co-operative planning and consultation among teachers. Two schools in both years also planned to arrange strand meetings to achieve this objective. Schools also listed other strategies, including, for example, creating a checklist of topics covered to be passed on to teachers at the start of the following year.

The most frequently cited strategy among schools that planned to develop pupil assessment methods in 2000/01 involved using a consensual, whole-staff approach (Figure 2.3). Two schools also planned to enlist the help of a professional, such as a psychologist, while two schools planned to provide in-service training on pupil profiling.

Principals also listed a variety of specific organisational aims, and described the strategies their school adopted to achieve these aims. For example, one school strove to:

> Provide a quality educational service to the local community. To counteract family / social dysfunction on a whole school basis. To give all children opportunity for involvement in secondary education. To improve level of service on an on-going basis.

To meet this aim, the school planned to stress quality of teaching, provide access to books, and concentrate on weaker children.

As Table 2.16 illustrates, there was little change between 1997/98 and 2000/01 in the methods schools used to evaluate the effectiveness of the aforementioned strategies.

Table 2.16. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various types of methods for evaluating the success of their school's organisational strategies.

Method of evaluation	**Number % in 1997/98** (*N*=26)*	**Number % in 2000/01** (*N*=27)*
Teachers' opinions / questionnaire given to teachers	18 69.2%	23 85.2%
Observation of event (e.g., record of attendance, pupil behaviour)	4 15.4%	9 33.3%
Parents' opinions / questionnaire given to parents	10 38.5%	9 33.3%
Children's opinions / enjoyment / demand for repeat of event / questionnaire given to pupils	4 15.4%	6 22.2%
Opinions of other personnel (e.g., Board of Management, psychologist)	1 3.9%	3 11.1%
General feedback	-	2 7.4%
Other (e.g., standardised tests, on-going, non-specific)	11 42.3%	8 29.6%

*Percentages do not sum to 100% as principals were permitted to give more than one response.

.

Over two-thirds of principals in 1997/98 and 2000/01 (69.2% and 85.2% respectively) reported consulting teachers or distributing questionnaires to teachers in order to evaluate the success or failure of their attempts to achieve their organisational priorities. The finding that a majority of schools sought teachers' feedback is not surprising, given that the improvement of communication and co-operation among school staff was the most frequently reported organisational priority. That an increasing number of schools also relied on observation of events, for example, checking records of pupils' attendance and behaviour (15.4% in 1997/98 vs. 33.3% in 2000/01), in addition to using feedback from staff and teachers, is positive. Other evaluation techniques employed by schools included, inter alia, consulting parents, children, and other personnel, such as the Board of Management, and seeking general feedback. Several principals also listed "other" types of evaluation techniques, such as the administration of standardised tests and non-specific methods.

As the 2000/01 questionnaire was completed towards the end of the five-year pilot phase of the initiative, it provided an ideal opportunity to seek information on the outcomes of the strategies that schools employed to implement their organisational priorities. It appears that, in many cases, the strategies were of benefit to teachers and staff (Table 2.17). For example, eleven principals (40.7%) reported improved co-operation between pupils, teachers and parents. Principals also felt that morale among staff was higher (25.9%), that teachers had more detailed information on pupils (18.5%), that teachers had learned new skills (11.1%), and that teachers worked together and got to know one another better (7.4%).

The data also suggest that schools were, for the most part, successful in achieving their aim to improve discipline in schools. For example, over a quarter of principals (25.9%) reported that pupils' behaviour had improved, while four principals (14.8%) felt that the school had a more positive image in the community, and three principals (11.1%) noted that the atmosphere in the school had improved. For example, one principal commented:

> After initial teething problems the policy seems to be working. Calm has come to live with us rather than being an occasional wary visitor. Many aspects of the initial plan have been dropped as being unnecessary or ineffective. Parental response has been entirely favourable. Life for the teacher has improved- the school is a much happier place- the change has empowered the staff…

Another principal noted:

> Visitors often remark on the positive school spirit.

Table 2.17. Numbers and percentages of principals in 2000/01 reporting positive outcomes of strategies employed to address their school's organisational objectives.

Positive outcomes	**Number % in 2000/01** (*N*=27)*
Increased co-operation between pupils, teachers and parents within school	11 40.7%
Discipline has improved (e.g., due to introduction of reward system)	7 25.9%
Staff are happier / morale is higher	7 25.9%
Teachers have much more detailed information on pupils (due to pupil profiling)	5 18.5%
School has a more positive image in the community	4 14.8%
Teachers learned new skills (e.g., profiling methods)	3 11.1%
Better communication between parents and teachers	3 11.1%
Atmosphere in school has improved	3 11.1%
Children learned from the initiative (e.g., appropriate behaviour)	2 7.4%
Teachers worked together and co-operated / got to know one another better	2 7.4%
Programmes were tailored to suit pupils' needs	2 7.4%
Other (e.g., 6th class pupils learned about post-primary life / visited post-primary school)	10 37.0%

*Percentages do not sum to 100% as principals were permitted to give more than one response.

Where principals reported negative outcomes, they tended to relate to practical problems (Table 2.18). For example, a quarter of principals (25.9%) commented that the initiative was time-consuming, while four principals (14.8%) felt that the activity took away from teaching time, and three (11.1%) reported that the initiative was extra work for the principal. Principals also reported difficulties in getting pupils, parents and teachers to participate.

Table 2.18. Number of principals in 2000/01 reporting negative outcomes of strategies employed to address their school's organisational objectives.

Negative outcomes	**Number % in 2000/01 (*N*=27)***
Time consuming / extra work for teachers	7 25.9%
Not all pupils participated	5 18.5%
None: no negative comments reported / no comment	4 14.8%
Initiative / activity took away from teaching time	4 14.8%
Extra work for principal	3 11.1%
Some parents were not involved in initiative	3 11.1%
Not all teachers participated in initiative	3 11.1%
Other (e.g., not enough official time given to staff meetings)	9 33.3%

*Numbers do not sum to 27 as principals were permitted to give more than one response..

2.3. HOME-SCHOOL PRIORITIES

Twenty-six principals (78.8%) provided details of their home-school priority in 1997/98. Similarly, all twenty-seven principals who returned completed Planning Questionnaires in 2000/01 reported on their home-school priorities. Schools' home-school priorities in 2000/01, the types of strategies employed to achieve the objectives associated with the priorities, and the methods of evaluating these strategies are outlined in Figure 2.4. A review and comparison of schools' 1997/98 and 2000/01 home-school priorities follows.

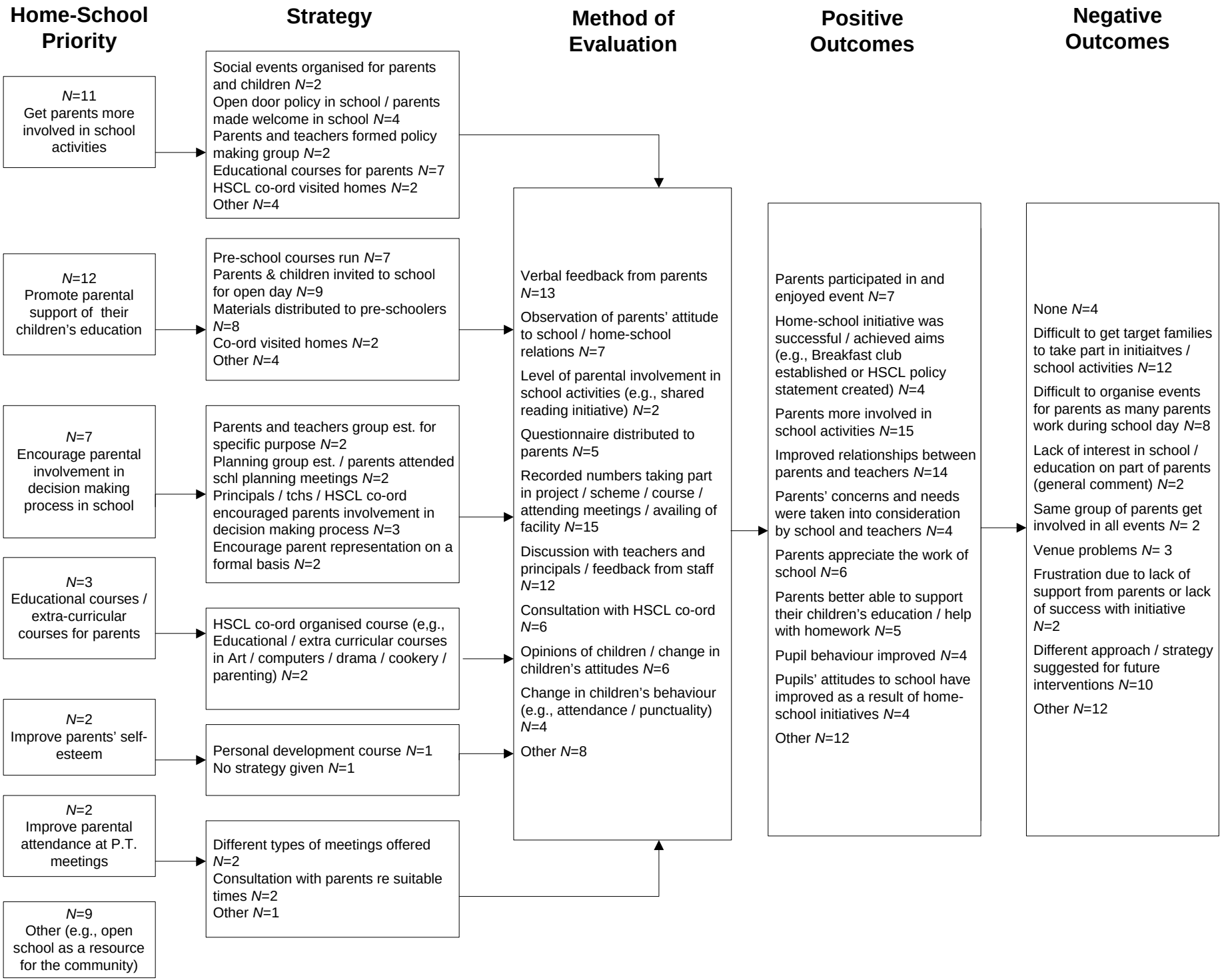


Figure 2.4. Number of principals in 2001 reporting various home-school priorities, types of strategies used to achieve objectives associated with the priorities, methods of evaluating the strategies, and positive and negative outcomes of the strategies.

As Figure 2.4 illustrates, the majority of schools' home-school priorities in 2000/01 related to parents' role in their children's education. A similar picture emerged when the home-school priorities in 1997/98 are examined. Specifically, in both 1997/98 and 2000/01, increasing parental involvement in school activities (73.0% and 40.7% respectively), promoting parental support of their children's education (11.5% and 44.4% respectively), and encouraging parents to get involved in the decision making process (3.8% and 25.9% respectively) were common home-school priorities reported by principals (Table 2.19). Offering courses for parents, increasing parental attendance at parent-teacher meetings, and improving parents' self-esteem were also cited as home-school priorities.

In addition, several principals in both years listed home-school priorities that were classified as "other". For example, in 1997/98, one school sought to:

> …promote a holistic approach to the child's development by providing opportunities for extra-curriculum activities.

In 2000/01, one school's home-school priority involved:

> Working with families whose children are at risk of early school leaving. To maximise active participation of children in the learning process, in particular those who might be at risk of failure or [Early School Leaving]. Establishing bonds of trust with families. Setting up transfer programs to 2nd level education involving parents and children…

Table 2.19. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various aims associated with their home-school priority.

Type of priority (aims and objectives)	**Number % in 1997/98** (*N*=26)*	**Number % in 2000/01** (*N*=27)*
Get parents more involved in school activities	19 73.0%	11 40.7%
Promote parental support of their children's education	3 11.5%	12 44.4%
Encourage parental involvement in decision making process in school	1 3.8%	7 25.9%
Education / extra-curricular courses for parents	6 23.1%	3 11.1%
Improve parental attendance at parent-teacher meetings	1 3.8%	2 7.4%
Improve parents' self-esteem	-	2 7.4%
Improve links with agencies (statutory and voluntary) whose work assists schools	5 19.2%	-
Other (e.g., Pre-school preparation for parents, extension of toy library, create an awareness of bullying, identify children at risk)	10 38.5%	9 33.3%

*Percentages do not sum to 100% as principals were permitted to give more than one response.

Schools varied in the strategies that they adopted to achieve their home-school priorities (Figure 2.4). Table 2.20 outlines the strategies schools employed to encourage parents to get more involved in school activities.

Table 2.20. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various types of strategies used to encourage parents to get more involved in school activities.

Encourage parents to get more involved in school activities	**Number % in 1997/98** (*N*=19)*	**Number % in 2000/01** (*N*=11)*
Educational courses organised for parents (e.g., cookery, self-esteem, parenting, computer, art and drama, aerobics) / training and development	6 31.6%	7 63.6%
Open door policy introduced in school / parents made welcome in school	3 5.3%	4 36.4%
Social events organised for parents and children	2 10.5%	2 18.2%
Parents and teachers formed policy making group (e.g., to agree upon HSCL policy statement) / worked on school plans	2 10.5%	2 18.2%
HSCL visited homes / established relationships with parents	7 36.8%	2 18.2%
Other (e.g., parents involved in other local and national groups)	6 31.6%	4 36.4%

*Percentages do not sum to 100% as principals provided more than one comment.

To increase parents' involvement in school activities, the majority of schools offered educational courses for parents (63.6%). Over one third of schools (36.4%) introduced an open-door policy for parents, while 18.2% organised social events for parents and children. Finally, two schools established parent-teacher policy groups, two schools conducted home visits, and one school held parent-teacher meetings.

Similarly, the strategies employed by schools to encourage parents to get involved in the decision making process in school involved establishing planning groups, holding discussions and inviting parents to school meetings (Table 2.21).

Table 2.21. Number of principals in 1997/98 and 2000/01 reporting various types of strategies used to encourage parental involvement in the decision making process in school.

Encourage parental involvement in decision making process in school	**Number in 1997/98** (*N*=1)	**Number in 2000/01** (*N*=7)*
Principals, teachers and HSCL co-ordinator encouraged parents / team building exercises / whole group discussions	-	3
Parents and teacher group established to tackle specific issue (e.g., bullying, school uniform policy)	-	2
Planning group comprising of representative parents and teachers from each class level set-up / parents attended staff planning and school progress meetings	1	2
Encourage parents representation on a more formal basis (i.e., parents association) / parent core group established in school	-	2

*Numbers do not sum to 7 as principals were permitted to give more than one response.

To promote parental support of children's education, schools in 2000/01 invited parents and children for an open-day (*n*=9), distributed materials to pre-schoolers (*n*=8), ran pre-school courses (*n*=7), and visited homes (*n*=2). Four schools also listed strategies which were classified as "other" (Table 2.22).

Table 2.22. Number of principals in 1997/98 and 2000/01 reporting various types of strategies used to promote parental support of children's education.

Promote parental support of children's education	**Number in 1997/98** (*N*=3)	**Number in 2000/01** (*N*=12)*
Parents and children invited to school for open day	-	9
Materials distributed to pre-schoolers	-	8
Pre-school courses run	-	7
HSCL co-ordinator visited homes	1	2
Classes offered	1	-
Other (e.g., Informal discussions with parents)	1	4

*Numbers do not sum to 12 as principals were permitted to give more than one response.

Finally, to increase parental attendance at parent-teacher meetings, schools offered different types of meetings, such as one-to-one meetings, consulted with parents regarding suitable times, and focused on providing a comfortable venue for the meetings.

Overall, it appears that offering courses for parents, visiting homes, and inviting parents to participate in various planning groups and policy committees were common strategies employed by schools to achieve their various home-school priorities.

Principals also described the methods used to evaluate the success or failure of their attempts to achieve their home-school priorities. Principals' responses are presented in Table 2.23.

Table 2.23. Numbers and percentages of principals in 1997/98 and 2000/01 reporting various types of methods for evaluating the success of strategies used to achieve their school's home school priorities.

Methods of evaluation	**Number % 1997/98** (*N*=26)*	**Number % 2000/01** (*N*=26)*
Recorded numbers taking part in project / scheme / course / meeting / availing of facility	6 (23.1%)	15 (57.7%)
Verbal feedback from parents	1 (57.7%)	13 (50.0%)
Discussion with teachers and principals / feedback from staff	16 (61.5%)	12 (46.2%)
Observation of parents' attitudes towards school and teachers / home-school relations	7 (26.9%)	7 (26.9%)
Children's opinions / change in children's attitudes (e.g., motivation)	6 (23.1%)	6 (23.1%)
Consultation with HSCL co-ordinator	6 (23.1%)	6 (23.1%)
Questionnaire distributed to parents	2 (7.7%)	5 (19.2%)
Change in children's behaviour / attendance at school / punctuality	1 (3.9%)	4 (15.4%)
Level of parental involvement in school activities / shared reading initiative	2 (7.7%)	2 (7.7%)
Other (e.g., formal class tests, parents regularly request home visits, atmosphere on the day and ongoing)	11 (42.3%)	8 (30.8%)

*Percentages do not sum to 100% as principals were permitted to give more than one response.

Given that most of the home-school priorities and strategies in both years targeted parents, it is not surprising that the majority of schools in 2000/01 continued to rely on feedback from parents as a means of evaluating their strategies. For example, 50.0% of schools used verbal feedback from parents, 26.9% observed parents' attitudes and 19.2% of schools distributed questionnaires to parents. Schools in 2000/01 were also more likely to use other indicators, such as the number of participants attending courses, to evaluate their strategies (23.1% in 1997/98 vs. 57.7% in 2000/01). Additionally, almost half of schools (46.2%) used staff discussion and feedback from staff to evaluate their strategies. In fact, the majority of schools reported adopting a combination of the above evaluation methods (i.e., checking recorded numbers *and* consulting staff and parents). This finding is positive, and again suggests that schools were aware of the need to collect comprehensive and reliable information to assess the effectiveness of their strategies.

Finally, there was no change between 1997/98 and 2000/01 in the number of schools who sought children's opinions, and consulted with HSCL co-ordinators to evaluate their strategies.

When asked in 2000/01 to describe the positive outcomes of the strategies, over half of principals (55.6%) reported that parents had become more involved in school activities, and 51.9% felt that relationships between teachers and parents had improved (Table 2.24). Furthermore, one quarter of principals (25.9%) indicated that parents had participated in and enjoyed an event, while 22.2% felt that parents appreciated the work of the school and 18.5% felt parents were better able to support their children's education.

Principals also noted benefits among pupils. For example, eight principals reported improvements in pupils' behaviour and attitudes towards school. Twelve principals also made comments which were classified as "other". A selection of these comments are presented below:

> Perception by teachers that children's energy levels are higher and concentration and alertness has improved…Greater social interaction among pupils...
>
> Parents from different countries met regularly…broke down barriers- inclusion in action.
>
> In instances of difficulty, parents no longer feel threatened coming into the school and are generally more open about problems at home, etc. The positive outcome of this has been the enormous personal development of some children as a result of parents and teachers working together.

Table 2.24. Numbers and percentages of principals in 2000/01 reporting positive outcomes of strategies employed to address their school's home-school priorities.

Positive outcomes	**Number % in 2000/01** (*N*=27)*
Parents more involved in school activities	15 55.6%
Improved relationships between teachers and parents	14 51.9%
Parents participated in and enjoyed event	7 25.9%
Parents appreciate the work of the school / value of education / parents realise teachers are working for good of children	6 22.2%
Parents better able to support their children's education / help with homework or reading	5 18.5%
Pupils' behaviour improved (e.g., punctuality, attendance)	4 14.8%
Pupils' attitudes to school improved as a result of home-school initiatives	4 14.8%
Parents' concerns and needs taken into consideration by school and teachers	4 14.8%
Home-school initiative was successful / achieved aims (e.g., Breakfast club established or HSCL policy statement created)	4 14.8%
Improvement in attendance at parent-teacher meetings	2 7.4%
Other (e.g., more needy children are coming for breakfast regularly)	12 44.4%

*Percentages do not sum to 100% as principals were permitted to give more than one response.

The above findings seem to indicate that schools' home-school priorities have, for the most part, been achieved. At the same time, principals' comments regarding the negative outcomes suggest that the strategies might not have had as strong an impact on families that would benefit most from the initiative. Specifically, 44.4% of principals (*n*=12) reported difficulties in engaging target families (Table 2.25). As one principal commented:

> Some families are overburdened with social problems and educational achievement is not a priority for them. Survival is a priority. In a situation like this, educational interventions have a limited effect. Networking with relevant agencies, i.e., social workers, child guidance, school attendance, is a priority in these circumstances.

This finding seems to suggest that alternative interventions to reach such families would be useful. Principals also cited practical problems in enlisting parents' involvement. For example, over a quarter (29.6%) reported that parents' work schedules conflicted with organised events. This is not surprising, given that the employment situation of many parents has probably changed for the better as a result of the economic growth that has occurred in Ireland over the past few years. In fact, one principal noted:

> difficulties in accessing some parents due to the success of the "Celtic Tiger"- many parents are now working and find it difficult to attend courses, talks, etc. on a regular basis.

Principals also commented on parents' lack of interest and support (14.8%), and two felt that the initiative was hindered by other practical problems, such as unsuitable venues (11.1%). Finally, ten principals provided comments which were classed as "other". For example, one principal commented that it is

> very difficult to balance a warm welcoming attitude with parents who struggle to get their children to school more than one day a week.

Table 2.25. Numbers and percentages of principals in 2000/01 reporting negative outcomes of strategies employed to address their school's home-school priorities.

Negative outcomes	**Number % in 2000/01** (*N*=27)*
Difficult to get target families involved in initiative / school activities	12 44.4%
Difficult to organise events for parents as many parents work during the school day	8 29.6%
None	4 14.8%
Venue problems / lack of space in school for parent related activities	3 11.1%
Lack of interest in school / education on part of parents (general comment)	2 7.4%
Same group of parents involved in every initiative	2 7.4%
Frustration due to lack of support from parents / lack of success	2 7.4%
Different approach / strategy suggested for future interventions	2 7.4%
Other (e.g., absenteeism is still a problem with a few children)	12 44.4%

*Percentages do not sum to 100% as principals were permitted to give more than one response.

2.4. CONCLUSION

Of the 32 principals who returned completed 1997/98 School Questionnaires, 31 supplied details of their curriculum priority. In 2000/01, all 27 principals who returned a questionnaire outlined their curriculum priorities. English was by far the most frequently reported curriculum priority in both years. The vast majority of schools sought to improve pupils' oral language and communication skills, while approximately one third of schools aimed to strengthen pupils' reading skills. Given that the English achievement data presented in Chapter 3 reflects pupils' *reading* skills, this finding may explain, in part, why 3rd and 6th class pupils did not demonstrate improvements in their English achievement between 1997 and 2000.

The strategies that schools used to achieve their English curriculum priorities varied. For example, to strengthen pupils' oral language and communication skills, the majority of schools in 2000/01 used circle time. There was little change in 2000/01 in the strategies that schools adopted to improve pupils' reading and writing skills, as the introduction of a specific programme remained the

most common strategy. Other frequently cited strategies in 2000/01 included encouraging recreational reading and purchasing new reading material. Overall, that the list of strategies varied considerably for both 1997/98 and 2000/01 suggests that in both years, schools were flexible and prepared to employ a range of approaches to address their specified English curriculum priorities.

To evaluate the success or failure of their attempts to achieve their English curriculum priorities, schools increasingly relied on teachers' opinions and staff discussions. At the same time, an increasing number of schools in 2000/01 used formal tests and oral questioning of pupils. Although four principals indicated that pupils' improvement in English was not as great as expected, principals' reports of the outcomes were for the most part positive. Over half reported improvements in pupils' oral language skills. Furthermore, nearly a third reported improvements in pupils' reading skills. This finding is inconsistent with the data presented in Chapter 3, which indicates that the English reading scores of 3rd and 6th class pupils disimproved since 1997.

Eleven principals in 1997/98 and five in 2000/01 described a Mathematics curriculum priority. It appears that the strengthening of pupils' Mathematical skills and understanding of Mathematical concepts remained the most common Mathematics curriculum aim. However, in 2000/01 the co-ordination of teachers and standardising of Mathematics language and methodologies was also a frequently reported aim. The main strategies schools used to achieve the aims associated with Mathematics priorities involved purchasing new resources, using concrete materials, and holding planning sessions among staff members. To evaluate the strategies adopted in the area of Mathematics, schools in 2000/01 used a combination of informal class tests, teacher observation, formal tests and assessment of pupils' work. Although two principals felt that the initiative was not successful in strengthening pupils' understanding of Mathematics, the majority of positive outcomes reported by principals related to improvements in pupils' Mathematical skills and attitudes towards Mathematics.

Twenty-six principals in 1997/98 supplied details of their school's organisational priorities, compared to 27 in 2000/01. Principals in 2000/01 were more likely to report an organisational priority which related to improving communication *within* the school, whereas in 1997/98, improved communication *between* schools, homes, and the community was the most frequently cited organisational aim. Furthermore, enhancing co-operative planning and consultation among teachers remained a frequently cited organisational priority in 2000/01. Improving discipline was also a common organisational priority in both 1997/98 and 2000/01.

The strategies schools adopted in order to achieve their organisational priorities varied widely, depending on their specific aims and objectives. For example, to improve communication within the school, schools tended to adopt more practical strategies, such as using bulletin boards and developing a memo system to relay messages. To improve discipline in schools, principals reported, for example, involving parents and developing a reward system.

That the majority of schools in 2000/01 sought teachers' feedback as a means of evaluating the effectiveness of these strategies is not surprising, given that the improvement of communication *within* schools was the most frequently reported organisational priority. However, an increasing number of schools also relied on observation of events (e.g., checking records of pupils' behaviour) as a means of assessing their strategies. It would seem that the strategies schools employed to achieve their organisational priorities were for the most part effective, as the majority of principals commented on the initiative's positive impact on teachers. For example, principals felt there was better co-operation within the school, that staff were happier, that teachers had learned new skills, and that teachers had more detailed information on pupils. A quarter of principals also indicated that discipline had improved in the school. Where principals reported negative outcomes, they tended to relate to practical problems (e.g., the extra time and work involved in implementing the initiative).

Twenty-six principals in 1997/98 and 27 in 2000/01 reported on their school's home-school priorities. The majority of home-school priorities in both years related to parents' role in their children's education. Specifically, increasing parental involvement in school activities, promoting parental support of their children's education, and getting parents involved in the decision-making process at school were frequently cited priorities. Although the strategies that schools adopted varied, depending on the schools' specific home-school priority, most strategies involved offering courses for parents, visiting homes, and inviting parents to participate in planning groups and policy committees. It should be noted that all urban *Breaking the Cycle* schools are also participants in the Home-School-Community-Liaison scheme, and as such, would have had home-school strategies in place. Therefore, while developments in home-school relations are of great importance in *Breaking the Cycle*, they cannot be attributed to the scheme.

The fact that over half of schools in both years relied on verbal feedback from parents to evaluate the effectiveness of their strategies is not surprising, given that most of the home-school priorities targeted parents. At the same time, it appears that an increasing number of schools also used other (more objective) indicators, such as the number of participants in a course, to assess their approach to their home-school priority. When asked to describe the outcomes of the adopted strategies, the majority of principals commented on the initiative's positive effect on parents. For example, over half of principals reported an increase in parents' involvement in school. At the same time, it appears that the strategies did not have as strong an impact on target families. While some principals reported that social problems prevented certain families from getting involved, a number of principals indicated that the problem was of a more practical nature (e.g., parents' work schedules hindered their involvement in their children's education). Indeed, this finding illustrates the need for schools' five-year plans to be flexible. The work situation of a number of parents is likely to have changed for the better as a result of the economic growth in Ireland, and schools may need to revise their priorities and strategies to account for such changes.

For the most part, the findings seem to suggest that schools' five-year plans were not fixed and rigid. Indeed, it appears that the elements of the School Plan which required on-going focus, namely the curriculum and home-school priorities, were retained throughout the five years, as schools continued to focus on English and on increasing parents' involvement in their children's education. In contrast, it seems that schools' organisational objectives were subject to revision as the scheme evolved. For example, there appeared to be more focus in 2000/01 on improving communication and co-operation among school staff. Given that staff turnover can impede communication between teachers, one might speculate that this shift in organisational priorities was, to some extent, related to the high turnover among teachers.

Finally, when listing the negative outcomes of the strategies, principals consistently reported practical constraints, for example, noting that the initiatives were time-consuming, or that there were no suitable venues available. A number of principals also noted that lack of involvement on the part of pupils, teachers, or parents sometimes hindered the success of their efforts. It is likely that addressing these concerns, as well as taking into account factors such as high teacher turnover, would serve to enhance the positive impact of the interventions outlined in the School Plan. Nevertheless, an examination of the outcomes reported by principals in 2000/01 suggests that the majority of participants in the scheme derived some benefit from their efforts to address issues outlined in their School Plans.

3. THE ACHIEVEMENTS OF PUPILS IN URBAN SCHOOLS

Poor scholastic achievement is often cited as one of the main correlates of educational disadvantage. In fact, school performance (as reflected in participation and achievement) may be regarded as the most significant indicator of educational disadvantage as far as the educational system is concerned (Kellaghan et al., 1995).

In recent years, several studies have been conducted in Ireland in which the achievements of pupils from disadvantaged backgrounds were measured. In a report on remedial education in Ireland, Shiel and Morgan (1998) cited achievement data from the standardisation study of Levels 1 and 2 of the Drumcondra Primary Reading Test in 1995, which indicated that there was a significant difference between the mean scores of pupils in designated and non-designated schools at both class levels. The authors also reported Drumcondra Primary Mathematics Test (DPMT) standardisation figures for pupils in schools that were designated as disadvantaged. Results showed that pupils in designated schools at each class level (1st to 6th inclusive) consistently achieved scores that were over half of one standard deviation lower than their counterparts in non-designated schools.

More recently, Hayes and Kernan (2001) described national data collected as part of the IEA pre-primary project. According to the authors, the results of achievement testing of seven year-old pupils showed "a statistically significant difference in performance on all measures in favour of children attending non-designated schools when compared to those attending designated schools." These and other studies suggest that the mean achievements of pupils attending schools designated as disadvantaged consistently compare unfavourably with those of pupils in schools not thus designated.

In a preliminary report on the *Breaking the Cycle* scheme, the English reading and Mathematics achievements of 3rd and 6th class pupils in the selected schools in 1997 were described (Weir & Eivers, 1998). The data indicated that pupils in *Breaking the Cycle* schools were scoring between half and one standard deviation lower than the norm group (depending on grade level) in reading and Mathematics. Furthermore, Weir & Ryan (2000) found that pupil participation (as measured by early dropout) was much higher among students who received their primary education in participating schools than among students nationally (the early leaving rates were 24% and 5% respectively). Data on the achievements of the 76% of students from *Breaking the Cycle* schools who remained in school until the Junior Certificate showed that their achievements in the Junior Certificate Examination were considerably below those of students nationally. The effective difference between students from schools in the scheme and students in the national population may be thought of as an average of more than one grade on each of a student's best seven papers. Students in the two groups also differed in subject choice and levels at which papers were taken. Therefore, when combined with information on completion rates and reading and Mathematics achievement, all

of the available data point to levels of scholastic achievements and attainments that are significantly below those of students nationally.

In this section, the achievements of pupils in 3rd and 6th classes in 1997 will be compared with the achievements of their counterparts in 2000. All 3rd and 6th class pupils were eligible for assessment in reading and Mathematics in 2000. However, in both 1997 and 2000, teachers were given the option of excluding pupils for whom reading the test booklets would present major difficulties. The numbers and percentages of pupils excluded at teachers' discretion in 1997 and 2000 are given in Table 3.1.

Table 3.1. Numbers and percentages of excluded pupils at 3rd and 6th class levels in 1997 and 2000.

Class level	**No. of excluded pupils in 1997**	**Total no. of pupils in 1997**	**% excluded in 1997**	**No. of excluded pupils in 2000**	**Total no. of pupils in 2000**	**% excluded in 2000**
3rd class	12	(*N*=813)	1.5%	48	(*N*=760)	6.3%
6th class	8	(*N*=871)	0.9%	33	(*N*=789)	4.2%
Totals	20	(*N*=1,684)	1.2%	81	(*N*=1,549)	5.2%

As can be seen from Table 3.1, teachers excluded a greater percentage of pupils in 2000 than was the case in 1997. The largest difference in exclusion rates occurs at 3rd class level, where 6.3% of 3rd class pupils were excluded in 2000, compared with 1.5% in 1997. One possible explanation is that teachers expected the results of the achievement testing to be of central importance in assessing the effectiveness of the scheme, and may have more readily excluded pupils that they feared would perform poorly in 2000. An alternative explanation is that, in 2000, schools were serving an increased number of refugee and asylum-seeking families, and that children from such backgrounds accounted for the increase in exclusions. Data gathered as part of the evaluation indicate that, in 2000, 20 of the 31 schools (or 64.5%) for which data are available had non-national children enrolled. The total number of non-national children across all schools was 166, and of these, a total of 30 pupils were in 3rd class, while 12 were in 6th class. Therefore, the total number of non-national pupils in the key grades was relatively small. Furthermore, an examination of the data from one school with a relatively large number of non-national children revealed that only one of five non-national children was excluded from the testing at 3rd class level, and none of the three non-national pupils at 6th class level was excluded. This suggests that the increase in the number of exclusions in 2000 is unrelated to the increase in the number of non-national children enrolled in participating schools.

A majority of pupils who were tested in 6th class in 2000 were in 3rd class in 1997, and a majority of pupils tested in 3rd class in 2000 were in Senior Infants in 1997. While all pupils received additional benefits under the scheme (e.g., extra learning materials, opportunities to participate in out-of-school activities), the pupils in 3rd class in 2000 had the benefit of being taught in classes in which the pupil-teacher ratio was about 15:1. Therefore, the comparison of the achievements of pupils in 3rd

class in 1997 with those of 3rd class in 2000 is of particular interest. In addition, a majority of pupils who were tested when in 3rd class in 1997 were tested again when in 6th class in 2000, permitting an examination of changes in achievement levels for this group. Although the achievements of pupils in 1997 have already been reported (Weir & Eivers, 1998), many of the summary tables in this chapter include data from 1997 for purposes of comparison.

3.1. THE READING ACHIEVEMENT TEST

The Drumcondra Primary Reading Test (DPRT) (Educational Research Centre, 1993) was used to assess pupils' English reading achievements. The DPRT is a group-administered test designed for use in primary schools. Levels 3, 4, 5 and 6 are for use in 3rd, 4th, 5th, and 6th classes respectively. At each level of the DPRT, there are two forms; Form A and Form B. Form A of the test was used to assess reading in *Breaking the Cycle* schools. The test assesses two aspects of reading: Reading Vocabulary and Reading Comprehension. The Reading Vocabulary subtest consists of 40 questions, each containing a target word embedded in a short sentence, and four distractors. The pupil must determine which of the four distractors is closest in meaning to the target word. The Reading Comprehension subtest consists of three passages, each followed by 12 questions. For each question, the pupil must determine which of four possible answers is the correct one.

The content of the Reading Vocabulary and Reading Comprehension subtests is based on an analysis of the English curriculum, and of textbooks in English and other subjects that were in use at the time of the test's development. The total test takes about 90 minutes to administer, including time for distributing test materials, explaining what to do, and collecting materials. In *Breaking the Cycle* schools, the two parts of the DPRT were administered in separate testing sessions so as not to tire pupils.

3.2. THE SAMPLES OF PUPILS

The numbers of pupils at 3rd and 6th class levels in 1997 and 2000 are given in Table 3.2.

Table 3.2. Numbers and percentages of pupils tested in English reading, by class level and reading subtest, in 1997 and 2000.

	Number of pupils according to class level in 1997		Number of pupils according to class level in 2000	
Test / subtest	**3rd class (total *N*=801*)**	**6th class (total *N*=863*)**	**3rd class (total *N*=712*)**	**6th class (total *N*=756*)**
Reading: Vocabulary	*N* = 694 (86.6%)	*N* = 711 (82.4%)	*N* = 610 (85.7%)	*N* = 646 (85.4%)
Reading: Comprehension	*N* = 707 (88.3%)	*N* = 708 (82.0%)	*N* = 612 (85.9%)	*N* = 618 (81.7%)
***Reading*: Total**	*N* = 668 (83.4%)	*N* = 653 (75.7%)	*N* = 562 (78.9%)	*N* = 567 (75.0%)

*Total does not include pupils that were excluded.

As can be seen from Table 3.2, the total numbers of pupils at both 3rd and 6th class levels were lower in 2000 than was the case in 1997. At 3rd class level in 2000, 85.7% of pupils had scores for Vocabulary, 85.9% had scores for Comprehension, and 78.9% had total reading scores. These percentages represent a decrease on those for 3rd class in 1997, indicating that absenteeism on the days of testing was higher (although not significantly so) in 2000, even though the tests were administered at the same time of year. At 6th class level, 85.5% had scores for Vocabulary, 81.7% for Comprehension and 75% had total reading scores. The percentage of 6th class pupils taking each of the subtests was fairly similar on both testing occasions.

Table 3.3 presents the previous information slightly differently, and shows the numbers and percentages of pupils who sat for one, both, or neither of the reading subtests in 2000. At 3rd class level, 7.3% of pupils were absent from school on both testing occasions, while at 6th class level, 7.9% of pupils missed both subtests due to their absence from school. It should be noted that, although the rationale for administering the tests on two separate occasions was to avoid tiring pupils, this approach may have resulted in a lower percentage of pupils with complete reading achievement data.

Table 3.3. Numbers and percentages of 3rd and 6th class pupils in 2000 who sat for both subtests, for one subtest, or for neither of the subtests in reading.

Class level	**Both subtests**	**Only one subtest**	**Neither subtest**
3rd class (*N*=712)	**(78.9%)** (*N*=562)	**(13.8%)** (*N*=98)	**(7.3%)** (*N*=52)
6th class (*N*=756)	**(75.0%)** (*N*=567)	**(17.1%)** (*N*=129)	**(7.9%)** (*N*=60)

3.3. THE READING ACHIEVEMENT OF PUPILS

Achievement test results are first reported according to mean total reading score (i.e., a combined score for both parts of the DPRT) for each class level, followed by mean scores for the subtests of Vocabulary and Comprehension. The scores presented for the subtests and for the overall test are mean raw scores. Raw scores represent the number of items correctly answered and these scores are used to compare the performance of pupils in *Breaking the Cycle* schools with that of the norm group (the national sample of pupils on whom the test was standardised) at 3rd and 6th class levels. For purposes of comparison, reading scores for pupils in 1997 are also reported. The maximum possible total raw score on the DPRT is 76, which is achieved if all answers in the Vocabulary (40 items) and Comprehension (36 items) subtests are correct.

Figures 3.1 to 3.4 show the distribution of pupils' reading raw scores at both 3rd and 6th class levels in 1997 and 2000.

Figure 3.1. Distribution of reading raw scores among 3rd class *Breaking the Cycle* pupils in 1997.

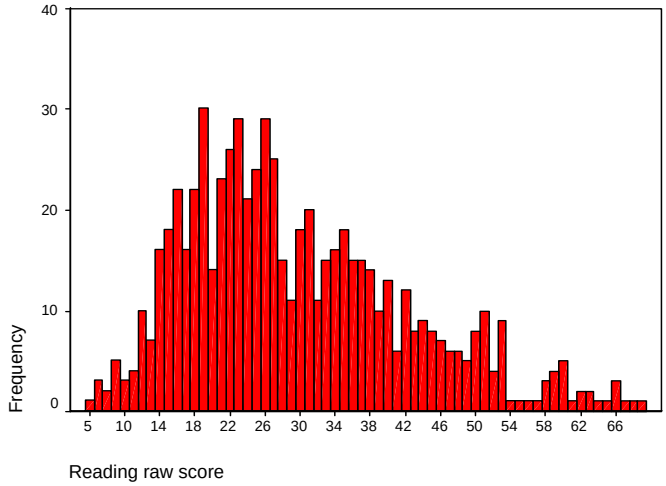


Figure 3.2. Distribution of reading raw scores among 3rd class *Breaking the Cycle* pupils in 2000.

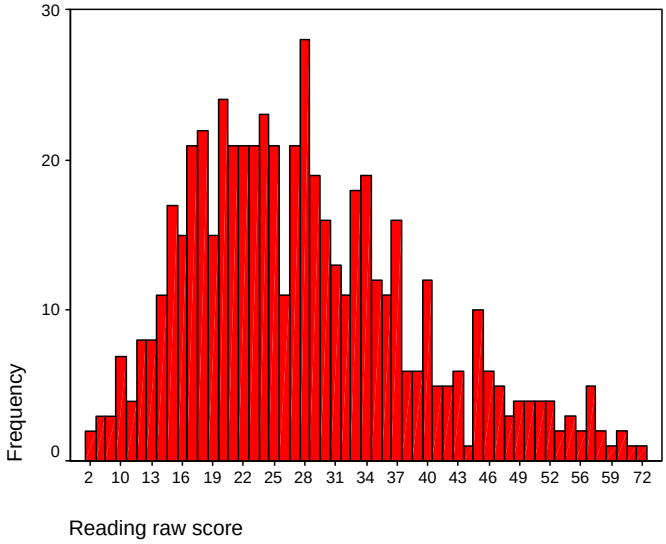


Figure 3.3. Distribution of reading raw scores among 6th class *Breaking the Cycle* pupils in 1997.

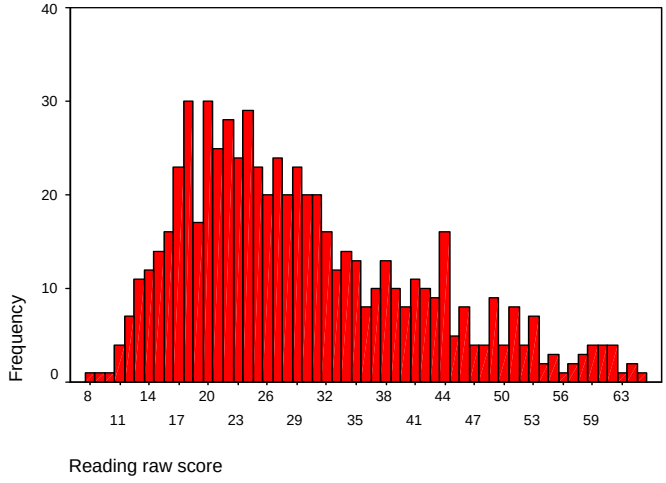
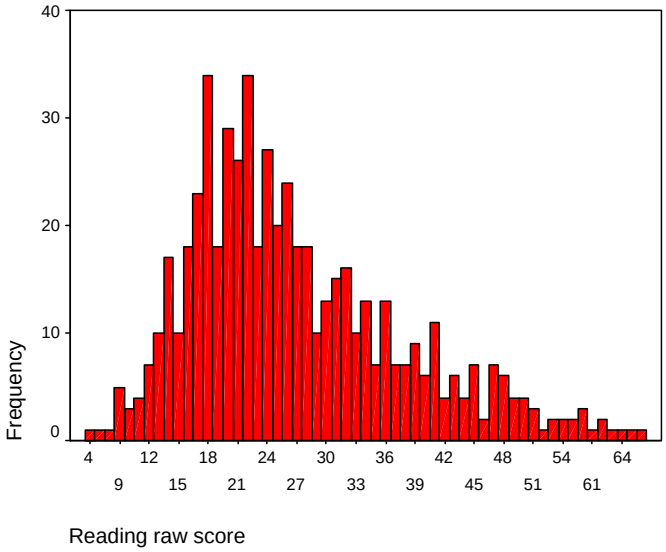


Figure 3.4. Distribution of reading raw scores among 6th class *Breaking the Cycle* pupils in 2000.



Third class pupils in 2000 were found to have a mean total reading raw score of 28.0 (Table 3.4). This means that, on average, pupils answered correctly 28 (or 36.8%) of the 76 test items. A mean raw score of 28 corresponds to a percentile rank of 30, indicating that urban pupils in 3rd class performed at the same level or better than 30% of pupils nationally. The mean raw score achieved by the norm group is 38.5. The reading performance of 3rd class pupils in *Breaking the Cycle* schools is, therefore, relatively weak by comparison with pupils at this level nationally. Indeed, the mean raw score achieved by 3rd class pupils in 2000 is two-thirds of a standard deviation[1] below the national mean. Furthermore, the score achieved by pupils in 3rd class in 2000 is significantly lower than that achieved by 3rd class in 1997 (F=5.7; df=1,1,228; p<.05).

At 6th class level, the mean raw score of urban pupils on the reading test as a whole is 26.98 which compares with a mean of 40.38 for the norm group (Table 3.4). The corresponding percentile rank for pupils in *Breaking the Cycle* schools is 21, indicating that 6th class pupils performed as well or better than 21% of pupils at this level nationally. A mean raw score of 26.98, when expressed as the average percentage of correctly answered items, is 35.5%, which compares with 53.1% for the norm group. Thus, the overall reading achievement of 6th class pupils in *Breaking the Cycle* schools is considerably poorer than the reading achievement of 6th class pupils nationally. Also, the mean raw score achieved by 6th class pupils in 2000 is almost a full standard deviation below the national mean.

[1] The standard deviation (*SD*) may be thought of as the average amount by which scores vary from the mean. In addition, standard deviation units are commonly used to describe an individual's score relative to others in a group. In the case of the DPRT, a 3rd class pupil with a score which is one *SD* below the mean (raw score=23) would be placed at the 18th percentile (i.e., his/her score would be equal to or better than 18% of the norm group), while a pupil scoring one *SD* above the mean (raw score=54) would be at the 82nd percentile (i.e., his/her score would be equal to or better than 82% of the norm group).

As was the case with 3rd class, the mean score achieved by pupils in 6th class in 2000 is significantly lower than that of the 6th class cohort in 1997 (F=14.0; df=1,1,218; p<.001).

Table 3.4. Means and standard deviations (raw scores) of pupils in 3rd and 6th classes in *Breaking the Cycle* urban schools in 1997 and 2000, and in a national sample on the Drumcondra Primary Reading Test (Levels 3 and 6).

	Mean and *SD*: Pupils in *Breaking the Cycle urban schools (1997)*	Mean and *SD*: Pupils in *Breaking the Cycle urban schools (2000)*	Mean and *SD:* National Sample
3rd class reading	*M* = 29.66, *SD* = 12.67 (*N* = 668)	*M* = 28.00, *SD* = 11.34 (*N* = 562)	*M* = 38.51, *SD* = 15.22
6th class reading	*M* = 29.46, *SD* = 11.93 (*N* = 653)	*M* = 26.98, *SD* = 11.06 (*N* = 567)	*M* = 40.38, *SD* = 14.95

As well as looking at average scores for the groups, it is also useful to examine achievement levels in terms of the number of high-scoring and low-scoring pupils. One way of doing this is to examine the percentage of pupils whose scores were one or more standard deviations below and above the national mean. At 3rd class level in 2000, the reading scores of 39.7% of pupils lie one standard deviation or more below the national mean (Table 3.5) in contrast with the scores of 18% of pupils in the national sample. A much smaller percentage (2.5%) of *Breaking the Cycle* pupils have scores which were one standard deviation or more above the mean (Table 3.6). In 2000, a greater percentage of 3rd class pupils had scores that were one standard deviation below the mean than was the case in 1997 (39.7% and 37.6% respectively). Conversely, a smaller percentage of 3rd class pupils in 2000 had scores that were one standard deviation above the mean than was the case in 1997 (2.5% and 4.2% respectively).

Table 3.5. Percentage of 3rd and 6th class pupils in *Breaking the Cycle* urban schools in 1997 and 2000, and in a national sample, scoring one standard deviation[1] or more below the national mean on the Drumcondra Primary Reading Test.

Class level	Percentage of *Breaking the Cycle* pupils scoring one *SD* or more below national mean in 1997	Percentage of *Breaking the Cycle* pupils scoring one *SD* or more below national mean in 2000	Percentage of national sample scoring one *SD* or more below the mean	National Mean and *SD*
3rd class	37.6%	39.7%	18.0%	*M* = 38.51 *SD*= 15.20
6th class	45.3%	54.0%	18.0%	*M* = 40.38 *SD*= 14.95

[1]Raw score at 3rd class : 23
Raw score at 6th class : 25

Table 3.6. Percentage of 3rd and 6th class pupils in *Breaking the Cycle* urban schools in 1997 and 2000, and in a national sample, scoring one standard deviation[1] or more above the national mean on the Drumcondra Primary Reading Test.

Class level	Percentage of *Breaking the Cycle* pupils scoring one *SD* or more above national mean in 1997	Percentage of *Breaking the Cycle* pupils scoring one *SD* or more above national mean in 2000	Percentage of national sample scoring one *SD* or more above the mean	National Mean and *SD*
3rd class	4.2%	2.5%	18.0%	*M* = 38.51 *SD*= 15.20
6th class	3.4%	2.5%	21.0%	*M* = 40.38 *SD*= 14.95

[1]Raw score at 3rd class : 54
Raw score at 6th class : 55

A similar pattern is found at 6th class level, where 54% of pupils in 2000 had scores that were one standard deviation or more below the national mean, whereas the scores of only 2.5% of pupils were one standard deviation or more above it. This contrasts with the performance of pupils nationally, where there were similar percentages of scores lying one standard deviation or more below the mean (18%) and one standard deviation or more above it (21%). As was the case with 3rd class pupils, a greater percentage of 6th class pupils in 2000 had scores that are one standard deviation below the mean than was the case in 1997 (54.0% and 45.3% respectively), while a smaller percentage of 6th class pupils had scores that were one standard deviation above the mean than was the case in 1997 (2.5% and 3.4% respectively).

An alternative way of examining reading achievement is to look at the percentage of pupils with extreme scores (i.e., below the 10th percentile and above the 90th percentile). Since the Special Education Review Body (Department of Education, 1993) proposed that scores below the 10th percentile signal the need for remediation, this cut-off point may be regarded as appropriate for defining low reading achievement in the current context. At 3rd class level in 2000, the total reading score of almost one pupil in five (24.2%) fell below the 10th percentile, while only 0.7% of scores were above the 90th percentile (Table 3.7). This pattern is repeated among 6th class pupils but with an even greater percentage of extreme low scorers (36.5%), and with 1.1% of pupils scoring above the 90th percentile.

Table 3.7. Percentage of *Breaking the Cycle* urban pupils in 1997 and 2000 scoring below the 10th percentile[1] and above the 90th percentile[2] on the Drumcondra Primary Reading Test according to grade level.

	Percentile	
Class level	**<10th**	**>90th**
3rd class 1997	23.8%	1.8%
3rd class 2000	24.2%	0.7%
6th class 1997	29.4%	0.6%
6th class 2000	36.5%	1.1%

[1] Raw score at 3rd class : 19 ; Raw score at 6th class : 21
[2] Raw score at 3rd class : 61 ; Raw score at 6th class : 62

3.4. PUPILS' ACHIEVEMENTS IN READING VOCABULARY AND COMPREHENSION

As described earlier, the DPRT is composed of a Vocabulary subtest containing 40 items and a Comprehension subtest containing 36 items. In 2000, *Breaking the Cycle* 3rd class pupils, on average, were able to answer correctly 35% of Vocabulary items and 38% of Comprehension items (Table 3.8). This compares with a rate of 50% of items correct in each section for the norm group. Comparisons with 3rd class pupils' performance in both content areas in 1997 reveal that 3rd class pupils performed equally well in Comprehension on both occasions (38% of items correct), but disimproved in the area of reading Vocabulary (only 35% of items correct in 2000, compared with 39% in 1997).

At 6th class level in 2000, *Breaking the Cycle* pupils answered correctly 32% of Vocabulary items and 39% of items in the Comprehension section (Table 3.8). In both reading content areas, 6th class pupils in 2000 performed more poorly than did 6th class pupils in 1997. The disimprovement was greater in reading Vocabulary than in Comprehension, with 6th class pupils, on average, answering 4% fewer Vocabulary items correctly. It is interesting to note that the observed overall decrease in English reading performance between 1997 and 2000 at both 3rd and 6th class levels is mainly accounted for by a decrease in reading Vocabulary scores.

Third class pupils in *Breaking the Cycle* schools in 2000 scored three-quarters of a standard deviation lower than the norm group on the Vocabulary subtest. In reading Comprehension, 3rd class pupils are between one half and two-thirds of a standard deviation below pupils nationally. The performance of 6th class pupils in 2000 is slightly weaker, with mean scores on the Vocabulary subtest lying almost a full standard deviation below the national mean, and on Comprehension, more than three-quarters of a standard deviation below the mean of the norm group.

Table 3.8. Mean raw scores, and mean percentage of items correct, achieved by *Breaking the Cycle* pupils in 1997 and 2000, and by a national sample, by reading content area and class level.

	Reading content area		
Group / level	**Vocabulary** (Number of items = 40)	**Comprehension** (Number of items = 36)	**Total test** (Number of items = 76)
3rd class 1997 (*BTC*)	***M*=15.7 (*N*=694) (39%)**	***M*=13.8 (*N*=707) (38%)**	***M*=29.7 (*N*=668) (39%)**
3rd class 2000 (*BTC*)	***M*=14.2 (*N*=610) (35%)**	***M*=13.8 (*N*=612) (38%)**	***M* = 28.0 (*N*=562) (37%)**
3rd class (national)	*M*=20.1 (*SD*=8.4) (50%)	*M*=18.4 (*SD*=7.7) (51%)	*M*=38.5 (*SD*=15.2) (51%)
6th class 1997 (*BTC*)	***M*=14.4 (*N*=711) (36%)**	***M*=14.7 (*N*=708) (41%)**	***M*=29.5 (*N*=653) (39%)**
6th class 2000 (*BTC*)	***M*=12.7 (*N*=646) (32%)**	***M*=13.9 (*N*=618) (39%)**	***M* = 27.0 (*N*=567) (36%)**
6th class (national)	*M*=20.8 (*SD*=8.6) (52%)	*M*=19.6 (*SD*=7.2) (54%)	*M*=40.4 (*SD*=14.9) (53%)

3.5. THE ACHIEVEMENTS IN VOCABULARY AND COMPREHENSION OF PUPILS WHO SAT ONLY ONE SUBTEST

It is worth examining the achievements in reading Vocabulary and Comprehension of pupils who do not have total reading scores in 2000 (i.e., those pupils who were absent from school on the day on which one of the two reading subtests was administered). Logic would suggest that pupils who were absent for one of the tests might be characterised by poorer achievement levels than the better attenders (i.e., those who were in present on both testing occasions). To investigate this, the mean scores of 3rd and 6th class pupils who sat only one subtest were computed separately (Table 3.9).

Table 3.9. Mean raw scores of 3rd class pupils (*N*=712) and 6th class pupils (*N*=756) on reading Vocabulary and Comprehension subtests according to whether they sat both reading subtests or were absent for one subtest.

	Number of pupils	Vocabulary mean	Comprehension mean
3rd class pupils *present* for both subtests	*N*=562	14.21	13.80
3rd class pupils *absent* for one subtest	*N*=98	13.81	14.22
3rd class pupils *absent* for both subtests	*N*=52	-	-
6th class pupils *present* for both subtests	*N*=567	12.93	14.06
6th class pupils *absent* for one subtest	*N*=129	11.42	11.98
6th class pupils *absent* for both subtests	*N*=60	-	-

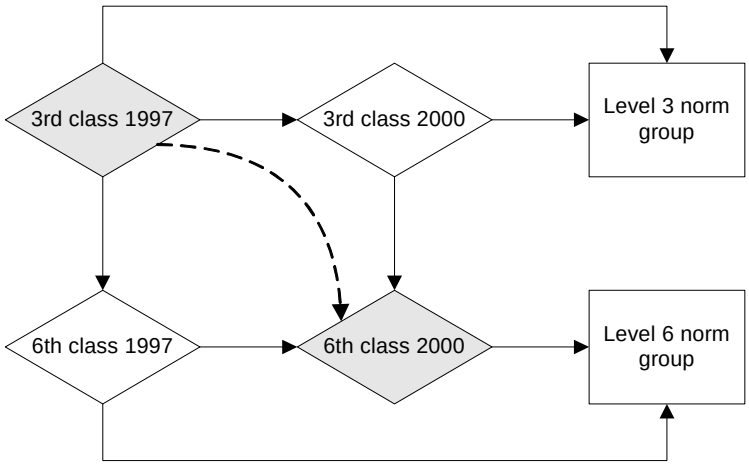
Third class pupils who were present for both reading subtests did not score significantly higher than pupils who were present for only one subtest. However, there is evidence that 6th class pupils

who were present for both reading subtests performed better than those who were present for only one. While this is true for Vocabulary (t= -2.03; df=644; p<.05), it is even more noticeable in the area of reading Comprehension (t= -2.41; df=615; p<.01), where pupils who were present for both subtests achieved an average of more than two additional items correct than those present for one subtest only. These differences favouring pupils who were present on both occasions suggest that measured achievement in the selected schools might well be *lower* than it appears, because only the better performing pupils are represented by total reading scores.

3.6. COMPARISONS OF PUPILS' READING ACHIEVEMENTS USING DATA FROM 1997 AND 2000

Descriptions of pupils' achievements in reading have so far relied on comparisons of the mean scores of groups of pupils tested in 1997 and 2000 (i.e., independent groups). For example, the mean reading score achieved by all 3rd class pupils tested in 1997 was compared with the mean score of the 3rd class cohort in 2000. Also, within each cohort, the performance of *Breaking the Cycle* pupils has been described with reference to that of the norm group on the relevant level of the test. However, other comparisons are possible given the availability of achievement data for two grade levels on two occasions. Figure 3.5 shows a graphical representation of the possible comparisons.

Figure 3.5. A graphical representation of possible ways of comparing pupil achievements in 1997 and 2000, with arrows indicating the nature of the comparisons, and with shading and a broken line used to indicate the group that was tested on two occasions.



The majority of 3rd class pupils in 1997 were in 6th class in 2000, and so their relative achievement gains or losses over the three years of the scheme can be examined. However, due to pupil absences during the testing sessions in 1997 and 2000, only 428 pupils (of a total of 813) have complete reading scores for both occasions. Also, it is not possible to compare mean *raw scores* on the tests, as different levels of the test were taken by 3rd and 6th class pupils, and the norms for each

test level differ. A way of overcoming this difficulty is to use standard scores[2] to describe achievement (Table 3.10).

Table 3.10. Comparison of the English reading achievement (mean standard score) of 3rd class pupils in *Breaking the Cycle* schools in 1997 (Level 3) with their achievement in 6th class in 2000 (Level 6).

	Reading achievement (mean standard score on DPRT) (*N*=428)	Associated percentile rank
3rd class 1997	92.8	32
6th class 2000	86.8	19
Results of paired *t*-tests	*t*= -12.1; *df*=427; *p*<.001	

As can be seen from Table 3.10, the core group of pupils for whom complete reading achievement data exist in 1997 and 2000 did less well relative to national norms in 2000 than in 1997. In 1997, the mean score of the group corresponded to a percentile of 32, indicating that their reading levels were as good or better than 32% of the standardisation sample. By 2000, their mean score had fallen to a level where it corresponded to a percentile rank of 19, meaning that they were performing as well or better than only 19% of pupils nationally. However, the data should be interpreted in light of the fact that, although these pupils received extra resources under the scheme (e.g., additional learning materials, exposure to out-of-school activities), they did not have the benefit of being taught in classes in which the PTR is about 15:1.

The results lend support to the contention of some commentators (e.g., Douglas, 1964; Martin, 1979), that the achievement gap between pupils from varying socioeconomic backgrounds tends to widen as pupils progress through the school system. Although there are no comparable data from a non-disadvantaged sample, it appears that the achievements of the pupils in our sample resemble those of the norm group less as they progress from middle to senior classes. However, it is worth using the available data to examine whether there have been any changes in the *discrepancy* between the achievements of 3rd class and 6th class pupils since the first occasion of testing. To do this, one needs to look at the relative achievement gaps that existed between 3rd and 6th class pupils in 1997, and the equivalent gaps in 2000. Table 3.11 shows the difference in the percentile ranks associated with mean raw scores achieved by 3rd and 6th class pupils in 1997 and 2000.

[2] Standard scores express test results on a single common scale. For example, in deriving standard score scales for the DPRT, the cumulative frequency distributions of raw scores for Total reading were normalised and transformed so that the resulting standard score distributions were normally distributed, with a mean of 100 and a standard deviation of 15 (Educational Research Centre, 1993). Approximately 34% of standard scores are found between the mean and one standard deviation above the mean (standard scores between 100 and 115) while 34% of standard scores are found between the mean and one standard deviation below the mean standard scores between 85 and 100). A further 14% of scores are found between standard scores of 70 and 85, and between standard scores of 115 and 130. Finally, about 2% of scores are below a standard score of 70 and above a standard score of 130.

Table 3.11. Percentile ranks associated with mean reading raw scores of 3rd and 6th class pupils in 1997 and 2000, and differences in percentile ranks of 3rd and 6th class pupils in both years.

	Percentile rank		
	BTC pupils 1997	*BTC* pupils 2000	Norm group[1]
3rd class	33	30	53
6th class	27	21	53
Difference in percentile rank	- 6	- 9	none

[1]The percentile rank that corresponds to the mean score of the norm group is 53 rather than 50, due to a slight skewing of the norm group achievement data.

From Table 3.11, it can be seen that the performance of 3rd class pupils in reading was stronger relative to that of pupils in 6th class both in 1997 and 2000. Furthermore, the difference has grown since 1997. The mean achievement at 6th class level dropped 9 percentile points, whereas mean achievement at 3rd class level dropped by only 6 percentile points. It is unfortunate that this is the case, as one might have expected participation in the scheme to have led to a narrowing of the achievement gap between standards 3 and 6. However, this trend may signal that the scheme is impacting more on achievement at 3rd class level than at 6th , which might be expected since pupils in 3rd class would have had three years of being taught in small classes.

3.7. PUPIL GENDER AND READING ACHIEVEMENT

The performance of boys and girls in reading in 2000 was compared (using independent *t*-tests) to examine whether the achievements of boys and girls differed. Approximately 53% of third and sixth class pupils who participated in achievement testing in 2000 were boys, while 47% were girls (Table 3.12).

Table 3.12. Numbers and percentages of 3rd and 6th class boys and girls in *Breaking the Cycle* schools in 2000 for whom achievement data exist.

	2000	
Pupil Gender	3rd Class	6th Class
Boys	375 (52.7%)	401 (53.0%)
Girls	337 (47.3%)	355 (47.0%)

Table 3.13 summarises the gender differences found in 3rd and 6th class pupils' achievement in the two reading subtests, as well as in total reading, in both 1997 and 2000. Analysis of reading scores in 2000 according to pupil gender revealed that 3rd class girls had significantly higher overall reading scores than boys. Third class girls also had significantly higher scores on the Vocabulary subtest, although their performance on the Comprehension subtest did not differ from that of boys. The gender difference was reversed in 6th class, with boys outperforming girls on the Vocabulary subtest.

However, no gender differences were observed between 6th class girls' and boys' Comprehension and total reading scores.

Table 3.13. Mean Vocabulary and Comprehension raw scores and mean total reading raw scores of pupils in urban *Breaking the Cycle* schools, by gender and class level in 1997 and 2000.

	1997			**2000**		
Reading Content Area	**3rd Class Girls**	**3rd Class Boys**	**Boys vs girls**	**3rd Class Girls**	**3rd Class Boys**	**Boys vs girls**
Vocabulary	15.2 (*N*=341)	16.1 (*N*=353)	*ns*	14.9 (*N*=287)	13.5 (*N*=323)	<.02
Comprehension	13.8 (*N*=340)	13.8 (*N*=367)	*ns*	14.3 (*N*=296)	13.4 (*N*=316)	*ns*
Total Reading Score	29.2 (*N*=327)	30.1 (*N*=341)	*ns*	29.4 (*N*=268)	26.7 (*N*=294)	<.01
	6th Class Girls	**6th Class Boys**	**Boys vs girls**	**6th Class Girls**	**6th Class Boys**	**Boys vs girls**
Vocabulary	14.0 (*N*=348)	14.8 (*N*=363)	*ns*	11.9 (*N*=300)	13.5 (*N*=346)	<.01
Comprehension	14.9 (*N*=340)	14.6 (*N*=368)	*ns*	14.0 (*N*=293)	13.8 (*N*=324)	*ns*
Total Reading Score	29.1 (*N*=318)	29.8 (*N*=335)	*ns*	26.3 (*N*=265)	27.5 (*N*=302)	*ns*

The mean scores of 3rd and 6th class boys and girls on the reading test in 1997 were compared with 3rd and 6th class boys' and girls' mean scores in 2000, to ascertain if any changes had occurred in their reading ability over this period. As shown in Table 3.14, the mean scores on the Vocabulary subtest and on the overall reading test of 6th class girls were significantly lower in 2000. However, the scores of 3rdclass girls remained relatively stable over the same period.

Table 3.14. Mean Vocabulary and Comprehension raw scores and mean total reading raw scores of girls in *Breaking the Cycle* schools, by class level in 1997 and 2000.

	3rd Class				**1997 vs 2000**	**6th Class**				**1997 vs 2000**
	Girls 1997		**Girls 2000**			**Girls 1997**		**Girls 2000**		
Reading Content Area	**Mean**	***SD***	**Mean**	***SD***	***p***	**Mean**	***SD***	**Mean**	***SD***	*p*
Vocabulary	15.3	6.7	14.9	6.5	*ns*	14.0	7.1	11.9	5.6	<.01
Comprehension	13.8	6.7	14.3	6.1	*ns*	14.9	6.2	14.0	5.8	*ns*
Total Reading	29.2	12.4	29.4	11.6	*ns*	29.1	12.1	26.4	10.5	<.01

Boys achieved a mean Vocabulary score of 16.2 and a mean total reading score of 30.1 in 1997, compared to mean scores of 13.5 and 26.7 respectively in 2000 (Table 3.15). Similarly, the performance of 6th class boys in 2000 on the Vocabulary test and on the overall reading test was significantly poorer than that of 6th class boys on the same subtest, and on the reading test as a whole, in 1997.

Table 3.15. Mean Vocabulary and Comprehension raw scores and mean total reading raw scores of boys in *Breaking the Cycle* schools, by class level in 1997 and 2000.

	3rd Class				**1997 vs 2000**	**6th Class**				**1997 vs 2000**
	Boys 1997		**Boys 2000**			**Boys 1997**		**Boys 2000**		
Reading Content Area	**Mean**	***SD***	**Mean**	***SD***	*p*	**Mean**	***SD***	**Mean**	***SD***	*p*
Vocabulary	16.2	7.2	13.5	6.4	<.001	14.8	6.5	13.5	6.6	<.02
Comprehension	13.8	6.7	13.4	6.1	*ns*	14.6	6.2	13.8	5.9	*ns*
Total Reading	30.1	12.9	26.7	11.0	<.001	29.8	11.8	27.5	11.5	*<.02*

The performance of boys and girls on Level 3 of the reading test, which they attempted when they were in 3rd class in 1997, was compared (using paired *t*-tests) with their performance on Level 6 of the reading test, which they attempted when they were in 6th class in 2000. Standard scores were used in this set of analyses, as it was not possible to use mean raw scores when comparing different levels of the test. Only pupils who had participated in testing in both years and who had test scores available for one or more of the subtests were included in analysis. Tables 3.16 and 3.17 present girls' and boys' mean standard scores in reading in 1997 (Level 3) and 2000 (Level 6). Mean standard scores on the reading test overall and on both the Vocabulary and Comprehension subtests (Level 6) in 2000 were significantly lower than their standard scores on the corresponding reading tests in 1997 (Level 3).

Table 3.16. Achievements (mean standard scores) in reading of 3rd class girls in *Breaking the Cycle* schools in 1997 (Level 3) and again when they were in 6th class in 2000 (Level 6).

	3rd Class (Level 3) Girls1997		6th Class (Level 6) Girls 2000		1997 vs 2000
Reading Content Area	Mean	SD	Mean	SD	p
Vocabulary (*N*=242)	92.3	12.5	83.5	12.7	<.01
Comprehension (*N*=233)	92.1	13.6	89.3	12.7	<.01
Total Reading Score (*N*=207)	92.55	12.8	86.2	12.2	<.01

Table 3.17. Achievements (mean standard scores) in reading of 3rd class boys in *Breaking the Cycle* schools in 1997 (Level 3) and again when they were in 6th class in 2000 (Level 6).

	3rd Class (Level 3) Boys 1997		6th Class (Level 6) Boys 2000		1997 vs 2000
Reading Content Area	Mean	SD	Mean	SD	p
Vocabulary (*N*=258)	94.3	13.4	87.5	13.8	<.005
Comprehension (*N*=254)	91.4	14.0	88.5	13.1	<.005
Total Reading Score (*N*=221)	92.9	13.6	87.4	13.5	<.005

3.8. THE MATHEMATICS ACHIEVEMENT TEST

The Drumcondra Primary Mathematics Test (DPMT) (Educational Research Centre, 1997) is group-administered and is designed for use in primary schools. As is the case with the DPRT, Levels 3, 4, 5 and 6 are for use in standards 3, 4, 5, and 6 respectively. The content of all levels of the DPMT is based on the Mathematics curriculum and textbooks in Mathematics in use in Irish primary schools. Levels 3 - 6 of the DPMT assess three aspects of Mathematics: Computation, Concepts and Problem-solving. These three content areas are represented by three separate subtests. The Computation and Concepts subtests each consist of 35 questions, whereas the Problems subtest has 30 questions. For each question, the pupil must determine which of four possible answers is correct. The DPMT takes approximately 2½ hours to administer. This includes time for distributing test materials, completing sample questions and doing the test itself. In administering the DPMT to pupils in *Breaking the Cycle* schools, testing was spread over two or three days to avoid tiring pupils.

3.9. THE SAMPLES OF PUPILS

The numbers of pupils at 3rd and 6th class levels who sat tests in Mathematics in 1997 and 2000 are given in Table 3.18.

Table 3.18. Numbers and percentages of pupils tested in Mathematics, by class level and Mathematics subtest, in 1997 and 2000.

	Number of pupils according to class level in 1997		Number of pupils according to class level in 2000	
Test / subtest	**3rd class (total *N*=801*)**	**6th class (total *N*=863*)**	**3rd class (total *N*=712*)**	**6th class (total *N*=756*)**
Mathematics: Computation	*N* = 695 (86.8%)	*N* = 726 (84.1%)	*N* = 611 (85.8%)	*N* = 615 (81.3%)
Mathematics: Concepts	*N* = 709 (88.5%)	*N* = 731 (84.7%)	*N* = 614 (86.2%)	*N* = 603 (79.8%)
Mathematics: Problems	*N* = 696 (86.9%)	*N* = 735 (85.2%)	*N* = 606 (85.1%)	*N* = 599 (79.2%)
Mathematics: ***Total***	*N* = 617 (77.0%)	*N* = 605 (70.1%)	*N* = 527 (74.0%)	*N* = 479 (63.4%)

*Total does not include pupils excluded from testing by teachers. In 2000, excluded pupils numbered 48 at 3rd class level, and 33 pupils at 6th class level.

Table 3.18 shows that at 3rd class level in 2000, 85.8% of pupils had scores for Computation, 86.2% had scores for Concepts, 85.1% had scores for Problems, and 74% had total Mathematics scores. These percentages represent a decrease on those for 3rd class in 1997, indicating that absenteeism on the days of testing was higher in 2000. At 6th class level, 81.3% had scores for Computation, 79.8% for Concepts, 79.2% for Problems, and 63.4% had total Mathematics scores. Due to increases in absenteeism since 1997, the percentage of 6th class pupils taking each of the subtests

was considerably lower in 2000 than in 1997. In both 1997 and 2000, 6th class pupils' attendance at school on the days of testing was lower than at 3rdclass level, and the percentage of 6th class pupils with total test scores was significantly lower in 2000 than was the case in 1997 (χ^2=5.14; *df*=1; *p*<.05).

Table 3.19 shows the numbers and percentages of pupils who sat for one to two subtests, for all three subtests, or for none of the subtests. At 3rd class level, 6.3% of pupils were absent from school on all three occasions when tests were administered, while at 6th class level, 7.1% of pupils missed all three subtests due to absence from school. As was the case with the reading achievement testing, the spreading the testing sessions over several school days resulted in a lower percentage of pupils with complete Mathematics achievement data.

Table 3.19. Numbers and percentages of pupils in 2000 who sat for all three subtests, for one to two subtests, or for none of the subtests in Mathematics.

Class level	**All three subtests**	**One to two subtests**	**No subtests**
3rd class (*N*=712)	**(74.0%)** (*N*=527)	**(19.7%)** (*N*=140)	**(6.3%)** (*N*=45)
6th class (*N*=756)	**(63.4%)** (*N*=479)	**(29.5%)** (*N*=223)	**(7.1%)** (*N*=54)

3.10. THE MATHEMATICS ACHIEVEMENTS OF PUPILS

Levels of achievement in Mathematics are first reported according to mean total Mathematics score (i.e., an average raw score for all pupils in all three parts of the DPMT combined). This is followed by mean raw scores for the Computation, Concepts, and Problems subtests. Figures 3.6 to 3.9 show the distribution of pupils' Mathematics raw scores at both 3rd and 6th class levels in 1997 and 2000.

Figure 3.6. Distribution of Mathematics raw scores among 3rd class *Breaking the Cycle* pupils in 1997.

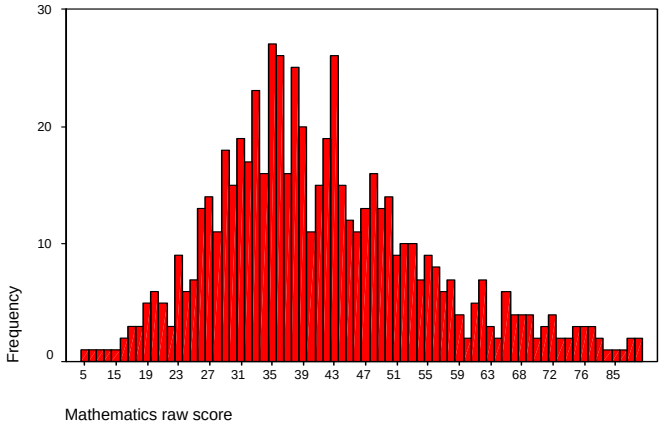


Figure 3.7. Distribution of Mathematics raw scores among 3rd class *Breaking the Cycle* pupils in 2000.

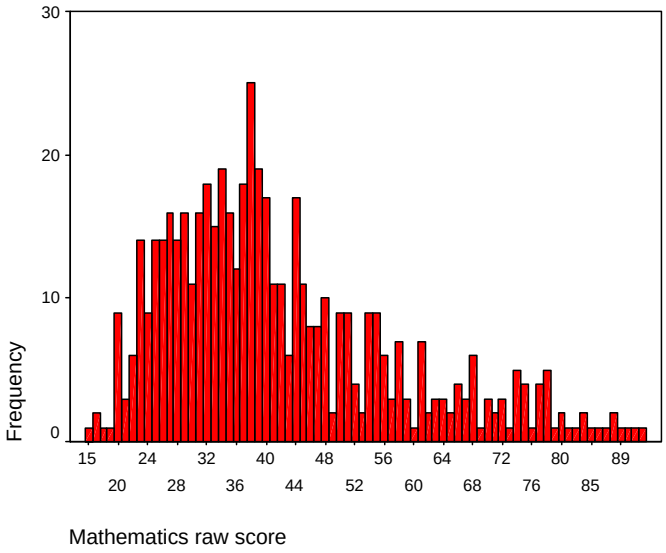


Figure 3.8. Distribution of Mathematics raw scores among 6th class *Breaking the Cycle* pupils in 1997.

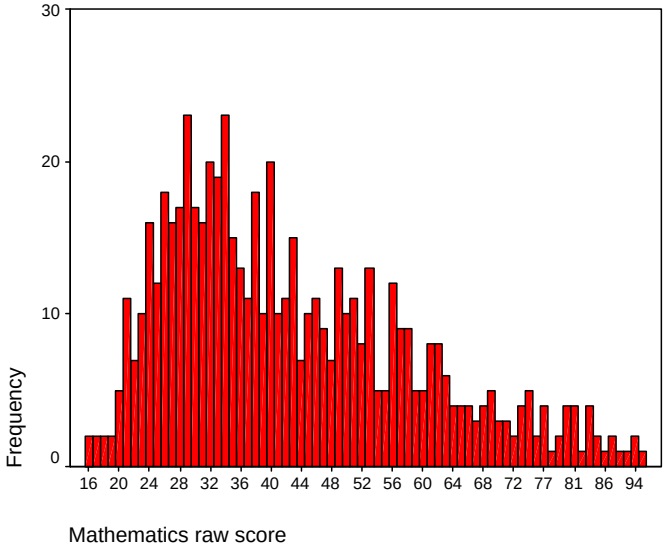
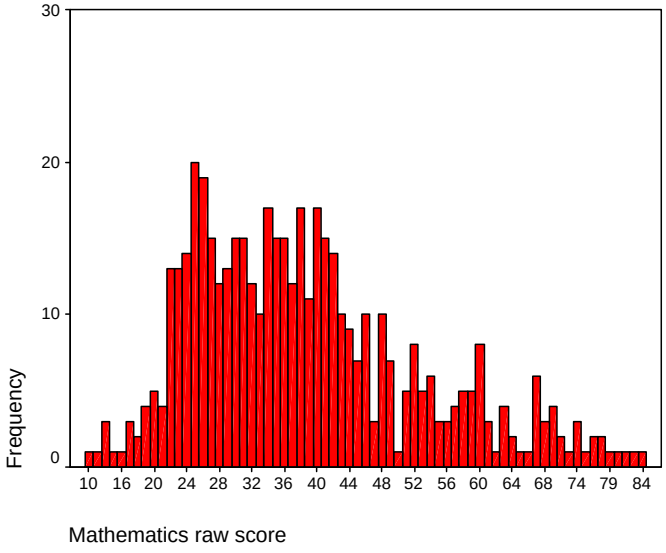


Figure 3.9. Distribution of Mathematics raw scores among 6th class *Breaking the Cycle* pupils in 2000.



In 2000, 3rd class pupils achieved a mean total Mathematics score of 41.98 (Table 3.20). This means that across all three subtests, pupils, on average, answered correctly almost 42% of a possible total of 100 items. Compared with the norm group, the mean score of which is 58.43, *Breaking the Cycle* pupils in 3rd class answered 17% fewer Mathematics items correctly than 3rd class pupils nationally. The mean score of 41.98 achieved by *Breaking the Cycle* pupils in 3rd class corresponds to a percentile rank of 20, indicating that these pupils performed at the same level or better than 20% of pupils in the norm group. Thus, the performance in Mathematics of 3rd class pupils in *Breaking the Cycle* schools was relatively weak in comparison with that of pupils nationally. Indeed, the mean raw score achieved by 3rd class pupils in 2000 is almost one standard deviation below the national mean. However, the Mathematics performance of 3rd class pupils in 2000 was marginally better than that of 3rd class pupils in 1997, and unlike reading levels in 3rd class, there was no disimprovement in Mathematics performance over the three-year period.

Table 3.20. Means and standard deviations (raw scores) of pupils in 3rd and 6th classes in *Breaking the Cycle* schools in 1997 and 2000, and in a national sample on the Drumcondra Primary Mathematics Test (Levels 3 and 6).

	Mean and *SD*: Pupils in *Breaking the Cycle urban schools (1997)*	Mean and *SD*: Pupils in *Breaking the Cycle urban schools (2000)*	Mean and *SD:* National Sample
3rd class Mathematics	*M* = 41.72, *SD* = 14.14 (*N* = 617)	*M* = 41.98, *SD* = 15.92 (*N* =527)	*M* = 58.43, *SD* = 18.03
6th class Mathematics	*M* = 42.90, *SD* = 16.45 (*N* = 605)	*M* =38.65, *SD* =14.17 (*N* =479)	*M* = 58.72, *SD* = 17.88

At 6th class level, the mean raw score of pupils in our sample on the Mathematics test as a whole was 38.65, which compares with a mean of 58.72 for the norm group. The corresponding percentile rank for pupils in *Breaking the Cycle* schools is 15, indicating that 6th class pupils performed as well or better than 15% of pupils nationally in 6th class. Overall, 6th class pupils achieved an average of 20% fewer Mathematics items correct than pupils at this level nationally. When described in terms of standard deviation units, the mean raw score achieved by 6th class pupils in 2000 is well over one standard deviation below the national mean. Furthermore, in contrast with the situation at 3rd class level, the performance in Mathematics of pupils in 6th class in 2000 was considerably poorer than it was in 1997 (F=20.0; df=1,1,082; p<.001).

An examination of the number of high-scoring and low-scoring pupils reveals that the Mathematics scores of more than half (58.1%) of all 3rd class pupils were one standard deviation or more below the national mean (Table 3.21). A much smaller percentage (4.7%) of 3rd class pupils have scores that are one standard deviation or more above the mean (Table 3.22). This contrasts with the pattern of scores in the national sample, where 18% of scores are one or more standard deviations

below the mean and a similar percentage (19%) are above it. However, the pattern of scoring among *Breaking the Cycle* pupils in 2000 differed from that in 1997. While more 3rd class pupils in 2000 had scores that were one standard deviation *below* the mean than was the case in 1997 (58.1% and 52.7% respectively), there were almost three times as many pupils with scores that were one standard deviation *above* the mean in 2000 as there were in 1997 (4.7% and 1.7% respectively). This increase in the percentage of high-achieving pupils may reflect the impact of small classes on Mathematics performance.

At 6th class level, 65.8% of pupils had scores that were one standard deviation or more below the national mean, and only 1.5% of pupils had scores that are one standard deviation or more above the mean. While roughly equal numbers of 6th class pupils in the national sample scored one standard deviation or more below and above the mean (19% and 18% respectively), the distribution of scores among pupils in *Breaking the Cycle* schools was far less symmetrical, and was characterised by a marked overrepresentation of low scores and an underrepresentation of high scores. Indeed, since 1997, the percentage of pupils who had scores that were one standard deviation below the mean increased by more than 12% (53.7% in 1997 vs 65.8% in 2000).

Table 3.21. Percentage of 3rd and 6th class pupils in *Breaking the Cycle* schools in 1997 and 2000, and in a national sample, scoring one standard deviation[1] or more below the national mean on the Drumcondra Primary Mathematics Test.

Class level	Percentage of *Breaking the Cycle* pupils scoring one *SD* or more below national mean in 1997	Percentage of *Breaking the Cycle* pupils scoring one *SD* or more below national mean in 2000	Percentage of national sample scoring one *SD* or more below the mean	National Mean and *SD*
3rd class	52.7%	58.1%	18%	*M* = 58.43 *SD*= 18.03
6th class	53.7%	65.8%	19%	*M* = 58.72 *SD*= 17.88

[1] Raw score at 3rd class : 40
Raw score at 6th class : 41

Table 3.22. Percentage of 3rd and 6th class pupils in *Breaking the Cycle* schools in 1997 and 2000, and in a national sample scoring one standard deviation[1] or more above the national mean on the Drumcondra Primary Mathematics Test.

Class level	Percentage of *Breaking the Cycle* pupils scoring one *SD* or more above national mean in 1997	Percentage of *Breaking the Cycle* pupils scoring one *SD* or more above national mean in 2000	Percentage of national sample scoring one *SD* or more above the mean	National Mean and *SD*
3rd class	1.7%	4.7%	19%	*M* = 58.43 *SD*= 18.03
6th class	4.5%	1.5%	18%	*M* = 58.72 *SD*= 17.88

[1]Raw score at 3rd class: 76
Raw score at 6th class: 77

An examination of the Mathematics achievement in 2000 of *Breaking the Cycle* pupils at the extreme ends of the distribution of scores (i.e., those with scores below the 10th percentile and above the 90th percentile), indicates that at 3rd class level, the total Mathematics score of more than one pupil in three (34.2%) lies below the 10th percentile, while only 2.1% of scores are above the 90th percentile (Table 3.23). There are even greater numbers of low-scorers at 6th class level, where more than 40% of pupils in 2000 had scores below the 10th percentile, representing an increase of more than 5% since 1997. Significantly, only one 6th class pupil who was tested in Mathematics in 2000 achieved a score above the 90th percentile. This compares with 1.7% of pupils who did so in 1997.

Table 3.23. Percentage of *Breaking the Cycle* pupils scoring below the 10th percentile[1] and above the 90th percentile[2] on the Drumcondra Primary Mathematics Test according to grade level, in 1997 and 2000.

	Percentile	
Class level	**<10th**	**>90th**
3rd class 1997	29.8%	0.8%
3rd class 2000	34.2%	2.1%
6th class 1997	35.5%	1.7%
6th class 2000	40.9%	0.2%

[1] Raw score at 3rd class : 33 ; Raw score at 6th class : 33
[2] Raw score at 3rd class : 84 ; Raw score at 6th class : 84

3.11. PUPILS' ACHIEVEMENTS IN MATHEMATICAL COMPUTATION, CONCEPTS AND PROBLEMS

As described earlier, the DPMT is composed of a Computation subtest containing 35 items, a Concepts subtest containing 35 items, and a Problems subtest containing 30 items. Third class pupils in *Breaking the Cycle* schools in 2000 differed greatly from the norm group in the percentage of items they correctly answered in each of the three subtests (Table 3.24). In the Computation subtest, an average of 41% of items were correctly answered by *Breaking the Cycle* pupils in 3rd class (versus 62% by the norm group), 40% of Concepts items were correct (versus 54% in the norm group), and 42% of Problems items were correct (versus 60% in the norm group). There are, however, no differences between 3rd class pupils in *Breaking the Cycle* schools in 2000 and in 1997. This indicates that performance in the three Mathematics content areas has remained stable over the three-year period.

There is a contrasting picture at 6th class level. In 2000, pupils in *Breaking the Cycle* schools achieved between 18% and 23% fewer items correct in the three Mathematics content areas than did pupils on whom the test was standardised. Sixth class pupils also achieved proportionately fewer

items correct in each of the Mathematics content areas than did their 3rd class counterparts. Finally, in each content area, 6th class pupils in 2000 answered 3-4% fewer items correctly than did 6th class pupils in 1997. This signals that the disimprovement in Mathematics performance at 6th class level has occurred across the three content areas, and is not attributable to a decline in a specific area.

Table 3.24. Mean raw scores, and mean percentage of items correct, achieved by *Breaking the Cycle* pupils in 1997 and 2000, and by a national sample, by Mathematics content area and class level.

	Mathematics content area			
Group / level	**Computation** (Number of items = 35)	**Concepts** (Number of items = 35)	**Problems** (Number of items = 30)	**Total test** (Number of items = 100)
3rd class 1997 (*BTC*)	***M*=14.3 (*N*=695) (41%)**	***M*=14.1 (*N*=709) (40%)**	***M*=12.7 (*N*=696) (42%)**	***M*=41.7 (*N*=617) (42%)**
3rd class 2000 (*BTC*)	***M*=14.5 (*N*=611) (41%)**	***M*=14.1 (*N*=614) (40%)**	***M*=12.5 (*N*=606) (42%)**	***M*=42.0 (*N*=527) (42%)**
3rd class (national)	*M*=21.7 (*SD*=7.3) (62%)	*M*=18.8 (*SD*=6.2) (54%)	*M*=18.0 (*SD*=6.5) (60%)	*M*=58.4 (*SD*=18.0) (58%)
6th class 1997 (*BTC*)	***M*=15.5 (*N*=726) (44%)**	***M*=13.5 (*N*=731) (39%)**	***M*=12.5 (*N*=735) (42%)**	***M*=42.9 (*N*=605) (43%)**
6th class 2000 (*BTC*)	***M*=13.8 (*N*=615) (40%)**	***M*=12.5 (*N*=603) (36%)**	***M*=11.4 (*N*=600) (38%)**	***M*=38.6 (*N*=479) (39%)**
6th class (national)	*M*=21.9 (*SD*=7.0) (63%)	*M*=19.0 (*SD*=6.4) (54%)	*M*=17.7 (*SD*=6.0) (59%)	*M*=58.7 (*SD*=17.9) (59%)

3.12. THE ACHIEVEMENTS IN COMPUTATION, CONCEPTS, AND PROBLEMS OF PUPILS WHO SAT ONLY ONE SUBTEST

As was done in the case of reading achievement, the mean Mathematics scores of pupils who sat only one or two of the three subtests were computed separately. This was done to investigate if pupils who were absent for one or two of the subtests were characterised by poorer achievement levels than the better attenders (i.e., those who were present for all three subtests). Table 3.25 shows the mean Mathematics subtest scores of 3rd and 6th class pupils who sat only one or two subtests. The data support the hypothesis that the poorer attenders performed less well than did pupils who were present for all three subtests: At 3rd class level, the mean scores of pupils who had been absent on at least one occasion were lower in Computation (t= -2.18; df=609; p<.05), Concepts (t= -5.23; df=612; p<.001), and Problems (t= -3.94; df=604; p<.001). Similar results were found at 6th class level, where the differences favouring pupils who were present for all three subtests were significant for Computation (t= -2.93; df=613; p<.005), Concepts (t= -3.78; df=601; p<.001), and Problems (t= -2.07; df=597; p<.05). The differences (at both class levels), which favour pupils who were present for all subtests, are substantial. This finding suggests that achievement levels in *Breaking the Cycle* schools are *lower* than those expressed by scores which only describe pupils' performance on the Mathematics test as a whole.

Table 3.25. Mean raw scores of 3rd class pupils (*N*=712) and 6th class pupils (*N*=756) on Computation, Concepts, and Problems subtests according to whether they sat all three Mathematics subtests or were absent for one or two subtests.

	Number of pupils	Computation mean	Concepts mean	Problems mean
3rd class pupils *present* for all three subtests	*N*=527	14.73	14.48	12.77
3rd class pupils *absent* for one or two subtests	*N*=140	13.02	11.78	10.51
3rd class pupils *absent* for all three subtests	*N*=45	-	-	-
6th class pupils *present* for all three subtests	*N*=479	14.18	12.90	11.57
6th class pupils *absent* for one or two subtests	*N*=223	12.68	11.05	10.65
6th class pupils *absent* for all three subtests	*N*=54	-	-	-

3.13. COMPARISONS OF PUPILS' MATHEMATICS ACHIEVEMENTS USING DATA FROM 1997 and 2000

The Mathematics achievements of pupils have been described, up to now, in terms of comparisons of the mean scores of independent groups of pupils (e.g., the mean Mathematics score achieved by all 3rd class pupils tested in 1997 was compared with the mean score of the 3rd class cohort in 2000). Within each cohort, the performance of *Breaking the Cycle* pupils has also been described with reference to that of the norm group on the appropriate level of the test. However, other comparisons are possible given the availability of achievement data for two grade levels on two occasions[3]. For example, the fact that the majority of 3rdclass pupils in 1997 were in 6th class in 2000 permits their relative achievement gains or losses over the three-year period to be examined. It should be noted, however, that due to pupil absences during the administration of tests in both 1997 and 2000, total Mathematics scores on both occasions exist for only 338 pupils (of a total of 813 in 3rd class in 1997). Furthermore, because different levels of the test were taken by 3rd and 6th class pupils, it is not possible to compare mean *raw scores* on the tests, as the norms for each test level differ. To overcome this difficulty, standard scores are used to compare pupils' achievements on both occasions (Table 3.26).

Table 3.26. Comparison of the Mathematics achievement (mean standard score) of 3rd class pupils in *Breaking the Cycle* schools in 1997 (Level 3) with their achievement in 6th class in 2000 (Level 6).

	Mathematics achievement (mean standard score on DPMT) (*N*=338)	Associated percentile rank
3rd class 1997	87.2	19
6th class 2000	84.2	14
Results of paired *t*-tests	*t*= -5.5; *df*=337; *p*<.001	

[3] The full range of possible comparisons was described graphically in Figure 3.5 in section 3.6.

As can be seen from Table 3.26, the core group of pupils for whom complete Mathematics achievement data exist in 1997 and 2000 show that their performance relative to the norm group was poorer in 2000 than in 1997. In 1997, the mean score of the group corresponded to a percentile rank of 19, indicating that their Mathematics levels were as good as or better than 19% of the standardisation sample. By 2000, their mean score had fallen to a level where it corresponded to a percentile rank of 14, meaning that they were performing as well as or better than only 14% of pupils nationally. However, the data should be interpreted in light of the fact that, although pupils in this group received extra resources under the scheme, they did not have the benefit of receiving tuition in classes in which the PTR was 15:1. One might expect greater gains over the three-year period among pupils who had been taught in smaller classes (e.g., among pupils who were in 3rd class in 2000), but relevant achievement data are not available to investigate this.

The data are supportive of the contention that the achievement gap between disadvantaged and non-disadvantaged pupils tends to widen as pupils progress through the school system. It appears that the Mathematics achievements of pupils in our sample resemble those of the norm group less as they progress from middle to senior classes. It is possible to use the available data to examine whether there have been any changes in the *discrepancy* between the Mathematics achievements of 3rd class and 6th class pupils since the first occasion of testing. To do this, one needs to look at the relative achievement gaps that existed between 3rd and 6th class pupils in 1997, and the equivalent gaps between them in 2000. While the performance of 3rd and 6th class pupils in Mathematics was similar in 1997, an achievement gap had appeared by 2000 (Table 3.27). Mean achievement at 6th class level dropped 6 percentile points, while mean achievement at 3rd class level remained relatively stable.

Table 3.27. Percentile ranks associated with mean Mathematics raw scores of 3rd and 6th class pupils in 1997 and 2000, and differences in percentile ranks of 3rd and 6th class pupils in both years.

	Percentile rank		
	BTC pupils 1997	*BTC* pupils 2000	Norm group[1]
3rd class	20	20	47
6th class	21	15	47
Difference in percentile rank	+1	-5	none

[1]The percentile rank that corresponds to the mean score of the norm group is 47 rather than 50, due to a slight skewing of the norm group achievement data.

3.14. PUPIL GENDER AND MATHEMATICS ACHIEVEMENT

Approximately 53% of 3rd and 6th class pupils who participated in achievement testing in 2000 were boys, while 47% were girls (see Table 3.12). The mean scores of boys and girls in 1997 and 2000 were compared using independent *t*-tests (Table 3.28). No gender differences were found at 3rd class level for the Mathematics test as a whole or for any individual subtest in 2000. The situation was

similar at 6th class level in 2000, with girls performing at the same level as boys on the Mathematics test overall, and on all subtests except Mathematical Computation, on which girls outperformed boys.

Table 3.28. Mean Computation, Concepts and Problems raw scores and mean total Mathematics raw scores of pupils in urban *Breaking the Cycle* schools, by gender and class level in 1997 and 2000.

	1997			**2000**		
Mathematics Content Area	**3rd Class Girls**	**3rd Class Boys**	**Boys vs girls**	**3rd Class Girls**	**3rd Class Boys**	**Boys vs girls**
Computation	14.1 (*N*=333)	14.6 (*N*=362)	*ns*	14.85 (*N*=293)	14.17 (*N*=318)	*ns*
Concepts	13.9 (*N*=340)	14.3 (*N*=369)	*ns*	14.43 (*N*=293)	13.80 (*N*= 321)	*ns*
Problems	12.4 (*N*=331)	13.0 (*N*=365)	*ns*	12.38 (*N*=286)	12.56 (*N*=320)	*ns*
Total Mathematics score	40.8 (*N*=296)	42.6 (*N*=321)	*ns*	42.73 (*N*=255)	41.28 (*N*=272)	*ns*
	6th Class Girls	**6th Class Boys**		**6th Class Girls**	**6th Class Boys**	
Computation	15.3 (*N*=352)	15.7 (*N*=374)	*ns*	14.14 (*N*=293)	13.58 (*N*=322)	<.01
Concepts	12.7 (*N*=355)	14.3 (*N*=376)	<.001	12.13 (*N*=286)	12.87 (*N*=317)	*ns*
Problems	11.9 (*N*=351)	13.1 (*N*=384)	<.005	11.23 (*N*=269)	11.51 (*N*=330)	*ns*
Total Mathematics score	40.9 (*N*=283)	44.7 (*N*=322)	<.005	38.05 (*N*=228)	39.19 (*N*=251)	*ns*

No gender differences were found for the Mathematics test at 3rd class level in either 1997 or 2000 (Table 3.28). In contrast, 6th class boys' and girls' mean scores varied considerably from 1997 to 2000. In particular, 6th class girls achieved significantly higher scores than boys on the Computation subtest in 2000, whereas in 1997 there were no gender differences in performance. Conversely, boys outperformed girls on the Concepts and Problems subtests and on the Mathematics test overall in 1997, whereas boys' scores on these subtests and the test as a whole were only marginally better (and not statistically significantly so) than those of girls in 2000.

The mean scores of 3rd and 6th class boys and girls in Mathematics in 1997 and 2000 were compared to ascertain whether any changes had occurred over this period. As shown in Table 3.29, it appears that the Mathematical ability of 6th class girls declined considerably between 1997 and 2000: their mean scores were significantly lower on the Computation subtest and on the Mathematics test overall. However, the Mathematical ability of 3rd class girls remained relatively stable over the same period.

Table 3.29. Mean Computation, Concepts and Problems raw scores and mean total Mathematics raw scores of girls in *Breaking the Cycle* schools, by gender and class level in 1997 and 2000.

	3rd Class					6th Class				
	Girls 1997		Girls 2000		1997 vs 2000	Girls 1997		Girls 2000		1997 vs 2000
Mathematics Content Area	***Mean***	***SD***	***Mean***	***SD***		***Mean***	***SD***	***Mean***	***SD***	
Computation	14.1	5.6	14.9	6.9	*ns*	15.3	6.1	14.1	5.8	<.05
Concepts	13.8	4.7	14.4	6.0	*ns*	12.7	5.1	12.1	5.3	*ns*
Problems	12.4	5.0	12.4	5.0	*ns*	11.9	4.9	11.2	4.3	*ns*
Total Mathematics score	40.8	13.3	42.7	16.2	*ns*	40.9	14.6	38.1	13.8	<.05

The Mathematical ability of 3rd class boys remained stable over the three-year period, although the performance of 6th class boys on all three Mathematical subtests (Computation, Concepts and Problems) and on the Mathematical test overall declined significantly (Table 3.30).

Table 3.30. Mean Computation, Concepts and Problems raw scores and mean total Mathematics raw scores of boys in *Breaking the Cycle* schools, by gender and class level in 1997 and 2000.

	3rd Class					6th Class				
	Boys 1997		Boys 2000		1997 vs 2000	Boys 1997		Boys 2000		1997 vs 2000
Mathematics Content Area	***Mean***	***SD***	***Mean***	***SD***		***Mean***	***SD***	***Mean***	***SD***	
Computation	14.6	6.7	14.2	6.4	*ns*	15.6	6.9	13.6	5.7	<.01
Concepts	14.4	5.0	13.8	4.9	*ns*	14.3	6.4	12.9	5.6	<.05
Problems	13.0	5.3	12.6	6.1	*ns*	13.1	5.7	11.5	4.5	<.01
Total Mathematics Score	42.6	14.8	41.3	15.6	*ns*	44.7	17.8	39.2	14.5	<.01

The performance of boys and girls on Level 3 of the Mathematics test, which they attempted when they were in 3rd class in 1997, was compared with their performance on Level 6 of the Mathematics test, which they attempted when they were in 6th class in 2000. Standard scores were used in this set of analyses. Only pupils who had been tested in both years and who had test scores available for one or more of the subtests were included in the analysis. Mean standard scores on Level 6 of the Mathematics test overall, and on all subtests (with the exception of girls' scores on Computation), were significantly lower than their standard scores on Level 3 of the test in 1997 (Tables 3.31 and 3.32).

Table 3.31. Achievements (mean standard scores) in Mathematics of 3rd class girls in *Breaking the Cycle* schools in 1997 (Level 3) and again when they were in 6th class in 2000 (Level 6).

	3rd Class (Level 3) Girls1997		6th Class (Level 6) Girls 2000		
Mathematics Content Area	Mean	SD	Mean	SD	*p*
Computation (*n*=231)	86.0	10.6	84.9	12.5	*ns*
Concepts (*n*=228)	89.6	10.6	84.5	12.8	<.005
Problems (*n*=208)	87.3	9.2	85.2	10.3	<.005
Total Mathematics score (*n*=159)	86.7	9.7	83.7	11.6	<.005

Table 3.32. Achievements (mean standard scores) in Mathematics of 3rd class boys in *Breaking the Cycle* schools in 1997 (Level 3) and again when they were in 6th class in 2000 (Level 6).

	3rd Class (Level 3) Boys 1997		6th Class (Level 6) Boys 2000		
Mathematics Content Area	Mean	SD	Mean	SD	*p*
Computation (*n*=251)	86.8	13.3	83.8	12.3	<.005
Concepts (*n*=246)	91.2	11.4	86.7	13.5	<.005
Problems (*n*=258)	87.2	10.5	85.7	10.9	<.05
Total Mathematics score (*n*=179)	87.7	11.8	84.7	12.3	<.005

3.15. PUPILS' ACHIEVEMENTS BY SCHOOL

Throughout this chapter, aggregated data (i.e., mean scores for all pupils aggregated across all schools) were used to describe pupils' achievements. However, achievements did not decline in the case of all schools. Indeed, in some schools achievements improved in both reading and Mathematics at both class levels. In contrast, in other schools, achievements disimproved in both subject areas at both class levels. Table 3.33 shows increases and decreases in pupils' reading and Mathematics scores, at both class levels, since 1997. While the table gives a broad indication of the variability in achievement between schools, it is not possible to say if the observed differences are significant as the data have not been subject to any statistical tests. For this reason, Table 3.34 shows significant differences between the mean standard scores, according to school, in reading and Mathematics of pupils who took Level 3 of the tests when they were in 3rd class in 1997 and Level 6 of the tests when in 6th class in 2000. Standard scores are used to compare pupils' achievements on both occasions. It should be noted that pupil numbers in some schools are very small because only those pupils present for both parts of the reading test in both years, or for all three parts of the Mathematics test, are represented in the data[4].

[4]Pupil numbers have not been given in Table 3.33 because schools were assured that data on individual schools would not be reported in any evaluation reports, and some schools could be easily identified on the basis of pupil numbers.

Table 3.33. Comparison of reading and Mathematics achievement in 1997 and 2000 on a school by school basis, where each school is represented by a letter from A to W, and where "+" indicates that mean achievement is higher at a given class level in 2000 than in 1997, and where "-" indicates mean achievement is lower at a given class level in 2000 than in 1997.

School	**3rd class Reading (+ / -)**	**3rd class Maths (+ / -)**	**6th class Reading (+ / -)**	**6th class Maths (+ / -)**
School A	+	+	+	+
School B	+	+	+	+
School C	No diff.	+	+	+
School D	+	+	+	-
School E	+	+	-	+
School F	+	+	-	+
School G	+	+	-	+
School H	+	+	-	-
School I	+	+	-	-
School J	+	+	-	-
School K	-	+	+	-
School L	-	+	-	+
School M	+	-	-	-
School N	+	-	-	-
School O	+	-	-	-
School P	-	-	-	+
School Q	-	+	-	-
School R	-	-	+	-
School S	-	-	+	-
School T	-	-	-	-
School U	-	-	-	-
School V	-	-	-	-
School W	-	-	-	-

In reading, 13 of the 23 comparisons resulted in significant differences: all differences indicate that pupils' performance relative to the norm group declined since 1997. In Mathematics, there were nine significant differences in achievement at school level between 1997 and 2000. Seven of these favoured the performance of pupils in 1997, and two performance of pupils in 2000. In six schools, both reading and Mathematics were significantly poorer in 2000 than in 1997. No school demonstrated significant improvements in both subject areas over the three-year period.

Table 3.34. Comparisons (using paired *t*-tests), on a school by school basis, of reading and Mathematics standard scores of pupils who sat Level 3 of the English reading and Mathematics tests in 1997 and Level 6 of the tests in 2000.

School	**3rd class Reading 1997**	**6th class Reading 2000**	**Reading in 1997 vs 2000**	**6th class Maths 1997**	**6th class Maths 2000**	**Maths in 1997 vs 2000**
School A	75.7	87.0	*ns*	80.4	92.2	$p<.001$
School E	99.4	95.2	*ns*	91.7	96.1	*ns*
School F	88.0	80.0	*ns*	85.0	84.5	*ns*
School G	78.8	84.4	*ns*	80.0	74.7	*ns*
School H	88.0	79.7	*ns*	84.4	81.1	*ns*
School N	93.9	91.1	$p<.05$	84.5	87.4	$p<.05$
School B	85.5	76.3	$p<.05$	78.7	76.5	*ns*
School C	88.3	81.3	$p<.05$	78.3	79.3	*ns*
School M	84.9	79.5	*ns*	80.7	77.0	*ns*
School U	90.8	87.5	*ns*	84.1	81.2	*ns*
School R	88.2	82.8	*ns*	83.7	83.2	*ns*
School Q	84.3	83.7	*ns*	-	-	-
School O	96.1	92.0	$p<.05$	90.2	93.6	*ns*
School P	94.8	84.4	$p<.001$	90.8	86.2	*ns*
School I	87.8	86.4	*ns*	84.6	79.3	$p<.005$
School T	83.5	77.3	$p<.05$	79.2	85.5	*ns*
School K	89.5	83.0	$p<.005$	82.6	79.2	*ns*
School V	96.7	89.5	$p<.001$	93.6	90.2	$p<.05$
School W	99.6	94.0	$p<.005$	99.4	95.2	$p<.05$
School J	91.0	83.5	$p<.005$	87.8	75.2	$p<.001$
School L	90.2	84.2	$p<.05$	87.3	75.8	$p<.005$
School S	95.5	83.6	$p<.001$	85.2	78.6	$p<.001$
School D	86.9	74.3	$p<.001$	85.8	71.0	$p<.001$

3.16. CONCLUSION

Several key findings emerge from a review of achievement data collected in *Breaking the Cycle* schools in 1997 and 2000. First, average reading and Mathematics levels of 3rd and 6th class pupils are very weak relative to pupils nationally. This is clear from comparisons of mean reading and Mathematics scores of *Breaking the Cycle* pupils on the DPRT and the DPMT with those of the norm groups. Not only are the mean scores of pupils in grades 3 and 6 significantly lower than those of the norm group, but there is a marked overrepresentation of low scorers and a marked underrepresentation of very high-achieving pupils. In 2000, only 1% of pupils at 3rd and 6th class levels achieved reading scores above the 90th percentile, while in Mathematics, less than 2% of 3rd class pupils and only one pupil in 6th class scored at this level. It is noteworthy that the performance of 6th class pupils in both

reading and Mathematics is weaker, relative to the norm group, than that of pupils in 3rd class. This finding is consistent with the contention that the achievement gap between disadvantaged and non-disadvantaged pupils widens as they progress through the school system. It is also of particular concern that 6th class pupils, in their terminal year of primary schooling, have such weak Mathematics, and more critically, reading skills. This can only serve to place them at a severe disadvantage in their transition to post-primary school.

Second, reading levels have disimproved among 3rd and 6th class pupils since baseline achievement data were collected in 1997. Not only have pupils' mean scores decreased significantly at both class levels, but analyses of the 2000 data revealed proportionately greater numbers of low-scorers (pupils whose scores are one standard deviation below the mean), and extreme low-scorers (pupils with scores below the 10th percentile) than in 1997. Mean Mathematics achievement levels have also disimproved among 6th class pupils since 1997, alongside an increase in the percentage of low-scorers. However, a comparison of the mean Mathematics score of 3rd class pupils in 1997 with that of their 3rd class counterparts in 2000 reveals a tiny (and non-significant) difference favouring the 2000 cohort.

Third, when the achievement testing was being organised in participating schools, teachers were given the option of excluding pupils for whom reading the test booklets would have presented major difficulties. Therefore, it must be concluded that teachers excluded pupils whom they considered to be the weakest pupils within their classes. However, teachers excluded a greater percentage of pupils at both grade levels in 2000 than they did in 1997 (totals of 5.2% and 1.2% of pupils respectively). If, as may be assumed, these were low-achieving pupils, then a greater percentage of low-achieving pupils were omitted from the achievement data in 2000. Despite this, there was still a decrease in achievement levels.

Fourth, in 2000, pupil absenteeism from school in the relevant grades on the days of testing was high. In reading, only 78.9% of 3rd class pupils, and 75.0% of 6th class pupils scheduled to take the tests were present for both subtests. Absenteeism rates were even more noticeable in relation to the Mathematics tests, for which only 74.0% of 3rd class pupils and 63.4% of 6th class pupils were present for all three subtests. It should also be noted that pupil attendance on the days of testing in 2000 was lower at both class levels (in the case of both reading and Mathematics) than it was in 1997. Furthermore, analyses of the achievements on individual subtests of pupils grouped on the basis of whether they were present or not for all subtests revealed that the better attenders (i.e., those present for all parts of the tests) outperformed those missing for one or more subtests. The implication of this is that actual achievement levels may well be *lower* than stated here, because only the better performing pupils are represented in the total reading and Mathematics scores (the scores most frequently used in this chapter to describe mean achievement). It also points to the schools' need to address absenteeism, as absenteeism has been implicated as a determinant of low levels of pupil achievement (e.g., Buckeye Institute for Policy Solutions, 1998).

The observed decreases in achievement levels have occurred despite an increase in resourcing (in terms of both staffing and funding) under the scheme (see Chapter 5). They also occurred at a time when participating schools were using school planning to address what they considered to be their curricular priorities over the life of the 5-year pilot scheme (see Chapter 2). Indeed, 22 of 27 schools that responded to a questionnaire on school planning identified the area of English as their major curricular focus. Of these schools, 14 indicated that oral language was *the* priority within English, while seven prioritised English reading, and four prioritised other aspects of English (e.g., the improvement of penmanship). While oral language was identified by the majority of schools as their priority within English, the decline in English reading achievement occurred despite the fact that a further quarter of schools had initiated strategies specifically designed to improve English reading.

The decreases in achievement levels have also occurred despite a relative improvement in the economic circumstances of families served by the schools: When schools were selected for participation in the scheme in 1996, larger percentages of the families they served were characterised by long-term unemployment, medical card possession, and residence in local authority housing (Table 3.41). (There was virtually no difference in the percentage of pupils who lived in lone-parent households). The data presented in Table 3.41 were collected from principals in 1996 as part of the process of application to join *Breaking the Cycle*, and in 2000 as part of a national survey of disadvantage in primary schools carried out by the Educational Research Centre on behalf of the Department of Education and Science (Department of Education and Science, 2001).

Table 3.41. Percentage of long-term unemployed breadwinners, medical card holders, residents in rented local authority housing, and lone-parent families served by *Breaking the Cycle* schools in 1996 (*Breaking the Cycle* applications) and in 2000 (national Survey of Disadvantage) (N=31[1]).

	% Long-term unemployed	% holding medical cards	% residing in local authority housing	% lone-parent families
1996	82.6%	89.9%	92.6%	44.0%
2000	59.6%	81.8%	87.1%	43.2%

[1]Data are presented for only 31 of the original 33 schools because one school in the scheme closed since the scheme started and another did not return a survey of disadvantage.

As Table 3.41 shows, the largest decrease (amounting to 23%) since 1996 has occurred in relation to the percentage of families headed by the long-term unemployed. This is followed by a decrease in the percentage of medical card holders (8.1%), and in the percentage of families resident in local authority housing (5.5%). Although these decreases are quite significant, it is necessary to place them in the context of national trends. For example, the national rate of long-term unemployment in 1996 was 6.9% (Ireland, 1999). This compares with an average rate in selected schools of 82.6%, almost twelve times the national rate at that time. By spring of 2000, the national long-term unemployment rate had fallen to 1.6% (Central Statistics Office, 2000), which compares with an average rate of 59.6% in the selected schools. A comparison of these figures reveals that, by 2000, rates of long-term unemployment among families in the selected schools were more than 37 times

those of the national population, whereas in 1996 long-term unemployment levels in the selected schools were only 12 times those of the national population. Thus, while in absolute terms, families served by schools in *Breaking the Cycle* were better off in 2000 than they were in 1996, relative to the national population, they were faring much more poorly.

Furthermore, research in Ireland suggests that, between 1987 and 1994, as numbers in rented local authority housing fell, poverty levels increased substantially among local authority tenants (Nolan & Whelan, 1999). In fact, the occupants of local authority households have been described as constituting, much more than previously, a marginalised sub-stratum of society. There is also evidence that there are distinctive consequences of deprivation in particular locations, most particularly among tenants in urban local authority housing:

> We analysed whether local authority tenants in urban centres display a distinctive profile in relation to psychological well-being and social integration. The results show that urban public sector tenants do experience higher levels of psychological distress and fatalism and lower levels of satisfaction than those outside local authority rented housing (Nolan and Whelan, 1999, p.115).

About 90% of families served by participating schools reside in urban local authority housing (Table 3.41). Therefore, one might expect that already high levels of psychological distress and fatalism would increase in an economy where such individuals perceive themselves as increasingly marginalised. It is also possible that feelings of alienation among such families may increase, which might, in turn, impact negatively on children's scholastic achievements. In an attempt to investigate if there is any evidence to support this hypothesis, data on socio-economic indicators in 1996 and 2000 in two schools where achievement levels increased between 1997 and 2000, and in two schools where achievement levels decreased between 1997 and 2000 are presented in Table 3.42.

As Table 3.42 shows, there is not a clear relationship between changes in pupil achievement in schools A and D and changes in the percentages of families characterised by each of the indicators. However, in the case of school B, the decrease in achievement seems to coincide with a sizeable increase (23%) in the number of families resident in local authority housing, while in school C, the increase in achievement has occurred in the context of a sizeable decrease (43%) in the percentage of families headed by the long-term unemployed. It should be noted, however, that data on the percentages of families serving each of the characteristics were provided by principals, and as such, may not be entirely reliable. While some principals (both in their applications to join *Breaking the Cycle* and in their responses to the survey of disadvantage) may have provided accurate data based on a detailed knowledge of the circumstances of the families in their schools, others may not have been so accurate[5]. The implication of this is that even if a relationship between achievement and the socio-economic indicators is not found, it may not signify the *absence* of such a relationship. Also, the fact

[5]However, data gathered from principals in the 2001 School Questionnaire indicate that levels of disadvantage among families served were, indeed, lower in 2001 than at the start of the scheme (see Section 5.5 in Chapter 5).

that achievement data have been aggregated to the level of the school imposes a limitation on possible analyses. It would be preferable to have both socio-economic and achievement data at the level of the *pupil* in order to investigate more fully the relationship between the two. However, in an attempt to estimate the broad relationship between socio-economic variables and pupil achievement across all schools, correlations between the socio-economic variables in 2000 and aggregated pupil achievement in 2000 were computed (Table 3.43).

The relationship between achievement and the indicators was found to be strongest at 6th class (Table 3.43). The strongest correlations are between achievement and residence in local authority housing, followed by medical card possession and unemployment. The relationship between residence in local authority housing and achievement has been documented previously. In an analysis of the application variables used to select schools for *Breaking the Cycle*, local authority housing, followed by the school's annual percentage attendance rate, were found to be the best predictors of achievement in participating urban schools (Weir, 1999). In all cases in Table 3.43, achievement decreases as the percentage of families characterised by the indicators increases. However, in no case is lone-parent family status significantly associated with achievement. It should be noted, however, that if individual level data were available, it would be possible to obtain a better estimate of the true extent of the interrelationships. Furthermore, the fact that so many schools score very highly on the socio-economic indicators (with the exception of the lone-parent family indicator) means that there is very little dispersion of values for schools on these variables.

Table 3.42. Comparison of socio-economic variables in 1996 (from *Breaking the Cycle* applications) and 2000 (from survey of disadvantage) in two schools where pupil achievement improved since 1997 and in two schools in which achievement disimproved since 1997.

School	Change in achievement	Year	Variable				
			% Unemployed	% Long Term unemployed	% L.A. Housing	% Lone Parents	% Medical Card
A	(-)	1996	Not asked	92%	100%	31%	92%
		2000	84%	80%	96%	39%	96%
		Diff	-	**-12%**	**-4%**	**+8%**	**+4%**
B	(-)	1996	Not asked	63%	63%	50%	83%
		2000	66%	66%	86%	40%	80%
		Diff	-	**+3%**	**+23%**	**-10%**	**-3%**
C	(+)	1996	Not asked	66%	75%	23%	82%
		2000	28%	23%	84%	25%	79%
		Diff	-	**-43%**	**+9%**	**+2%**	**-3%**
D	(+)	1996	Not asked	84%	84%	47%	89%
		2000	80%	80%	92%	40%	88%
		Diff	-	**-4%**	**+8%**	**-7%**	**-1%**

Table 3.43. Correlations between reading and Mathematics scores of 3rd and 6th class pupils aggregated to school level and values in 2000 on variables originally used to select schools for participation in the scheme (*N*=22[1]).

	% unemployed[2]	% medical card	% local authority housing	% lone-parent families
3rd class reading	-.22	-.23	-.34	.03
3rd class mathematics	-.39	-.37	**-.43***	-.19
6th class reading	**-.52***	**-.60****	**-.51***	-.22
6th class mathematics	**-.45***	**-.48***	**-.46***	-.28

[1]Data are available only for schools with achievement data for 3rd and 6th classes.

[2]Schools were originally selected using data on *long-term unemployment*, but this variable was found to be problematic in the survey of disadvantage in 2000, and so *unemployment* is used here.

* $p<.05$; ** $p<.01$

It is, of course, possible that pupil achievement in participating schools increased in grades that were not tested. For example, achievement may have improved among the 1st and 2nd class pupils who were taught in small classes. There is evidence to support this hypothesis from other research. For example, Slavin (1989) found that reduced class size had a small positive effect on student achievement, but that the effect did not persist after the reduced class size experience. Ryan (1999), in the evaluation of the HSCL scheme, found that reading achievement improved among junior pupils but not among senior pupils, though there was no improvement in Mathematics achievement at either junior or senior grades. It is also possible that achievements have increased in areas not measured by the tests administered as part of the *Breaking the Cycle* and other evaluations.

In this chapter, an attempt has been made to put forward hypotheses for the lack of improvement in the achievements of *Breaking the Cycle* pupils over a three-year period of the intervention. For example, the failure to improve may be related to high levels of absenteeism in the grades tested, or may be a consequence of the interplay between a range of complex socio-economic factors. However, other pupil variables (e.g., attitudes) and teacher variables (e.g., instructional style) may also be pertinent to an explanation of the achievement findings. The possible effects of these variables on pupil achievement are addressed in chapters 4 and 6 respectively.

4. ATTITUDES OF 6th CLASS PUPILS

A questionnaire was administered to all 6th class pupils in urban schools at the time of achievement testing in 2000. The questionnaire was identical to that used to assess 6th class pupils' attitudes in 1997, and was designed to elicit information on pupils' attitudes to school and self, and on their educational and vocational aspirations and expectations. In this section, the responses of pupils in the two years will be compared. It would be reasonable to expect that, as the scheme evolved over the first few years, it would have a positive impact on pupils' attitudes towards school, and on their educational expectations and aspirations. The collective responses of boys and girls to each item in the questionnaire will also be compared to investigate whether attitudes differed on the basis of pupil gender. In similar analyses in 1997 (Weir & Eivers, 1998), boys were found to have less positive attitudes than girls towards school and education generally. Finally, in Section 4.9, the results of analyses aimed at discovering whether achievement is related to attitudes to school and schoolwork, scholastic self-concept, self-esteem and vocational aspirations are reported.

To assist pupils who had reading difficulties, an administrator read aloud each questionnaire item and the range of possible responses, explaining how to complete each item in turn. To ensure that pupils understood how to complete the questionnaire, pupils completed two sample items prior to the administration of the questionnaire proper. Apart from the examples, there were 29 items, all but one of which required pupils to read / listen to a statement or question and to tick the most appropriate response from 3 or 4 response options. There was one open-ended item, which invited pupils to write the name of the job they would like to do as an adult.

The questionnaire consisted of five short sections. The content of each section is as follows:

Educational aspirations and expectations (Section 1: items 1–3)
Attitude toward school and attributions for success at school (Section 2: items 4–10)
Perception of competence in 11 curriculum areas (Section 3: items 11–21)
Self-esteem, popularity with peers, home atmosphere (Section 4: items 22–28)
Vocational aspirations (Section 5: item 29).

4.1. QUESTIONNAIRE RESPONSE RATES.

Of a possible total of 756 pupils in 6th class in 2000, 605 (80.0%) completed the questionnaire. The remaining 151 pupils (20%) were absent from school at the time of administration. The rate of completion of individual questionnaire items was high, with an overall response rate in 2000 of 98% for the multiple-choice items (items 1–28) and 98% for item 29, the open-ended item which required pupils to indicate their career preference (Table 4.1). For purposes of comparison, response rates for 1997 are also given in Table 4.1.

Table 4.1. Numbers and percentages of the 6th class cohorts in 1997 and 2000 that answered individual items of the pupil questionnaire.

		1997		2000	
	Item number and description	***N***	**%**	***N***	**%**
1	Liking for school	724	99.2	602	99.5
2	Educational aspirations	722	98.9	601	99.3
3	Educational expectations	722	98.9	600	99.2
4	Pride in work	724	99.2	604	99.8
5	Like to be asked questions	723	99.0	604	99.8
6	Feel am doing well	724	99.2	601	99.3
7	Important to do well	722	98.9	602	99.5
8	Need to be smart to do well	723	99.0	604	99.8
9	Need to be lucky to do well	719	99.4	601	99.3
10	Need lots of hard work to do well	724	99.2	604	99.8
11	Self-rating in Maths	724	99.2	604	99.8
12	Self-rating in Irish reading	719	99.4	588	97.2
13	Self-rating in Irish writing	717	98.2	582	96.2
14	Self-rating in English reading	722	98.9	599	99.0
15	Self-rating in English writing	723	99.0	596	98.5
16	Self-rating in History	724	99.2	599	99.0
17	Self-rating in Geography	722	98.9	598	98.8
18	Self-rating in Science / nature studies	669	91.6	498	82.3
19	Self-rating in Art / craft	716	98.1	600	99.2
20	Self-rating in Music	713	97.7	598	98.8
21	Self-rating in Sport	723	99.0	602	99.5
22	Lots of fun to be with	723	99.0	603	99.7
23	Not nice looking	719	99.4	600	99.2
24	Good at sport	722	98.9	594	98.2
25	Lonely at school	717	98.2	590	97.5
26	Lots of fun with parents	720	98.6	597	98.7
27	No attention at home	717	98.2	595	98.3
28	Popular with classmates	722	98.9	600	99.2
29	Preferred occupation	724	99.2	591	97.7

4.2. PUPILS' EDUCATIONAL ASPIRATIONS AND EXPECTATIONS.

Items 1–3 in the pupil questionnaire concerned pupils' liking for school and their educational aspirations and expectations. In 2000, a majority of pupils indicated that they liked school. Over a third, however, indicated that they disliked it (Table 4.2). In 2000, there was a slightly greater percentage of pupils than in 1997 who indicated that they *disliked* school 'a lot' and a slightly smaller percentage that indicated that they *liked* school 'a lot'. However, the most striking thing about pupils' responses on the two occasions is the similarity in the percentages of pupils endorsing each response option. This indicates that pupils' liking for school – something which might have been expected to increase with the experience of the scheme – had not increased since 1997.

Table 4.2. Percentages of 6th class pupils in 1997 and in 2000 reporting how much they like school.

	How much do you like school?			
Year	**Like a lot**	**Like**	**Dislike**	**Dislike a lot**
1997	15.6%	49.0%	18.0%	17.4%
2000	14.0%	50.0%	17.8%	18.3%

Comparative data on pupils' liking for school are available from the National Assessment of English Reading among 5th class pupils in 1998 (Cosgrove, Kellaghan, Forde & Morgan, 2000). As Table 4.3 shows, *Breaking the Cycle* pupils appear to like school *more* than do pupils in the national sample (χ^2=3.8; *df*=1; *p*<.05). One might have expected that pupils who do poorly at school should like school *less*, and so this finding is surprising given the relatively weak achievements of pupils in *Breaking the Cycle* schools. The relationship between attitudes to school and achievement will be explored later in this chapter in section 4.9.

Table 4.3. Percentage of pupils choosing each response option in an item assessing liking for school in the National Assessment of English reading (1998) and in the evaluation of *Breaking the Cycle* (2000).

	Response option			
Pupil sample	**Like a lot**	**Like**	**Dislike**	**Dislike a lot**
1998 English reading Assessment (*N*=3,865)	10.2%	49.5%	20.5%	19.7%
Breaking the Cycle 2000 (*N*=602)	14.0%	50.0%	17.8%	18.3%

Pupils were asked how far they would *like* to go in school and how far they thought they would *actually* go. A small percentage indicated that they would like to leave school having completed primary school (4.3%), while only about half that number thought that they would actually leave school at that point (Table 4.4). A further 8.2% indicated that they would like to do the Junior Certificate Examination, while 14.2% indicated that they thought they would actually leave after taking it. More than one-third (35.9%) claimed that they would like to do the Leaving Certificate Examination, while more than half (50.8%) thought they would actually do it. More than half of pupils (51.6%) said they would like to go to college or university, while almost a third expected to proceed to university. The percentages of pupils wishing to finish primary school and wishing to take the Junior Certificate Examination equate roughly to the percentages who feel that they will actually reach these levels of attainment. There is, however, a disparity between the percentages of pupils wishing to take the Leaving Certificate Examination and wishing to proceed to third level and the percentages who think each of these options realistic. While 51.6% of pupils wanted to proceed to third level, only 32.7% thought that they would actually do so. The educational aspirations of pupils in 2000 differed slightly from those of pupils in 1997, although the differences were not significant. In 1997, only 2.9% of pupils wished to leave school having completed primary school, while the

percentage in 2000 was 4.3%. A greater percentage of pupils in 2000 (51.6%) than in 1997 (47.1%) indicated that they wanted to go to college or university.

Table 4.4. Percentages of 6th class pupils in 1997 and 2000 reporting how far they would like to go in school and how far they think they will actually go in school.

	How far would you like to go in school?			
Year	Finish primary school	Do the Junior Certificate	Do the Leaving Certificate	Go to college/ university
1997	2.9%	12.5%	37.5%	47.1%
2000	4.3%	8.2%	35.9%	51.6%
	How far do you think you will actually go in school?			
Year	Finish primary school	Do the Junior Certificate	Do the Leaving Certificate	Go to college/ university
1997	2.1%	15.1%	51.7%	31.1%
2000	2.3%	14.2%	50.8%	32.7%

Comparative data are also available from the 1998 National Assessment of English reading (Cosgrove et al., 2000) on the educational expectations and aspirations of pupils (Table 4.5).

Table 4.5. Percentages[1] of pupils choosing each response option in an item assessing educational aspirations and expectations in the National Assessment of English reading (1998) and in the evaluation of *Breaking the Cycle* (2000).

	How far would you like to go in school?			
	Finish primary school	Do the Junior Certificate	Do the Leaving Certificate	Go to college/ university
1998 English reading Assessment (*N*=3,333)	2.5%	3.1%	18.5%	75.9%
Breaking the Cycle 2000 (*N*=601)	4.3%	8.2%	35.9%	51.6%
	How far do you think you will actually go in school?			
	Finish primary school	Do the Junior Certificate	Do the Leaving Certificate	Go to college/ university
1998 English reading Assessment (*N*=3,064)	1.3%	3.9%	30.5%	64.3%
Breaking the Cycle 2000 (*N*=600)	2.3%	14.2%	50.8%	32.7%

[1]The option "don't know" was included in the pupil questionnaire in the 1998 National Assessment, and so the percentages reported here were recalculated omitting these responses to facilitate comparisons with data from *Breaking the Cycle.*

As Table 4.5 shows, both the educational aspirations and expectations of pupils in the national sample exceeded those of *Breaking the Cycle* pupils: 12.5% of *Breaking the Cycle* pupils did not wish to stay in school after primary school or Junior Certificate compared with 5.6% of pupils in the national sample (χ^2=37.9; *df*=1; *p*<.001), and 16.5% of *Breaking the Cycle* pupils did not expect to stay in school after primary level or Junior Certificate compared with 5.2% of pupils in the national sample (χ^2=96.1; *df*=1; *p*<.001). Furthermore, much higher percentages of pupils in the national sample wished to (χ^2=148.5; *df*=1; *p*<.001), and expected to (χ^2=206.0; *df*=1; *p*<.001), attend college

or university than was the case for pupils in *Breaking the Cycle*. Finally, the discrepancy between the educational aspirations and expectations of pupils is greater among *Breaking the Cycle* pupils: 18.9% fewer *Breaking the Cycle* pupils expected to go to college than wished to go to college, while the comparative figure for the national sample is 11.6%.

4.3. PUPILS' ATTITUDES TO SCHOOL AND SCHOOLWORK.

In a set of items relating to attitudes towards school and schoolwork, pupils were required to indicate, by ticking one of four response options, whether they strongly agreed, agreed, disagreed, or strongly disagreed with each of four statements. Table 4.6 shows the percentage of pupils choosing each response option for each of the statements.

More than 4 out of every 5 pupils agreed or strongly agreed with the statement "I am proud of my school work". Only a very small percentage strongly disagreed with it. Pupils were less positive about being asked questions in class. Slightly more than two-thirds liked it but the remainder did not welcome questions. When pupils were asked to judge their own performance at school, a large majority (86.4%) said that they were doing well at school. The majority is even larger when pupils were asked to indicate their level of agreement with a statement concerning the importance of doing well at school. Almost all (97%) either strongly agreed or agreed that it was important for them to do well. A comparison of the percentages of pupils endorsing each response option in 1997 and 2000 reveals that greater percentages of pupils in 2000 than in 1997 strongly agreed that they were proud of their schoolwork (χ^2=4.3; *df*=1; *p*<.05). This is encouraging and may well reflect the impact of participation in the scheme.

Table 4.6. Percentages of pupils in 6th class in 1997 and 2000 reporting how they feel about schoolwork.

	I am proud of my school work			
Year	Strongly agree	Agree	Disagree	Strongly disagree
1997	22.4%	62.3%	12.0%	3.3%
2000	27.5%	60.9%	9.9%	1.7%
	I like to be asked questions in class			
Year	Strongly agree	Agree	Disagree	Strongly disagree
1997	17.6%	48.2%	23.1%	11.1%
2000	21.9%	47.7%	24.3%	6.1%
	I feel I'm doing well at school			
Year	Strongly agree	Agree	Disagree	Strongly disagree
1997	25.3%	60.5%	11.2%	3.0%
2000	29.3%	57.1%	11.1%	2.5%
	It is important to me to do well at school			
Year	Strongly agree	Agree	Disagree	Strongly disagree
1997	72.6%	24.0%	2.4%	1.1%
2000	73.6%	23.4%	2.0%	1.0%

4.4. ATTRIBUTIONS FOR SCHOLASTIC SUCCESS AMONG PUPILS.

To examine their attributions for success at school, pupils were asked to indicate their level of agreement with each of three statements. The percentages of pupils choosing each response option for each statement are shown in Table 4.7.

In 2000, a greater percentage of pupils (55.6%) strongly agreed with the statement that "To do well at school you need to do lots of hard work and study at home" than agreed strongly with the other two attributional items ["To do well at school you need to be very smart" (24.7%) and "To do well at school you need to be lucky" (5.8%)]. Of the three attributional statements, the one which invited the greatest number of "strongly disagree" responses was that which stated that luck was necessary to do well at school (44.8%), followed by the statement that success at school requires you to be 'smart' (13.6%). On the other hand, only 2.3% of pupils strongly disagreed that success at school depends on doing lots of hard work and study at home. Pupils' responses to the latter item changed little between 1997 and 2000, but significant differences were observed between the 1997 and 2000 cohorts in their responses to the other two items. In 2000, a greater percentage of pupils agreed or strongly agreed that to do well in school you need to be "smart" (χ^2=16.7; *df*=1; *p*<.001). Consistent with this was a decrease in the percentage of pupils strongly disagreeing that you need to be lucky to do well at school (χ^2=8.7; *df*=1; *p*<.01).

Responses to these items seem to indicate that pupils in the 2000 cohort were somewhat more fatalistic in their attributions for scholastic success than were their 1997 counterparts, as greater percentages of them tended to attribute success at school to factors outside their control. Similar findings were reported by Hayes and Kernan (2001), who found that seven-year-old children attending schools designated as disadvantaged had a significantly lower mean score on a scale designed to measure locus of control (meaning that their locus of control was more external than internal) than did children attending non-designated schools.

Table 4.7. Percentages of 6th class pupils in 1997 and 2000 expressing varying degrees of agreement with statements relating to attributions for success at schoolwork.

	To do well at school you need to be very smart			
Year	Strongly agree	Agree	Disagree	Strongly disagree
1997	16.7%	26.4%	36.0%	20.9%
2000	24.7%	29.8%	32.0%	13.6%
	To do well at school you need to be lucky			
Year	Strongly agree	Agree	Disagree	Strongly disagree
1997	4.5%	8.6%	33.8%	53.1%
2000	5.8%	11.1%	38.3%	44.8%
	To do well at school you need to do lots of hard work and study at home			
Year	Strongly agree	Agree	Disagree	Strongly disagree
1997	55.0%	30.9%	9.1%	5.0%
2000	55.6%	34.1%	7.9%	2.3%

4.5. PUPILS' EVALUATIONS OF THEIR OWN PERFORMANCE AT SCHOOL.

Pupils were asked in a series of items to rate their own performance in different types of schoolwork relative to others in their class. For each type of schoolwork, they were asked to indicate whether they thought they were "near the top", "around the middle" or "near the bottom" of their class. The percentages of pupils endorsing each response option for each type of schoolwork are reported in Table 4.8.

Table 4.8. Percentage of 6th class pupils in 1997 and 2000 who considered themselves to be near the top, around the middle, or near the bottom of their class at different types of schoolwork.

		Response option		
Type of schoolwork	**Year**	***Near the top***	***Around the middle***	***Near the bottom***
Mathematics	1997	32.9%	52.3%	14.8%
	2000	31.6%	58.6%	9.8%
Irish reading	1997	25.2%	48.0%	26.8%
	2000	22.8%	43.9%	33.3%
Irish writing	1997	29.6%	50.8%	19.7%
	2000	29.4%	48.1%	22.5%
English reading	1997	58.8%	36.8%	4.4%
	2000	60.1%	35.6%	4.3%
English writing	1997	60.4%	34.7%	4.8%
	2000	61.4%	35.1%	3.5%
History	1997	32.2%	53.8%	14.0%
	2000	28.7%	54.6%	16.7%
Geography	1997	37.3%	46.8%	15.9%
	2000	33.4%	50.2%	16.4%
Science/Nature studies	1997	34.6%	50.3%	15.1%
	2000	32.5%	55.0%	12.4%
Art and Craft	1997	51.8%	37.7%	10.5%
	2000	54.8%	34.8%	10.3%
Music	1997	49.2%	32.7%	18.1%
	2000	48.8%	35.3%	15.9%
Sport	1997	61.0%	30.6%	8.4%
	2000	58.8%	32.7%	8.5%

In 2000, across all types of schoolwork, the greatest percentage of pupils rated their performance as being near the top of the class in the area of English writing (61.4%), followed by English reading (60.1%), and Sport (58.8%). The subject areas which attracted the greatest percentage of 'near the bottom' responses from pupils were Irish reading (33.3%), followed by Irish writing (22.5%) and History (16.7%). [The self-evaluations of pupils in the areas of English reading and Mathematics will be related to their actual performance on tests of achievement in these subject areas in Section 4.9.3 of this chapter.] As Table 4.6 shows, pupils' self evaluations in 2000 largely resembled those in 1997, with only minor repositioning of subject areas in terms of perceived competency. It is noteworthy that pupils in both 1997 and 2000 considered English to be their strongest subject area, particularly in light of the findings relating to their English reading achievements reported in Chapter 3. However, it should also be noted that when pupils complete self-rating scales they may be subject to a "better than average" effect (i.e., their ratings tend be distributed towards the positive end of the scale) (Myers, 1993). It is clear from the ratings given by pupils in the present study that this overrepresentation at the upper end of the performance scale has, indeed, occurred. Other research has revealed similar findings. Hayes and Kernan (2001) reported that children attending schools designated as disadvantaged scored more highly than children in non-designated schools on measures of perceived competence. Research by Harter (1998) indicated that young children are relatively inaccurate judges of their abilities, but that less positive self-evaluations emerge as children move into middle childhood. Given their measured reading achievements, it is still surprising that so many 6th class pupils in *Breaking the Cycle* schools – who would be considered to be at the stage of middle-childhood – rated themselves towards the top of their class in English.

4.6. SELF-CONCEPT, SELF-ESTEEM AND PERCEPTION OF HOME ATMOSPHERE AMONG PUPILS.

Several items designed to assess pupils' self-concept and self-esteem, and their perception of the atmosphere in their homes were included in the pupil questionnaire. Table 4.9 shows the percentage of pupils expressing varying levels of agreement with each of a variety of statements designed to investigate these issues.

Most pupils in 2000 agreed (55.6%) or strongly agreed (34.3%) that they are "fun to be with". In evaluating their own personal appearance, a third of pupils agreed with the statement "I am not as nice looking as most people". Those who did not agree were fairly evenly divided between 'disagreement' and 'strong disagreement'. Almost half of all pupils strongly agreed that they are good at sport. A further 38.7% agreed that they were good at sport, while only 16.6% disagreed. The number of pupils who claimed to feel lonely at school was small. Four out of every five pupils (81.9%) disagreed with the statement "I often feel lonely at school". However, this left a sizeable minority (11.7%) who agreed, and a further 6.4% who strongly agreed, that they often feel lonely at school.

Two items concerned pupils' relationships with their parents and the atmosphere in pupils' homes. Almost half (48.7%) of pupils strongly agreed that they and their parents "have a lot of fun together" while a further 40.0% were in agreement. Of the 11.2% of pupils who disagreed, about one pupil in twenty-five (3.7%) strongly disagreed. Most pupils (90.4%) disagreed with the statement "No one pays much attention to me at home", but one pupil in ten claimed not to not receive much attention at home, with 4.2% of these strongly endorsing the statement.

Finally, an item designed to elicit pupils' perceptions of their own popularity with peers ("I'm popular with my classmates") revealed that the majority of pupils (85.2%) perceived themselves as popular. However, almost one pupil in seven (14.9%) considered him or herself to be unpopular, with 4.7% of these strongly disagreeing that they were popular with their classmates.

As was the case with many items in the pupil questionnaire, the similarity between the responses of the 1997 and 2000 cohorts is striking. There were, however, some differences between the 1997 and 2000 responses. Of the seven items in Table 4.9, pupils' responses to five were relatively similar in 1997 and 2000. However, the percentages of pupils strongly agreeing that they were a lot of fun to be with (χ^2=6.8; *df*=1; *p*<.01), and strongly agreeing that they were popular with classmates (χ^2=5.1; *df*=1; *p*<.05) increased significantly between 1997 and 2000. Therefore, there is some evidence to suggest that pupils' perception of their interaction with peers was more positive in 2000 than in 1997. In research conducted among Irish seven-year olds, Hayes and Kernan (2001) reported that pupils attending schools designated as disadvantaged rated themselves more highly on 'peer acceptance' than did their counterparts in non-designated schools. However, although the increase in 6th class pupils' ratings of their own popularity with peers may be a consequence of participation in the scheme, it may equally be due to other factors. Whatever the reason, the apparent improvements between 1997 and 2000 in pupils' self-esteem and social interaction are consistent with the perception of principals, who also noted improvements in these areas (see Chapter 5).

Table 4.9. Percentages of 6th class pupils in 1997 and 2000 expressing varying degrees of agreement with items related to self-concept, self-esteem and perception of home atmosphere.

		Response option			
Questionnaire item	**Year**	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
I'm a lot of fun to be with	1997	27.5%	59.9%	10.8%	1.8%
	2000	34.3%	55.6%	8.5%	1.7%
I'm not as nice looking as most people	1997	7.7%	29.4%	30.1%	32.8%
	2000	7.8%	25.7%	35.7%	30.8%
I think I'm good at sports	1997	50.0%	36.3%	8.4%	5.3%
	2000	44.9%	38.7%	11.3%	5.1%
I often feel lonely at school	1997	6.6%	12.8%	31.6%	49.0%
	2000	6.4%	11.7%	30.2%	51.7%
My parents and I have a lot of fun together	1997	49.0%	36.3%	9.7%	5.0%
	2000	48.7%	40.0%	7.5%	3.7%
No one pays much attention to me at home	1997	5.7%	4.7%	26.6%	63.0%
	2000	4.2%	5.4%	27.2%	63.2%
I'm popular with my classmates	1997	29.5%	48.4%	14.3%	7.8%
	2000	35.5%	49.7%	10.2%	4.7%

4.7. THE VOCATIONAL ASPIRATIONS OF PUPILS.

The final item in the pupil questionnaire was open-ended, inviting pupils to write the name of the job they would like to do when they grew up. The response rate for this item was almost 98%. As responses to this item varied considerably, each pupil's response was assigned a code to indicate a general occupational category. For comparability of responses between 1997 and 2000, it was decided to use the categories which were developed to code responses to this item in 1997. The 16 categories were as follows: "Fantasy / unrealistic", "Professional", "Male trades", "Female trades", "Services", "Animal-oriented jobs", "Armed forces / law enforcement", "Childcare", "Mother / homemaker", "Travel industry", "Creative / artistic", "Agricultural / outdoor work", "Technology", "Miscellaneous", "Don't know" and "Don't want a job". Table 4.10 shows the percentages of pupils choosing jobs in each occupational category and gives examples of jobs specified by pupils within each category.

Just over a quarter of pupils chose jobs which were considered fantasy-type jobs, such as pop-star and professional footballer. The next most popular job type, chosen by one in five pupils, was "professional", and included such jobs as doctor and lawyer. More than one pupil in ten specified a female-typed "trade" (e.g., hairdresser, beautician) while almost 15% specified a male-typed "trade"

(e.g., carpentry or plumbing). The next most popular categories were "miscellaneous" (e.g., a well-paid job) chosen by 6.8% of pupils, and "Technology" chosen by just over 5% of pupils. Jobs falling within the remaining occupational categories were chosen by small percentages of pupils (less than 5.0% in each case). The least commonly occurring preferences were "Mother / homemaker", and "Childcare", each chosen by only one pupil. A further five pupils (0.8%) stated that they did not know what job they wanted to do as adults.

There was not a great deal of difference between the occupational preferences of the 6th class cohorts in 1997 and 2000, although the two most popular categories were reversed in 2000, with fewer pupils than in 1997 opting for professional jobs (χ^2=5.4; *df*=1; p<.05). There were some other minor differences. While about the same percentage of pupils in both years indicated that they would like to work at a female-typed trade, a greater percentage of pupils in 2000 than in 1997 (χ^2=10.1; *df*=1; p<.01) indicated that they would like to work at a male-typed trade (8.8% of pupils in 1997 compared with 14.6% in 2000). This ties in with principals' responses to an item in the school questionnaire in 2001, in which they were asked for their views of the impact of economic changes since the scheme began on the level of disadvantage among families served by the school. They indicated that boys now expect to get jobs as builders etc. as a result of economic growth.

Table 4.10. Percentages of pupils in 6th class in *Breaking the Cycle* schools in 1997 (*N*=708) and 2000 (*N*=583) choosing jobs in a variety of occupational categories.

Occupational category	**% of pupils in 1997**	**% of pupils in 2000**
Professional (e.g., doctor, lawyer, teacher, engineer)	26.3%	20.6%
Fantasy/unrealistic (e.g., pop star, professional footballer)	22.6%	26.4%
Female trades (e.g., hairdresser, beautician, air-hostess)	12.7%	12.9%
Male trades (e.g., builder, mechanic, plumber)	8.8%	14.6%
Services (e.g., shop-work, hotel-work)	8.1%	3.4%
Armed forces/law enforcement (e.g., Garda, join the army)	5.1%	3.6%
Creative/artistic (e.g., artist, fashion designer)	4.9%	2.2%
Miscellaneous (e.g., well-paid job)	2.7%	6.8%
Childcare (e.g., crèche assistant / owner)	2.4%	0.2%
Don't know	1.7%	0.8%
Animal-oriented jobs (e.g., work with horses)	1.4%	2.2%
Technology (e.g., computer programmer, software developer)	1.4%	5.4%
Travel industry (e.g., tour guide)	0.8%	0.5%
Agricultural/outdoor work (e.g., farmer, fisherman, gardener)	0.7%	0.3%
Mother/homemaker	0.3%	0.2%
Don't want a job	0.1%	—

Also, preferences for work in the services industry (e.g., shop or restaurant work) decreased between 1997 and 2000 (χ^2=11.7; *df*=1; *p*<.001), while the popularity of technology-oriented jobs increased (χ^2=15.2; *df*=1; *p*<.001) – possibly because jobs in this area have increased in profile since pupils were asked for their preferences in 1997. The improvements in schools' access to computers and software under the Schools IT 2000 programme may also account for the increase in interest in jobs in the technology sector (see Chapter 5).

4.8. GENDER DIFFERENCES IN THE ATTITUDES OF PUPILS.

The collective responses of boys and girls to each item in the pupil questionnaire were compared to investigate whether attitudes differed on the basis of gender. Comparisons were based on the questionnaire responses of 280 girls and 324 boys, and gender differences were found in the case of 11 of the 28 scaled questionnaire items (Table 4.11).

Overall, 6th class boys had a less positive attitude to school than girls, with boys expressing significantly more dislike for school. Girls also had higher educational aspirations, with 56%, compared to only 48% of boys, expressing a desire to go to college or university. However, girls and boys did not differ in the length of time they expected to continue in education: approximately a third of girls and boys expected to go to college or university. Comparative data on 5th class pupils' liking for school are available from the 1998 National Assessment of English reading (Cosgrove et al., 2000). As Table 4.12 shows, in both studies, greater percentages of boys than girls indicated that they disliked school a lot, and smaller percentages indicated that they liked school a lot. It appears that boys' greater dislike of school is not something which is unique to *Breaking the Cycle* schools, but is found also among pupils nationally. The current observations are also consistent with those of an earlier Irish study of scholastic self-concept in 6th class pupils (Kellaghan & Fontes, 1988) which revealed the self-ratings of girls on motivational and attitudinal characteristics to be higher than those of boys.

Table 4.11. Mean scores of girls (*n*=280) and boys (*n*=324) on all 6th class pupil questionnaire items in 2000, with items which revealed significant gender differences presented in bold.

Questionnaire Items	Girls		Boys		
	Mean	***SD***	**Mean**	***SD***	***Diff***
How much do you like school (1=like a lot, 4=dislike a lot)	**2.17**	**0.87**	**2.60**	**0.96**	***p*<.0001**
How far would you like to go in school (1=finish primary, 4=go to college / university)	**3.44**	**0.75**	**3.27**	**0.84**	***p*<.01**
How far do you think you will actually go in school (1=finish primary, 4=go to college / university)	3.18	0.71	3.11	0.76	*ns*
I'm proud of my school work (1=strongly agree, 4=strongly disagree)	1.85	0.62	1.89	0.76	*ns*
I like to be asked questions in class (1=strongly agree, 4=strongly disagree)	2.10	0.89	2.21	0.83	*ns*
I feel I'm doing well in school (1=strongly agree, 4=strongly disagree)	1.82	0.65	1.91	0.72	*ns*
It is important to me to do well in school (1=strongly agree, 4=strongly disagree)	1.30	0.58	1.31	0.54	*ns*
To do well in school you need to be smart (1=strongly agree, 4=strongly disagree)	2.39	0.96	2.32	1.07	*ns*
To do well in school you need to be lucky (1=strongly agree, 4=strongly disagree)	**3.12**	**0.89**	**3.32**	**0.87**	***p*<.01**
To do well in school you need to do lots of hard work and study at home (1=strongly agree, 4=strongly disagree)	1.53	0.74	1.60	0.74	*ns*
I'm a lot of fun to be with (1=strongly agree, 4=strongly disagree)	1.72	0.60	1.82	0.70	*ns*
I'm not as nice looking as most people (1=strongly agree, 4=strongly disagree)	**2.73**	**1.02**	**3.06**	**0.91**	***p*<.0001**
I think I'm good at sports (1=strongly agree, 4=strongly disagree)	**2.06**	**1.08**	**1.61**	**0.90**	***p*<.0001**
I often feel lonely at school (1=strongly agree, 4=strongly disagree)	3.27	1.01	3.32	0.92	*ns*
My parents and I have a lot of fun together (1=strongly agree, 4=strongly disagree)	1.71	1.02	1.69	0.84	*ns*
No one pays much attention to me at home (1=strongly agree, 4=strongly disagree)	3.52	0.80	3.51	0.88	*ns*
I'm popular with my classmates (1=strongly agree, 4=strongly disagree)	1.90	0.93	1.83	0.80	*ns*
Maths (1=near the top, 3= near the bottom)	1.81	0.6	1.76	0.61	*ns*
Irish Reading (1= near the top, 3= near the bottom)	2.06	0.74	2.15	0.75	*ns*
Irish Writing (1= near the top, 3= near the bottom)	**1.83**	**0.82**	**2.04**	**0.69**	***p*<.002**
English Reading (1= near the top, 3= near the bottom)	1.48	0.71	1.49	0.85	*ns*
English Writing (1= near the top, 3= near the bottom)	1.45	0.86	1.52	0.86	*ns*
History (1= near the top, 3= near the bottom)	**2.06**	**0.84**	**1.78**	**0.72**	***p*<.0001**
Geography (1= near the top, 3= near the bottom)	**1.99**	**0.75**	**1.73**	**0.77**	***p*<.0001**
Science/Nature Studies (1= near the top, 3= near the bottom)	1.90	0.99	1.81	0.72	*ns*
Arts and Crafts (1= near the top, 3= near the bottom)	**1.52**	**0.65**	**1.65**	**0.93**	***p*<.05**
Music (1= near the top, 3= near the bottom)	**1.58**	**0.67**	**1.75**	**0.79**	***p*<.01**
Sport (1= near the top, 3= near the bottom)	**1.63**	**0.70**	**1.40**	**0.62**	***p*<.0001**

Table 4.12. Percentages of pupils, by gender, choosing each response option in an item assessing liking for school in the National Assessment of English reading (1998) and in the evaluation of *Breaking the Cycle* (2000).

		How much do you like school?			
Pupil sample	Gender	**Like a lot**	**Like**	**Dislike**	**Dislike a lot**
	Male (*N*=1,955)	5.2%	42.8%	24.2%	27.8%
1998 Assessment	Female (*N*=1,910)	15.4%	56.4%	16.8%	11.4%
	Total (*N*=3,865)	10.2%	49.5%	20.5%	19.7%
	Male (*N*=318)	9.6%	44.7%	21.7%	23.9%
Breaking the Cycle 2000	Female (*N*=268)	19.0%	56.3%	13.3%	11.5%
	Total (*N*=586)	14.0%	50.0%	17.8%	18.3%

National English reading survey data are also available on boys' and girls' educational aspirations and expectations (Tables 4.13 and 4.14).

Table 4.13. Percentages[1] of pupils, by gender, choosing each response option in an item assessing educational aspirations in the National Assessment of English reading (1998) and in the evaluation of *Breaking the Cycle* (2000).

		How far would you like to go in school?			
Pupil sample	Gender	**Primary**	**Junior Certificate**	**Leaving Certificate**	**College / university**
	Male (*N*=1,631)	4.0%	3.7%	23.4%	68.9%
1998 Assessment	Female (*N*=1,702)	1.1%	2.5%	13.9%	82.5%
	Total (*N*=3,333)	2.5%	3.1%	18.5%	75.9%
	Male (*N*=317)	5.0%	10.6%	37.1%	47.4%
Breaking the Cycle 2000	Female (*N*=268)	3.6%	5.0%	35.1%	56.3%
	Total (*N*=585)	4.3%	8.2%	35.9%	51.6%

[1]The option "don't know" was included in the pupil questionnaire in the 1998 National Assessment, and so the percentages reported here were recalculated omitting these responses to facilitate comparisons with data from *Breaking the Cycle.*

Table 4.14. Percentages[1] of pupils, by gender, choosing each response option in an item assessing educational expectations in the National Assessment of English reading (1998) and in the evaluation of *Breaking the Cycle* (2000).

		How far do you think you will actually go in school?			
Pupil sample	Gender	**Primary**	**Junior Certificate**	**Leaving Certificate**	**College / university**
	Male (*N*=1,519)	2.4%	6.1%	33.8%	57.7%
1998 Assessment	Female (*N*=1,545)	0.2%	1.8%	27.2%	70.7%
	Total (*N*=3,064)	1.3%	3.9%	30.5%	64.3%
	Male (*N*=316)	2.8%	15.3%	50.3%	31.6%
Breaking the Cycle 2000	Female (*N*=268)	1.8%	12.5%	52.0%	33.7%
	Total (*N*=584)	2.3%	14.2%	50.8%	32.7%

[1]The option "don't know" was included in the pupil questionnaire in the 1998 National Assessment, and so the percentages reported here were recalculated omitting these responses to facilitate comparisons with data from *Breaking the Cycle.*

As Table 4.13 shows, girls in the national assessment, as well as in *Breaking the Cycle* schools, had higher educational aspirations than boys. However, three times as many boys in the *Breaking the Cycle* sample as in the national sample wished to finish their formal education after the Junior Certificate (χ^2=26.0; *df*=1; *p*<.001), while over 20% more boys in the national sample than in the *Breaking the Cycle* sample indicated that they wished to go to college or university (χ^2=53.3; *df*=1; *p*<.001). The educational aspirations of girls in the national sample were very high: 82.5% indicated that they would like to go to college or university compared with 56.3% in *Breaking the Cycle* schools (χ^2=94.0; *df*=1; *p*<.001). The educational *expectations* of girls in the national sample also greatly exceeded those of boys (Table 4.14). While 8.5% of boys indicated that they expected to continue in school only until the end of primary school or until they had taken the Junior Certificate Examination, only 2.0% of girls did so (χ^2=64.1; *df*=1; *p*<.001), and while 70.7% of girls expected to go to college, only 57.7% of boys had such an expectation (χ^2=55.8; *df*=1; *p*<.001).

Boys and girls in *Breaking the Cycle* schools did not differ in the importance they placed on scholastic success. Approximately 97% of girls and boys agreed with the statement "It is important for me to do well at school" (Table 4.11). Neither did boys and girls differ on items relating to pride in schoolwork, welcoming questions in class, and feeling that they were doing well in school. Finally, equal proportions of boys and girls agreed that success at school was attributable to hard work rather than to intelligence, although girls were more likely than boys to attribute scholastic success to luck.

Analysis of pupils' evaluations of their own strengths and weaknesses in various subject areas also revealed several gender differences (Table 4.11). Girls' ratings of themselves in three of the eleven subject areas, namely Irish Writing, Arts and Crafts and Music were more positive than those of boys (girls rated themselves towards the top of the class more often in these subjects than did boys). Boys, however, rated their own performance in History, Geography and Sport more favourably than did girls.

There was no substantial gender difference in pupils' perceptions of themselves in terms of how much fun they were to be with, or how popular they were with their peers. Nor did boys and girls differ in their perception of home atmosphere. Girls appeared to have slightly lower self-esteem, however, as more girls than boys agreed that they were not as nice-looking as most people.

For purposes of comparison, Table 4.15 presents gender differences found in pupils' responses to individual questionnaire items in either 1997 or 2000. Several gender differences found in boys' and girls' liking for school, their educational aspirations, and their sense of self-esteem in 2000 were similar to those found in 1997. However, other differences found in 1997 relating to educational expectations, attributions for scholastic success, and perceptions of home-atmosphere were not found in 2000. It can also be seen that girls were more likely than boys to attribute scholastic success to luck in 2000, whereas this was not the case in 1997.

Table 4.15. Mean scores of girls and boys on pupil questionnaire items which revealed significant gender differences among pupils in the 6th class cohorts in either 1997 or 2000.

	1997 cohort			2000 cohort		
	Girls' Mean	**Boys' Mean**	***p***	**Girls' Mean**	**Boys' Mean**	***p***
How much do you like school? (1=like a lot, 4 = dislike a lot)	2.08 (0.81)	2.65 (0.98)	<.0001	2.17 (0.87)	2.60 (0.96)	<.0001
How far would you like to go in school? (1= finish primary, 4= go to college / university)	3.42 (0.72)	3.16 (0.84)	<.0001	3.44 (0.75)	3.27 (0.84)	<.01
How far do you think you will actually go in school? (1=finish primary, 4=go to college / university)	3.23 (0.70)	3.02 (0.74)	<.0001	3.18 (0.71)	3.11 (0.76)	*ns*
I like to be asked questions in class (1=strongly agree, 4=strongly disagree)	2.17 (0.79)	2.37 (0.95)	<.0005	2.09 (0.89)	2.21 (0.83)	*ns*
To do well in school you need to be lucky (1=strongly agree, 4=strongly disagree)	3.32 (0.81)	3.39 (0.83)	*ns*	3.12 (0.89)	3.32 (0.87)	<.01
To do well in school you need to do lots of hard work and study at home (1=strongly agree, 4=strongly disagree)	1.56 (0.76)	1.73 (0.91)	<.005	1.53 (0.74)	1.60 (0.74)	*ns*
I'm not as nice looking as most people (1=strongly agree, 4=strongly disagree)	2.73 (0.87)	3.00 (1.03)	<.0001	2.73 (1.02)	3.06 (0.91)	<.0001
I think I'm good at sports (1=strongly agree, 4=strongly disagree)	1.89 (0.86)	1.50 (0.77)	<.0001	2.06 (1.08)	1.61 (0.90)	<.0001
My parents and I have a lot of fun together (1=strongly agree, 4=strongly disagree)	1.61 (0.73)	1.80 (0.92)	<.005	1.71 (1.02)	1.69 (0.84)	*ns*

Boys' and girls' ratings of their own relative success or weakness in various curricular areas in 2000 and 1997 varied to some extent. As shown in Table 4.16, girls rated themselves more favourably than did boys in Irish Writing and Arts and Crafts in 2000, whereas in 1997 boys' and girls' evaluations of themselves in these subject areas did not differ significantly.

Conversely, boys' self-ratings of the areas of Mathematics, and Science and Nature Studies in 1997 were more positive than those of girls, while in 2000 no gender differences were evident. Similarly, girls had a more positive perception of their skills in Irish reading than boys in 1997, whereas in 2000 this was not the case. Finally, gender differences in 2000 in pupils' ratings of their skills in History, Geography, and Sport (all favouring boys) and Music (favouring girls) were similar to those found in 1997.

Table 4.16. Mean scores of girls and boys on pupil questionnaire items relating to self-evaluation relative to others in various subjects which revealed significant gender differences among 6th class pupils in either 1997 or 2000.

	1997 cohort			2000 cohort		
	Girls' Mean	**Boys' Mean**	***Diff***	**Girls' Mean**	**Boys' Mean**	***Diff***
Mathematics (1= near the top, 3= near the bottom)	1.87 (0.60)	1.77 (0.72)	*p*<.05	1.81 (0.60)	1.76 (0.61)	*ns*
Irish Writing (1= near the top, 3= near the bottom)	1.87 (0.66)	1.93 (0.72)	*ns*	1.81 (0.82)	2.04 (0.69)	*p*<.001
Irish Reading (1= near the top, 3= near the bottom)	1.94 (0.68)	2.09 (0.75)	*p*<.005	2.06 (0.74)	2.15 (0.75)	*ns*
History (1= near the top, 3= near the bottom)	1.93 (0.64)	1.70 (0.66)	*p*<.0001	2.06 (0.840	1.78 (0.72)	*p*<.0001
Geography (1= near the top, 3= near the bottom)	1.85 (0.70)	1.72 (0.69)	*p*<.05	2.00 (0.75)	1.73 (0.77)	*p*<.001
Science and Nature Studies (1= near the top, 3= near the bottom)	1.81 (0.64)	1.69 (0.81)	*p*<.05	1.88 (0.99)	1.81 (0.71)	*ns*
Arts and Crafts (1= near the top, 3= near the bottom)	1.56 (0.66)	1.62 (0.68)	*ns*	1.52 (0.65)	1.65 (0.93)	*p*<.05
Music (1= near the top, 3= near the bottom)	1.52 (0.67)	1.85 (0.80)	*p*<.0001	1.58 (0.67)	1.75 (0.79)	*p*<.005
Sport (1= near the top, 3= near the bottom)	1.58 (0.67)	1.37 (0.60)	*p*<.0001	1.63 (0.70)	1.40 (0.62)	*p*<.0001

The occupational preferences of boys and girls in 1997 and 2000 are presented in Table 4.17. It should be noted that, in many cases, the percentages of pupils that chose jobs in various categories were too small to permit comparisons between 1997 and 2000, and, therefore, comparisons involve only the more popular categories. In 2000, there was an increase among boys in the popularity of jobs considered to be male-typed trades (χ^2=4.8; *df*=1; *p*<.05). Girls' preferences in 2000 resembled more closely those of their 1997 counterparts than did those of boys, and there were no significant differences in the percentages of them choosing various occupations.

Table 4.17. Percentages of girls and boys in the 6th class *Breaking the Cycle* cohorts in 1997 and 2000 choosing jobs in a variety of occupational categories.

Vocational Aspirations	**1997**			**2000**		
	Total	**% that are boys**	**% that are girls**	**Total**	**% that are boys**	**% that are girls**
Professional	26.3%	11.4%	14.8%	20.6%	7.1%	13.6%
Fantasy / unrealistic	22.6%	15.4%	7.1%	26.4%	17.8%	8.5%
Female trades	12.7%	0.1%	12.6%	12.9%	0.3%	12.6%
Male trades	8.8%	8.6%	0.2%	14.6%	14.2%	0.4%
Services	8.1%	3.7%	4.4%	3.4%	1.7%	1.7%
Armed forces / law enforcement	5.1%	4.2%	0.9%	3.6%	2.7%	0.8%
Creative / artistic	4.9%	1.4%	3.5%	2.2%	0.7%	1.5%
Miscellaneous (e.g., well paid job)	2.7%	2.3%	0.4%	6.8%	3.6%	3.2%
Childcare	2.4%	-	2.4%	0.2%	-	0.2%
Don't know	1.7%	1.3%	0.4%	0.8%	0.8%	-
Animal oriented	1.4%	0.8%	0.6%	2.2%	0.2%	2.0%
Technology	1.4%	1.0%	0.4%	5.4%	4.4%	1.0%
Travel industry	0.8%	0.1%	0.7%	0.5%	0.3%	0.2%
Agricultural / outdoor work	0.7%	0.7%	-	0.3%	0.3%	-
Mother / homemaker	0.3%	-	0.3%	0.2%	-	0.2%
Don't want a job	0.1%	-	0.1%	-	-	-

One possible effect of participation in the scheme would be an improvement in pupils' attitudes towards school. In sections 4.2 to 4.7 of this chapter, differences between pupils' attitudes in 1997 and 2000 were described. However, overall differences may mask gender differences. For this reason, *t*-tests were performed between the responses of girls in 1997 and 2000, and between the responses of boys in 1997 and 2000, on each individual questionnaire item. Items on which girls in the 1997 and 2000 cohorts differed significantly are presented in Table 4.18. As shown in Table 4.18, it appears that girls' attitudes to a variety of school-related issues changed during this period. Responses indicate that girls in 6th class in 2000 thought that they were doing better at school than did girls in 1997. Similarly, girls in 2000 also indicated a higher level of pride in their school work. Furthermore, girls' self-esteem also appears to have improved, as evidenced in scores relating to being fun to be with and popularity with classmates. Girls' attributions for scholastic success also changed. Mean scores for attribution of success at school to being "smart" and luck were higher in 2000 than in 1997. However, girls' evaluations of their performance in two curricular areas, namely Irish Reading and Geography decreased between 1997 and 2000.

Table 4.18. Mean scores of girls on pupil questionnaire items and results of independent *t*-tests which revealed significant gender differences among girls in the 6th class cohorts of 1997 and 2000.

Questionnaire Item	Girls 1997		Girls 2000		Girls 1997 vs girls 2000
	Mean	***SD***	**Mean**	***SD***	***p***
I'm proud of my school work (1=strongly agree, 4=strongly disagree)	1.96	0.65	1.85	0.62	<.05
I feel I'm doing well in school (1=strongly agree, 4=strongly disagree)	1.93	0.65	1.82	0.65	<.05
To do well in school you need to be very smart (1=strongly agree, 4=strongly disagree)	2.62	0.98	2.39	0.96	<.005
To do well in school you need to be very lucky (1=strongly agree, 4=strongly disagree)	3.32	0.81	3.12	0.89	<.005
I'm a lot of fun to be with (1=strongly agree, 4=strongly disagree)	1.84	0.62	1.72	0.62	<.05
I'm popular with my classmates (1=strongly agree, 4=strongly disagree)	2.01	0.80	1.90	0.77	<.02
Self-rating in Irish Reading (1= near the top, 2=around the middle, 3= near the bottom)	1.93	0.68	2.05	0.71	<.005
Self-rating in Geography (1= near the top, 3= near the bottom)	1.85	0.70	1.99	0.74	<.05

Overall, the school-related attitudes of boys in the 1997 and 2000 cohorts did not differ greatly (Table 4.19). There were some changes in their attitudes, however. The mean for liking to be asked questions in class was higher in 2000 than in 1997. There were also some changes in boys' attributions for scholastic success, with more weight being given in 2000 than in 1997 to being "smart" and hard work. Boys' perception of their popularity with their peers also changed over this period; the mean on this item was higher in 2000 than in 1997. Boys, however, were more negative in their assessment of their skills at Irish Writing in 2000 than they had been in 1997.

Table 4.19. Mean scores of boys on pupil questionnaire items and results of independent *t*-tests which revealed significant gender differences between boys in the 6th class cohorts in 1997 and 2000.

Questionnaire Item	Boys 1997		Boys 2000		Boys 1997 vs boys 2000
	Mean	***SD***	**Mean**	***SD***	***p***
I liked to be asked questions in class (1=strongly agree, 4=strongly disagree)	2.37	0.95	2.21	0.83	<.02
To do well in school you need to be very smart (1=strongly agree, 4=strongly disagree)	2.60	1.01	2.31	1.07	<.0001
To do well in school you need to do lots of hard work and study at home (1=strongly agree, 4=strongly disagree)	1.73	0.91	1.60	0.74	<.05
I'm popular with my classmates (1=strongly agree, 4=strongly disagree)	1.99	0.93	1.82	0.80	<.02
Self-rating in Irish Writing (1= near the top, 3=near the bottom)	1.93	0.72	2.05	0.69	<.05

4.9. THE RELATIONSHIP BETWEEN PUPILS' ACHIEVEMENTS AND ATTITUDES.

In this section of the report, the focus is on the relationship between the performance of pupils in reading and Mathematics in 2000 and a variety of pupil variables. Results of exploratory analyses aimed at discovering whether achievement is related to pupils' attitudes to school and schoolwork, scholastic self-concept, self-esteem and vocational aspirations are reported.

4.9.1. The relationship between achievement and pupils' educational aspirations, expectations and liking for school.

Correlations between pupils' responses to questionnaire items designed to measure attitudes to school and their total reading and Mathematics scores were calculated. Of the 605 6th class pupils who completed a pupil questionnaire, only 494 have both attitudinal data and complete reading achievement data, while only 449 have both attitudinal data and complete Mathematics achievement data. Therefore, the analyses reported in this section are based on smaller numbers of pupils than in previous sections of this chapter.

Analyses revealed that pupils' educational aspirations and expectations are significantly correlated with their reading and Mathematics scores. As shown in Table 4.20, higher reading and Mathematics scores are associated both with pupils wishing to remain in full-time education longer, and expecting to stay in education longer.

Table 4.20. Correlations between 6th class pupils' responses to questionnaire items relating to liking for school and educational aspirations and expectations, and their total reading and Mathematics scores in 2000.

Questionnaire Item	Total Reading score (*r*)	Total Mathematics score (*r*)
How much do you like school? (1=dislike a lot, 4=like a lot)	-.08	.03
How far would you like to go in school? (1=finish primary school, 4=go to college or university)	**.32*** **	**.24*** **
How far do you think you will actually go in school? (1=finish primary school, 4=go to college or university)	**.34*** **	**.26*** **

*$p<.05$; **$p<.01$; ***$p<.001$

Surprisingly, there was little or no association between pupils' reported liking for school and their reading and Mathematics scores. Intuitively one might have expected that pupils who are good at schoolwork would like school more than those who perform poorly. Indeed, the present finding is inconsistent with the findings of the National Assessment of English reading in 5th class (Cosgrove et al., 2000), where small, but statistically significant, positive correlations were found between total reading score, liking for school, and educational expectations and aspirations (Table 4.21). As already

discussed in section 4.2, relatively large percentages of pupils in *Breaking the Cycle* schools like school, or like school "a lot" compared with pupils in the 1998 National Assessment of reading. Thus, there may not be an adequate spread of scores on this item among *Breaking the Cycle* pupils to establish a good correlation. It is still worthy of comment, however, that despite their relatively weak performance in tests of achievement, there is a correlation, albeit very low, between liking for school and achievement among *Breaking the Cycle* pupils. It would seem that their relatively poor achievement levels do not prevent pupils in the scheme from liking school in greater proportions than is the case among pupils nationally.

Table 4.21. Correlations between pupils' liking for school, preferred and expected levels of attainment[1], and total reading score, in the 1998 National Assessment of English reading.

	Liking for school	**Educational aspirations**	**Educational expectations**
Total reading score	r=.15 (p<.001)	r=.10 (p<.05)	r=.15 (p<.001)

[1]The item on pupils' liking for school was identical in both the 1998 Assessment and the evaluation of *Breaking the Cycle*. However, while in the 1998 National Assessment, the option "don't know" was included in the items on pupils' educational aspirations and expectations, it was not included in the pupil questionnaire used in the evaluation of *Breaking the Cycle.*

An alternative means of examining the relationship between pupils' attitudes to school and their achievement is to describe the average total reading and Mathematics scores of pupils grouped according to each response category. This also provides a means of assessing if the relationship between attitudes and achievement is linear or non-linear (the latter indicating that high correlations would be difficult to obtain). The mean Mathematics and reading scores of pupils grouped in this way for items 1-3 are presented in Table 4.22.

As Table 4.22 shows, it is indeed the case that pupils who indicated that they liked school "a lot" had lower mean reading and Mathematics scores than pupils who agreed that they just "liked" school. Furthermore, in the case of Mathematics achievement, pupils who indicated that they disliked school or disliked school "a lot" had higher mean Mathematics scores than pupils who liked school "a lot". In the case of the items on educational aspirations and expectations (where strong positive correlations were found), it seems that pupils' responses are more linear in nature. Pupils who indicated that they would like to complete the Leaving Certificate, or to attend college or university, achieved higher scores on the reading and Mathematics tests than pupils who indicated that they would like to leave school after primary school or after the Junior Certificate. Similarly, pupils who expected to complete the Leaving Certificate, or to attend college or university, had higher reading and Mathematics scores than pupils who anticipated that they would finish their formal education after primary school or after completing the Junior Certificate. Pupils who indicated that they wanted or expected to complete their schooling after primary school had the lowest reading and Mathematics mean scores of any category, while those who indicated that they wished to go to college or university had the highest mean scores.

Table 4.22. Mean reading and Mathematics scores of 6th class pupils in *Breaking the Cycle* schools in 2000 according to reported levels of liking school, and according to pupils' reports of how far they would like to go in school and how far they think they will actually go in school.

How much do you like school?				
	Like a lot (11.1%)	Like (39.8%)	Dislike (14.2%)	Dislike a lot (14.4%)
Reading score	26.5	28.6	28.1	24.6
Mathematics score	36.0	39.7	41.1	37.6
How far would you like to go in school?				
	Finish Primary school (4.3%	Do the Junior Certificate (8.0%)	Do the Leaving Certificate (36.2%)	Go to College / University (51.5%)
Reading score	19.3	21.2	24.8	30.8
Mathematics score	31.1	33.0	36.4	42.2
How far do you think you will actually go in school?				
	Finish Primary school (3.4%)	Do the Junior Certificate (6.3%)	Do the Leaving Certificate (28.7%)	Go to College / University (40.9%)
Reading score	16.9	20.7	26.8	31.8
Mathematics score	25.0	33.9	37.9	43.3

4.9.2. The relationship between achievement and pupils' attitudes to schoolwork.

Responses to items relating to attitudes to school and schoolwork suggest that pupils who had felt they were doing well in school, and who placed some importance on their academic success, had relatively high achievement scores. Pupils who agreed, or strongly agreed, with the statement "I feel I'm doing well in school" had relatively high reading and Mathematics scores, while pupils who agreed that it was important for them to do well in school and who indicated that they liked to be asked questions in class had relatively high reading scores. Surprisingly, the extent to which pupils agreed that they were proud of their schoolwork was unrelated to reading or Mathematics achievement (Table 4.23). However, a high correlation may have been difficult to obtain because so many pupils in the cohort (almost 90%) agreed or strongly agreed that they were proud of their schoolwork.

As Table 4.23 shows, analysis of responses to items related to attributions for success in school revealed that pupils who agreed that success at school depended on luck and being "smart" had lower scores on both reading and Mathematics tests. In other words, pupils who believed that success at school was due to factors beyond their control had poorer reading and Mathematics skills. However, surprisingly, there was no relationship found between achievement in either subject area and attributing success at school to doing "lots of hard work and study at home".

Table 4.23. Correlations between 6th class pupils' responses to questionnaire items relating to attitudes to schoolwork and their total reading and Mathematics scores in 2000.

Questionnaire Item	Total Reading score (*r*)	Total Mathematics score (*r*)
I am proud of my schoolwork (1=strongly agree, 4=strongly disagree)	-.06	-.04
I like to be asked questions in class (1=strongly agree, 4=strongly disagree)	**-.12***	-.01
I feel I'm doing well in school (1=strongly agree, 4=strongly disagree)	**-.18*****	**-.17*****
It is important to me to do well in school (1=strongly agree, 4=strongly disagree)	**-.11****	-.09
To do well in school you need to be smart (1=strongly agree, 4=strongly disagree)	**.16*****	**.13****
To do well in school you need to be lucky (1=strongly agree, 4=strongly disagree)	**.26*****	**.17*****
To do well in school you need to do lots of hard work and study at home (1=strongly agree, 4=strongly disagree)	.08	.05

*p<.05; **p<.01; ***p<.001

4.9.3. The relationship between achievement and pupils' perceptions of their performance at school.

Pupils were also asked to rate (from "near the top" to "near the bottom") their scholastic performance relative to other members of their class in a variety of subject areas. The correlations between these self-evaluations and achievements in reading and Mathematics are shown in Table 4.24. Pupils' positive self-evaluations of their performance in Mathematics, Irish reading, English reading, History and Geography were associated with higher Mathematics and reading scores. In other words, pupils who perceived themselves to be near the top of their class in these subjects performed better on the reading and Mathematics achievement tests than pupils who thought that they were near the bottom of the class. In contrast, pupils who felt that they had strong creative skills and were near the top of their class in Art and Craft had relatively poor reading and Mathematics scores. Positive self-evaluations in Sport were also associated with lower reading scores, while positive self-evaluations in Music were associated with lower Mathematics scores. The highest correlation in the set was between pupils' self-evaluations in Mathematics and total Mathematics score (r= -.25).

Table 4.24. Correlations between the self-evaluations of 6th class pupils in 2000 in various types of school work and their total reading and Mathematics scores.

Questionnaire Item	Total reading score *(r)*	Total Mathematics score *(r)*
Pupils' perception of their standing in the class at Mathematics (1=near the top, 3=near the bottom)	**-.22*** **	**-.25*** **
Pupils' perception of their standing in the class at Irish Reading (1=near the top, 3=near the bottom)	**-.21*** **	**-.19*** **
Pupils' perception of their standing in the class at Irish Writing (1=near the top, 3=near the bottom)	-.06	-.06
Pupils' perception of their standing in the class at English reading (1=near the top, 3=near the bottom)	**-.16*** **	**-.12***
Pupils' perception of their standing in the class at English writing (1=near the top, 3=near the bottom)	-.09	-.04
Pupils' perception of their standing in the class at History (1=near the top, 3=near the bottom)	**-.24*** **	**-.09***
Pupils' perception of their standing in the class at Geography (1=near the top, 3=near the bottom)	**-.21*** **	**-.15****
Pupils' perception of their standing in the class at Science / nature studies (1=near the top, 3=near the bottom)	-.08	.01
Pupils' perception of their standing in the class at Art and Craft (1=near the top, 3=near the bottom)	**.09***	**.10***
Pupils' perception of their standing in the class at Music (1=near the top, 3=near the bottom)	.08	**.09***
Pupils' perception of their standing in the class at Sport (1=near the top, 3=near the bottom)	**.14****	-.01

*p<.05; **p<.01; ***p<.001

The mean English reading and Mathematics scores of pupils grouped according to their perceived competence in various aspects of school work are presented in Table 4.25. Those who rated themselves as near the top of their class at English reading had higher reading scores than pupils who rated themselves as around the middle of the class, who in turn had higher reading scores than pupils who rated themselves as near the bottom of their class. A similar relationship was found between pupils' self-ratings of their Mathematics standing and their Mathematics achievement scores. However, the sample of pupils who perceived themselves as being near the bottom of their class in both subjects is small, so caution should be exercised when interpreting these findings.

Table 4.25. Mean reading and Mathematics scores of pupils who think they are *near the top, around the middle* and *near the bottom* in English reading and Mathematics relative to others in their class.

Subject Area	Response option		
Reading score	*Near the top* at English Reading	*Around the middle* at English Reading	*Near the bottom* at English Reading
	29.5 (*n*=305)	24.4 (*n*=169)	19.9 (*n*=15)
Mathematics score	*Near the top* at Mathematics	*Around the middle* at Mathematics	*Near the bottom* at Mathematics
	43.7 (*n*=150)	37.3 (*n*=263)	32.6 (*n*=36)

4.9.4. The relationship between achievement and pupils' self-concept, self-esteem, relationship with parents and home atmosphere.

The final section of the questionnaire asked pupils for their views of themselves and their relationship with their parents. Higher reading scores were associated with disagreeing that they were a lot of fun to be with, that they were popular with their classmates, that they often felt lonely at school, and that no-one paid much attention to them at home (Table 4.26). Those with higher scores in Mathematics were less likely to agree that they were fun to be with and that they often feel lonely at school. Pupils' perception of their own physical attractiveness, their assessment of their own sporting ability, and the extent to which they felt their parents and themselves had a lot of fun together are unrelated to achievement levels.

Table 4.26. Correlations between responses to questionnaire items related to self-concept, self-esteem, and home atmosphere and total reading and Mathematics scores of 6th class pupils in *Breaking the Cycle* schools in 2000.

Questionnaire Item	Total reading score (*r*)	Total Mathematics score (*r*)
I'm a lot of fun to be with (1=strongly agree, 4=strongly disagree)	**.16*** **	**.12** **
I'm not as nice looking as most people (1=strongly agree, 4=strongly disagree)	-.02	-.03
I think I'm good at sports (1=strongly agree, 4=strongly disagree)	.05	-.04
I often feel lonely at school (1=strongly agree, 4=strongly disagree)	**.11***	**.15** **
My parents and I have a lot of fun together (1=strongly agree, 4=strongly disagree)	.02	-.01
No one pays much attention to me at home (1=strongly agree, 4=strongly disagree)	**.10***	.06
I'm popular with my classmates (1=strongly agree, 4=strongly disagree)	**.12** **	.04

*p<.05; **p<.01; ***p<.001

4.9.5. The relationship between pupils' occupational preferences and their achievement levels.

In an open-ended item at the end of the questionnaire, pupils were asked to specify the type of job they would like to do when they grew up. These responses were then coded into 15 occupational categories. Table 4.27 presents the mean reading and Mathematics scores of pupils choosing jobs in a variety of occupational sectors.

Table 4.27. Mean reading and Mathematics scores of 6th class pupils in *Breaking the Cycle* schools in 2000 choosing jobs in various occupational categories[1].

Category of job	**Mean reading score**	**Mean Mathematics score**
Technology (e.g., computer programmer)	**33.4** (*n*=24)	**43.8** (*n*=23)
Artistic / creative (e.g., fashion designer)	**32.6** (*n*=13)	**37.9** (*n*=9)
Agricultural / outdoor work (e.g., farmer)	**32.5** (*n*=2)	**52.5** (*n*=2)
Professional (e.g., lawyer, teacher, doctor)	**31.9** (*n*=101)	**43.5** (*n*=97)
Law enforcement / armed forces (e.g., guard or soldier)	**28.2** (*n*=18)	**34.1** (*n*=17)
Miscellaneous / unspecific (e.g., well paid job)	**28.1** (*n*=30)	**40.0** (*n*=30)
Unrealistic / fantasy (e.g., pop-star, stunt man, footballer)	**26.7** (*n*=131)	**37.5** (*n*=123)
Animal-orientated jobs (e.g., vet or trainer)	**26.5** (*n*=8)	**36.6** (*n*=7)
Female-typed trades (e.g., beautician)	**25.3** (*n*=62)	**37.7** (*n*=57)
Male-typed trades (e.g., builder, electrician or mechanic)	**24.9** (*n*=66)	**38.5** (*n*=53)
Homemaker	**22.0** (*n*=1)	———
Travel industry (e.g., travel guide)	**21.5** (*n*=2)	**32.3** (*n*=3)
Services (e.g., sales assistant)	**18.9** (*n*=17)	**30.4** (*n*=13)
Professional childcare / carer (e.g., crèche worker)	**8.0** (*n*=1)	———
Don't know	**22.8** (*n*=5)	**38.5** (*n*=4)

[1] Scores are presented in descending order of the mean reading score of each occupational group.

The fact that some occupational categories have very small numbers of pupils makes comparisons of achievement based on these groups difficult, but it is possible to compare the reading

and Mathematics performance of the larger groups. Among the six most popular occupational categories (i.e., the occupational preference groups that contain 20 or more pupils), the highest-scoring group in both reading and Mathematics was "Technology", followed by "Professional", and "Miscellaneous". Conversely, pupils wishing take up jobs considered male-typed "trades" had the lowest reading scores, followed by female-typed "trades", and "unrealistic / fantasy-type" jobs. Mean Mathematics achievement was lowest among pupils opting for female-typed "trades", followed by "unrealistic / fantasy-type" jobs, and male-typed "trades".

4.9.6. A comparison of the relationship between the achievements and attitudes of pupils in the 1997 and 2000 cohorts.

There were more resemblances than there were differences in the relationships between the attitudes and achievements of pupils in the 1997 and 2000 cohorts. Correlations between achievement and pupils' liking for school and their educational aspirations and expectations in 2000 are of the same magnitude as those in 1997 in the case of reading achievement, and are slightly lower in 2000 in the case of Mathematics achievement (Table 4.28).

Table 4.28. Correlations between 6th class pupils' liking for school, their educational aspirations and expectations, and total reading and Mathematics scores in 1997 and 2000.

Questionnaire item	1997 cohort		2000 cohort	
	Total reading score (*r*)	**Total Mathematics score (*r*)**	**Total reading score (*r*)**	**Total Mathematics score (*r*)**
How much do you like school? (1=dislike a lot, 4=like a lot)	.07	**.13*** **	-.08	.03
How far would you like to go in school? (1=finish primary school, 4=go to college or university)	**.33*** **	**.36*** **	**.32*** **	**.24*** **
How far do you think you will actually go in school? (1=finish primary school, 4=go to college or university)	**.33*** **	**.34*** **	**.34*** **	**.26*** **

*p<.05; **p<.01; ***p<.001

A comparison of the relationship between pupils' reading and Mathematics scores and their attitudes to schoolwork in 1997 and 2000 (Table 4.29) reveals that there was a good deal of consistency in the nature of the relationships in both years. An exception was the item on pride in schoolwork, which was significantly associated with performance in reading and Mathematics in 1997, but was not in 2000. There appears to be a fairly robust positive relationship between pupils thinking they are doing well at school and their actual achievements, while pupils in both the 1997 and 2000 cohorts who thought that luck was necessary to do well in school tended to have lower achievements. As was the case in 1997, there was no significant association in 2000 between thinking

that success at school depended on doing lots of hard work and study at home and achievement in either reading or Mathematics.

Table 4.29. Correlations between 6th class pupils' responses to questionnaire items relating to attitudes to schoolwork and their total reading and Mathematics scores in 1997 and 2000.

	1997 cohort		2000 cohort	
Questionnaire Item	Total reading score (*r*)	Total Mathematics score (*r*)	Total reading score (*r*)	Total Mathematics score (*r*)
I am proud of my schoolwork (1=strongly agree, 4=strongly disagree)	**-.12****	**-.21*****	-.06	-.04
I like to be asked questions in class (1=strongly agree, 4=strongly disagree)	**-.14*****	**-.12****	**-.12***	-.01
I feel I'm doing well in school (1=strongly agree, 4=strongly disagree)	**-.17*****	**-.27*****	**-.18*****	**-.17*****
It is important to me to do well in school (1=strongly agree, 4=strongly disagree)	**-.10***	**-.15*****	**-.11****	-.09
To do well in school you need to be smart (1=strongly agree, 4=strongly disagree)	**.12****	.01	**.16*****	**.13****
To do well in school you need to be lucky (1=strongly agree, 4=strongly disagree)	**.26*****	**.21*****	**.26*****	**.17*****
To do well in school you need to do lots of hard work and study at home (1=strongly agree, 4=strongly disagree)	-.01	-.02	.08	.05

**p*<.05; ***p*<.01; ****p*<.001

The self-evaluations of pupils in a variety of subject areas, and their association with performance in reading and Mathematics in 1997 and 2000, are shown in Table 4.30. In both cohorts, higher reading and Mathematics achievement tend to be associated with better self-evaluations in most subject areas. The highest correlation in both years was between pupils' self-evaluations in Mathematics and their total Mathematics score, followed by correlations between achievement in reading and Mathematics and self-ratings in Irish reading, English reading, History, and Geography. In both cohorts, pupils who rated themselves towards the top of the class in Art and Craft had lower reading and Mathematics scores, while among both cohorts, positive self-evaluation in Sport was associated with lower achievement in reading. Finally, there was no association between pupils' self-evaluations in Music and their reading achievements in either 1997 or 2000. However, while self-evaluation in Music was unrelated to achievement in Mathematics achievement in 1997, there was a small inverse relationship between self-ratings in Music and Mathematical achievement in 2000.

Table 4.30. Correlations between the self-evaluations of 6th class pupils in various types of school work and their total reading and Mathematics scores in 1997 and 2000.

	1997 cohort		2000 cohort	
Questionnaire Item	Total reading score *(r)*	Total Mathematics score *(r)*	Total reading score *(r)*	Total Mathematics score *(r)*
Pupils' perception of their standing in the class at Maths (1=near the top, 3=near the bottom)	**-.23*****	**-.44*****	**-.22*****	**-.25*****
Pupils' perception of their standing in the class at Irish Reading (1=near the top, 3=near the bottom)	**-.32*****	**-.30*****	**-.21*****	**-.19*****
Pupils' perception of their standing in the class at Irish Writing (1=near the top, 3=near the bottom)	**-.16*****	**-.18*****	-.06	-.06
Pupils' perception of their standing in the class at English reading (1=near the top, 3=near the bottom)	**-.31*****	**-.19*****	**-.16*****	**-.12***
Pupils' perception of their standing in the class at English writing (1=near the top, 3=near the bottom)	**-.19*****	**-.17*****	-.09	-.04
Pupils' perception of their standing in the class at History (1=near the top, 3=near the bottom)	**-.28*****	**-.22*****	**-.24*****	**-.09***
Pupils' perception of their standing in the class at Geography (1=near the top, 3=near the bottom)	**-.24*****	**-.25*****	**-.21*****	**-.15****
Pupils' perception of their standing in the class at Science / nature studies (1=near the top, 3=near the bottom)	**-.21*****	**-.17*****	-.08	.01
Pupils' perception of their standing in the class at Art and Craft (1=near the top, 3=near the bottom)	**.15*****	**.13*****	**.09***	**.10***
Pupils' perception of their standing in the class at Music (1=near the top, 3=near the bottom)	-.02	-.02	.08	**.09***
Pupils' perception of their standing in the class at Sport (1=near the top, 3=near the bottom)	**.10****	-.00	**.14****	-.01

**p*<.05; ***p*<.01; ****p*<.001

Correlations between reading and Mathematics achievement and pupils' responses to items designed to assess their self-concept, self-esteem, relationship with parents and home atmosphere in 1997 and 2000 are presented in Table 4.31. About half of the items were associated with achievement. In both cohorts, pupils who disagreed that they often felt lonely at school, and pupils who disagreed that no one paid them much attention at home tended to have higher reading and Mathematics scores. Among the 2000 cohort, disagreement with the statement "I am a lot of fun to be with" was also associated with higher scores in both subject areas, as was disagreement with the statement "I am popular with my classmates" in the case of reading achievement. Pupils' perception of their relative

physical attractiveness was unrelated to achievement, as was the extent to which pupils claimed to have fun with parents, and the extent to which they considered themselves good at Sport.

It should be noted that – as is the case with all correlational analysis – it is not possible to determine the direction of the relationships which have been expressed as correlations throughout this section. For example, while it is possible that poor achievement is a consequence of feeling lonely at school, or of receiving insufficient attention at home, it is equally possible that poor scholastic performance manifests itself in feelings of alienation and loneliness in a variety of situations.

Table 4.31. Correlations between responses to questionnaire items related to self-concept, self-esteem, and home atmosphere and total reading and Mathematics scores of 6th class pupils in *Breaking the Cycle* schools in 1997 and 2000.

	1997 cohort		2000 cohort	
Questionnaire Item	Total reading score (*r*)	Total Mathematics score (*r*)	Total reading score (*r*)	Total Mathematics score (*r*)
I'm a lot of fun to be with (1=strongly agree, 4=strongly disagree)	.05	.05	**.16*** **	**.12** **
I'm not as nice looking as most people (1=strongly agree, 4=strongly disagree)	.02	.04	-.02	-.03
I think I'm good at sports (1=strongly agree, 4=strongly disagree)	**.13*** **	-.02	.05	-.04
I often feel lonely at school (1=strongly agree, 4=strongly disagree)	**.17*** **	**.12** **	**.11***	**.15** **
My parents and I have a lot of fun together (1=strongly agree, 4=strongly disagree)	.06	.03	.02	-.01
No one pays much attention to me at home (1=strongly agree, 4=strongly disagree)	**.17*** **	**.12** **	**.10***	.06
I'm popular with my classmates (1=strongly agree, 4=strongly disagree)	.03	.00	**.12** **	.04

*p<.05; **p<.01; ***p<.001

Data on the preferred occupations (coded into categories) of pupils in both cohorts and their mean reading and Mathematics achievements are presented in Table 4.32. Only categories chosen by more than 20 pupils in both 1997 and 2000 are highlighted in Table 4.32. Across the two years for which data are available, only four occupational categories contain a minimum of 20 pupils in each category. Reading achievement follows a pattern of decreasing scores among the following groups: "professional", "fantasy/ unrealistic", female-typed "trades" and male-typed "trades" in both 1997 and 2000. Thus, pupils opting for professional jobs achieved at higher levels than did those opting for female- or male-typed trades. The scoring pattern for Mathematics is the same as that described for reading among the 1997 cohort, but differs slightly in the 2000 cohort. While pupils opting for professional jobs in 2000 achieved the highest mean Mathematics score in the group, the lowest score was achieved by pupils specifying a fantasy / unrealistic type-job. Although the small numbers limit

the comparisons that can be made, there seems to be some relationship between career choice and achievement, with pupils who opted for professional careers achieving higher mean scores than those choosing jobs in other popular categories.

Table 4.32. Mean reading and Mathematics scores of 6th class pupils in *Breaking the Cycle* schools choosing jobs in various occupational categories[1] in 1997 and 2000.

	1997 cohort		**2000 cohort**	
Category of job	**Mean reading score**	**Mean Mathematics score**	**Mean reading score**	**Mean Mathematics score**
Technology (e.g., computer programmer)	45.1 (*n*=9)	58.9 (*n*=9)	33.4 (*n*=24)	43.8 (*n*=23)
Artistic / creative (e.g., fashion designer)	34.9 (*n*=30)	47.5 (*n*=25)	32.6 (*n*=13)	37.9 (*n*=9)
Agricultural / outdoor work (e.g., farmer)	23.7 (*n*=3)	30.0 (*n*=30)	32.5 (*n*=2)	52.5 (*n*=2)
Professional (e.g., lawyer, teacher, doctor)	**33.7 (*n*=171)**	**49.9 (*n*=158)**	**31.9 (*n*=101)**	**43.5 (*n*=97)**
Law enforcement / armed forces (e.g., guard or soldier)	27.2 (*n*=32)	41.1 (*n*=33)	28.2 (*n*=18)	34.1 (*n*=17)
Miscellaneous / unspecific (e.g., well-paid job)	28.0 (*n*=13)	40.9 (*n*=14)	28.1 (*n*=30)	40.0 (*n*=30)
Unrealistic / fantasy (e.g., pop-star, stunt man, footballer)	**29.5 (*n*=140)**	**42.4 (*n*=130)**	**26.7 (*n*=131)**	**37.5 (*n*=123)**
Animal-orientated jobs (e.g., vet or trainer)	26.9 (*n*=9)	40.1 (*n*=8)	26.5 (*n*=8)	36.6 (*n*=7)
Female-typed trades (e.g., beautician)	**27.5 (*n*=74)**	**38.6 (*n*=68)**	**25.3 (*n*=62)**	**37.7 (*n*=57)**
Male-typed trades (e.g., builder, electrician or mechanic)	**23.7 (*n*=49)**	**37.2 (*n*=51)**	**24.9 (*n*=66)**	**38.5 (*n*=53)**
Don't know	26.2 (*n*=12)	36.4 (*n*=12)	22.8 (*n*=5)	38.5 (*n*=4)
Homemaker	12.0 (*n*=2)	25 (*n*=2)	22.0 (*n*=1)	———
Travel industry (e.g., travel guide)	39.6 (*n*=5)	50.7 (*n*=6)	21.5 (n=2)	32.3 (n=3)
Services (e.g., sales assistant)	24.8 (*n*=45)	36.3 (*n*=43)	18.9 (*n*=17)	30.4 (*n*=13)
Professional childcare / carer (e.g., crèche worker)	27.3 (*n*=14)	36.8 (*n*=10)	8.0 (*n*=1)	———

[1] Scores are presented in descending order of the mean reading score of each occupational group in the 2000 cohort.

It is noteworthy, however, that the only group in 1997 in which the mean score exceeded that of the norm group (national means are 40.4 in reading and 58.7 in Mathematics) was composed of pupils who indicated that they wished to work in the area of technology (*n*=9). Those who chose a career in technology in 2000 also had the highest mean reading score of any of the 15 occupational groups, but their mean score were not high enough to exceed that of the norm group. The highest mean score in Mathematics was achieved by pupils choosing agricultural / outdoor work (*n*=2), but their mean score was also lower than that of pupils in the standardisation sample.

4.10. CONCLUSION

Pupils in 6th class in *Breaking the Cycle* schools generally demonstrated a positive attitude towards school. In 2000, most (64%) indicated that they liked school and slightly more than half wished to proceed in full-time education until third level. There is, however, quite a large discrepancy between the percentage of pupils who said they would *like* to go to college or university (51.6%) and the percentage who thought they would *actually* go (32.7%). This discrepancy has also been found among other samples of pupils (e.g., Cosgrove et al. 2000), but it is of a greater magnitude in *Breaking the Cycle* schools.

Most pupils also had very positive attitudes towards schoolwork: 9 out of 10 were proud of their schoolwork and felt they were doing well at school, while virtually all thought it important for them to do well at school.

When pupils were asked to rate their own performance relative to others in their class, it was noteworthy that 6 out of 10 pupils considered themselves to be near the top of their class at English. It was in the subject area of Irish that pupils' evaluations of their performance were the least positive. There was a good consensus among pupils that success at school depended on study and hard work, rather than on natural ability or luck. It could be inferred from this that pupils had fairly realistic views about the determinants of success at school. However, there was an increase between 1997 and 2000 in the percentages of pupils that agreed that success at school depends on factors such as being smart (54.5% in 2000 vs 43.1% in 1997) and being lucky (16.9% in 2000 vs 13.1% in 1997). This suggests that pupils in the 2000 cohort were more fatalistic in their attributions for scholastic success than were their counterparts in 1997. When responses of pupils in the 1997 and 2000 cohorts were compared across all questionnaire items, they were found to be strikingly similar. However, a greater percentage of pupils in 2000 than in 1997 strongly agreed that they were proud of their schoolwork, liked to be asked questions in class, and felt that they were doing well at school.

Not only were positive attitudes towards school prevalent among pupils in 2000, but most had positive views of themselves, and of their relationships with peers and parents. There is, however, a small but significant minority of pupils for whom the experience of school was less positive. A small percentage of pupils indicated that they did not wish to continue in school past primary school (4.3%)

or past Junior Certificate (12.5%), while almost one in five claimed to dislike school 'a lot'. Also, about 15% of pupils felt they were not popular with their classmates and almost one in five reported that they often felt lonely at school.

Gender differences among pupils were observed in the case of eleven of the twenty-nine questionnaire items in 2000, with six of these differences arising in boys' and girls' self-ratings in a variety of subject areas. The self-evaluations of girls exceeded those of boys in Irish writing, Art and Craft, and Music, while boys' self-evaluations were more positive than those of girls in History, Geography and Sport. In terms of their general attitude to school, girls were more positive towards school than were boys. While about one in five pupils overall claimed to dislike school a lot, this attitude was much more common among boys (23.9%) than among girls (11.5%). The educational aspirations of girls (i.e., how long they wished to remain in full-time education) also exceeded those of boys, although their educational expectations (the length of time they thought they would *actually* remain in education) did not differ much from those of boys. These observations are consistent with those of an earlier Irish study of scholastic self-concept in 6th class pupils (Kellaghan & Fontes, 1988) which revealed the self-ratings of girls on motivational and attitudinal characteristics to be higher than those of boys, and are also in line with data gathered from 5th class pupils as part of the National Assessment of Reading in 1998 (Cosgrove et al., 2000). When the attitudes of boys and girls in the 1997 and 2000 cohorts were compared, the pattern of gender differences in both years was found to be broadly similar, although there appeared to be more change in the attitudes of girls than of boys. For example, girls in the 2000 cohort had more pride in their schoolwork, thought they were doing better at school, and felt they were more popular with their peers than did girls in the 1997 cohort.

Analysis of the relationship between pupils' attitudes and their achievements yielded some interesting findings. Higher scores in reading and Mathematics were associated with positive attitudes towards schooling, and pupils who aspired to stay in the education system longer and expected to stay in education longer tended to do better in both subjects. However, liking for school was not significantly related to either reading or Mathematics achievement. This appears to result from the non-linear nature of responses to the item on liking for school. For example, pupils who claimed to like school "a lot" had lower mean Mathematics scores than those who merely liked school, or those who disliked it, or disliked it a lot. This finding is somewhat surprising, as one might have expected that liking for school would increase as scholastic performance (and the associated rewards) increased. However, in the case of *Breaking the Cycle* pupils, the two appear to be unrelated. Perhaps it is a result of teachers' ability to instil in their pupils a positive attitude towards school which is not solely dependent on pupils' academic success. If this is so, it is a positive outcome of the scheme, as pupils who are weak academically, but who enjoy school, may remain in the education system longer.

Positive feelings towards schoolwork (welcoming questions in class, thinking it important to do well at school, and disagreeing that scholastic success depends on luck or natural ability) were also associated with higher achievement. Surprisingly – and unlike in 1997 – the correlation in 2000

between pride in schoolwork and achievement in either reading or Mathematics was not significant, probably because of lack of variance in the pride in schoolwork variable.

Pupils who perceived themselves to be near the top of their class in reading and Mathematics tended to achieve higher scores in both curriculum areas. In fact, high self-ratings in most subject areas were positively related to reading and Mathematics achievement. However, positive self-evaluations in Art and Craft were associated with poorer reading and Mathematics scores, positive self-evaluations in Sport were associated with poorer reading scores, and positive self-evaluations in Music were associated with poorer Mathematics scores.

Achievement was also related to some of the more general pupil variables, such as those concerning self-concept and perceived atmosphere in the pupil's home. Higher reading and Mathematics scores were associated with reported lack of loneliness at school and with pupils disagreeing that they were a lot of fun to be with. Higher scores in reading were also associated with pupils disagreeing that no one paid them much attention at home. Pupils who considered themselves to be popular with their classmates also tended to have lower reading scores.

Finally, pupils who aspired to occupations which were classified as "professional" achieved higher mean Mathematics and reading scores than did those choosing less "realistic" jobs (such as "pop star"), or various "trades" as their occupation of preference. However, it should be noted that, in 2000, none of the mean scores achieved by any of the occupational groups exceeded those of the norm groups, whereas in 1997 the scores of pupils who aspired to jobs in the area of technology were higher in both subject areas than those of the standardisation sample.

5. THE IMPACT OF THE SCHEME ON SCHOOLS

Since the inception of the *Breaking the Cycle* scheme in 1996, School Questionnaires have been distributed annually to principals in participating urban schools. The response rate in each year was very high: all principals in 1997, 96.9% in 1998, 100% in 1999, 96.9% in 2000, and 90.6% of principals in 2001, returned completed questionnaires.

Although items in the questionnaire were designed to elicit information about a wide range of areas of school life, the sheer abundance of information collected over the four years rendered a detailed analysis of every questionnaire item from each year impractical. Thus, only a selection of data from the School Questionnaires is examined in this report[1]. Of particular interest, from the viewpoint of the final evaluation, were items regarding school personnel and resources, enrolment and attendance, rates of psychological assessment among pupils, discipline, the strength of links between home and school, and principals' views of the impact of the scheme. Particular emphasis was placed on the results of the 1996/97 School Questionnaire, which detailed what schools were like at the outset of the scheme, and the 2000/01 School Questionnaire, which described schools' characteristics towards the end of the 5-year pilot project. It was hoped that a comparison of the 1996/97 baseline data with the results from the subsequent questionnaires (and in particular the 2000/01 School Questionnaire) would reveal whether the scheme had an impact on pupils and schools in important areas of school life. Clearly, the fact that the number of respondents is small (e.g., 33 principals in 1996/97 and 29 in 2000/01) imposes some constraints on the kind of statistical analysis that is possible, and makes it difficult to obtain differences which are statistically significant. For this reason, this section is largely descriptive.

The availability of teaching personnel and schools' access to various facilities and items of equipment are examined in Section 5.1. Enrolment and attendance levels are described in Section 5.2, while discipline and psychological assessment rates, and pupil retention rates are examined in Section 5.3. Section 5.4 looks at the strength of home–school links, and, finally, principals' opinions and perceptions of *Breaking the Cycle* are described in Section 5.5.

5.1. SCHOOL PERSONNEL & RESOURCES

Both the 1996/97 and 2000/01 School Questionnaires required principals to provide information about the number and types of teaching personnel working in *Breaking the Cycle* schools. Information on the more "physical" attributes of the school, for example the facilities and equipment available, was also collected.

[1] Data from the 1996/97 School Questionnaire were presented in the report *The Breaking the Cycle Scheme in Urban Schools: A Report for 1996-1997* (Weir & Eivers, 1998). Similarly, principals' responses in 1997, 1998, and 1999 were examined in the *Interim Report on the Evaluation of the Breaking the Cycle Scheme in Urban Schools* (Weir & Ryan, 2000).

5.1.1. Personnel

Principals were asked to identify all teaching personnel who had worked in the school for at least three months during the 1995/96 and 1999/2000 school years. During the 1995/96 school year, schools had a mean of 10.15 class teachers (Table 5.1). In contrast, during the 1999/2000 school year, there was an average of 12.50 class teachers in each school. That there was an increase in the mean number of class teachers is not surprising, however, as one of the key elements of the urban dimension of *Breaking the Cycle* involved reducing the pupil-teacher ratio (PTR) in Junior classes to about 15:1. Thus, schools would have hired additional teachers in order to facilitate such reductions.

In 1999/2000, all but one school employed a remedial teacher, and approximately one quarter of principals indicated that they had access to a resource teacher or special needs teacher (24.1% and 27.6% respectively). In 1999/2000, over half of schools (58.6%) also had access to a teacher/counselor, and 37.9% of schools had a special teacher for Travellers. Finally, there was an increase in 1999/2000 in the mean number of "specialized" teachers (e.g., P.E., Arts and Crafts, and Cookery teachers) in schools.

Table 5.1. Mean number of different types of teaching personnel in schools participating in *Breaking the Cycle* and percentage of schools that had access to each type of teaching personnel during the 1995/96 (*N*=33 schools) and 1999/2000 (*N*=29 schools*) school years.

Type	**1995/96**			**1999/2000**		
	Mean number	Minimum-maximum	% Have Access	Mean number	Minimum-maximum	% Have Access
Class teachers	10.15	4-25	100.0%	12.50*	5-27	100.0%
Remedial teacher	1.64	1-4	100.0%	1.28	0-2	96.6%
Teacher / counsellor	0.36	0-1	36.4%	0.66	0-3	58.6%
Special teacher for Travellers	0.27	0-3	18.2%	0.55	0-3	37.9%
Special needs teachers	**	**	**	0.38	0-2	27.6%
Resource teacher	**	**	**	0.28	0-2	24.1%
P.E.	0.06	0-1	6.1%	0.24	0-1	31.0%
Dance / music / speech & drama	0.24	0-2	18.2%	1.10	0-4	48.3%
Art & Craft / Cookery / costume design	0.12	0-3	6.1%	0.51	0-3	27.6%

*In 1999/2000 there was a mean of 9.27 ordinary class teachers and 3.23 special class teachers. No distinction was made in the 1996/97 questionnaire.

**Questionnaire items in items in 1996/97 were open-ended, while questionnaire items in 2000/01 gave teachers a choice of teaching personnel. Thus, the absence of resource/special needs teachers in 1996/97 may be due to differences in coding rather than an actual lack of these types of teaching personnel.

Two additional items in the 2000/01 School Questionnaire sought to assess the extent to which principals had difficulty in filling teaching posts and retaining teachers in their school. The data indicate that principals were experiencing considerable difficulties with staff shortages and turnover as 79.3% of principals reported some, or great, difficulty in attracting teachers to take up posts and 60.8% reported some, or great, difficulty in retaining teachers (Table 5.2).

In an attempt to examine the extent to which there was a lack of qualified primary school teachers nationally, the Joint Committee on Education and Science conducted a survey of primary schools throughout Ireland, met with key educational organisations, and held discussions with principals and teachers (Ireland, 2000). Their findings suggest that *Breaking the Cycle* principals were not alone in their struggle to fill teaching posts and retain teachers. For example, 85% of the 938 schools that replied to the Committee's survey said that they were having more difficulty recruiting qualified teachers than three years previously. In fact, it appears that the problem is more acute in urban areas, as 94% of principals in urban schools reported problems filling vacancies. According to one Dublin principal:

> the problem of sourcing qualified staff is particularly critical for inner city schools... some seven or eight years ago we had 20 to 30 applicants for a permanent position, but now we get only 1 or 2 if we are lucky. Many teachers do not want the hassles of working in inner-city schools... (p.5).

The fact that the turnover rate in schools participating in the scheme is so high (65.1%) seems to serve as further evidence of the undesirability of teaching posts in *Breaking the Cycle* schools. Unfortunately, the turnover rate among teachers nationally was not examined in the Committee's report. However, the report did state that "the large numbers of teachers under 30 years leaving the profession suggests the availability of teachers crisis will worsen…" (p.7), which may indicate that the high turnover evident in *Breaking the Cycle* schools is part of a national trend.

Table 5.2 Number and percentage of principals in 2000/01 who indicated that they had great difficulty, some difficulty, or no difficulty, attracting teachers to take up posts, and retaining teachers, in urban *Breaking the Cycle* schools.

Attracting teachers to take up posts (*N*=29)		
Great difficulty	Some difficulty	No difficulty
10 (34.5%)	13 (44.8%)	6 (20.7%)
Retaining teachers (*N*=28)		
Great difficulty	Some difficulty	No difficulty
5 (17.9%)	12 (42.9%)	11 (39.2%)

In their report, the Committee also noted that 40% of all schools surveyed employed teaching staff who are not trained, or whose qualifications are not recognised by the Department of Education and Science. Again, this number was higher in urban areas, where 55% of schools reported having unqualified teaching staff. Although the School Questionnaires did not include any items on teachers'

qualifications, some of the principals raised the issue of unqualified teaching staff in their responses to open-ended items on the 2000/01 questionnaire. For example, one principal in 2000/01 wrote:

> …Of 7 people teaching in school this year 3 were fully qualified and probated B.Ed teachers. Two of these 3 have been quite ill during the year and were subsequently quite absent. A 3-week period recently saw one fully qualified and probated teacher in attendance i.e., me. However this situation has been a vast improvement on that countenanced by my predecessor last year (1999/2000). At one point in that school year there were 3 in total staff attendance of whom one – the principal- was a qualified B. Ed.

Thus, in early 2002, the schools participating in the urban dimension of the scheme were contacted and asked how many full-time class teachers currently working in the school (i.e., in April 2002) had either restricted qualifications or no prior teacher training, and whether this number was fewer, more, or the same as in the year prior (e.g., in 2000/01). Principals' responses are presented in Table 5.3.

Notably, only nine schools (28.2%) reported that all of the teaching staff in their school were fully qualified primary school teachers. On average, 12.6% of class teachers working in *Breaking the Cycle* schools in 2001/2002 had either restricted qualifications or no primary teacher training. However, there was considerable variation among schools. For example, while in one school only one of the 32 teachers was unqualified, another school reported that five of the eight teachers (62.5%) working in the school were unqualified. In total, there were 16 class teachers with restricted qualifications, and 46 teachers with no primary teacher training teaching in urban *Breaking the Cycle* schools in 2001/2002.

It appears that the lack of qualified teaching staff was also of concern during the pilot phase of the project. Although eight principals stated that they currently had more unqualified teachers than usual, 17 principals reported that the situation with unqualified teaching staff was the same in previous years. Furthermore, four said that in previous years they had a *higher* number of unqualified teachers. One principal, for example, reported that, in the final year of the scheme (i.e., 2000/2001), 16 of the 33 teachers (48.5%) working in the school were unqualified, while another noted that nine of the 23 teachers (39.1%) on staff in 2000/01 had no primary teacher training.

Since there are no national data available on the average number of unqualified teaching staff per school, it is difficult to ascertain whether the *Breaking the Cycle* schools have a higher than average number of unqualified teaching staff per school. However, the finding that 71.9% of schools participating in the scheme had at least one unqualified teacher, compared to 55% of urban schools surveyed by the Committee of Education and Science, seems to underscore the need to make teaching posts in *Breaking the Cycle* schools more desirable.

Furthermore, the Committee recognised that "unqualified teachers are now a part of life in many schools" and recommended that "guidelines and paid in-service development programmes after school or at weekends is urgently needed" for such teachers (p.7). While many of the principals commented that the unqualified teachers in their school were excellent teachers, the provision of such

training programmes in schools participating in the scheme might be of benefit. Indeed, this recommendation seems particularly important, given that quality of teaching is one of the most significant determinants of a child's success in school (Ireland, 1999b).

Table 5.3. Total number of class teachers in each of the 32 *Breaking the Cycle* schools in April 2001/2002, and the number and percentage of those teachers who were unqualified, broken down into those with restricted qualifications, and those with no primary teacher training. Also, principals' indications of whether the number of unqualified staff is more, fewer, or the same as usual.

School*	Total number of class teachers in 2001/2002	Unqualified teachers in 2001/2002			More or fewer than usual
		Total number (and %)	Number with restricted qualifications**	Number with no primary teacher training***	
1	8	5 (62.5%)	1	4	Same
2	11	6 (54.5%)	2	4	—
3	8	4 (50.0%)	1	3	Same
4	8	3 (37.5%)	0	3	Same
5	6	2 (33.3%)	0	2	More
6	19	5 (26.3%)	1	4	Same
7	17	4 (23.5%)	1	3	More
8	9	2 (22.2%)	2	0	More
9	23	5 (21.7%)	1	4	Fewer
10	22	4 (18.2%)	0	4	More
11	18	3 (16.6%)	2	1	More
12	20	3 (15.0%)	0	3	—
13	17	2 (11.8%)	1	1	Fewer
14	10	1 (10.0%)	0	1	Same
15	32	3 (9.4%)	0	3	Fewer
16	12	1 (8.3%)	1	0	Same
17	24	2 (8.3%)	1	1	More
18	13	1 (7.7%)	0	1	—
19	14	1 (7.1%)	1	0	Same
20	16	1 (6.2%)	1	0	More
21	35	2 (5.7%)	0	2	Same
22	18	1 (5.5%)	0	1	More
23	31	1 (3.2%)	0	1	Same
24	6	0 (—)	0	0	—
25	5	0 (—)	0	0	Same
26	7	0 (—)	0	0	Same
27	6	0 (—)	0	0	Same
28	13	0 (—)	0	0	Same
29	32	0 (—)	0	0	Same
30	7	0 (—)	0	0	Same
31	18	0 (—)	0	0	Same
32	10	0 (—)	0	0	Fewer
Totals	494	62 (12.6%)	16	46	Same

* The school number is for presentation purposes only, and is not a school identity number.
** "Restricted" indicates that the teaching qualification was received in Northern Ireland or in another country. It is also used here to refer to teachers with Montessori qualifications who teach ordinary classes.
*** "No primary teacher training" includes those with BA degrees only and those with Higher Diplomas and BA degrees.

In a related item on the School Questionnaires, principals were asked about reasons for their difficulties in filling and maintaining teaching posts in their school (Table 5.4 and 5.5 respectively). Over a third (34.5%) indicated that negative perceptions of the area that the school was in, or of the school itself, deterred teachers from taking up posts in their school. For example, one principal noted:

> Social problems in the area, physical appearance of the building (school and yard), history of discipline problems.

According to another principal:

> The inner city schools are seen as tougher than suburban schools.

Similarly, 14.3% of principals indicated that factors such as stress, burn-out, frustration, and loss of self-esteem contributed to the turnover rate among teachers in their school. Principals also raised practical concerns. For example, 17.2% of principals noted that the cost of living was too expensive in the city, while 10.3% reported that the lack of parking facilities and the reluctance of teachers to drive into the city centre were factors that hindered the recruitment of teachers. The high cost of living, and traffic and parking problems, were also cited as reasons why teachers left their teaching posts in urban schools (17.9% and 14.3% respectively). Only five principals (17.9%) commented that they had no difficulties retaining staff.

Table 5.4. Number and percentage of principals in 2000/01 (*N*=29) who put forward reasons for why it was difficult to *attract* teachers to take up posts in *Breaking the Cycle* schools.

Comment	**Number (%)**
Negative perceptions about area or schools (e.g., Dublin inner-city)	10 (34.5%)
Shortage of teachers / shortage of qualified teachers	7 (24.1%)
Cost of living in Dublin too expensive / housing costs	5 (17.2%)
Teaching in school is stressful / difficult pupils	5 (17.2%)
Teachers do not want to drive into city centre / lack of parking facilities	3 (10.3%)
Teachers in temporary posts look for permanent posts elsewhere	2 (6.9%)
Greater number of positions available / teachers more attracted to school in non-disadvantaged areas (competition)	1 (3.4%)
Other	15 (41.4%)

Table 5.5. Number and percentage of principals in 2000/01 (*N*=28) who put forward various reasons for why it was difficult to *retain* teachers in *Breaking the Cycle* schools.

Comment	**Number (%)**
Teachers cannot afford Dublin accommodation prices / moving out to rural areas / teachers applying for jobs closer to home	5 (17.9%)
Teachers leave for permanent positions elsewhere / secondment / career break / only temporary positions available in school	5 (17.9%)
No parking available / traffic problems	4 (14.3%)
Difficult to teach in our school / easier to teach elsewhere	4 (14.3%)
Stress / burn-out / frustration / loss of self-esteem	4 (14.3%)
Having a teaching principal / teachers need support from principal	2 (7.1%)
Lack of parental involvement in children's education	2 (7.1%)
Specific problems in schools make it difficult to teach here (e.g. large senior classes with discipline problems, lack of accommodation in school)	2 (7.1%)
Other	6 (21.4%)

These findings have a number of implications. First, the finding that a majority of principals experienced difficulties in *retaining* teachers is discouraging, as high turnover rates can impede communication among staff (for example, preventing 3rd class teachers from passing on information regarding pupils to 4th class teachers). Indeed, these findings may explain why schools' organisational priorities in 2000/01 tended to focus on improving communication and co-operation among staff.

Furthermore, given that an adequate supply of qualified teachers is necessary in order to successfully implement class-size reduction initiatives (Commission on Class Size and Composition, 2001), principals' difficulties in attracting and retaining teachers could potentially hinder such initiatives in *Breaking the Cycle* schools. Indeed, some principals reported that, due to teacher shortages, the smaller class sizes were being maintained at the expense of the senior classes. One principal felt that the high turnover rate and shortage of qualified teachers hindered the success of the entire scheme:

> …Policies, practices and schemes such as *BTC* cannot be truly successful in terms of moving a school forward where half of the teaching cohort do not have the relevant qualifications, where in the case of teachers who may no longer be able to cope with the pace and dynamic of the endeavour, there is little available in the way of support or opportunity. As I write this, our school is potentially losing three teachers for the next school year. Their reasons for leaving include seeking of permanent work in the case of a BA Hdip teacher and in another case family reasons. No one is leaving because they do not like working in the school. In other words, if circumstances permitted none of these teachers would leave. I stress the above to dispel the notion of won't work / can't work there.
>
> All this said I am in the position of probably having to find three new teachers. The probability is that I will fill positions with non B.Ed. teachers before November. It is very hard to plan – or gain benefit from *BTC* in situations such as this.
>
> Thus if the cycle is to be broken, perhaps it would be beneficial to incentivise working in the likes of our school and personally I am doing all I can to make our school environment enjoyable for all pupils, teacher, ancillary parents etc.

Research has demonstrated that "no organisational reform, smaller class size included, will substitute for high-quality teaching" (Hertling, Leonard, Lumsden, Smith, & Picus, 2000, p.2). It is likely that addressing the concerns raised by principals (e.g., increasing the supports for teachers who may be experiencing difficulties or providing financial incentives to work in the city) would make teaching posts in urban *Breaking the Cycle* schools more appealing. This, in turn, might serve to enhance the effectiveness of the scheme.

As well as seeking information on teaching personnel, the 1996/97 and 2000/01 School Questionnaires asked principals about their own teaching responsibilities. As Table 5.6 illustrates, over half of principals in both years (51.5% in 1996/97 and 55.2% in 2000/01) reported that they did not have full-time teaching responsibilities. Just over a third of principals indicated that they had full-time teaching responsibilities (36.4% in 1996/97 and 34.5% in 2000/01), while a minority in both years did not respond to the item.

Table 5.6. Percentage of principals in 1996/97 and 2000/01 who had full-time teaching responsibilities.

	% in 1996/97 (*N*=33)	**% in 2000/01 (*N*=29)**
Principal has full time teaching responsibilities	12 (36.4%)	10 (34.5%)
Principal does not have full-time teaching responsibilities	17 (51.5%)	16 (55.2%)
Did not respond to question	4 (12.1%)	3 (10.3%)

Principals were also asked to indicate the number of hours per week that they spent on a variety of activities. The results are presented in Table 5.7.

Table 5.7. Number of hours spent by principals (full-time and part-time) on tasks or activities in a typical week** during the 1995/96 and 2000/01 school years.

Activity	**1995/96**				**2000/01**			
	F/T teaching (*N*=11)		Non-F/T teaching (*N*=20)		F/T teaching (*N*=10)		Non F/T teaching (*N*=14)	
	Mean	Range	Mean	Range	Mean	Range	Mean	Range
School administrative tasks	8.3	15.0	13.6*	12.0	10.5	25.0	13.1	15.0
Curriculum revision and/or planning	0.9	2.1	2.7*	4.5	1.5	5.0	1.9	5.0
Monitoring teaching / learning in classrooms	0.7	3.0	2.1*	7.0	0.3	1.0	1.5*	4.0
Consulting with specialist teachers	1.3	2.8	2.1*	3.0	1.0	2.0	2.2*	5.5
Discussing educational objectives with teachers	1.1	4.0	2.0*	4.5	0.7	1.0	1.6*	3.5
Professional development activities	0.3	1.0	1.4*	4.0	0.4	1.0	1.1*	2.0
Teaching	19.3	20.1	2.5*	15.0	19.2	26.7	1.6*	8.7
Demonstrating lessons	0.1	1.0	0.4*	2.0	0.1	0.5	0.1	1.0
Representing the school at meetings	1.1	2.0	1.8*	4.0	1.8	3.5	1.8	3.0
Representing the school in the community	0.8	3.0	1.9*	6.0	0.8	2.0	1.6*	4.0
Counselling / disciplining of pupils	1.5	4.8	5.3*	13.5	1.7	4.6	5.0*	14.0
Consulting with parents	1.1	2.0	3.7*	7.0	1.8	4.8	2.8	4.0
Dealing with visitors	-	-	-	-	1.7	4.8	2.9	5.5
Other	0.8	4.0	1.7	6.0	1.1	5.0	2.2	10.0
TOTAL	**37.2**		**41.1**		**42.6**		**39.4**	

*Indicates where significant differences in the mean time allocated to the activity exist between full-time teaching principals and non-full-time teaching principals.
**While the listed activities represent a comprehensive analysis of how principals spend their working week, it should not be taken as a complete account of their work, as many principals may perform activities that were not listed.

Teaching remained the most time-consuming activity for teaching principals in 1999/2000, occupying a mean of 19 hours per week. Administrative tasks were the most time-consuming activity for non-teaching principals in 1999/2000 (13.1 hours per week). Research has demonstrated that one of the key characteristics of effective schools is a principal who is "proactive in working with teachers and…[is] the key resource person in helping teachers decide on and implement instructional strategies" (Kellaghan, 1994). Thus, principals were asked how much time they allocated to working with teachers. The 1995/96 data suggest that full-time teaching principals had less time available to work with and support teachers compared to principals who did not have full-time teaching responsibilities. A similar trend emerged in 2000/01, as full-time teaching principals spent significantly less time than non-teaching principals engaging in activities such as monitoring teaching and learning in classrooms (t=3.06, df=22, p<.01), consulting with specialist teachers (t=2.40, df=22, p<.05), and discussing educational objectives with teachers (t=2.74, df=22, p<.05). In fact, two principals in 2000/01 commented that their difficulties in retaining teachers related to the fact that their full-time teaching responsibilities hindered their ability to provide support to teachers.

Principals who did not have full-time teaching responsibilities spent significantly more time than full-time teaching principals attending meetings in the community (t=3.03, df=22, p<.01) and counselling and disciplining pupils (t=2.31, df=22, p<.05). On the other hand, although principals with full-time teaching responsibilities had less time available to spend with teachers, pupils, and the community, their daily contact with the classroom often means that they are aware of the reality and concerns of the classroom, and they are able to contribute directly to the pedagogic effectiveness of the school (National Council for Curriculum and Assessment, 1999).

When the *Breaking the Cycle* findings on how principals spend their time are compared with the data collected in the Third International Mathematics and Science Study (TIMSS), it seems that the activities of *Breaking the Cycle* full-time teaching principals were not very different from those of principals in primary schools nationally. Principals in the TIMSS study were asked how much time they allocated to four main categories of school-related activities: instructional leadership activities, communicating with students, parents and education officials, administrative duties, and teaching (Martin, Mullis, Gonzalez, Smith, & Kelly, 1999). Since the primary school principals sampled in TIMSS taught, on average, 77.2 hours per month, their responses were compared with those of the full-time teaching principals in urban *Breaking the Cycle* schools (who taught, on average, 70 hours per month). For the purposes of comparison, the various response categories included in the *Breaking the Cycle* questionnaire were grouped into the four categories used in the TIMSS study. The results are presented in Table 5.8.

Table 5.8. Mean hours per month and percentage of time* that TIMSS 4th class principals, and full-time teaching principals from urban *Breaking the Cycle* schools, reported spending on various school-related activities.

Activity	*BTC* Schools F/T teaching principals (2000/01)		TIMSS 4th class principals (1995)	
	Mean hours per month	%	Mean hours per month**	%
Instructional Leadership Activities (E.g. Curriculum revision / planning, monitoring teaching / learning in classrooms, consulting with specialist teachers / discussing educational objectives with teachers, professional development activities)	15.6	9.3%	11.0	9.2%
Teaching (including demonstrating lessons)	77.2	46.5%	70.0	58.9%
School administrative tasks (includes representing the school at meetings / representing the school in the community)	52.4	31.6%	25.0	21.0%
Communicating with students, parents, and education officials (including counselling / disciplining of pupils, consulting with parents, dealing with visitors)	20.8	12.5%	13.0	10.9%
TOTAL	**166**	**100.0%**	**119**	**100.0%**

*Since the number of hours principals spent on the various activities per month differed between the two groups (probably as a consequence of the differences in response categories), for the purposes of comparison, the amount of time principals spent on the various activities were converted into percentages

** The *Breaking the Cycle* questionnaires asked principals about their *weekly* activities. Thus, in order to estimate the average time they spent on the activities *per month,* their responses were multiplied by four.

It appears that the responses of full-time teaching principals in *Breaking the Cycle* schools were comparable to those of 4th class teaching principals in the TIMSS. As can be seen in Table 5.8, both groups of principals devoted approximately 9% of their time to instructional leadership activities, and they spent a similar proportion of time communicating with pupils, parents, and educational officials (12.5% in TIMSS vs. 10.9% in *Breaking the Cycle*). In contrast, it appears that *Breaking the Cycle* principals spent a higher proportion of time on administrative tasks, and a smaller percentage of time on teaching. It is possible that principals in *Breaking the Cycle* had more administrative work as a result of the scheme. It should be noted, however, that the method of data collection, the sample, and the response categories in TIMSS were considerably different from those in the *Breaking the Cycle* and, therefore, the data are not strictly comparable.

In general, a comparison of the responses of teaching and non-teaching principals participating in the scheme suggests that the 34.5% of *Breaking the Cycle* principals who had full-time teaching responsibilities might benefit from additional support. As one principal commented:

> Considering the importance and the expense of this initiative I feel it should warrant the full-time attention of a principal - not a teaching one with limited secretarial support.

5.1.2. Accommodation and Equipment

In addition to seeking information about school personnel, the 1996/97 and 2000/01 School Questionnaires sought to elicit information on the more "physical" attributes of the schools.

First, principals were asked to report on the number of undivided permanent classrooms in their schools. In 2000/01, schools had, on average, 2.5 more permanent undivided classrooms than in 1995/96 (Table 5.9). Furthermore, a higher percentage of the permanent undivided classrooms were used as classrooms in 2000/01 (82.3% in 2000/01 vs. 78.8% in 1995/96).

Table 5.9. Mean number of undivided permanent classrooms in urban *Breaking the Cycle* schools on June 30th 1996 (*N*=33) and during the 2000/01 (*N*=28) school year. Also the percentages of undivided classrooms in use as classrooms.

Divided Classrooms	**1995/96** (*N*=33 schools)	**2000/01** (*N*=28 schools)
Mean number of undivided classrooms	12.5	15.0
% used as classrooms	78.8%	82.3%

Despite the increase in the number of undivided classrooms, the data suggest that schools were still somewhat lacking in classroom space, as there was also an increase in 2000/01 in the percentage of schools that had divided classrooms (27.4% in 1995/96 vs. 50.0% in 2000/01). Furthermore, while schools in 1995/96 had, on average, 0.7 divided classrooms, schools in 2000/01 had a mean of 1.9 divided classrooms (Table 5.10).

Table 5.10. Mean number of divided classrooms in schools during the 1995/96 and 2000/01 school years. Also, percentage of schools with divided classrooms, and percentages of these in use as classrooms, and used for other purposes.

Divided Classrooms	**1995/96** (*N*=33 schools)	**2000/01** (*N*=28 schools)
% schools with divided classrooms	27.3	50.0
Mean number of divided classrooms	0.7	1.9

The 1996/97 and 2000/01 School Questionnaires also asked about schools' outdoor facilities. Table 5.11 shows the percentage of schools which reported having a range of outdoor facilities in the 1995/96 and 2000/01 school years.

Table 5.11. Number and percentages of principals in 1995/96 and 2000/01who reported having a variety of outdoor facilities. Also, for those who reported having a given facility, percentage of principals who deemed the facility satisfactory.

	School year	Number		Satisfactory	
		Number (%) Yes*	Range	%Yes	%No
Paved play area	1995/96 (*n*=31)	30 (96.9%)	3.0	64.5%	35.5%
	2000/01 (*n*=29)	26 (89.6%)	3.0	65.2%	34.8%
Grass play area	1995/96 (*n*=31)	9 (29.0%)	2.0	58.7%	41.7%
	2000/01 (*n*=22)	5 (18.5%)	1.0	62.5%	37.5%
Ball court	1995/96 (*n*=31)	8 (25.8%)	3.0	60.0%	40.0%
	2000/01 (*n*=26)	4 (15.3%)	3.0	75.0%	25.0%
Shelter	1995/96 (*n*=32)	14 (43.8%)	2.0	60.0%	40.0%
	2000/01 (*n*=26)	10 (38.4%)	2.0	50.0%	50.0%
Grass pitch	1995/96 (*n*=31)	6 (19.4%)	1.0	40.0%	60.0%
	2000/01 (*n*=27)	4 (14.8%)	1.0	75.0%	25.0%
Car park	1995/96 (*n*=29)	20 (69.0%)	1.0	50.0%	50.0%
	2000/01 (*n*=27)	19 (70.4%)	2.0	45.5%	54.5%
Other (e.g., tarmac yard, church yard)	1995/96 (*n*=30)	-	-	-	-
	2000/01 (*n*=15)	6 (40.0%)	1.0	60.0%	40.0%

*Percentage refers to the percentage of principals who responded to this item.

As can be seen from Table 5.11, there was a decrease between 1995/96 and 2000/01 in the percentage of principals who indicated that their school had the following outdoor facilities: a paved play area (96.9% vs. 89.6% respectively); a grass play area (29.0% vs. 18.5% respectively); a ball court (25.8% vs. 15.3% respectively); a shelter (43.8% vs. 38.4% respectively); and a grass pitch (19.4% vs. 14.8% respectively). However, 40.0% of principals in 2000/01 reported that pupils had access to other facilities, including tarmac play areas, school gardens, church yards, and community centres. That there was a slight increase in the percentage of schools that had parking facilities is positive, particularly since the lack of parking facilities was seen by some principals to be a factor which made it difficult to attract and retain teachers (Tables 5.4 and 5.5).

However, only 45.5% of the principals in schools with car parks thought that the facility was satisfactory, compared to 50.0% in 1995/96. In contrast, it appears that principals were increasingly satisfied with their other facilities. Specifically, compared to 1995/96, a higher proportion of principals who reported having a paved play area, a grass play area, a ball court, and/or a grass pitch in 2000/01 reported that these facilities were satisfactory.

Questions about schools' indoor facilities were also included in the 1996/97 and 2000/01 School Questionnaires. Table 5.12 shows a sample of the types of rooms found in schools during the 1995/96 and 2000/01 school years.

Table 5.12. Percentages of schools with different types of rooms (% Yes), during 1995/96 (*N*=33) and 2000/01 (*N*=29). Also, percentages of these rooms that had a shared function, and that were converted classrooms.

Room Type	School year	% Yes	% Shared	% Converted
Staff room	1995/96	93.9%	26.9%	23.1%
	2000/01	96.6%	43.5%	29.4%
Principal's office	1995/96	97.0%	37.0%	7.1%
	2000/01	96.6%	20.8%	-
Secretarial / administrative office	1995/96	72.7%	50.0%	-
	2000/01	82.8%	45.5%	-
Computer lab	1995/96	30.3%	50.0%	71.4%
	2000/01	79.3%	38.9%	87.5%
Library	1995/96	57.6%	56.3%	36.4%
	2000/01	60.7%	56.3%	66.7%
Parents' room	1995/96	66.6%	61.1%	66.7%
	2000/01	65.5%	62.5%	75.0%

As can be seen in Table 5.12, the vast majority of schools in both years had a staff room, a principals' office, and an administrative office. Notably, there was a substantial increase in the percentage of schools that had computer labs in their schools[2] (30.3% in 1995/96 vs. 79.3% in 2000/01). Furthermore, only 38.9% of the computer labs in 2000/01 were shared-function, compared to 50.0% in 1995/96. Finally, there was a slight increase in the percentage of schools that had a room for a library (57.6% in 1995/96 vs. 60.7% in 2000/01).

Principals were also asked about the availability of various types of equipment in the school. The data presented in Table 5.13 seem to suggest that the additional funding available under the scheme was beneficial in helping schools to acquire additional equipment. For example, between 1995/96 and 2000/01, there was a significant increase in the percentage of schools that had at least one stereo-system (X^2=5.77, *df*=1, p<.05), television (X^2=14.52, *df*=1, p<.001), VCR (X^2=15.12, *df*=1, p<.001), and printer (X^2=31.17, *df*=1, p<.001). Furthermore, the mean number of items of equipment in schools increased for all categories except slide projectors[3]. For example, schools had, on average, 10.76 radio/cassette players in 2000/01, compared to 7.90 in 1995/96.

[2] The increase in the availability of computer labs is probably largely attributable to the Schools I.T. 2000 project, which aims to ensure that pupils in every school were given an opportunity to achieve computer literacy. As part of the project, schools were provided with computers and software.

[3] In fact, there was also a decrease in the number of schools that had a slide projector. One explanation for this finding is that overhead projectors and videos have replaced the need for slide projectors.

Table 5.13. Number and percentage of schools that had different types of equipment, and the mean number of types of equipment in urban schools, during the 1995/96 and 2000/01 school years.

Type of equipment	**1995/96 (*N*=33)**		**2000/01 (*N*=29)**	
	Number (%) Have Equipment	Mean number per school	Number (%) Have Equipment	Mean number per school
Radio / cassette player	32 (97.0%)	7.90	28 (96.6%)	10.76
Hi-fi stereo system	3 (9.1%)	0.12	11 (37.9%)	0.62
Overhead projector	25 (75.8%)	1.39	25 (86.2%)	1.69
Strip / Slide projector	28 (84.9%)	3.12	21 (72.4%)	1.55
Camera	8 (24.2%)	0.24	22 (75.9%)	0.86
Television	31 (93.9%)	1.73	28 (96.6%)	2.86
Video cassette recorder (VCR)	30 (90.9%)	1.64	27 (93.1%)	2.66
Camcorder/video camera	3 (9.1%)	0.09	17 (58.6%)	0.62
Photocopier	33 (100.0%)	1.09	29 (100.0%)	1.13
Printer	24 (72.7%)	2.06	25 (86.2%)	3.79
Fax machine	3 (9.1%)	0.09	24 (82.8%)	0.83

Schools were also significantly more likely to have various items of computer hardware/software in 2000/01 than in 1995/96 (Table 5.14). For example, while only 12.1% of schools in 1995/96 had PCs with CD-Rom and modem, in 2000/01, all schools had PCs with CD-Rom and modem. As can be seen in Table 5.14, there was also an increase in the mean number of items of computer equipment held by schools. Finally, the vast majority of principals in 2000/01 (96.6%) reported that their school had access to email and Internet, and 35.7% of principals indicated that their school had its own website.

However, it should be noted that in recent years, the Department of Education and Science introduced a number of programmes, including the Schools I.T. 2000 initiative, with the aim of enhancing Information and Communication Technologies in schools throughout the country. Thus, the fact that *Breaking the Cycle* pupils have improved access to computer facilities and equipment cannot be attributed solely to the scheme. Nonetheless, the finding is positive, given that skills in the area of information technology are increasingly important for advancement in education, work and leisure (National Council for Curriculum and Assessment, 1999).

Table 5.14. Number and percentage of schools that had different types of computer equipment (Number % Yes) and the mean number of types of computer equipment in urban schools during 1995/96 (*N*=33) and 2000/01 (*N*=28). Also, the percentages of principals indicating the primary usage as either teaching or administration.

	School year	Number (%) Yes	Mean number	% * Teaching	% * Admin.
PC with CD-ROM and modem	1995/96	4 (12.1%)	0.15	100.0%	-
	2000/01	28 (100.0%)**	5.68	94.1%	5.9%
PC with CD-ROM only	1995/96	11 (33.3%)	0.48	66.7%	33.3%
	2000/01	24 (85.7%)**	8.18	100.0%	-
Other PC	1995/96	3 (9.1%)	0.61	-	100.0%
	2000/01	4 (14.2%)	0.48	66.7%	33.3%
CD-ROM discs	1995/96	6 (18.2%)	0.85	75.0%	25.0%
	2000/01	21 (75.0%)**	54.89	100.0%	-
Other computer (e.g., Acorn)	1995/96	22 (66.7%)	3.33	88.2%	11.8%
	2000/01	6 (21.4%)	1.08	100.0%	-

* Percentages refer to the percentage of schools that had the equipment.
**Indicates where there was a significant increase ($p<.001$) between 1995/96 and 2000/01 in the percentage of schools who had access to the item of equipment.

Overall, it appears that, compared to 1995/96, schools in 2000/01 were more likely to have a range of equipment. Given these findings, it is not surprising that principals in 2000/01 were significantly more likely than in 1995/96 to report that their school's capacity to provide instruction in each of the main curriculum areas was not at all affected by an inadequacy of equipment (other than books) (Table 5.15). For example, one third of principals (33.4%) felt that English teaching in their school was quite a lot, or very much, affected by equipment shortages during the 1995/96 school year. However, in 2000/01, only 7.4% of principals believed that this was the case ($X^2=4.48$, $df=1$, $p<.05$). Similarly, there was a significant increase between 1995/96 and 2000/01 in the percentage of principals who felt that Mathematics teaching was not at all, or a little, affected by equipment shortages ($X^2=21.53$, $df=1$, $p<.001$).

Although the differences were significant across all seven curriculum areas, it appears that there was slightly less improvement in school's capacity to teach in the other curriculum areas. For example, over a quarter of principals in 2000/01 (26.9%) reported that Irish teaching in their school was affected by a lack of equipment, although this might be because there is a limited range of materials available for teaching Irish, rather than a lack of money to purchase equipment. Furthermore, 19.2% of principals felt that a lack of equipment affected Music teaching in the school during the 2000/01 school year, and approximately 15% in 2000/01 felt that their school's capacity to provide instruction in Environmental studies, Art and Craft, and P.E. was affected. These findings suggest that additional resources should be targeted at these curriculum areas. For the most part, however, the data indicate that improvements in schools' capacity to provide instruction in each of the main curriculum areas were substantial.

Table 5.15. Numbers and percentages of principals indicating the extent to which their school's capacity to provide instruction in each of the main curriculum areas was affected by a shortage or inadequacy of equipment (other than books) during the 1995/96 and 2000/01 school years.

		Not at all	A little	Quite a lot	Very much
English	1995/96	3 (9.1%)	19 (57.6%)	6 (18.2%)	5 (15.2%)
	2000/01	18 (66.7%)*	7 (25.9%)	2 (7.4%)	-
Irish	1995/96	5 (15.2%)	12 (36.4%)	10 (30.3%)	6 (18.3%)
	2000/01	13 (50.0%)**	6 (23.1%)	6 (23.1%)	1 (3.8%)
Mathematics	1995/96	1 (3.0%)	7 (21.2%)	15 (45.5%)	10 (30.3%)
	2000/01	14 (53.8%)*	9 (34.6%)	3 (11.5%)	-
Environmental Studies	1995/96	4 (12.1%)	7 (21.2%)	16 (48.5%)	6 (18.2%)
	2000/01	15 (55.6%)*	8 (29.6%)	4 (14.8%)	-
Art and craft	1995/96	4 (12.1%)	13 (39.4%)	10 (30.3%)	6 (18.2%)
	2000/01	17 (63.0%)*	6 (22.2%)	4 (14.8%)	-
Music	1995/96	3 (9.1%)	10 (30.3%)	11 (33.3%)	8 (24.2%)
	2000/01	14 (53.8%)*	7 (26.9%)	5 (19.2%)	-
P.E.	1995/96	5 (15.2%)	8 (24.2%)	12 (36.4%)	7 (21.2%)
	2000/01	13 (50.0%)***	9 (34.6%)	4 (15.4%)	-

**Chi square* analysis revealed significant differences ($p<.001$) between 1995/96 and 2000/01 percentages.
***Chi square* analysis revealed significant differences ($p<.01$) between 1995/96 and 2000/01 percentages.
****Chi square* analysis revealed significant differences ($p<.05$) between 1995/96 and 2000/01 percentages.

When principals were asked about the extent to which their school's capacity to provide instruction was affected by a shortage of *books*, a similar pattern of findings emerged (Table 5.16). There were significant increases in 2000/01 in the percentage of principals who felt that their school's capacity to teach in each of the main subject areas was not at all affected by an inadequacy of books. This represents a considerable improvement from the 1995/96 school year, when over a third of principals (36.4%) felt that English teaching in their school was quite a lot, or very much affected; 45.5% felt that Irish teaching was quite a lot, or very much, affected; and 39.4% felt that the teaching of Mathematics was quite a lot, or very much, affected by book shortages.

Table 5.16. Numbers and percentages of principals indicating the extent to which their school's capacity to provide instruction in each of the main curriculum areas was affected by a shortage or inadequacy of books and workbooks during the 1995/96 and 2000/01 schools years.

		Not at all	A little	Quite a lot	Very much
English	1995/96	6 (18.2%)	14 (14.2%)	7 (21.2%)	5 (15.2%)
	2000/01	24 (85.7%)*	4 (14.3%)	-	-
Irish	1995/96	10 (30.3%)	8 (24.2%)	12 (36.4%)	3 (9.1%)
	2000/01	20 (71.4%)**	5 (17.9%)	3 (10.7%)	-
Mathematics	1995/96	7 (21.2%)	13 (39.4%)	7 (21.2%)	6 (18.2%)
	2000/01	20 (71.4%)*	8 (28.6%)	-	-
Environmental Studies	1995/96	5 (15.2%)	10 (30.3%)	13 (39.4%)	5 (15.2%)
	2000/01	18 (64.3%)*	7 (25.0%)	2 (7.1%)	1 (3.6%)
Art and craft	1995/96	10 (30.3%)	13 (39.4%)	6 (18.2%)	4 (12.1%)
	2000/01	18 (64.3%)***	8 (28.6%)	1 (3.6%)	1 (3.6%)
Music	1995/96	7 (21.2%)	13 (39.4%)	6 (18.2%)	6 (18.2%)
	2000/01	18 (64.3%)**	5 (17.9%)	3 (10.7%)	2 (7.1%)
P.E.	1995/96	11 (33.3%)	12 (36.4%)	4 (12.1%)	6 (18.2%)
	2000/01	20 (71.4%)**	6 (21.4%)	2 (7.1%)	-

**Chi square* analysis revealed significant differences (p<.001) between 1995/96 and 2000/01 percentages.
***Chi square* analysis revealed significant differences (p<.01) between 1995/96 and 2000/01 percentages.
****Chi square* analysis revealed significant differences (p<.05) between 1995/96 and 2000/01 percentages.

5.2. ENROLMENT AND ATTENDANCE

As well as examining the availability of personnel and resources in schools, the questionnaires completed by principals in each of the five years sought information about enrolment and attendance rates.

5.2.1. Enrolment

Table 5.17 presents the mean number of pupils enrolled in urban *Breaking the Cycle* schools in 1995, 1996, 1997, 1998, 1999 and 2000. As can be seen in Table 5.17, mean enrolment was highest in 1995, the year before the introduction of the scheme (221.1 pupils). By 2000, the average enrolment rate was at its lowest (200.4 pupils). The finding that enrolment decreased between 1995 and 2000 is of interest given that there was an increase in the mean number of class teachers during this period. These findings seem to provide further evidence that the increase in teaching personnel was related to the reduction of pupil-teacher ratios in Junior classes. It is worth noting, however, that there was considerable variation in enrolment. For example, in 2000, there were 44 pupils in the smallest school, compared to 476 pupils in the largest school.

Table 5.17. Mean number of pupils enrolled in urban *Breaking the Cycle* schools on 30th September in 1995, 1996, 1997, 1998, 1999 and 2000.

	Enrolment in 1995 (*N*=33)	**Enrolment in 1996** (*N*=33)	**Enrolment in 1997** (*N*=32)	**Enrolment in 1998** (*N*=33)	**Enrolment in 1999** (*N*=31)	**Enrolment in 2000** (*N*=29)
Mean	221.1	209.0	217.0	203.2	209.7	200.4
Minimum-Maximum	36 - 590	26-517	31-544	30-507	56-490	44 - 476

In addition to asking about total enrolment, in 1998/99, 1999/2000 and 2000/01 principals were asked to report on the number of children from the Travelling Community and the number of children of refugees, asylum-seekers and non-nationals who were enrolled in their schools.

In all three years, over half of principals reported that there were children from the Travelling Community enrolled in their school (Table 5.18).

Table 5.18. Number and percentage of *Breaking the Cycle* schools that had children from the Travelling Community enrolled on September 30th in 1998, 1999 and 2000. Also, for those schools that had children from the Travelling Community enrolled, the mean and the minimum and maximum number of such children who were enrolled.

Year	**Number (%) Yes**	**Mean number of children**	**Minimum and Maximum number of children**
1998/99 (*N*=33)	18 (54.5%)	17.2	1-41
1999/2000 (*N*=31)	17 (54.8%)	14.8	1-43
2000/01 (*N*=29)	17 (58.6%)	16.7	2-46

The number of children from the Travelling Community that were enrolled varied from school to school. For example, two schools in 2000/01 had two such children enrolled, while another had 46 enrolled. On average, there were 17.2 pupils from Travelling Community enrolled in 1998/99, 14.8 in 1999/2000, and 16.7 in 2000/01.

Table 5.19 presents the mean number of children from the Travelling Community by class level. In 2000/01, Senior Infant, Junior Infant and 3rd classes had the highest proportion of such children enrolled.

Table 5.19. Mean number of children from the Travelling Community enrolled for each class level during the 1998/99, 1999/2000, 2000/01 school years.

Year	**E.S.**	**J.I.**	**S.I.**	**I**	**II**	**III**	**IV**	**V**	**VI**	**Other**
1998/99 (*N*=17*)	0.18	2.06	2.53	2.41	1.94	2.35	1.47	2.12	1.88	0.24
1999/2000 (*N*=17)	0.24	2.12	2.29	2.29	2.00	1.18	1.12	1.06	1.24	1.24
2000/01 (*N*=17)	0.06	2.12	2.18	1.94	1.94	2.18	1.71	1.29	1.82	1.53

*One school indicated that there were Traveller children enrolled but did not report how many.

As can be seen in Table 5.20, 54.5%, 64.5% and 58.6% of schools had children of refugees, asylum-seekers and non-nationals enrolled in 1998/99, 1999/2000, and 2000/01 respectively. In both 1998/99 and 2000/01, schools had, on average, 9.5 children from such families enrolled, compared to 8.7 in 1999/2000.

Table 5.20. Number and percentage of *Breaking the Cycle* schools that had children of refugees, asylum-seekers, and non-nationals enrolled on September 30th in 1998, 1999 and 2000. Also, the mean and the minimum and maximum number of such children enrolled.

Year	Number (%) Yes	Mean number of children	Maximum and minimum number of children
1998/99 (*N*=33 schools)	18 (54.5%)	9.5	1-18
1999/2000 (*N*=31 schools)	20 (64.5%)	8.7	1-35
2000/01 (*N*=29 schools)	17 (58.6%)	9.5	1-22

Table 5.21 presents the mean number of children of refugees, asylum-seekers and non-nationals by class level. In 2000/01, Junior Infant and 1st and 4th classes had the highest proportion of such children enrolled.

Table 5.21. Mean number of children of refugees, asylum-seekers, and non-nationals enrolled for each class level in 1998/99, 1999/2000, 2000/01.

Year	E.S.	J.I.	S.I.	I	II	III	IV	V	VI	Other	Total
1998/99	0.07	1.57	1.71	1.36	1.50	1.21	0.64	0.57	0.79	0.07	9.50
1999/2000	-	1.26	0.89	0.95	1.00	1.58	1.16	1.05	0.63	0.26	8.74
2000/01	0.06	1.65	1.18	1.47	1.06	1.18	1.35	1.06	0.53	-	9.53

The data presented in Tables 5.18 to 5.21 are of interest for several reasons. First, Travellers are one of the most marginalised and disadvantaged groups in Irish society (O'Connell, 1998). Similarly, children of refugees, asylum-seekers and non-nationals are among the most marginalised groups in Ireland (Irish Refugee Council, 2001). Given that one of the key objectives of *Breaking the Cycle* is to target resources at those schools with the highest concentrations of marginalised pupils, the finding that over half of schools in all three years had children from the Travelling Community, and/or children of refugees, asylum-seekers and non-nationals enrolled suggests that the scheme was successful in identifying those schools that are most in need of support. The reason for the relatively high number of non-nationals may be related to the government's housing strategy. Often these immigrants are initially housed in the inner city, where many of the *Breaking the Cycle* schools are located.

Furthermore, although there is a lack of up-to-date statistical data on Traveller participation in the education system, the Report of the Task Force on the Travelling Community reported in 1995 that only an estimated 10% of Traveller children transfer successfully to second-level schools, and very few of these complete a full second-level education (Irish Traveller Movement, 2002). Thus,

the fact that there are children from the Travelling Community enrolled in over half of the *Breaking the Cycle* schools may be of importance when the rates of transfer from primary to post-primary school, and the Junior Cycle completion rates of pupils in selected *Breaking the Cycle* schools are examined in 2007.

Furthermore, although there has been some improvement in recent years, the school attendance levels among Traveller children tend to be poor (Irish National Teachers' Organisation, 1995; Department of Education, 1994). Thus, given that over half of schools in 1998/99 and 1999/2000 had children from the Travelling Community enrolled, there is a possibility that such children contributed to the sizeable proportion of pupils identified as chronic poor attenders (see Tables 5.25 and 5.26).

With regard to psychological assessments, the Report of the Planning Group for the National Educational Psychological Service (NEPS) noted that children of refugees, non-nationals, and asylum-seekers may have had traumatic experiences in their countries of origin, and may, therefore, display symptoms of anxiety, fear, withdrawal or post-traumatic stress (Department of Education, 1998). These children may also have experienced the loss of their home, family or friends. Thus, it is possible that the higher than average rate of referral for psychological consultation in urban *Breaking the Cycle* schools in 1998/99 was due, in part, to the fact that half of schools had children of refugees, asylum-seekers and non-nationals enrolled (Table 5.34).

Finally, in the case of children of refugees, asylum-seekers or non-nationals, parents may have difficulty communicating in English, which in turn may hinder their involvement in parental courses and school activities, and prevent them from assisting their children with schoolwork. Similarly, the Task Force on the Travelling Community reported that Traveller parents are not significantly involved in the schooling of their children (Irish Traveller Movement, 2002). Thus, that over half of *Breaking the Cycle* schools have children from these populations enrolled has some implications with regard to the schemes' objective of increasing parental involvement in their children's education. The findings might point to a need for schools to adopt alternative strategies to target this particular group of parents.

Overall, data on the levels of enrolment of children from the Travelling Community and children of refugees, asylum-seekers and non-nationals is of interest, given that the evaluation of the scheme entailed examining the scheme's impact on factors such as: Junior Cycle completion rates and Mathematics and English achievements; attendance rates; rates of psychological assessment; and the extent of parents' involvement in their children's education in the selected schools. However, the data should be interpreted with caution, as principals were not asked to specify, for example, the attendance rate of children from the Travelling Community.

5.2.2. Attendance

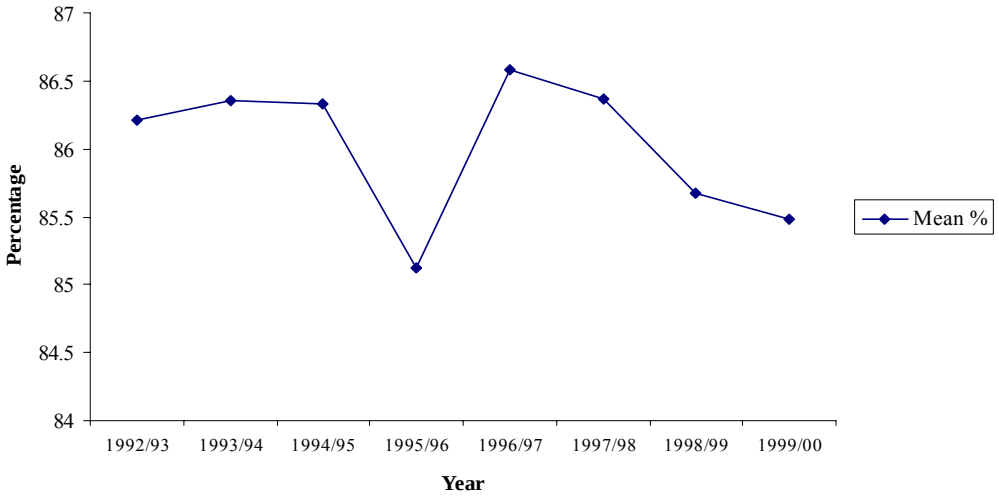
School attendance data were analysed to determine whether attendance had improved since the introduction of *Breaking the Cycle*. Principals were asked to refer to their school records and to report the average annual attendance rate, the number of chronic poor attenders, and the number of pupils referred to officials for poor attendance each year.

As can be seen from Table 5.22 and Figure 5.1, over the six-year period, the average attendance in urban *Breaking the Cycle* schools remained relatively stable at approximately 86%. However, the daily attendance rates in all Dublin City schools in 1996/97, 1997/98, 1998/99, and 1999/2000 were 91%, 91%, 90%, and 90%, respectively (School Attendance Committee, 1997, 1998, 1999, 2000). Thus, the average attendance rate in urban *Breaking the Cycle* schools between 1995 to 2000 (86%) was consistently below the average rate of attendance in Dublin schools during this period (90%).

Table 5.22. Statistics on percentage attendance rate in urban participating schools for the school years 1992/93 to 1999/2000.

School year	Mean %	Mode	Range
1992/93 (*N*=33 schools)	86.21%	85.0	24.0
1993/94 (*N*=33 schools)	86.36%	89.0	18.0
1994/95 (*N*=33 schools)	86.33%	88.0	15.0
1995/96 (*N*=33 schools)	85.12%	84.0	18.0
1996/97 (*N*=30 schools)	86.58%	89.0	14.0
1997/98 (*N*=33 schools)	86.37%	85.0	18.3
1998/99 (*N*=31 schools)	85.67%	84.0	12.5
1999/2000 (*N*=28 schools)	85.48%	86.0	12.0

Figure 5.1. Mean annual percentage attendance in schools from 1992/93 to 1999/2000.



Principals were also asked to indicate the number of pupils in their school who were brought to the attention of the School Attendance Officer (SAO) or Gardaí for non-attendance at school, and the number of pupils against whom legal proceedings were brought for poor attendance each year (Tables 5.23 and 5.24).

Table 5.23. Number and percentage of pupils who were brought to the attention of Gardaí / SAO for poor attendance during the 1995/96, 1996/97, 1997/98, 1998/99 and 1999/2000 school years.

School year	Number of pupils	% of total population*
1995/96 (*N*=32 schools)	566	7.22%
1996/97 (*N*=31 schools)	216	3.32%
1997/98 (*N*=31 schools)	359	5.25%
1998/99 (*N*=30 schools)	422	6.55%
1999/2000 (*N*=28 schools)	279	4.90%

* percentage of total population in schools in which principals answered the item.

Table 5.24. Number of pupils who had legal proceedings instituted against them under the School Attendance Act (1926) during the 1995/96, 1996/97, 1997/98, 1998/99 and 1999/2000 school years.

School year	Number	% of total population*
1995/96 (*N*=31 schools)	40	0.51%
1996/97 (*N*=31 schools)	29	0.48%
1997/98 (*N*=25 schools)	46	0.67%
1998/99 (*N*=31 schools)	39	0.63%
1999/2000 (*N*=28 schools)	28	0.49%

* percentage of total population in schools in which principals answered the item.

As can be seen in Tables 5.23 and 5.24, there was a considerable difference between the number of pupils who were referred to the SAO and the number of pupils against whom legal proceedings were instituted. For example, 279 pupils (or 4.9% of the total school population) were referred to the SAO in 1999/2000, while only 28 pupils (0.49%) had legal proceedings brought against them. One possible explanation for this discrepancy is that when pupils are referred to the SAO, their parents are issued with a statutory warning informing them that continued failure to ensure regular attendance of their children at school may result in the initiation of legal proceedings under the School Attendance Act (School Attendance Committee, 1997). Often these cautions lead to an improvement in attendance and therefore no further action is necessary.

Between 1995/96 and 1999/2000 there was little overall change in the percentage of pupils who had legal proceedings brought against them (0.51% vs. 0.49% respectively). However, the number of referrals to the SAO decreased between 1995/96 and 1999/2000 (7.22% vs. 4.90% respectively), which is surprising, given that the average attendance rates decreased during that time period.

It is worth noting that the School Attendance Act (1926) was replaced by the Education (Welfare) Act in July 2000. Rather than focusing on sanctions and enforcing punishments, the Education (Welfare) Act aims to tackle non-attendance by promoting positive attitudes to school and identifying and addressing the issues associated with non-attendance. However, given that the

statutory changes were not enacted until July 2000, it is unlikely that the changes under the new Act had much impact on the data presented in this report.

As well as asking about the average attendance rates, information was sought on very poor attenders. Table 5.25 details the number of pupils who attended less than 10 days during the first quarter of each year. To ascertain the number of pupils who had genuine reasons for poor attendance, principals were also asked how many pupils did not attend due to illness or transfer to another school. In extracting the number of ill pupils and transferees from the total of poor attenders, it was hoped that the remainder would give an indication of the number of chronic poor attenders.

Table 5.25. Number of all pupils, transfers and ill pupils who attended school for less than 10 days during the first quarter of the 1995/96, 1996/97, 1997/98, 1998/99 and 1999/2000 school years.

School year		Mean number	Number of pupils
1995/96	Total	6.27	207
(*N*=33)	-less transfers	2.69	78
	-less ill pupils	0.92	23
	Remainder	**2.66**	**107**
1996/97	Total	4.06	126
(*N*=32)	-less transfers	2.25	54
	-less ill pupils	0.88	21
	Remainder	**0.93**	**51**
1997/98	Total	4.30	129
(*N*=33)	-less transfers	1.86	41
	-less ill pupils	0.86	19
	Remainder	**1.58**	**69**
1998/99	Total	3.80	114
(*N*=30)	-less transfers	2.03	59
	-less ill pupils	0.30	8
	Remainder	**1.47**	**47**
1999/2000	Total	5.42	152
(*N*=29)	-less transfers	1.54	43
	-less ill pupils	0.50	14
	Remainder	**3.38**	**95**

Although the differences in the mean number of chronic poor attenders between the five years were not statistically significant, it should be noted that the numbers of pupils with such poor attendance records are very small (for example, averaging only 3.4 pupils per school in 1999/2000). The pattern of changes in the mean number of chronic poor attenders between 1995/96 and 1999/2000 is of interest. As can be seen in Table 5.25, there were, on average, 0.93 chronic poor attenders in 1996/97, compared to 2.66 in 1995/96. However, the mean number of chronic poor attenders increased again in 1997/98 (to 1.58 pupils). Thus, despite initial improvements in attendance during the first year of the scheme, overall, there was an *increase* between 1995/96 and 1999/2000 in the mean number of chronic poor attenders (2.66 pupils vs. 3.38 pupils respectively).

When the mean number of pupils who attended less than 25 days for reasons other than illness or transfer during the remaining three quarters of each school year were examined, a similar picture emerged. Again, although the differences were not statistically significant, the mean number of chronic poor attenders in each year was small. As can be seen in Table 5.26, there was a decrease between 1995/96 and 1996/97 in the mean number of chronic poor attenders (9.81 pupils vs. 7.71 pupils respectively). However, the mean number of chronic poor attenders increased again in subsequent years (e.g., 7.71 pupils in 1996/97 vs. 8.19 pupils in 1997/98 and 11.11 pupils in 1998/99). Thus, the overall difference in the mean number of chronic poor attenders in the last three quarters of the school year between 1995/96 and 1999/2000 was marginal (9.81 pupils in 1995/96 vs. 9.84 pupils in 1999/2000).

Table 5.26. Mean number of all pupils, transfers and ill pupils who attended less than 25 days school during the second, third and fourth quarter of the 1995/96, 1996/97, 1997/98, 1998/99 and 1999/2000 school years.

School year		2nd Quarter Mean Number	3rd Quarter Mean Number	4th Quarter Mean Number	Total Mean Number
1995/96 (*N*=33 schools)	Total	8.07	6.29	7.23	**21.59**
	-less transfers	3.93	3.07	2.27	**9.27**
	-less ill pupils	0.82	0.61	1.08	**2.51**
	Remainder poor attendees	3.32	2.61	3.88	**9.81**
1996/97 (*N*=32 schools)	Total	6.13	4.77	6.45	**17.35**
	-less transfers	2.58	2.06	2.19	**6.83**
	-less ill pupils	1.16	0.81	0.84	**2.81**
	Remainder poor attendees	2.39	1.90	3.42	**7.71**
1997/98 (*N*=33 schools)	Total	4.36	4.30	4.73	**13.39**
	-less transfers	1.33	1.70	1.06	**4.09**
	-less ill pupils	0.48	0.24	0.39	**1.11**
	Remainder poor attendees	2.55	2.36	3.28	**8.19**
1998/99 (*N*=30 schools)	Total	6.40	6.30	6.10	**18.80**
	-less transfers	2.31	2.50	1.54	**6.35**
	-less ill pupils	0.44	0.29	0.61	**1.34**
	Remainder poor attendees	3.65	3.51	3.95	**11.11**
1999/2000 (*N*=28 schools)	Total	6.28	5.35	5.45	**17.08**
	-less transfers	2.79	2.24	1.07	**6.10**
	-less ill pupils	0.41	0.35	0.38	**1.14**
	Remainder poor attendees	3.07	2.76	4.00	**9.84**

In the final year of the pilot phase of the scheme, principals were asked to describe the main reasons why they felt pupils were frequently absent from school. For economy of reporting, principals' responses were grouped into categories, and are presented in Table 5.27.

Table 5.27. Number and percentage of principals (*N*=29) who put forward different reasons for why some pupils are frequently absent from school during the 1999/2000 school year.

Comment	**Number (%)**
Lack of parental interest, motivation and commitment to education (general comment) / low educational aspirations for their children / do not value education	20 (69.0%)
Children are absent due to illness (e.g., frequent tummy bugs or colds) / general poor health	14 (48.3%)
Parents are unable to get children ready for school in the morning for a variety of reasons (e.g., sleeping late, disorganised, parents unemployed and no-one else in the house is getting up)	11 (37.9%)
Dysfunctional families / family problems (general) / one-parent families	9 (31.0%)
"Mitching" / children refuse to go to school / parents give in to children's demands to stay home	7 (24.1%)
Problems arising from alcohol / drug abuse	6 (20.7%)
School attendance not a priority for parents	6 (20.7%)
Parents keeping children at home for trivial reasons (e.g., shopping for clothes, minding the house.)	5 (17.2%)
Parents keeping children at home on Fridays or Mondays / on half-days / other official days off	4 (13.8%)
Older children or girls kept at home to take care of younger siblings or to do housekeeping	4 (13.5%)
Other (e.g., weather conditions)	11 (37.9%)

The majority of principals felt that parents had a huge bearing on pupils' failure to attend. Specifically, over two thirds of principals (69.0%) felt parents' lack of interest or commitment to their children's education played a role in pupils' non-attendance, while 37.9% reported that some parents were unable to get their children ready for school in the morning, for example, because they regularly slept in. Almost a third of principals (31.0%) reported that family problems resulted in poor attendance, while 20.7% felt that school attendance was not a priority for some parents. A minority of principals also commented that some parents kept their children at home for trivial reasons, for example, to take the child clothes shopping (17.2%), or because they needed the child to babysit or do work in the home (13.8%). Furthermore, 13.8% of principals noted that some parents tended to keep children at home on Fridays or Mondays, on half-days, or after days when schools were officially closed. Indeed, many of the reasons reported by principals were interrelated. For example, one principal commented that:

> Domestic strife can lead to lack of sleep…hence lateness…hence hassle…so don't attend for the day.

Almost half of principals (48.3%) reported that pupils were frequently absent as a result of illness. Almost a quarter (24.1%) reported that "mitching" or pupils' refusal to attend school was a cause of frequent absences, and a further 20.7% felt that drug and alcohol abuse led to frequent pupil absences. Finally, 37.9% of principals gave reasons which were subsequently classified as "other". For example, one principal reported that a parent's illness prevented children from attending.

The finding that the vast majority of principals put forward reasons which were in some way related to pupils' parents is discouraging. That less than half of principals cited poor health as a reason for pupils' poor attendance is surprising, as illness is usually the most common reason for non-attendance (Irish National Teachers' Organisation, 1995).

These findings are fairly consistent with the results of a study on the relationship between attendance and achievement, which was conducted by the Scottish Council for Research in Education in 1994/95 (Malcolm, Thorpe & Lowden, 1996). In the study, headteachers, as well as fourth and seventh year teachers, in seven primary schools in Scotland were interviewed. A number of headteachers noted that absences were more likely to occur on days when the school was closed for a half day, and others commented that absences were higher on Mondays. Some of the headteachers also remarked that pupils' pattern of absences reflected their parents' lifestyles. Most of the teachers interviewed felt that when truancy did occur, it was typically because parents kept their children away from school. Furthermore, many of the staff felt that parents often caused their children to miss school because of practical problems, such as a lack of childcare or single parents having to work.

Although the schools included in the sample were of various sizes, and were from a range of locations and socio-economic backgrounds, it should be noted that the sample size was small (n=7 schools), and the results are, therefore, not representative of other schools. Nonetheless, it appears that the views of the teachers interviewed by Malcolm et al. are similar to those of urban *Breaking the Cycle* principals. Indeed, these findings seem to highlight the importance of targeting both children *and* their parents when adopting measures to improve attendance. In fact, in the 1997/98 and 2000/01 Planning Questionnaires, nine schools made some reference to promoting attendance in their school. Half of the strategies listed by schools to improve attendance focused on the children. For example, three schools developed a points or rewards system for good behaviour and attendance, while one school set up a "breakfast club". One school planned to promote the role of the attendance officer. Finally, four schools described multi-faceted strategies which combined pupil-oriented programmes with initiatives targeted at parents. For example, to improve attendance, one school planned to implement a reward system for pupils, to notify parents when there was a problem, and to send letters to all parents at the beginning of each term stressing the value of attending school. Although pupil-oriented programmes, such as reward systems and breakfast clubs are positive, the above findings seem to suggest that the latter, multi-faceted programmes might be more effective, given the role that parents seem to play in their children's non-attendance. When Malcolm et al. (1996) asked teachers

about parents' attitudes towards truancy, most primary teachers reported that once the problem had been raised with parents, they were typically more co-operative.

Malcolm et al. (1996) also reported that, when asked about the effects of non-attendance, teachers were most likely to comment that frequent absences interfered with learning, particularly in subjects such as Mathematics, where "sequential" learning was required. This is consistent with the fact that one-third of principals in urban *Breaking the Cycle* schools in 1995/96 and 2000/01 cited poor attendance and missed classes as a reason for retaining pupils. This is also in line with the relatively poorer performance in Mathematics than in reading of pupils in participating schools.

One might also speculate that poor attenders have a negative impact on other pupils' learning experience. For example, when pupils are frequently absent, teachers often have to spend more time with absentees to catch up, and thus have less time to help other pupils. Indeed, although the pupils themselves did not feel that they were affected by other pupils' absences, Malcolm et al. (1996) reported that all the primary teachers who were interviewed felt that truant absences were problematic because when the pupil returned, they often had to repeat material for that pupil's sake, they had to spend extra time tailoring their work to the needs of the returning pupil, and it often meant that class management and routine were disrupted.

In light of these findings, and given that the amount of time spent on academic learning has been shown to be positively correlated with pupils' achievement (Creemers, 1994), the finding that pupil attendance did not improve since the outset of the scheme (and in fact disimproved marginally) might explain, to some extent, why 3rd and 6th class pupils' English and Mathematics achievements did not improve in 2000.

5.3. DISCIPLINE AND PSYCHOLOGICAL ASSESSMENTS

In addition to asking about enrolment and attendance rates, information was also sought on other pupil-centred issues, such as psychological assessments, discipline, and pupil retention rates.

5.3.1. Discipline

Items in both the 1995/96 and 2000/01 School Questionnaire asked principals to indicate the number of pupils who were brought to their attention for different types of misbehaviour during the school year. Table 5.28 presents principals' responses. Pupils are divided into junior classes (Early Start through to second), middle classes (third and fourth), and senior classes (fifth and sixth).

Table 5.28. Percentages and numbers of urban junior, middle, and senior class pupils brought to the principal's attention for varying types of misbehaviour during 1995/96 (*N*=33 schools) and during 1999/2000 (*N*=29 schools).

	School year	Junior		Middle		Senior	
		%*	*N*	%*	*N*	%*	*N*
a) late arrival at school	1995/1996	**12.74%**	(492)	**16.45%**	(309)	**15.58%**	(281)
	1999/2000	**9.27%**	(256)	**15.50%**	(209)	**22.50%**	(279)
b) absenteeism	1995/1996	**8.44%**	(326)	**12.40%**	(233)	**11.58%**	(209)
	1999/2000	**8.69%**	(240)	**11.87%**	(160)	**15.90%**	(197)
c) classroom disturbance	1995/1996	**7.02%**	(271)	**16.24%**	(305)	**19.10%**	(334)
	1999/2000	**6.70%**	(185)	**11.87%**	(160)	**17.50%**	(217)
d) vandalism of school property	1995/1996	**1.68%**	(65)	**4.42%**	(83)	**6.82%**	(123)
	1999/2000	**1.41%**	(39)	**2.37%**	(51)	**4.68%**	(58)
e) theft of school property	1995/1996	**0.93%**	(36)	**2.72%**	(32)	**3.44%**	(62)
	1999/2000	**1.45%**	(40)	**4.30%**	(28)	**3.87%**	(48)
f) bullying of other pupils	1995/1996	**4.56%**	(177)	**11.77%**	(221)	**11.92%**	(215)
	1999/2000	**3.84%**	(106)	**9.79%**	(132)	**13.56%**	(168)
g) verbal abuse of staff	1995/1996	**2.23%**	(88)	**6.76%**	(127)	**10.03%**	(181)
	1999/2000	**1.88%**	(52)	**4.67%**	(63)	**10.49%**	(130)
h) physical abuse of staff	1995/1996	**0.36%**	(14)	**0.64%**	(12)	**0.66%**	(12)
	1999/2000	**0.25%**	(7)	**0.29%**	(4)	**0.48%**	(6)
i) alcohol use	1995/1996	—	(0)	—	(0)	**1.27%**	(23)
	1999/2000	—	(0)	**0.29%**	(4)	**1.13%**	(14)
j) tobacco use	1995/1996	**0.13%**	(5)	**0.80%**	(15)	**3.77%**	(68)
	1999/2000	**0.07%**	(2)	**0.59%**	(8)	**3.95%**	(49)
k) illegal drug use	1995/1996	—	(0)	**0.32%**	(6)	**0.83%**	(15)
	1999/2000	—	(0)	—	(0)	**0.56%**	(15)
l) weapon use / Possession**	1995/1996	**0.10%**	(4)	**0.69%**	(13)	**1.61%**	(29)
	1999/2000	**0.18%**	(5)	**0.59%**	(8)	**1.45%**	(18)
m) other	1995/1996	**0.21%**	(8)	**0.43%**	(8)	**0.22%**	(4)
	1999/2000	**0.43%**	(12)	**0.37%**	(5)	**0.97%**	(12)

*1995/96 percentages are derived from the number of pupils in junior, middle and senior classes, as given in the school's original *Breaking the Cycle* applications.
**Some principals added a note to say that pupils were primarily carrying penknives, which were more a status symbol than intended for use as a weapon.

In 1999/2000, the most common problem across all three grade levels was late arrival at school (22.50%, 15.50%, 9.27% of senior, middle, and junior pupils, respectively). While there was a significant decrease in the prevalence of this problem at the junior class level in 1999/2000 (X^2=19.01, *df*=1, *p*<.001), there was a significant increase in 1999/2000 in the proportion of senior class pupils who were brought to the principal's attention for tardiness (X^2=22.98, *df*=1, *p*<.001). Furthermore, there was a significant increase in the percentage of senior pupils who were brought to the attention of the principal for absenteeism (X^2=11.49, *df*=1, *p*<.001). In fact, absenteeism was among the three most common discipline problems in the junior, middle, and senior classes in

1999/2000 (8.69%, 11.87% and 15.90%, respectively). This finding is consistent with the data presented in Tables 5.22 to 5.26, which indicate that there were no overall improvements in pupil attendance between 1995/96 and 1999/2000. Classroom disturbance was also one of the three most common problems in 1999/2000 (6.70%, 11.87%, and 17.50% of junior, middle and senior pupils, respectively). Between 1995/96 and 1999/2000, there was a significant decrease in the prevalence of this problem among middle classes (X^2=11.80, df=1, p<.001).

Principals were asked to report the number of pupils for whom disciplinary procedures were invoked for the same types of misbehaviour. As can be seen in Table 5.29, the percentage of pupils for whom disciplinary procedures were invoked for various types of misbehaviour increased with age. However, this finding is not surprising, given that the incidence of most problems also increased with age (Table 5.28).

In 1999/2000, there is a disparity between the prevalence and discipline rates for both late arrival to school and absenteeism. For example, while 22.5% of senior pupils were brought to the principals' attention for late arrival to school, the data indicate that only 13.0% of senior pupils were formally disciplined for arriving late. A similar trend was evident in 1995/96. This finding may explain, to some extent, why there was a significant increase in the prevalence of this problem among senior classes.

Furthermore, it appears that only a minority of pupils who were brought to the principal's attention for absenteeism were disciplined. For example, while 15.90% of senior class pupils were brought to the principal's attention for absenteeism, only 5.97% were disciplined. Similarly, 2.61% of junior pupils were disciplined for absenteeism, although 8.69% were brought to the principal's attention for this problem. This is consistent with the finding that there was a decrease in the number of pupils who were referred to the SAO or who had legal proceedings brought against them in 1999/2000 (Tables 5.23 and 5.24). The fact that pupils were less likely to be disciplined for their absenteeism in 1999/2000 might explain why there was no overall improvement in attendance since the outset of the scheme.

In contrast, in 1999/2000, most of the pupils who were brought to the principal's attention for misbehaviours such as disrupting class, vandalising school property, stealing school property, bullying other pupils, and verbally abusing staff, were formally disciplined.

Table 5.29. Percentages and numbers of urban junior, middle, and senior class pupils for whom disciplinary procedures were invoked during 1995/96 (*N*=33 schools) and during 1999/2000 (*N*=29 schools).

	School year	Junior		Middle		Senior	
		%	*N*	%	*N*	%	*N*
a) late arrival at school	1995/1996	**7.02%**	(271)	**8.10%**	(152)	**9.60%**	(174)
	1999/2000	**1.49%**	(41)	**9.13%**	(123)	**13.00%**	(161)
b) absenteeism	1995/1996	**3.24%**	(125)	**5.91%**	(111)	**6.60%**	(119)
	1999/2000	**2.61%**	(72)	**4.08%**	(55)	**5.97%**	(74)
c) classroom disturbance	1995/1996	**5.41%**	(209)	**13.95%**	(262)	**16.30%**	(294)
	1999/2000	**5.54%**	(153)	**9.87%**	(133)	**14.53%**	(180)
d) vandalism of school property	1995/1996	**1.52%**	(59)	**3.41%**	(64)	**5.82%**	(105)
	1999/2000	**1.59%**	(44)*	**2.00%**	(27)	**4.68%**	(58)
e) theft of school property	1995/1996	**0.62%**	(24)	**1.81%**	(34)	**2.77%**	(50)
	1999/2000	**0.76%**	(21)	**1.71%**	(23)	**3.39%**	(42)
f) bullying of other Pupils	1995/1996	**4.01%**	(157)	**10.60%**	(199)	**10.42%**	(188)
	1999/2000	**3.33%**	(92)	**8.09%**	(109)	**11.38%**	(141)
g) verbal abuse of staff	1995/1996	**1.89%**	(73)	**6.60%**	(124)	**8.81%**	(159)
	1999/2000	**1.82%**	(50)	**3.86%**	(52)	**9.69%**	(120)
h) physical abuse of staff	1995/1996	-	-	-	-	**1.27%**	(23)
	1999/2000	**0.25%**	(7)	**0.15%**	(2)	**0.40%**	(5)
i) alcohol use	1995/1996	-	-	-	-	**0.39%**	(7)
	1999/2000	-	-	**0.07%**	(1)	**0.16%**	(2)
j) tobacco use	1995/1996	**0.03%**	(1)	**0.20%**	(4)	**1.88%**	(34)
	1999/2000	-	-	**0.52%**	(7)	**2.42%**	(30)
k) illegal drug use	1995/1996	-	-	-	-	-	-
	1999/2000	-	-	-	-	**0.16%**	(3)
l) weapon use / possession	1995/1996	**0.03%**	(1)	**0.64%**	(12)	**1.55%**	(28)
	1999/2000	**0.15%**	(4)	**0.22%**	(3)	**1.29%**	(16)
m) other	1995/1996	-	-	**0.43%**	(8)	**0.22%**	(4)
	1999/2000	**0.33%**	(9)	**0.37%**	(5)	**0.97%**	(12)

*Principals may have miscalculated this item, as principals reported that only 39 pupils were brought to their attention for vandalism.

Overall, there was a significant decrease in the prevalence of classroom disturbance (X^2=6.33, *df*=1, $p<.05$) and a corresponding decrease in the discipline rate for this type of misbehaviour in 1999/2000 (X^2=6.32, *df*=1, $p<.05$). Although the incidence of and discipline rates for late arrival to school, bullying of other pupils, and verbal abuse of staff were lower in 1999/2000 than in 1995/96, the differences were not statistically significant. Overall, these findings, combined with the fact that a quarter of principals (25.9%) reported improvements in discipline in their school in 2000/01 (Table 2.17), suggests that the scheme had

some positive impact on pupils' behaviour. At the same time, the data presented in Table 5.28 indicate that the discipline rates among senior class pupils may require further attention, as there were significant increases in the incidence of tardiness and absenteeism. There were also increases (albeit non-significant) in several other types of misbehaviour, including classroom disruption, theft of school property, bullying, verbal abuse of staff, and tobacco use, among senior classes in 1999/2000. This may reflect the impact of the scheme at junior level, where pupils would have received more individual attention and would also have been more visible in small classes.

Table 5.30. Total numbers and percentages of urban pupils brought to the principal's attention and disciplined for varying types of misbehaviour during 1995/96 (*N*= 33 schools) and 1999/2000 (*N*=29 schools). Also, the percentage of pupils brought to principals attention who were actually disciplined (% pupils disciplined).

	School year	Prevalence		Disciplined		% pupils disciplined
		%	*N*	%	*N*	
Late arrival at school	1995/1996	**14.20%**	(1,082)	**7.84%**	(597)	55.2%
	1999/2000	**13.91%**	(744)	**6.08%**	(325)	43.7%
Absenteeism	1995/1996	**10.08%**	(768)	**4.66%**	(355)	46.2%
	1999/2000	**11.16%**	(597)	**3.76%**	(201)	33.7%
Classroom disturbance	1995/1996	**11.95%**	(910)	**10.04%**	(765)	84.1%
	1999/2000	**10.51%**	(562)	**8.71%**	(466)	82.9%
Bullying of other pupils	1995/1996	**8.05%**	(613)	**7.14%**	(544)	88.7%
	1999/2000	**7.59%**	(406)	**6.40%**	(342)	84.2%
Verbal abuse of staff	1995/1996	**5.20%**	(396)	**4.67%**	(356)	89.9%
	1999/2000	**4.58%**	(245)	**4.15%**	(222)	90.6%

Principals were asked about the number of sanctions for serious breaches of discipline that were applied in their schools in 1995/96 and 1999/2000. As Table 5.31 illustrates, compared to 1995/96, principals applied fewer 3-day suspensions, 10-day suspensions, and suspensions longer than 10 days in 1999/2000. There was also a decrease in the mean number of serious breaches which did not warrant a suspension (12.97 in 1995/96 vs. 5.0 1999/2000).

Table 5.31. Mean and total number of sanctions for serious breaches of discipline applied in urban *Breaking the Cycle* schools in 1995/96 (*N*=32) and 1999/2000 (*N*=29).

Number of ...	School year	Total	Mean	Range
3-day suspensions	1995/96	142	4.44	28.0
	1999/2000	83	2.86	20.0
10-day suspensions	1995/96	14	0.44	5.0
	1999/2000	8	0.28	2.0
Suspensions longer than 10 days	1995/96	4	0.14	3.0
	1999/2000	2	0.07	1.0
Serious breach not warranting suspension	1995/96	389	12.97	99.0
	1999/2000	145	5.0	40.0
Suspended pupils for whom arrangements were made for transfer to another school	1995/96	7	0.25	3.0
	1999/2000	4	0.24	4.0
Suspended pupils for whom no alternative arrangements were made for transfer to another school	1995/96	6	0.22	3.0
	1999/2000	-	-	-

It is worth noting that the number of suspensions reported in Table 5.31 may not give an accurate indication of the number of pupils to whom they were applied, as one pupil may have received more than one suspension. As Table 5.32 shows, there was a decrease between 1995/96 and 1999/2000 in the number of pupils who received more than one 3-day suspensions (2.13 vs. 0.69 respectively). However, since only a small number of pupils received longer suspensions in both 1995/96 and 1999/2000, it is difficult to ascertain whether the scheme had an impact in this area.

Table 5.32. Number of pupils who received more than one 3-day, 10-day, or longer suspension during 1995/96 (*N*=32) and during 1999/2000 (*N*=29).

Number of Pupils who received more than ...	School year	Total	Mean	Range
one 3-day suspension	1995/96	68	2.13	17
	1999/2000	20	0.69	4
one 10-day suspension	1995/96	2	0.06	1
	1999/2000	3	0.10	1
one long suspension	1995/96	1	0.04	1
	1999/2000	3	0.10	1

5.3.2. Psychological Assessments

Principals were asked about the use of, and need for, psychological assessment of their pupils. The first item in this section asked principals to indicate the percentage of pupils currently on their school rolls who had ever been assessed. They were then asked to report the percentage of pupils they felt needed assessment. Principals' responses are presented in Table 5.33.

Table 5.33. Percentage of pupils on schools rolls who were ever psychologically assessed and the percentage of pupils principals believed needed assessment in 1996/97, 1997/98, 1998/99 and 1999/2000.

	% Assessed		**% Needing assessment**	
	Mean	**SD**	**Mean**	**SD**
1996/97 (*N*=31)	6.69%	5.38	16.90%	12.09
1997/98 (*N*=32)	7.13%	5.31	18.69%	13.89
1998/99 (*N*=33)	10.91%	13.23	20.73%	16.26
1999/2000 (*N*=31)	10.32%	7.22	22.63%	16.09

Although there was an increase in the percentage of pupils who had ever been assessed by a psychologist between 1996/97 and 1999/2000 (6.69% vs. 10.32% respectively), there was a corresponding increase each year in the percentage of pupils who principals felt *needed* psychological assessment. On average, about twice as many pupils were deemed to be in need of assessment than were actually assessed. Furthermore, there was little change between 1996/97 and 1999/2000 in the discrepancy between the percentage of pupils who principals felt needed assessment, and the percentage of pupils who had ever been assessed. However, this finding is not surprising, given that, until around 1998, the average psychologist–student ratio in primary schools located in disadvantaged

areas of Dublin, Cork, Limerick and South Tipperary was 1:7,500 (Department of Education, 1998). The Planning Group for the National Educational Psychological Service (NEPS) reported that there was "a serious lack of availability of educational psychological services to the majority of students, parents, and teachers in primary schools" (Department of Education, 1998, p. 53).

At the same time, the *Breaking the Cycle* data are at odds with the findings of other research on the rate of psychological assessment in Irish primary schools. For example, Martin and Hickey (1993) reported that 2% of pupils in all ordinary classes in primary schools in 1992 had been assessed by a psychologist. Similarly, the Planning Group for the NEPS estimated that approximately 2% of the school population per year are appropriately referred for psychological assessment (Department of Education, 1998). Thus, it appears that pupils in urban *Breaking the Cycle* schools had a relatively high rate of assessment.

Martin and Hickey (1993) also reported that at all stages of psychological assessment, from initial referral to enrolment in a special class or school, boys outnumbered girls by a ratio of approximately two to one. To ascertain whether there were gender differences in the referral and assessment rates in urban *Breaking the Cycle* schools, the total number of referrals and assessments were analysed by gender and class level (Tables 5.34 and 5.35).

Table 5.34. Numbers of boys and girls and as a percentage of total class population *referred* for psychological assessment by grade during the 1995/96, 1996/97, 1997/98 and 1998/99 school years.

	1995/96 (*N*=33 schools)			**1996/97** (*N*=32 schools)			**1997/98** (*N*=32 schools)			**1998/99** (*N*=31 schools)		
	Total number of referrals		% Total **	Total number of referrals		% Total **	Total number of referrals		% Total **	Total number of referrals		% Total **
	Boys	Girls		Boys	Girls		Boys	Girls		Boys	Girls	
E.S.	0	0	0	0	0	0	1	0	0.4%	5	2	2.4%
J.I.	22	10	3.0%	10	5	1.6%	12	7	2.4%	16	9	3.3%
S.I.	26	17	5.1%	32*	2	4.1%	16	13	3.8%	24	14	5.0%
I	45	24	7.7%	30*	14	5.6%	35	19	6.4%	46*	17	9.1%
II	58*	15	8.1%	31	11	5.9%	32	18	6.6%	22	7	3.8%
III	39*	10	5.2%	32	16	6.7%	21	24	6.3%	31	28	8.3%
IV	30	13	4.6%	27	17	5.5%	14	22	5.2%	34	12	7.0%
V	17	14	3.5%	21*	4	3.2%	9	18	3.6%	9	14	3.2%
VI	9	6	1.6%	11	3	1.9%	4	9	1.6%	6	18	3.5%
Other	2	4	15.4%	0	0	0	3	2	1.6%	20	1	9.9%
Total	**58***	**113**	**5.0%**	**11***	**72**	**3.9%**	**147**	**132**	**4.1%**	**213**	**122**	**5.4%**

*Significantly more boys than girls from these classes were referred for assessment
**Percentage of total class population in schools for which principals had completed the item

Table 5.35. Numbers of boys and girls and as a percentage of total class population who were *assessed* by a psychologist by grade during the 1995/96, 1996/97, 1997/98 and 1998/99 school years.

	1995/96 (*N*=33 schools)			**1996/97** (*N*=32 schools)			**1997/98** (*N*=32 schools)			**1998/99** (*N*=31 schools)		
	Total number of assessments		% Total **	Total number of assessments		% Total **	Total number of assessments		% Total **	Total number of assessments		% Total **
	Boys	Girls		Boys	Girls		Boys	Girls		Boys	Girls	
E.S.	3	0	1.8%	0	0	0	0	0	0	1	0	0.3%
J.I.	10	4	0.3%	9	2	1.1%	7	3	1.3%	11	5	2.1%
S.I.	14	9	2.7%	20	2	2.6%	12	4	2.1%	16	6	2.9%
I	27	18	5.0%	23	13	4.5%	24	9	3.9%	44*	13	8.2%
II	33	8	4.6%	25	8	3.9%	27	13	5.3%	20	5	3.2%
III	32	12	4.7%	27	12	5.4%	20	15	4.9%	31	24	7.8%
IV	12	9	2.2%	21	14	4.4%	9	23	4.6%	34	10	6.7%
V	9	11	2.2%	13*	3	2.1%	9	15	3.2%	8	10	2.5%
VI	5	5	1.1%	7	2	1.2%	4	9	1.6%	5	15	2.9%
Other	0	3	7.7%	0	0	0	3	2	1.6%	20	1	9.9%
Total	**145***	**79**	**2.9%**	**145**	**56**	**2.9%**	**115**	**93**	**2.3%**	**190***	**89**	**4.5%**

*Significantly more boys than girls from these classes were referred for assessment
**Percentage of total class population in schools for which principals had completed the item.

As can be seen in Table 5.34, the number of boys who were referred for assessment exceeded the number of girls. In fact, further analysis revealed that, in 1995/96, the mean number of boys who were referred for psychological assessment was significantly higher than the mean number of girls who were referred for assessment (t=2.23, df=64, p<.05). Similarly, in 1996/97, the mean number of boys was significantly higher than the mean number of girls referred (t=-2.52, df=62, p<.05). In contrast, in 1997/98 and 1998/99, the difference between the number of boys and girls who were referred was not statistically significant.

When the number of boys and girls who were *assessed* over the same time period was examined, a slightly different pattern emerged (Table 5.35). In 1995/96, the mean number of boys assessed was found to be significantly greater than the mean number of girls assessed (t=2.72, df=62, p<.01). This is consistent with the finding that significantly more boys than girls were referred for assessment in 1995/96. However, the finding that there was no significant difference between the number of boys and girls who were assessed in 1996/97 is somewhat surprising, given that boys were significantly more likely to be referred for assessment during this year. Furthermore, there was only a marginal difference between the number of boys and girls assessed in 1997/98. However, it appears

that the gender gap again increased, as significantly more boys than girls were assessed in 1998/99 (t=2.02, df=60, p<.05). This finding is surprising, given that there were no significant differences between genders in the number of referrals during that year. Overall, the fact that there were no significant differences between the number of boys and girls referred in 1997/98 and 1998/99, and no differences in the number of boys and girls assessed in 1996/97 and 1997/98 seem to be somewhat inconsistent with Martin and Hickey's (1993) findings.

To determine if there were differences between boys and girls in the reasons they were referred for assessment, principals in 1999/2000 were asked to indicate the three main reasons boys were referred, and the three main reasons girls were referred for psychological assessment. The wording of this item was slightly different in the 1998/99 School Questionnaire, as principals were asked to report the three main reasons why *pupils* were referred for assessment, and were not required to differentiate between boys and girls. Principals' responses were categorised to facilitate reporting and are presented in Table 5.36.

Table 5.36. Percentages of principals that gave various reasons why pupils (boys / girls) were referred for psychological assessment in 1997/98 and 1998/99.

Reason for psychological assessment	**1997/98 Boys & Girls* %** (N=33)	**1998/99 Girls %** (N=27)	**1998/99 Boys %** (N=23)
General poor academic performance / lack of progress / below class standard	72.7%	74.5%	74.0%
Behavioural problems / disruptive child / withdrawn child / anti-social behaviour	69.7%	39.7%	59.1%
Specific learning difficulty / to diagnose specific learning difficulty / identify appropriate intervention	57.6%	30.3%	33.3%
Emotionally disturbed / low self-esteem	21.2%	17.3%	18.5%
Parents requested assessment	6.1%	17.4%	11.1%
Placement in special school / class / programme	12.1%	4.3%	7.4%
Teachers concerned / requested assessment	-	-	7.4%
Poor language / verbal ability / reading problems	12.1%	4.3%	3.7%
Other (e.g., to identify suitable support)	9.1%	21.7%	22.2%

* The 1998/99 questionnaire item did not make a distinction between boys and girls.

As can be seen in Table 5.36, there were no changes 1997/98 and 1998/99 in the three main reasons pupils were referred for psychological assessment. In both years, over 70% of principals referred pupils for psychological assessment because of poor academic performance or lack of progress. Behaviour problems was the second most common reason for referral. The third main reason was to diagnose a learning difficulty or to ascertain an appropriate intervention.

Boys and girls were equally likely to be referred for assessment because of poor academic performance, learning difficulties, emotional difficulties, and poor language skills. However, boys were more likely than girls to be referred to a psychologist for exhibiting behavioural problems (59.2% of boys vs. 39.7% of girls). In contrast, the number of girls who were referred at the request of teachers or parents exceeded the number of boys who were referred for this reason (39.1% of girls vs. 18.5% of boys).

As can be seen in Tables 5.34 and 5.35, while only 62.0% of pupils who were referred for psychological consultation were subsequently assessed in 1995/96, in 1998/99, 83.3% of referred pupils were assessed. The finding that the discrepancy between the number of pupils referred and assessed decreased between 1995/96 and 1998/99 is encouraging. These findings might be due, in part, to the introduction in 1999 of the National Educational Psychological Service. The programme, which is funded by the Department of Education and Science, aims to tackle the lack of availability of psychological services in schools throughout the country (Department of Education, 1998).

5.3.3. Pupil retention

In addition to examining the discipline and psychological assessment rates in schools, principals in 1996/97 and 2000/01 were asked to indicate the number of pupils who were retained at each class level. As was the case in 1995/96, pupils in 1999/2000 were most likely to be retained in Junior or Senior infant classes (3.79% and 2.12% respectively) (Table 5.37). Overall, when the pupil retention rates for all classes except the "other" and early start classes are examined, there was a slight decrease in the rate of pupil retention (1.97% pupils retained in 1995/96 vs. 1.36% in 1999/2000). This difference was not significant; however, the proportion of pupils who were retained in each year was small.

Table 5.37. Total number and percentage of pupils retained at each class level in urban schools at the end of the 1995/96 school year (*N*=33 schools) and at the end of the 1999/2000 school year (*N*=29 schools).

School year	E.S.	J.I.	S.I.	I	II	III	IV	V	VI	Other
1995/96	-	63 5.98%	12 1.41%	12 1.34%	11 1.22%	6 0.64%	18 1.92%	8 0.89%	15 1.65%	15 -
1999/2000	2 0.72%	28 3.79%	15 2.12%	7 0.99%	6 0.98%	6 0.87%	3 0.46%	6 0.97%	9 1.50%	17 9.00%

In a follow-up question, principals were asked what reasons they had for retaining children in a class. In 1996/97, 76.19% of principals reported that their pupils were often retained because of poor academic progress, while 57.14% cited immaturity as the reason (Table 5.38). In 1999/2000, there was a slight shift in the main reasons for retaining pupils, as immaturity was a more commonly reported reason in 2000/01 (66.67%), followed by poor academic progress (57.14%). However, the

finding that immaturity was a common cause of retention is probably related to the fact that retention rates were highest in Junior and Senior Infant classes.

That over one third of principals in both years cited poor attendance and missed classes as a reason for retention is consistent with the earlier data, which indicate that attendance rates in urban *Breaking the Cycle* schools were below average. Principals also reported that pupils were retained at parents' request (33.3%) and to a lesser extent at the teacher's request (4.76%). Finally, a number of principals reported reasons which were classified as "other", including, for example, "family problems".

Table 5.38. Number and percentage of principals in 1996/97 and 2000/01 who put forward different reasons for retention of children in a class.

Reason	**Number (%)* 1995/96** (*N*=21)	**Number (%)* 2000/01** (*N*=21)
Immaturity / children too young	12 (57.14%)	14 (66.67%)
Poor academic progress	16 (76.19%)	12 (57.14%)
Poor attendance / missed classes / did not complete full year	7 (33.33%)	7 (33.33%)
Parent's request	9 (42.86%)	7 (33.33%)
Teacher's request	2 (9.52%)	1 (4.76%)
Other (e.g., family problems)	1 (4.76%)	13 (61.9%)

*Percentages refer to percentages of principals who had retained pupils; percentages do not sum to 100% as some principals gave more than one response.

5.4. HOME-SCHOOL LINKS

An important element of any scheme aimed at tackling educational disadvantage is to promote the development of links between the home and the school. For this reason, questionnaires for principals included a range of items regarding home-school links. In 1996/97 and 2000/01, principals were asked about various meetings between parents and school staff. They were also asked two questions about their perceptions of parental interest and expectations regarding their children's education. Finally, the 1996/97, 1997/98, 1998/99 and 1999/2000 questionnaires sought information on the activities and courses provided for parents.

Approximately 15% of parents in both 1995/96 and 2000/01 were invited to meet the principals to discuss a specific issue relating to their child (Table 5.39). In both years, the majority of parents (93.86% and 93.03% respectively) attended the meeting. Furthermore, 10.75% of teachers in 1995/96 and 7.98% in 2000/01 visited homes. The fact that all schools in *Breaking the Cycle* have a home-school community liaison (HSCL) teacher, whose role is to promote links between the school and the home, may explain why only a minority of teachers in both years visited homes.

There was an increase in 2000/01 in the percentage of parents who visited the school on their own initiative (23.25% in 1995/96 vs. 34.36 % in 2000/01). This finding fits with one of the scheme's objectives, which is to increase parents' commitment to their children's education.

Table 5.39. Principals' estimates of the percentage of various parent-school staff meetings which took place during the 1995/96 and 2000/01 school years.

Percentage of ...	School year	Mean %	Mode	Range
Parents were asked to meet the principal to discuss a specific issue relating to their child	1995/96 (*N*=33)	14.94%	15.0	48
	2000/01 (*N*=29)	15.05%	5.0	58
Invited parents who actually came to see the principal	1995/96 (*N*=33)	93.86%	100	98
	2000/01 (*N*=29)	93.03%	100	90
At least one parents who visited on their own initiative	1995/96 (*N*=32)	23.25%	10	89
	2000/01 (*N*=28)	34.36%	10	92
Teachers who visited homes	1995/96 (*N*=33)	10.75%	0	100
	2000/01 (*N*=29)	7.98%	0	50

Principals perceived an improvement in parents' attitudes regarding their children's education (Table 5.40). Although 14.3% of principals in 2000/01 felt that 61-80% of parents lacked an interest in their children's education, the vast majority (75%) indicated that less than 40% of parents were not interested in their children's academic progress. Similarly, there was a sizeable increase in the percentage of principals who estimated that less than 40% of parents had low educational expectations of their children (30.3% in 1995/96 vs. 57.1% in 2000/01). However, the fact that several principals (17.9%) in 1999/2000 felt that 60%-80% of parents had low educational expectations for their children is somewhat discouraging, particularly given the data presented in Chapter 6, which suggest that teachers also had low expectations for their pupils.

Table 5.40. Numbers and percentages of principals in 1995/96 and 2000/01 who indicated their perception of the percentage of parents of children in their school who (a) lack an interest in the educational progress of their children, and (b) who have low educational expectations of their children.

About what percentage of parents of the children in your school lack an interest in the educational progress of their children?					
	<20%	20-40%	41-60%	61-80%	More than 80%
1995/96 (*N*=33)	10 (30.3%)	12 (36.4%)	6 (18.2%)	4 (12.1%)	1 (3.0%)
2000/01 (*N*=28)	11 (39.3%)	10 (35.7%)	3 (10.7%)	4 (14.3%)	-
About what percentage of parents of the children in your school have low educational expectations of their children?					
	<20%	20-40%	41-60%	61-80%	More than 80%
1995/96 (*N*=33)	3 (9.1%)	7 (21.2%)	14 (42.4%)	8 (24.2%)	1 (3.0%)
2000/01 (*N*=28)	6 (21.4%)	10 (35.7%)	7 (25.0%)	5 (17.9%)	-

As well as examining parents' attitudes, information was sought on the activities and courses that were available to parents. The vast majority of schools in each year provided education programmes which were designed to enable parents to assist their children with their schoolwork

(81.8%, 78.1%, 81.8% and 74.2% in 1996/97, 1997/98, 1998/99 and 1999/2000, respectively). Table 5.41 outlines the range of activities which were available to parents between 1996/97 and 1999/2000.

Table 5.41. Numbers and percentages of schools in 1995/96, 1997/98, 1998/99 and 1999/2000 that provided education programmes in different areas for parents designed to enable them to assist their children with their schoolwork.

	1996/97 (*N*=33)		**1997/98** (*N*=32)		**1998/99** (*N*=33)		**1999/2000** (*N*=31)	
	No. of Schools	% of Schools	No. of Schools	% of Schools	No. of Schools	% of Schools	No. of Schools	% of Schools
English	19	57.6%	19	59.4%	15	45.5%	12	38.7%
Mathematics	15	45.5%	16	50.0%	8	24.2%	7	22.6%
Irish	14	42.4%	11	34.4%	5	15.2%	3	9.7%
Pre-entry Programmes	17	51.5%	14	43.8%	17	51.5%	17	54.8%
Paired reading*	3	9.1%	2	6.3%	20	60.6%	14	45.2%
Computers*	2	6.1%	3	9.4%	21	63.6%	16	51.6%
Other	2	6.1%	4	12.5%	8	24.2%	13	41.9%

*The number of schools offering this course may be lower in 1996/97 and 1997/98 because the category was not offered in the questionnaire in these years; however, several principals listed paired reading or computer courses in the "other" category.

There was a decrease in the percentage of schools that offered programmes in English (57.6% in 1996/97 vs. 38.7% in 1999/2000), Mathematics (45.5% in 1996/97 vs. 22.6% in 1999/2000), and in particular Irish (42.4% in 1996/97 vs. 9.7% in 1999/2000). There was also a decrease between 1998/99 and 1999/2000 in the percentage of schools that offered paired-reading programmes (60.6% vs. 45.2% respectively). These findings are somewhat surprising, given the emphasis that was placed on English and Mathematics in schools' five-year plans. In contrast, over half of schools in each year offered pre-entry programmes for parents. The fact that over half of schools in 1998/99 and 1999/2000 offered courses in computer studies is consistent with the trend in schools to improve pupils' computer literacy and I.T. skills.

In addition to offering educational programmes for parents, the vast majority of schools provided some type of extra-curricular course or activity for parents (90.0%, 87.5%, 81.8%, and 90.3% in 1996/97, 1997/98, 1998/99 and 1999/2000 respectively). Table 5.42 illustrates the range of courses offered by schools over the four years.

Table 5.42. Percentages of schools that provided courses / activities for parents in various extra-curricular areas during the 1996/97, 1997/98, 1998/99 and 1999/2000 school years.

	1996/97 (*N*=33)		**1997/98** (*N*=32)		**1998/99** (*N*=33)		**1999/2000** (*N*=31)	
	No. of Schools	% of Schools	No. of Schools	% of Schools	No. of Schools	% of Schools	No. of Schools	% of Schools
Home management	28	84.8%	-	-	5	15.2%	1	3.2%
Self-development	30	90.9%	10	31.3%	12	36.4%	9	29.0%
Parenting	24	72.7%	13	40.6%	12	36.4%	11	35.5%
Leisure (e.g., keep fit)	24	72.7%	-	-	4	12.1%	5	16.1%
Continuing education	16	48.5%	-	-	-	-	-	-
Health Information (e.g., First Aid)	-	-	11	34.4%	9	27.3%	6	19.4%
Art & Craft	-	-	15	46.9%	13	39.4%	16	51.6%
Cookery	-	-	8	25.0%	9	27.3%	7	22.6%
Reading and literacy	-	-	-	-	6	18.2%	2	6.5%
Theatre/ drama workshops	-	-	-	-	-	-	3	9.7%
Community development / policy making	-	-	-	-	-	-	2	6.5%
Other (e.g., Anti-bullying sessions)	7	21.2%	10	31.3%	13	39.4%	3	9.7%

The emphasis of the courses offered for parents appears to have changed somewhat over the four years. At the outset of the scheme, schools tended to offer courses in the areas of home-management, parenting, self-development, leisure and continuing education. In 1999/2000, there was a sharp decline in the number of schools that offered these courses. In fact, in 1997/98, the emphasis of courses shifted away from "personal development", and focused on topics such as health information, cookery, and arts and crafts. Towards the end of the scheme, a minority of schools also introduced courses which focused on the Arts (e.g., reading, drama and theatre) and policy-making. That there was a shift in the focus of courses is not surprising, however, as one would expect schools to avoid repeating topics which parents had covered in prior years.

Principals were asked whether parents were involved in various school-related activities during the 1996/97, 1997/98, 1998/99 and 1999/2000 school years. As Table 5.43 illustrates, fundraising was the most common activity in which parents were involved in 1999/2000 (86.6%), followed by assisting with school plays and concerts (70.0%). There was a considerable decrease in the number of schools that involved parents in school outings (84.8% in 1996/97 vs. 36.7% in

1999/2000). Parents assisted with a variety of other activities, including homework clubs, breakfast clubs and sandwich-making. In general, these findings suggest that schools have been successful in increasing parents' involvement in school activities. Parents were involved in a range of activities, from educational and administrative activities to supervision. However, it should be noted that all urban *Breaking the Cycle* schools are also participants in the Home-School-Community-Liaison scheme, and as such, would have had home-school strategies in place. Therefore, while developments in home-school relations are of great importance in *Breaking the Cycle*, they cannot be attributed solely to the scheme.

Table 5.43. Percentages of schools where parents were involved with teachers in various school-related activities, during the 1996/97, 1997/98, 1998/99 and 1999/2000 school years.

Activity	% of Schools			
	1996/97 (*N*=33)	1997/98 (*N*=32)	1998/99 (*N*=33)	1999/2000 (*N*=30)
Assisting with school outings	84.8%	84.4%	78.8%	36.7%
Paired reading	72.7%	59.4%	51.5%	63.3%
Assisting with school library	48.5%	28.1%	36.4%	36.7%
Assisting with craftwork	48.5%	53.1%	42.4%	46.7%
Taking small groups for reading	45.5%	46.9%	36.4%	36.7%
Assisting with sports training	30.3%	25.0%	33.3%	30.0%
Playground supervision	15.1%	25.0%	9.1%	20.0%
Taking small groups for mathematics	10.1%	12.5%	6.1%	13.3%
Assisting with school plays / concerts	*	3.1%	51.5%	70.0%
Fundraising activities	*	3.1%	60.6%	86.6%
Policy groups	*	*	*	10.0%
Other (e.g., games, toy library)	36.4%	21.9%	39.4%	50.0%

*Category not offered in School Questionnaire during this year.

5.5. PRINCIPALS' OPINIONS AND EXPERIENCES OF *BREAKING THE CYCLE*

The 1997/98, 1998/99, 1999/2000 and 2000/01 School Questionnaires sought information on principals' views on the effects of the scheme on their school and on their pupils. Given the economic changes which occurred in Ireland over the past few years, principals in 2000/01 were asked if they felt that the level of disadvantage among families served by their school had changed since 1997.

Over two thirds of principals felt that families were slightly less, or much less, disadvantaged in 2000/01 (Table 5.44). However, a third of principals felt that there was no change, or an increase, in the levels of disadvantage of families served by their school.

Table 5.44. Number and percentage of principals in 2000/01 (*N*=27) who indicated the extent to which they felt that, as a consequence of economic growth in Ireland over the past few years, the levels of disadvantage among families served by their school changed since 1997 (when the scheme was introduced).

	Families are much more disadvantaged	Families are slightly more disadvantaged	No difference	Families are slightly less disadvantaged	Families are much less disadvantaged
Number	4	1	4	17	1
%	14.8%	3.7%	14.8%	63.0%	3.7%

Principals' explanations for why they thought families were more, or less, disadvantaged are outlined in Table 5.45.

Table 5.45. Number and percentage of principals (*N*=27) providing various comments regarding the changes in the levels of disadvantage among families served by their schools since 1997.

Comment	Number (%)
Less Disadvantaged (positive comments)	
Employment among families (mother, fathers and older siblings) of pupils in the school and community has improved	9 (33.3%)
More income in families (general comment)	6 (22.2%)
Materially families are better off (e.g., more mobile phones / holidays abroad)	3 (11.1%)
Parents in training schemes or college courses	3 (11.1%)
Children's long term prospects better / children's expectations improved / staying in education longer	2 (7.4%)
Social welfare payment and children's allowance increased	1 (3.7%)
Other (less disadvantaged)	5 (18.5%)
More Disadvantaged / No difference (negative comments)	
Parents and siblings are employed in low-paid / unskilled work / temporary positions	5 (18.6%)
High proportion of single parent families / broken or dysfunctional families / mothers often have poor educational backgrounds	4 (14.8%)
Mothers are less available to their children as they are working in part-time jobs.	3 (11.1%)
Many of the more ambitious and successful families move out of the area / families participating in the scheme are always disadvantaged / few role models for children.	3 (11.1%)
No change as parents still on social welfare or in low income employment / in local authority housing	3 (11.1%)
Drink and drugs problems still prevalent	3 (11.1%)
Other (more disadvantaged / no difference)	13 (48.2%)

Six principals (22.2%) reported families had higher incomes, and 11.1% reported that families were better off materially, for example, having access to holidays abroad. A further 11.1% commented that an increasing number of parents were in training courses or college courses; 7.4% felt that children's expectations had improved and 3.7% felt that the increases in social welfare and child allowance payments were positive. For example, one principal reported:

> Those in severe need have better support services and benefits. Pupils in our school are better cared for through the educational system and they have better long term prospects.

Five principals also made comments which were classified as other, for example, noting:

> The immediate environment has received a facelift.

A third of principals also said that the employment situation among families of pupils in the school had improved. However, not all principals felt that this was a positive development. For example, one principal wrote:

> There is more work available within the community…however, the quality of work and the nature (part-time, non-unionised, contract, low wage) is precarious and vulnerable with an economic downturn…

Three principals (11.1%) felt that parents were less available to their children because they were working in part-time jobs. This concern was also reflected in principals' responses to the 2000/01 Planning Questionnaire, as 29.6% of principals felt that parents' work schedules interfered with their ability to get involved in school events (see Section 2.3).

Four principals (14.8%) felt that, although some families had benefited as a result of the changes, there was still a high proportion of dysfunctional families, and 11.1% said that drink and drugs problems were still prevalent. For example, one principal commented:

> We still have a high proportion of very young single mothers, families with drink and drug problems and mothers suffering from depression….

Three principals said that there were no changes in the level of disadvantage, as parents were still on social welfare, or living in local authority housing. Some felt that the economic growth in Ireland had aggravated the situation. For example, it was noted that the widening of the gap between the disadvantaged and non-disadvantaged was a detrimental consequence of the economic growth. As one principal stated:

> There are bigger jumps to be made now for our boys to have an equal chance of educational success…Advantaged children have a much richer experience re: travel, IT, social interactions, health care, diet…

Finally, three principals (11.1%) noted that educational disadvantage was more concentrated as a result of the economic growth. According to these principals:

> Anybody who can afford to will move out of the flats to be replaced by somebody who is worse off than themselves. In this way, the families attending this school are always disadvantaged.
>
> Many of the more ambitious families leave the area when qualified. As a result, role models and more successful past pupils are not around.

An examination of principals' views on the impact of the scheme suggests that, for the most part, the scheme was of benefit to participating schools. There was unanimous agreement among principals in all four years that participation in the scheme had a positive, or very positive, effect on the school (Table 5.46). The vast majority (92.9%) also believed that participation in the scheme had positively affected teaching practice in the school, with over half of principals (55.2%) indicating that the effect was very positive. This is consistent with the finding presented in Chapter 6 that 82.0% of teachers felt that their teaching practices had changed as a result of participating in the scheme (Table

6.21). All principals in 2000/01 reported that involvement in the scheme had a beneficial effect on morale in the school. While a minority were unsure of the effects of the scheme, no principals in any of the four years felt that the scheme had a negative, or very negative, effect on the school, on teaching practices, or on morale generally.

Table 5.46. Numbers and percentages of principals in 1997/98, 1998/99, 1999/2000 and 2000/01 who indicated that *Breaking the Cycle* had a positive or negative effect on their school, on teaching practices in their school, and on morale in their school.

Effect participating in *Breaking the Cycle* has had on school.					
	Very positive	Positive	Unsure/ None	Negative	Very negative
1997/98 (*N* =32)	21 65.6%	11 34.4%	-	-	-
1998/99 (*N*=33)	20 60.6%	13 39.4%	-	-	-
1999/2000 (*N*=31)	19 63.3%	11 36.7%	-	-	-
2000/01 (*N*=29)	20 69.0%	9 31.0%	-	-	-
Effect participating in *Breaking the Cycle* has had on teaching practice in school.					
	Very positive	Positive	Unsure/ None	Negative	Very negative
1997/98 (*N* =32)	15 46.9%	16 50.0%	1 3.1%	-	-
1998/99 (*N*=33)	13 39.4%	19 57.6%	1 3.0%	-	-
1999/2000 (*N*=31)	13 41.9%	15 48.4%	3 9.7%	-	-
2000/01 (*N*=29)	16 55.2%	11 37.9%	2 6.9%	-	-
Effect participating in *Breaking the Cycle* has had on morale in school.					
	Very positive	Positive	Unsure/ None	Negative	Very negative
1997/98 (*N* =32)	21 65.6%	10 31.2%	1 3.1%	-	-
1998/99 (*N*=33)	16 48.5%	17 51.5%	-	-	-
1999/2000 (*N*=30)	18 60.0%	10 33.3%	2 6.7%	-	-
2000/01 (*N*=29)	19 65.5%	10 34.5%	-	-	-

Agreement was unanimous among principals in 2000/01 that participation in the scheme had benefited marginalised pupils (Table 5.47).

Table 5.47. Numbers and percentages of principals in 1997/98, 1998/99 and 1999/2000 who believed that marginalised pupils in their school had/had not benefited from *Breaking the Cycle*.

Do you think marginalised pupils in your school have benefited from participating in the *Breaking the Cycle* scheme?			
	Yes	Unsure	No
1997/98 (*N*=32)	28 (87.5%)	4 (15.5%)	-
1998/99 (*N*=33)	30 (90.9%)	3 (9.1%)	-
1999/2000 (*N*=31)	29 (93.5%)	-	2 (6.5%)
2000/01 (*N*=29)	29 (100.0%)	-	-

Principals were asked to indicate the extent of improvements in pupils' academic and social skills since *Breaking the Cycle* was introduced. Principals were asked whether pupils had improved academically, *as measured by formal and informal tests*. In a related item, they were asked to indicate whether pupils had improved, *on the basis of teachers' and their own opinions*.

In both cases, the vast majority of principals in 2000/01 said that pupils' academic achievement had improved somewhat, or a lot (Table 5.48). There was a considerable increase[4] between 1998/99 and 2000/01 in the percentage of principals who indicated that pupils had improved a lot, as reflected by formal and informal tests (6.5% vs. 21.4% respectively). In contrast, when asked whether they or their teachers perceived a change in pupils' academic achievement, a decreasing number of principals indicated that pupils' academic achievement had improved a lot (24.2% vs. 17.9%, respectively).

The finding that no principals in 2000/01 indicated that pupils had disimproved is surprising, given the data presented in Chapter 3, which indicate that the achievements of 3rd and 6th class pupils largely disimproved between 1997 and 2000. It is possible that principals were thinking of pupils' work in broad terms, rather than focusing on their Mathematics and English achievements.

[4] The small number of respondents in each year (i.e., 33 principals in 1998/99 and 28 principals in 2000/01) meant it was difficult to obtain differences which were statistically significant.

Table 5.48. Number and percentages of principals in 1998/99 and 2000/01 who indicated the extent of improvements in pupils academic achievement since the introduction of *Breaking the Cycle*, as measured by formal or informal tests and by principals' and teachers' opinions.

Have the academic achievements of pupils in your school, as measured by formal or informal tests, changed since the introduction of *Breaking the Cycle*?					
	Disimproved a lot	Disimproved somewhat	Unchanged	Improved somewhat	Improved a lot
1998/99 (*N*=31)	-	1 (3.2%)	4 (12.9%)	24 (77.4%)	2 (6.5%)
2000/01 (*N*=28)	-	-	4 (14.3%)	18 (64.3%)	6 (21.4%)
Have the academic achievements of pupils in your school, on the basis of your own or teacher's opinions, changed since the introduction of *Breaking the Cycle*?					
	Disimproved a lot	Disimproved somewhat	Unchanged	Improved somewhat	Improved a lot
1998/99 (*N*=33)	-	-	1 (3.0%)	24 (72.7%)	8 (24.2%)
2000/01 (*N*=28)	-	-	3 (10.7%)	20 (71.4%)	5 (17.9%)

It appears that involvement in the scheme was of benefit to pupils, both personally and socially, as 85.7% of principals in 2000/01 felt that pupils' levels of self-esteem had increased a lot since the introduction of the scheme, and the remaining 14.3% believed self-esteem levels had increased somewhat (Table 5.49). Similarly, the vast majority of principals indicated that the standards of social interaction among pupils had improved a lot (58.6%), or somewhat (37.9%). These findings are similar to teachers' responses (Chapter 6), as an increasing (although smaller) number of teachers felt that pupils' self-esteem and social skills improved as a result of participation in the scheme (17.6% in 1997/98 vs. 23.0% in 1999/2000; Table 6.23).

Table 5.49. Number and percentages of principals in 1998/99 and 2000/01 indicating the extent of change in pupils level of self-esteem and standard of social interaction, since the introduction of *Breaking the Cycle*.

Have levels of self-esteem among your pupils changed since the introduction of *Breaking the Cycle*?					
	Decreased a lot	Decreased somewhat	Unchanged	Increased somewhat	Increased a lot
1998/99 (*N*=33)	-	-	2 6.1%	15 45.5%	16 48.5%
2000/01 (*N*=28)	-	-	-	4 14.3%	24 85.7%*
Have the standards of social interaction of the pupils in your school changed since the introduction of *Breaking the Cycle*?					
	Disimproved a lot	Disimproved somewhat	Unchanged	Improved somewhat	Improved a lot
1998/99 (*N*=33)	-	-	2 6.1%	15 45.5%	16 48.5%
2000/01 (*N*=28)	-	-	1 3.4%	11 37.9%	17 58.6%

*Differences between 1998/99 and 2000/01 are statistically significant ($p<0.01$).

Principals were asked to estimate the amount of time, in a typical week, that pupils engaged in out-of-school activities. As Table 5.50 illustrates, senior class pupils spent the most time engaged in out-of-school activities (1.57 hours per week), followed by middle class pupils (1.43 hours per week), and junior class pupils (1.13 hours per week). In 2000/01, most principals (79.3%) felt pupils derived great benefit from out-of-school activities. Five principals (17.2%) felt that pupils had benefited to a good extent, and one principal felt pupils benefited to some extent.

Table 5.50. Principals' estimates of the amount of class time (in hours) in a typical week that junior, middle, and senior class pupils spent engaging in out-of-school activities / special projects during the 2000/01 school year.

	Junior (*N*=27)	Middle (*N*=26)	Senior (*N*=26)
Mean	1.13	1.43	1.57
Mode	1	0	0
Range	4	5	6

In the last two years of the pilot phase of the scheme, the questionnaire for principals included an open-ended item which sought reasons why marginalised pupils had or had not benefited from their involvement in *Breaking the Cycle*. In both years, the most common response was that pupils had benefited from the lower pupil-teacher ratios and more individualised attention (64.5% and 51.7% respectively) (Table 5.51). For example, one principal wrote:

> We have more time and more expertise as a staff, more attention is given to the marginalised now when planning programs/activities, a feeling of self-worth is finally being realised among this group.

Almost a third of principals in 2000/01 felt that pupils benefited due to the early identification of problems, while over a quarter felt that the out-of-school activities had had a positive impact. Principals also felt that teachers and parents had benefited as a result of the scheme (24.1% and 20.7% respectively). Several (17.2%) commented on the financial benefits of the scheme. There was a decrease in the percentage of principals who commented on improvements in pupils' self-esteem and social skills (32.3% in 1999/2000 vs. 17.2% in 2000/01), although this may be because principals commented on it in another item in the questionnaire (Table 5.49) and thus did not feel the need to note it again. Principals also noted other benefits, including better behaviour and attendance rates, and improvements in the school environment.

Table 5.51. Numbers and percentages of principals in 1999/2000 and 2000/01 who gave various explanations as to why they believed that marginalised pupils had or had not benefited from *Breaking the Cycle*.

Category	Number (%) of Principals in 1999/2000 (*N*=31)*	Number (%) of Principals in 2000/01 (*N*=29)*
Benefited from lower PTR/ more individual attention / more time for pupils / focus on individual needs /	20 64.5%	15 51.7%
Out-of-school activities/poorer can participate /more opportunities / variety of cultural events	11 35.5%	8 27.6%
Pupil self-esteem / social skills / self-confidence improved / communication skills improved	10 32.3%	5 17.2%
Teachers benefit from in-service / morale improved / better relationship with pupils/ more positive in general/ more job satisfaction / staff have more time and expertise	10 32.3%	7 24.1%
Financial benefits / equipment (concrete materials)	6 19.4%	5 17.2%
Early identification of problems / focus on disadvantaged	4 12.9%	9 31.0%
Children enjoy school / have a more positive attitude to school / motivated / feel they belong	4 12.9%	-
Better behaviour / attendance rates / more disciplined	3 9.7%	4 13.8%
Problems with larger senior classes	1 3.2%	-
Parents benefited / parents self-confidence improved / improved home-school links	-	6 20.7%
Better school environment	-	3 10.4%
Other (positive) e.g. they have made a great bond with the school,	3 9.7%	3 10.4%
Other (negative, e.g., no change)	1 3.2%	-

* Percentages do not sum to 100% as some principals provided more than one reason.

Finally, principals were given the opportunity to make general comments about the scheme. Responses were classified into categories based on the kind of comments given (Table 5.52).

Table 5.52. Numbers and percentages of principals in 1997/98 and 2000/01 expressing various general comments on the *Breaking the Cycle*.

Category	Number % 1997/98 (*N*=32)	Number % of 2000/01 (*N*=29)
General positive comment (e.g., improved parent confidence)	10 31.3%	16 55.2%
Should extend 15:1 PTR throughout school / problems when children enter larger senior classes from smaller junior classes	8 25.0%	11 37.9%
Benefits of reduced PTR in junior classes / more individual attention / gives children a positive start to schooling / improved pupil-teacher relationships	9 28.1%	8 27.6%
Financial benefits (extra equipment / materials)	7 21.9%	3 10.4%
Benefits of out-of-school activities/ children participate in activities not otherwise possible/ enhanced classroom performance (esp. oral language)	-	3 10.4%
Increase in workload / form and questionnaire filling / administration of the scheme increases workload for principals and teachers	8 25.0%	-
Children more self-confident / improved social skills / learning readiness / attendance improved	-	3 10.4%
Morale booster / better atmosphere in school/ improved pupil teacher and parent-teacher relationships	7 21.9%	-
Co-ordinator (urban) as asset to school - organisation of scheme, support.	-	2 6.9%
In-service beneficial	7 21.9%	3 10.4%
Other (e.g., Concerts in concert hall fantastic, improved home-school links, achievement improved)	-	20 69.0%

* Percentages sum to more than 100% as principals were permitted to give more than one response.

A quarter of principals in 1997/98 and over a third in 2000/01 (37.9%) felt that the reduced pupil-teacher ratios should be extended to other classes throughout the school. In fact, some principals noted that, due to teacher shortages, the smaller class sizes were being maintained at the expense of the senior classes. For example, one principal wrote:

> Problems have arisen at the end of 2nd class with retaining teachers due to low number at junior level. The results have been doubling up of classes at the senior level.

According to another principal, this meant that:

> Pupils are getting great educational chances in the small class size. Unfortunately, much of this is undone at the senior level as pupils try to adjust to much bigger class numbers and less individual attention and help.

Despite these recommendations, over a quarter of principals in both years noted the benefits of the smaller class sizes in Junior classes. Principals also made positive comments regarding the additional funding (10.4%), out-of-school activities (10.4%), in-service (10.4%), and the urban

co-ordinator (6.9%). Improvements among pupils, for example in their self-confidence or their attendance (10.4%) were also noted. For the most part, principals' general comments regarding the scheme were positive. For example, one principal felt that the scheme had benefited all participants:

> It was one of the best times I have had as principal. It changed the working lives of teachers; it improved the experience of children; it brought parents closer to us.

Another principal noted the scheme's positive impact on the school:

> The initiative has been of huge benefit to the school. The financial support, smaller class groups, staff training, projects, etc. have allowed the school to continue to be a vibrant and sustainable educational institute in its community.

Another principal, when reflecting on the impact of *Breaking the Cycle*, commented:

> *BTC* as a model may provide part of a strategy for tackling the challenge – however perhaps at the end of this 5 year period it might be more clearly recognised that there are many and complex factors affecting educational disadvantage – many which do not come directly within the ambit of schools or Education Department. The scheme was well administered and shrewdly. Achievable targets were set, good in-service provided, a "feel good" dynamic developed. Leadership given was strong, visible and "highly persuasive". Resistance to the approach was deftly handled, political deftness was also shown in dealing with dissatisfactions – such as 15:1 issues and teaching principal issues. The focus on the positive being so strong I felt inadequate and almost fearful to highlight any challenges that may remain! If I were [Education] minister, I would happily appear on Prime Time and eulogise this "wonderful initiative". If I were reflecting as a self aware pupil or teacher, or parent with a strong sense of my working class consciousness I might have issues to raise!

Finally, one principal wrote:

> Thanks from the staff, parents and children for giving our school such a wonderful opportunity to grow.

5.6. CONCLUSION

To ascertain whether the scheme had an impact on pupils and schools in a range of areas of school life, principals were asked to complete School Questionnaires in each of the five years of the scheme. The response rate in each year was high (100%, 96.9%, 99%, 96.9% and 90.6% in 1997, 1998, 1999, 2000 and 2001, respectively). The questionnaires sought information on a range of areas, including personnel and school resources, enrolment and attendance, psychological assessment and discipline rates, home-school links, and principals' perceptions of the scheme.

While there was a decrease in the mean enrolment in urban *Breaking the Cycle* schools between 1995 and 2000 (221.1 pupils vs. 200.4 pupils respectively), there was a slight increase in the mean number of class teachers during this period (10.5 teachers vs. 12.5 teachers, respectively). This finding is not surprising, however, as the initiative to reduce pupil-teacher ratios in Junior classes would have necessitated the recruitment of additional teachers. In fact, it appears that schools' access to a range of teaching personnel, including Arts teachers and P.E. instructors, increased in 1999/2000.

The finding that a majority of principals in 2000/01 were experiencing difficulties in filling teaching posts and retaining teachers in their schools, combined with the fact that there was a very high rate of turnover among teachers in participating schools between 1996/97 and 1999/2000, suggest

that there are factors which render the teaching posts in urban *Breaking the Cycle* schools unattractive. According to principals, negative perceptions of the school and surrounding area, and practical problems, such as a lack of parking facilities, traffic and the high cost of living, are common factors which deter teachers from taking up and remaining in posts in urban schools. A quarter of principals also reported that there was a shortage of qualified teachers. These findings are discouraging for a number of reasons. First, high staff turnover rates can impede communication between teachers, which, in turn may have a negative impact on pupils. Second, difficulties in filling teaching posts may pose a threat to plans to reduce pupil-teacher ratios, since an adequate supply of qualified teachers is necessary for the success of such initiatives. Third, where there is a shortage of qualified teachers, there is a possibility that schools will have to hire some unqualified teachers. In fact, 71.9% of the schools participating in the scheme reported that there was at least one teacher who did not hold recognised qualifications on staff in 2001/02, and the majority of principals indicated this was the case in previous years (i.e., during the pilot phase of the scheme).

Principals were also asked about their own roles and responsibilities. A comparison of the *Breaking the Cycle* data with the results of the Third International Mathematics and Science Study (Mullis et al., 1997) seems to suggest that the activities of *Breaking the Cycle* full-time teaching principals are not very different from those of full-time teaching principals nationally. Nonetheless, the data also indicate that, in 2000/01, in *Breaking the Cycle* schools, full-time teaching principals spent significantly less time than non-teaching principals working with teachers, attending meetings in the community, and counselling and disciplining pupils. Given the objectives of the scheme, these findings suggest that perhaps further consideration should be given to strategies to enable full-time teaching principals to spend more time working with teachers and pupils.

In terms of the physical attributes of schools, there was a substantial increase in the percentage of schools that had a computer lab (30.3% in 1995/96 vs. 79.3% in 2000/01). This is consistent with the finding that schools were significantly more likely to have various items of computer hardware and software in 2000/01. However, it should be noted that, in recent years, the Department of Education and Science has introduced a range of programmes, including the Schools I.T. 2000 initiative, with the aim of enhancing Information and Communication Technology in schools throughout the country. Therefore, while these findings are positive, they cannot be attributed to the scheme.

The additional funding available under the scheme helped schools to acquire a range of other equipment. Specifically, compared to 1995/96, schools in 2000/01 were significantly more likely to have access to a range of equipment, including stereo-systems, televisions, VCRs, and printers. There was also an increase in the mean number of items of equipment available in schools in 2000/01. Given these findings, it is not surprising that principals were significantly more likely in 2000/01 than in 1995/96 to report that teaching in each of the seven curricular areas was not at all affected by an inadequacy of equipment. A similar picture emerged when principals were asked whether teaching in a variety of areas was affected by an inadequacy of books. However, the data suggest that additional

resources should perhaps be targeted at Irish, Music, P.E. and Arts, as several principals in 2000/01 felt that teaching in these curriculum areas continued to be affected by a shortage of equipment and books.

In addition to examining schools' resources, information was also sought on the population served by the school. On average, 95.7% of pupils in *Breaking the Cycle* schools were from the immediate locality. Furthermore, in 1998/99, 1999/2000 and 2000/01, over half the schools had children from the Travelling Community and/or children of refugees, asylum-seekers, and non-nationals. These findings may be interpreted as indicating that the scheme has been successful in achieving its aim of targeting schools with a high proportion of marginalised pupils.

It appears that the scheme had little impact on pupils' attendance, as there was little overall improvement in attendance levels between 1995/96 and 1999/2000, and the average daily attendance rate between 1997 and 2000 was consistently below the average attendance rate of all Dublin schools (86% vs. 90% respectively). Furthermore, despite initial improvements in attendance during the first year of the scheme, overall, there was an increase between 1995/96 and 1999/2000 in the mean number of chronic poor attenders (2.66 pupils vs. 3.38 pupils respectively). There was little change in the mean number of pupils who attended for less than 25 days in each of the last three quarters of the school year (9.81 pupils in 1995/96 vs. 9.84 pupils in 1999/2000).

The majority of principals felt that parents had a huge bearing on pupils' non-attendance. There was also a discrepancy between the prevalence of non-attendance and the frequency with which disciplinary procedures were invoked to address this problem. For example, only a minority of pupils were referred to the SAO in each year, and even fewer pupils had legal proceedings brought against them each year. While there was an increase in the percentage of pupils who were brought to the principal's attention for absenteeism between 1995/96 and 1999/2000, there was a decrease in the proportion of children who were disciplined for non-attendance during this period. These findings may explain, to some extent, why the scheme had little impact on attendance rates.

In contrast, there was a significant decrease between 1995/96 and 1999/2000 in the prevalence of and discipline rates for classroom disturbance. The prevalence rates for three other common types of misbehaviour (late arrival to school, bullying, and verbal abuse of staff) were also lower towards the end of the scheme than was the case at the beginning, although none of the differences were statistically significant. Furthermore, principals reported that there were fewer suspensions, and fewer serious breaches of discipline which did not warrant a suspension in 2000/01. These findings, combined with the fact that a quarter of principals (25.9%) reported improvements in discipline in their school in 2000/01 (Chapter 2), suggest that the scheme had a positive impact on pupils' behaviour.

Boys were significantly more likely than girls to be referred for psychological assessment in 1995/96 and 1996/97. Furthermore, in 1995/96 and 1998/99, a significantly higher number of boys than of girls were assessed. The most common reason for referral among both boys and girls was poor academic performance or progress. However, boys were far more likely to be referred for assessment

because of behavioural problems, while a higher number of girls than boys were referred for assessment on the request of parents or teachers.

Approximately 5.4% of pupils were referred for assessment in 1998/99, compared to 5.0% in 1995/96. During the same period, there was an increase in the percentage of pupils who were assessed by a psychologist (4.5% in 1998/99 vs. 2.9% 1995/96). Nonetheless, only 83.3% of pupils who were referred in 1998/99 were actually assessed. Similarly, there was a disparity between the percentage of pupils who had ever been assessed and the percentage of pupils principals felt needed to be assessed (10.32% vs. 22.63% respectively in 1998/99).

The vast majority of schools in each year provided education programmes which were designed to enable parents to assist their children with their schoolwork. Most schools also offered some type of extra-curricular course or activity for parents. The data suggest that parents' involvement in and commitment to their children's education improved somewhat since the outset of the scheme. For example, towards the end of the scheme, parents were more likely to visit the school on their own initiative than was the case at the beginning of the scheme. Furthermore, 75% of principals in 2000/01 indicated that less than 40% of parents lacked an interest in their children's academic progress. Similarly, there was an increase in the percentage of principals who estimated that less than 40% of parents had low educational expectations for their children.

Principals in 2000/01 were also asked whether, as a result of the economic growth in Ireland, the levels of disadvantage of families served by their school had changed since 1997. The majority (66.7%) felt that families were slightly less, or much less, disadvantaged. Families were considered less disadvantaged because parents were more likely to be working or studying, family income had increased, and families were better off materially. However, a third of principals felt that there had been no change, or an increase, in the levels of disadvantage in the families served by their schools. Principals commented that there remained a high proportion of dysfunctional families and some principals felt that the economic growth had a negative impact on pupils, for example, because less disadvantage families were moving out of the area.

There was unanimous agreement among principals that involvement in the scheme had positively impacted the school and marginalised pupils. All but one principal reported an improvement in their pupils' self-esteem and standards of social interaction since the introduction of *Breaking the Cycle*. Furthermore, over 80% of principals reported that pupils' academic achievements had improved, based on test results and staff opinion. That the vast majority of principals estimated that pupils' performance had improved is surprising, given the findings presented in Chapter 3, although its possible that principals were thinking of pupils' achievement in broad terms.

Although one third of principals recommended extending the smaller class sizes throughout the school, for the most part, principals' comments about the effects of the scheme were positive. According to principals, the lower pupil-teacher ratios, out-of school activities, additional funding, and earlier identification of problems due to small class sizes were all beneficial for pupils.

For the most part, the findings point to a positive impact in several areas of school life as a result of participation in the scheme. However, there appear to be some areas of school life which require further attention. Attendance programmes which involve both parents and children might prove to be of benefit. Addressing the disparity between the prevalence and discipline rates for absenteeism might also help to improve attendance levels. Finally, the data point to the need to address the high rate of turnover among teachers. It is worth noting that the Joint Committee on Education and Science made recommendations to enhance the supply of qualified teachers, for example, suggesting that the Department of Education ease the Irish language requirement so that qualified teachers from other countries could be appointed (Ireland, 2000). Nonetheless, in addition to addressing teacher shortages, the findings presented in this chapter suggest that more needs to be done to make the teaching posts in *Breaking the Cycle* schools more appealing. It is likely that addressing some of the practical concerns raised by principals (e.g., improving access to parking facilities) would make these posts more desirable. Furthermore, providing incentives, financial or otherwise, may be necessary to attract teachers to posts in these schools. Increasing principals' capacity to attract and retain experienced and qualified teachers should, in turn, positively impact upon pupils in *Breaking the Cycle* schools.

6. THE IMPACT OF THE SCHEME ON TEACHERS

All class teachers in participating schools were asked to complete questionnaires in 1997, 1998, 1999, and 2000. Response rates for each year were 88.7%, 83.9%, 83.6% and 83.1%, respectively. While the questionnaire content varied from year to year, certain core items were included each year. Specifically, information was sought on teachers' work and their perceptions of their pupils' work and background. The questionnaires also included items relating to teachers' perceptions of the scheme.

Data from the 1996/97 questionnaire were presented in the report *The Breaking the Cycle Scheme in Urban Schools: A Report for 1996-1997* (Weir & Eivers, 1998). Similarly, teachers' perceptions of the scheme in 1997, 1998, and 1999 were examined in the *Interim Report on the Evaluation of the Breaking the Cycle Scheme in Urban Schools* (Weir & Ryan, 2000). As the sheer abundance of information collected over the four years rendered a detailed analysis of every questionnaire item from each year impractical, only a selection of data from the teacher questionnaires is examined in this report. Particular emphasis is placed on the data from the 1996/97 questionnaire, which described teachers' views at the outset of the scheme, and the 1999/2000 questionnaire, which provided insights into teachers' perceptions towards the end of the five-year pilot project. It was hoped that a comparison of the 1996/97 baseline data and the data from the 1999/2000 questionnaire would reveal whether any significant shifts in teachers' attitudes and teaching practices had occurred since the outset of the scheme[1].

One of the key components of the scheme was targeted incareer development programmes to support teachers in offsetting the educational effects of disadvantage. It was expected that such training would enhance teachers' and principals' understanding of the nature of disadvantage and would enable them to respond effectively to the needs of disadvantaged children. A brief overview and description of the incareer development programmes made available to staff in participating schools is provided in Section 6.1.

As part of the urban dimension of *Breaking the Cycle*, the pupil-teacher ratio (PTR) in Junior classes[2] was reduced to about 15:1 in participating schools in 1996. In 1997, Junior class teachers participated in workshops which focused on developing teaching practices to optimise the potential benefits of small classes. Since Junior class teachers were not asked about their instructional practices in 1995/96 (e.g., prior to the reduction of pupil-teacher ratios), it is difficult to determine whether their teaching styles changed with the introduction of the smaller classes. However, to ascertain whether there were any changes in teaching practices over the life of the pilot phase of the scheme, Junior class

[1] The responses of those who taught Early Start or Special Classes were excluded from the analysis because teaching practices for these teachers might be expected to be somewhat different from those teaching 'standard' classes.
[2] Junior classes comprise Junior Infants through to second class.

teachers' responses to several items relating to classroom practice in 1996/97 were compared with their responses in 1999/2000. Changes in Senior class teachers' practices are also examined.

Because all teachers who participated in the scheme between 1996/97 and 1999/2000 had been assigned identification numbers, it was also possible to identify 143 teachers who completed questionnaires in both 1996/97 and 1999/2000. This provided an opportunity to examine changes in the perceptions and teaching practices of 'core' teachers (i.e., teachers who had participated in the scheme throughout the first four years). It also allowed a comparison of core teachers' perceptions and teaching practices with those of teachers who were not involved in the scheme for the full four years (i.e., teachers who took up posts in participating schools *after* the scheme had already begun).

6.1 INCAREER DEVELOPMENT PROGRAMMES FOR *BREAKING THE CYCLE*

Incareer development courses were organised for principals and class teachers at national and local level by the national co-ordinator of the urban dimension of the scheme. Table 6.1 shows details of the various types of incareer development courses organised in each of the first five years of the scheme.

In the first year of the scheme (1996/97), principals attended an introductory course - essentially an information day - on *Breaking the Cycle*. There was a heavy focus on school planning in the remainder of the inservice training provided to participating principals in that year. The aim was to train principals in the development of strategies they could use to engage their staff in a whole-school approach to the project, and provide them with practical help in analysing their school's performance with a view to developing action plans for the duration of the project. For this reason, in the first year, three further courses were provided for principals, one on school review, one focusing on SWOT analysis (which involved the identification of Strengths, Weaknesses, Opportunities and Threats), and one on school planning. Each of these courses involved principals attending a day-long course on the topic. In addition to these courses, schools were closed for one day, to permit principals and staff to work together in constructing an outline plan for the remaining years of the project.

Also in the first year of the scheme, teachers were asked by the urban co-ordinator of *Breaking the Cycle* to identify issues which they would like to see addressed as part of their programme of inservice training. Following suggestions from teachers, a series of workshops entitled "Creating a classroom environment where learning can take place" was organised for teachers of Junior classes (infants to second class) in the first year of the scheme. These day-long seminars were organised on a cluster basis, and as well as covering topics such as classroom organisation and circle time, the course provided Junior class teachers with an opportunity to reflect on classroom organisation and instructional styles in light of the reduced pupil-teacher ratios. Particular emphasis was placed on the development of oral language, reading, and concrete Mathematical activities.

Two one-week summer courses were also held during this year, and both focused on planning issues. In one school, the priority was on the curriculum area of English and on home-school liaison, while the second school focused on Mathematics and within-school communication.

Table 6.1. Incareer development courses for principals and staffs in *Breaking the Cycle* schools in 1996/97, 1997/98, 1998/99, 1999/2000 and 2000/2001.

Target group	1996/97	1997/98	1998/99	1999/2000	2000/2001
HSCL teachers	The role of the Home-School-Community teacher in BTC				
Principals	Information day	School planning	Planning (Taking stock / reviewing)	School planning	School review / school planning
	School planning/ school review	1-day Arts seminar (planning the most educationally effective use of funding for arts-related activities)	Planning (Recording progress)		
	School review / SWOT analysis (Strengths, Opportunities, weaknesses, threats)	1-day Multiple Intelligences seminar (MI theory and its application in the classroom)			
	School development planning				
Class teachers	"Creating a classroom environment where learning can take place" (focus on classroom organisation, circle time, instructional style for small classes) (Junior class teachers)	"Encouraging positive behaviour in the classroom" (focus on classroom management and discipline) (Senior class teachers)		**None***	**None***
Whole school / school based seminars	All schools closed for 1 planning day	All schools closed for 1 planning day	Preparation for planning day (1-2 hours in all schools) (principals and some teachers)	"Lights on drama" (1-day workshops for all principals and 1 or 2 teachers from each school)	3 X ½ -day workshops on Multiple Intelligences and drama (some teachers in 3 schools)
		Language Development seminar (11 clusters of schools each participated in a full-day seminar) (all teachers)	All schools closed for 1 planning day		
		Assessment module (DES psychologists ran 2 X ½ -day modules on screening and profiling) (Junior class teachers)	Multiple Intelligences seminar (11 clusters of schools each participated in a full-day seminar) (All teachers)		
			6 X 1-day courses in individual schools on various curriculum areas (e.g., science, music, computers)		
Summer courses	2 X one-week summer courses [focus on school planning, emphasis on English and parental input (school 1), and within-school communication and Mathematics (school 2)]	1 X one-week summer course (focus on school planning, emphasis on communication, formation of sub-committees, and an examination of the efficacy of staff meetings)	1 X one-week summer course (focus on school planning, with emphasis on language development and pupil profiling)	**None***	**None***

*In 1999/2000 and 2000/2001, all schools were closed for 6 days incareer training on the Revised Curriculum, meaning that teachers could not be released for inservice training specific to *Breaking the Cycle*.

In the second year of the scheme, principals attended a further one-day course on school planning, as well as one-day seminars on 'Multiple Intelligences' and on teaching and learning through the Arts. The Multiple Intelligences seminar focused on providing a basic understanding of the theory of Multiple Intelligences (Gardner, 1984) and its potential application in the classroom with particular reference to teaching, learning, and assessment. For example, the Multiple Intelligences approach encourages the development and assessment of a broad range of pupils' abilities (including artistic, musical and interpersonal) in addition to the more traditional areas of logical-mathematical and linguistic intelligence. As was the case in the first year of the scheme, each school closed for a day in order that principals and staff could work on the school plan.

In the same year, Senior class teachers (3rd to 6th class) participated in a one-day workshop entitled 'Encouraging positive behaviour in the classroom'. The focus of this course was on classroom management and discipline, and its aim was to develop an openness to reflectivity on teachers' practice, as well as providing teachers with knowledge and skills relevant to the experience of behaviour problems in the classroom. As many participating schools identified oral language as a curricular priority for development in their school plan, a school-based one-day seminar on language development was organised for teachers of all levels. This course focused on the principles of language learning with special emphasis on the integrated approach to language across the curriculum. The critical role of *talk*, not only in language activities, but also as an approach to teaching, was stressed, and special consideration was given to the expressive language skills of the disadvantaged child. Also in that year, the Department of Education's Psychological Service prepared and delivered two half-day training modules on assessment, differential diagnosis, and profiling to Junior class teachers to support them in the diagnostic assessment of pupils. Finally, one week-long summer course was held in one participating school, the focus of which was on school planning. The particular emphasis of this course was on the formation and deployment of staff sub-committees, and on enhancing the efficacy of staff meetings.

In the third year (1998/99), principals attended two school planning courses, one on school review and the other on evaluating and recording progress in schools. The urban co-ordinator also spent 1-2 hours in each school with the principal and some teachers preparing for the school's closure for a third planning day. The focus of these sessions was on identifying evaluation methods and reviewing processes involved in school planning. A one-day whole-school seminar on Multiple Intelligences for teachers at all levels was also held during this year. In addition to the above, 6 one-day courses were held in individual schools on various curriculum areas (e.g., science, music). Finally, a one-week school planning course with a special emphasis on language development and pupil profiling was held in one participating school during the summer.

The final two years of the scheme (1999/2000 and 2000/2001) coincided with the introduction of the revised primary school curriculum. To facilitate the implementation of the new curriculum, all school staff were required to attend 6 days of incareer development in 1999/00 and 2000/2001.

Consequently, schools were unable to release teachers to participate in *Breaking the Cycle* inservice programmes during these two years. As a result, no incareer development courses for teachers or summer courses were offered in 1999/2000 and 2000/2001. However, all principals attended a school planning / review day in both years. In addition to this, in 1999/2000, a seminar entitled "Lights on Drama" was attended by all principals and one or two teachers from each school. The seminar was intended to highlight drama in the revised curriculum, and it enabled staff to experience the drama curriculum in action through observing practical demonstrations of drama work with children, as well as an opportunity to reflect on the thinking which underpins the revised drama curriculum. In the last year of the scheme (2000/2001), several teachers in three schools participated in half-day workshops which focused on drama and Multiple Intelligences.

It should be noted that, although the provision of inservice training related to the revised curriculum interfered with inservice for *Breaking the Cycle*, in many respects, the aims of the new curriculum are complementary to the objectives of the scheme. For example, the new curriculum emphasises child-centred teaching approaches, promotes high expectations in achievement, and encourages schools to involve parents, the community and others in school planning (National Council for Curriculum and Assessment, 1999). Nonetheless, since the primary school curriculum training was provided under a national programme, it was not specially tailored to the needs of *Breaking the Cycle* teachers. Since one of the key components of the scheme was *targeted* incareer development programmes to support teachers in offsetting the educational effects of disadvantage, the finding that the programmes were curtailed in the final two years of the pilot phase of the project is a matter of concern.

While the formal inservice training organised for teachers has been described briefly here, the less formal, day-to-day support provided to schools by the co-ordinator of the urban scheme over the life of the project should be acknowledged. This support came in the form of regular visits to schools, and, on average, three to four visits to each participating school were made annually. The major focus of such visits was that of supporting and affirming schools in establishing priorities for development, and typically involved informal conversations with the principal on issues such as curriculum adaptation, teaching and learning, varying methodologies, the accommodating of varying learning styles, and planning for implementation. In addition to the latter, the co-ordinator provided assistance to schools in other ways. For example, advice was offered on arts projects, and the assistance of a range of institutions and cultural centres was enlisted to support the development of special programmes in participating schools. Other kinds of projects were also given support. For example, in one school, assistance was given in the production of a video on language development, which, due to its broader application, was subsequently duplicated and disseminated to about 2,500 primary schools catering for disadvantaged pupils.

6.2 TEACHERS' WORK

A section of the questionnaire was designed to elicit information about teachers' working practices. Items on the amount of time teachers devoted to each of the curriculum areas, their grouping practices, and their teaching methods were included. Information on their approach to learning (e.g., whether teachers accepted responsibility for their pupils' performance) and their homework assignment practices was also sought.

As was the case in 1996/97, teachers in 1999/2000 reported spending the most time per week on English, followed by Mathematics and Irish (Table 6.2). However, the results reveal that there was a significant *decrease* in the mean amount of time spent on English (t=2.20, df=595, p<.05). This finding is surprising in light of the fact that the majority of schools described English as a curriculum priority in their five-year school plan (see Table 2.1 in Section 2). In contrast, there was a significant increase (t=2.52, df=594, p<.05) in 1999/2000 in the mean time that teachers spent on Social and Environmental studies.

With the exception of Social and Environmental studies, there were no significant differences between 1996/97 and 1999/2000 in the mean time that Junior class teachers allocated to the main curriculum areas. With the exception of P.E., there were no significant differences between 1996/97 and 1999/2000 in the mean time that Senior class teachers allocated to the main curriculum areas.

A comparison of Junior and Senior class teachers' responses revealed that, in 1996/97, Junior class teachers spent significantly more time than Senior class teachers on English, Arts and Crafts, and Music, while Senior class teachers spent significantly more time than Junior class teachers on Mathematics, Irish, P.E., and Social and Environmental studies. In 1999/2000, English was the only curriculum area in which Junior class teachers spent significantly more time than Senior class teachers (t=2.61, df=253, p<.05). Senior class teachers spent significantly more time than Junior class teachers on Mathematics and Irish in 1999/2000.

Table 6.2. Mean time (in hours) that Junior, Senior, and all class teachers reported spending on each of seven subject areas per week in 1996/97 and 1999/2000.

Subject area	**1996/97**			**1999/2000**		
	All (*N*=338)	Junior (*N*=215)	Senior (*N*=118)	**All (*N*=259)**	Junior (*N*=155)	Senior (*N*=100)
English	**5.65**	5.84	5.25	**5.35***	5.53	4.97
Mathematics	**4.41**	4.19	4.80	**4.32**	4.10	4.58
Irish	**3.38**	2.97	4.16	**3.22**	2.84	3.84
Art and Craft	**1.71**	1.78	1.56	**1.67**	1.72	1.57
P.E.	**1.15**	1.08	1.26	**1.06**	1.04	1.11*
Social & Environmental studies	**1.59**	1.37	1.98	**2.12***	1.88*	2.52
Music	**1.07**	1.13	0.97	**1.20**	1.10	1.35
Total	**18.96**	**18.36**	**19.98**	**18.94**	**18.21**	**19.94**

*t- *test* revealed a significant difference (p<.05) between 1996/97 and 1999/2000 mean times.

The IEA preprimary project (see Section 3.16), in addition to examining the developmental differences between children attending designated and non-designated schools, also gathered data on the amount of time teachers spent on each of a variety of curriculum areas per week (Hayes & Kernan, 2001). Thus, it was possible to compare the IEA preprimary project findings with the responses of *Breaking the Cycle* teachers. However, since the IEA project data represent teachers' experiences at the Junior Infants level, for the purposes of comparison, the responses of teachers in Junior Infant classes in *Breaking the Cycle* schools in 1999/2000 were analysed separately (Table 6.3).

Table 6.3. Mean time per week (in hours) spent by Junior Infant teachers in designated and non-designated schools in the IEA preprimary project in 1997, and Junior Infant teachers in *Breaking the Cycle* in 1999/2000, on seven curriculum areas.

Subject	IEA non-designated schools 1997 (*N*=138)	IEA designated schools 1997 (*N*=111)	*BTC* schools 1999/2000 (*N*=46)
English	5.7	6.2	5.5
Irish	4.7	3.9	2.1
Math	3.5	3.3	3.7
Social & Environmental studies	1.4	1.4	2.2
Arts	1.5	1.5	1.8
P.E.	1.0	0.9	1.1
Music	0.9	0.9	1.1
TOTAL	**18.7**	**18.1**	**17.5**

*The IEA project report including categories for Religion, Computers and Other curriculum areas. Because the *Breaking the Cycle* questionnaires did not ask teachers about these curriculum areas, for the purposes of comparisons, the percentages presented here refer to the % of the total time spent on the 7 curriculum areas in the table.

The IEA study revealed some discrepancies between schools designated as disadvantaged and ones not designated in the total time Junior Infant teachers spent on the seven curriculum areas. They found that designated schools spent slightly less time on the combined subject areas (18.1 hours) compared to non-designated schools (18.7 hours). The data indicate that the total time spent on the seven curriculum areas in Junior Infant classes in *Breaking the Cycle* schools in 1999/2000 was less than that spent by teachers in the designated schools in the IEA preprimary study (17.5 hours and 18.1 hours respectively).

Junior Infant teachers in all IEA project schools, regardless of their designated status, reported spending the most time on English, followed by Irish and Mathematics. This is in contrast to the Junior Infant teachers in *Breaking the Cycle* schools, who reported spending the most time on English, followed by Mathematics. Indeed, teachers in *Breaking the Cycle* schools spent considerably less time on Irish, and more time on Social and Environmental studies, compared to both designated and non-designated IEA project schools. At the same time, teachers in *Breaking the Cycle* schools were comparable with teachers in all IEA project schools in the time they allocated to Mathematics, Arts, P.E., and Music. It should be noted, however, that the data are not strictly comparable, as the methods of data collection differed between the two studies, and the sample size in 1999/2000 in *Breaking the*

Cycle schools was small (*n*=46 teachers). Furthermore, the data represent the experience of Junior Infant teachers, rather than all *Breaking the Cycle* teachers, and so the findings cannot be generalised to other grade levels. Finally, the IEA project data were collected in 1997, prior to the introduction of the revised primary school curriculum, which took place in 1999.

To assist teachers in implementing the revised curriculum, a framework which suggested minimum times for each curriculum area in 1st to 6th classes, was outlined in the Primary School Curriculum Introduction (National Council for Curriculum and Assessment, 1999). A separate framework for the Infant classes was also provided. Table 6.4 presents the suggested time framework for 1st and 6th classes, along with the times that 1st to 6th class teachers in *Breaking the Cycle* schools reported spending on each of the seven curriculum areas in 1999/2000.

Table 6.4. Suggested minimum weekly time framework (1st to 6th class teachers), as reported in the Primary School Curriculum, and actual time framework of 1st to 6th class teachers in *Breaking the Cycle* schools in 1999/2000.

Subject	Recommended time (in hours) (1999)	Recommended % of time (1999)	Time (in hours) *BTC* schools 1999/2000 (*N*=176)	% of time *BTC* schools 1999/2000 (*N*=176)
English	4.0	20.0%*	5.2	25.6%
Irish	3.5	17.5%*	3.7	18.2%
Math	3.0	15.0%	4.6	22.7%
Social and Environmental studies	3.0	15.0%	2.2	10.8%
Arts Education (includes Arts & Crafts, and Music)	3.0	15.0%	3.5	17.3%
P.E.	1.0	5.0%	1.1	5.4%
Discretionary time	2.0	10.0%**	-	-
Social, personal and health education	0.5	2.5%	***	***
TOTAL	**20.0**	**100%**	**20.3**	**100%**

*The primary school curriculum 2000/01 distinguishes between schools where the principal medium of instruction is English versus Irish. They suggested allocating 4 hours (20% of total instructional time) to the first language (in the case of *BTC* schools this would be English), and 3.5 hours (17.5%) to the second language (which in the case of *BTC* schools would be Irish).
**Discretionary time is extra time which teachers can allocate to any of the six curriculum areas, at their or the school's discretion.
***Option not offered in teacher questionnaire.

It was suggested in the revised curriculum that, after accounting for breaks, assemblies and religious education, teachers should spend, on average, 20 hours per week (or four hours per day) on the other curriculum areas (National Council for Curriculum and Assessment, 1999). It appears that the total time that 1st to 6th class *Breaking the Cycle* teachers spent on the various subject areas was marginally higher than the recommended time (20.3 hours).

Although there was a significant decrease in 1999/2000 in the mean amount of time that *Breaking the Cycle* teachers spent on English, it seems that the time allocated to this subject was still well above the suggested minimum time (e.g., 5.2 hours vs. the recommended time of 4 hours per week). Similarly, while the revised primary school curriculum recommends spending 3 hours per week on Mathematics, *Breaking the Cycle* teachers spent, on average, 4.6 hours per week on this

subject area in 1999/2000. The fact that pupils' achievements in reading and Mathematics were poor despite a proportionately greater amount of time spent on instruction in these areas suggests that simply increasing the amount of time per week that teachers in schools spend on these subject areas would not be sufficient to produce an improvement in pupils' performance.

In contrast, teachers participating in the scheme spent less than the recommended time on Social and Environmental studies (2.2 hours vs. 3 hours). There were only minor differences between the recommended time and the actual time *Breaking the Cycle* teachers spent on Irish, Arts Education and P.E.

When the results of the Infant classes are examined, a similar picture emerged (Table 6.5), as teachers participating in the scheme allocated considerably more than the recommended time to the subject areas of English and Mathematics, and less time to Social and Environmental studies. The time they spent on Irish, Arts Education and P.E. was comparable to the suggested times in the new curriculum.

Table 6.5. Suggested minimum weekly time framework (Junior and Senior Infant class teachers), and actual time framework of Infant class teachers in *Breaking the Cycle* schools in 1999/2000.

Subject	Recommended time (in hours) (1999)	Recommended % of time (1999)	Time (in hours) *BTC schools* 1999/2000 (*N*=85)	% of time *BTC* schools 1999/2000 (*N*=85)
English	3.0	20.0%*	5.5	33.1%
Irish	2.5	16.7%*	2.1	12.7%
Math	2.25	15.0%	3.6	21.7%
Social and Environmental studies	2.25	15.0%	1.8	10.8%
Arts Education (includes Arts and Crafts, and Music)	2.5	16.7%	2.6	15.7%
P.E.	1.0	6.7%	1.0	6.0%
Discretionary curriculum time	1.0	6.7%**	-	-
Social, personal and health education	0.5	3.3%	***	***
TOTAL	**15.0**	**100%**	**16.6**	**100%**

*The primary school curriculum 2000/01 distinguishes between schools where the principal medium of instruction is English versus Irish. They suggested allocating 4 hours (20% of total instructional time) to the first language (in the case of *BTC* schools this would be English), and 3.5 hours (17.5%) to the second language (which in the case of *BTC* schools would be Irish.)
**Discretionary time is extra time which teachers can allocate to any of the six curriculum areas, at their or the school's discretion.
***Option not offered in teacher questionnaire. Teachers may have incorporated this element into another curriculum area.

Teachers were also asked to indicate the percentage of Irish, English and Mathematics class time they devoted to whole class, small group, and individual teaching. In some cases, teachers either failed to respond to the item or provided percentages for each of whole class, small group, and individual children which did not sum to 100%. For the purpose of analysis, non-responses and

responses that reached a total less than 80% or greater than 105% were ignored. The results for 1996/97 and 1999/2000 are presented in Tables 6.6 and 6.7.

Table 6.6. Mean percentage of time that Junior, Senior, and all class teachers reported spending on whole class, small group, and individual instruction in Irish, English and Mathematics in 1996/97.

	Whole class			**Small group**			**Individual child**		
Subject area	Junior	Senior	**All**	Junior	Senior	**All**	Junior	Senior	**All**
Irish	84.53	84.49	**84.38**	7.51	7.47	**7.60**	7.76	8.00	**7.83**
English	43.79	60.50	**49.67**	27.56	27.13	**27.57**	28.47	11.85	**22.47**
Maths	49.11	61.74	**53.22**	27.38	21.65	**25.59**	23.48	16.42	**21.04**

Table 6.7. Mean percentage of time that Junior, Senior, and all class teachers reported spending on whole class, small group, and individual instruction in Irish, English and Mathematics in 1999/2000.

	Whole class			**Small group**			**Individual child**		
Subject area	Junior	Senior	**All**	Junior	Senior	**All**	Junior	Senior	**All**
Irish	87.32	84.28	**86.04**	6.68	9.58	**7.90**	5.94	6.09	**6.00***
English	46.46	55.46	**49.87**	30.16	30.85	**30.43**	23.41**	13.64	**19.71***
Maths	50.05	59.28	**53.30**	29.22	23.22	**27.14**	20.67	17.49	**19.48**

**t- test* revealed a significant difference ($p<.05$) between 1996/97 and 1999/2000 means.
***t- test* revealed a significant difference ($p<.01$) between 1996/97 and 1999/2000 means for Junior class teachers.

In both 1996/97 and 1999/2000, Irish was the curriculum area in which whole class teaching was the most likely. In fact, in both years, less than 15% of Irish time was spent on small group and individual instruction. These results are consistent with a study of the teaching of Irish at 6th class level in twenty schools in Ireland (Harris & Murtagh, 1999), which found that the largest percentage of lesson time (80.9%) was spent on whole class teaching, while 12% was spent on individual work. Pupil/group demonstration and co-operative work occupied 7.1% of lesson time[3].

In contrast, in 1999/2000, teachers spent approximately half of English and Mathematics time engaged in whole class teaching (49.87% and 53.22%, respectively). Small group work occupied 30.43% and 27.14% of English and Mathematics time respectively, while individual pupil instruction occupied less than 20% of English and Mathematics time.

The finding that teachers spent approximately a third of English and Mathematics time on small group instruction in 1999/2000 is promising in light of the research on within-class grouping, which suggests that the practice of dividing pupils into groups and instructing them separately has a positive impact on their achievement (Sukhnandan & Lee, 1998). There is evidence that small group work is particularly beneficial for at-risk pupils, as they receive more immediate attention and feedback from teachers when working in small groups (Edmonton Public Schools & University of

[3] Because Harris and Murtagh's research focused on 6th class pupils, conclusions drawn from a comparison of their results with the urban *Breaking the Cycle* data are only tentative.

Alberta, 2001). Additional benefits of group work were noted in the Primary School Curriculum (National Council for Curriculum and Assessment, 1999):

> Working collaboratively provides learning opportunities that have particular advantages… Collaborative work exposes children to the individual perceptions that others may have of a problem or situation. These will reflect the different personalities and particular abilities of other members of the group and make for an interactive exchange that will help broaden and deepen individual children's understanding. Moreover, the experience of collaborative learning facilitates the child's social and personal development… (p.17).

At the same time, the results indicate that, in 1999/2000, teachers spent the least amount of English, Mathematics, and Irish time working with individual pupils. In fact, the amount of English time teachers devoted to individual instruction decreased significantly since the outset of the scheme (t=2.01, df=563, p<.05). The percentage of time that teachers spent working with individual pupils in Irish also decreased significantly in 1999/2000 (t=1.99, df=561, p<.05). Since one-to-one instruction has also been shown to have a positive impact on pupils' achievement (O'Connell & Smith, 2000), one might speculate that the decrease in time spent on individual pupil instruction had a negative impact on pupils' progress.

The teaching practices of Junior and Senior class teachers were also analysed separately. With regard to Irish, both Junior and Senior class teachers in 1999/2000 spent the majority of class time on whole class instruction (87.32% and 84.28% respectively). In 1999/2000, teachers at both class levels spent the least amount of time on individual pupil instruction. Harris and Murtagh (1999) noted in their report, "given the general agreement about the value of small group work in a communicative context…the long term goal should be to evolve towards at least an increase in the proportion of small group tasks and activities in the Irish lesson" (p.264). In light of this recommendation, the finding that both Junior and Senior class teachers spent less than 10% of their time engaged in small group instruction suggests that teachers should be encouraged to incorporate more small group activity into their Irish lessons.

In 1996/97, Junior class teachers spent significantly less Mathematics time than Senior class teachers on whole class teaching (t=4.94, df=296, p<.001), and significantly more Mathematics time on small group teaching (t=2.54, df=301, p<.05) and individual instruction (t=4.07, df=301, p<.001). In 1999/2000, although Junior class teachers spent significantly less time than Senior class teachers on whole class teaching (t=3.32, df=255, p<.01) and significantly more time on small group work (t=3.32, df=254, p<.01), there were no significant differences between Junior and Senior class teachers in the time they allocated to individual pupil instruction.

In English, Junior class teachers in 1996/97 spent significantly less time than Senior class teachers on whole class teaching (t=6.18, df=296, p<.001), and significantly more English time on individual pupil instruction (t=8.47, df=296, p<.001). The percentage of time that Junior and Senior class teachers spent on small group work was comparable. In 1999/2000, a similar pattern of findings emerged, with Junior class teachers spending significantly less time on whole class teaching (t=3.32,

df=255, *p*<.01) and significantly more time on individual pupil instruction (*t*=5.68, *df*=254, *p*<.001) than Senior class teachers. Again, the amount of English time spent teaching small groups was approximately equal for both class levels. It is possible that Junior class teachers' more extensive use of individual pupil instruction was the due to the small class sizes at Junior levels. However, one would expect the teaching practices of Junior and Senior class teachers to differ, and since teachers were not asked about their instructional practices in 1995/96 (e.g., prior to the reduction of pupil-teacher ratios), it is difficult to ascertain whether such differences existed between Junior and Senior class teachers practices prior to the introduction of the smaller classes. At the same time, the data indicate that there was a significant *decrease* (*t*=2.81, *df*=344, *p*<.01) between 1996/97 and 1999/2000 in the percentage of English time that Junior class teachers spent on individual pupil instruction (28.47% vs. 23.41% respectively). This finding is somewhat surprising, given that smaller class sizes enable teachers to engage in more individual instruction.

In a related question, teachers were asked how they organised their small group teaching. The majority of teachers in both 1996/97 and 1999/2000 (71.7% and 74.2%, respectively) indicated that they kept pupils in small groups until they had mastered a particular skill or learned the content (Table 6.8).

Table 6.8. Numbers and percentages of teachers in 1996/97 and 1999/2000 who indicated that their pupils did or did not stay in small groups until a particular skill was mastered or content learned.

	Yes	No
1996/97 (*N*=272)*	195 (71.7%)	77 (28.3%)
1999/2000 (*N*=229)	**170 (74.2%)**	**59 (25.8%)**

*Percentages for 1996/97 differ from those reported in *The Breaking the Cycle Scheme in Urban Schools: A Report for 1996-1997*, as non-responses were not included in this analysis.

The dissolution of groups once pupils have mastered the skill or objective has been identified as an effective teaching practice (Kellaghan, 1994), and therefore, teachers were asked how often they kept pupils in the same group for small group work. A majority of teachers in both years reported that they *sometimes* did so (Table 6.9). There was a significant decrease (X^2=5.68, *df*=1, *p*<.01) between 1996/97 and 1999/2000 in the percentage of teachers who *always* kept their pupils in the same group.

Table 6.9. Numbers and percentages of teachers in 1996/97 and 1999/2000 who reported that they always, sometimes, or never, kept their pupils in the same group during small group teaching.

If you divide your class into small groups, do the same pupils stay in the same group whenever there is group teaching?			
	Always	Sometimes	Never
1996/97 (*N*=274)*	44 (16.1%)	202 (73.7%)	28 (10.2%)
1999/2000 (*N*=231)	**16 (6.9%)**	**190 (82.3%)**	**25 (10.8%)**

*Percentages for 1996/97 differ from those reported in *The Breaking the Cycle Scheme in Urban Schools: A Report for 1996-1997*, as non-responses were not included in this analysis.

To further assess the impact of participation in the scheme on teachers' practices, teachers were asked a series of items about their teaching methods. First, teachers were asked whether, at the beginning of the lesson, they set out for the class what they hoped to teach. Given that clarity of purpose has been identified as a feature of effective teaching (Kellaghan, 1994), it was hoped that the percentage of teachers who made it clear to pupils what was to be learned prior to the lesson would have increased over the life of the scheme. The results indicate that there was a significant increase (X^2=6.56, *df*=1, p<.05) between 1996/97 and 1999/2000 in the percentage of teachers who sometimes, or always, at the beginning of a lesson, laid out for the class what they hoped to teach (90.5% in 1996/97 vs. 96.2% in 1999/2000) (Table 6.10). When teachers' responses were analysed according to class level, the data indicated that there was a significant increase (X^2=5.08, *df*=1, p<.05) in 1999/2000 in the percentage of Junior class teachers who sometimes, or always, laid out the aim of lessons prior to instruction. There were no significant differences evident among Senior class teachers.

Table 6.10. Numbers and percentages of Junior, Senior, and all class teachers in 1996/97 and 1999/2000 who indicated that they never, rarely, sometimes, or always, set out for the class what they hoped to teach at the beginning of a lesson.

At the beginning of a lesson, do you set out for the class what you hope to teach?				
	Never	Rarely	Sometimes	Always
1996/97 All (*N*=344)	**4 (1.2%)**	**28 (8.1%)**	**192 (55.7%)**	**120 (34.8%)**
1996/97 Junior (*N*=221)	4 (1.8%)	20 (9.5%)	112 (50.7%)	85 (38.5%)
1996/97 Senior (*N*=120)	-	7 (5.8%)	80 (66.7%)	33 (27.5%)
1999/2000 All (*N*=263)	**3 (1.1%)**	**7 (2.7%)**	**162 (61.6%)**	**91 (34.6%)**
1999/2000 Junior (*N*=157)	2 (1.3%)	4 (2.5%)	96 (61.1%)	55 (35.0%)
1999/2000 Senior (*N*=101)	1 (1.0%)	3 (3.0%)	63 (62.4%)	34 (33.7%)

Effective teachers have also been found to assess pupils' current level of knowledge and skills, and utilise teaching approaches which build on pupils' existing knowledge (Kellaghan, 1994). Thus, teachers were asked if, at the beginning of the lesson, they asked questions of pupils to ascertain what they already knew. Almost all teachers in both 1996/97 and 1999/2000 (95.4% and 99.6%, respectively) reported that they sometimes, or always, asked questions of several pupils at the beginning of the lesson (Table 6.11). Furthermore, there was a significant increase (X^2=6.45, *df*=1, p<.05) in 1999/2000 in the percentage of teachers who indicated that they *always* asked several pupils questions at the beginning of class. Although there were no differences among Junior class teachers, Senior class teachers were significantly more likely in 1999/2000 than in 1996/97 to report that they *always* ascertained pupils' level of knowledge at the outset of the class (X^2=5.15, *df*=1, p<.05).

Table 6.11. Numbers and percentages of Junior, Senior, and all class teachers in 1996/97 and 1999/2000 who indicated that they never, rarely, sometimes, or always, at the beginning of class, asked questions of several pupils to find out what they already knew.

At the beginning of a lesson, do you ask questions of several pupils to find out what they already know?				
	Never	Rarely	Sometimes	Always
1996/97 All (*N*=338)	**-**	**9 (2.6%)**	**201 (58.3%)**	**128 (37.1%)**
1996/97 Junior (*N*=217)		9 (4.2%)	125 (57.6%)	83 (38.2%)
1996/97 Senior (*N*=119)	-	-	74 (62.2%)	45 (37.8%)
1999/2000 All (*N*=266)	**-**	**1 (0.4%)**	**138 (51.9%)**	**127 (47.7%)**
1999/2000 Junior (*N*=158)	-	-	88 (55.7%)	70 (44.3%)
1999/2000 Senior (*N*=103)	-	1 (1.0%)	47 (45.6%)	55 (53.4%)

The use of frequent reviews to ensure that pupils have successfully acquired the knowledge and skills which were taught has been identified as an effective classroom practice (Kellaghan, 1994). Almost all teachers in 1996/97 and 1999/2000 (99.1% and 99.6%, respectively) reported that they sometimes, or always, ascertained what pupils had learned at the end of a lesson (Table 6.12). There were no significant differences between Junior and Senior class teachers. At both class levels, over two-thirds of teachers reported that they *always* asked pupils questions at the end of class.

Table 6.12. Numbers and percentages of Junior, Senior, and all class teachers in 1996/97 and 1999/2000 who indicated that they never, rarely, sometimes, or always, asked questions to find out what pupils had learned at the end of a lesson.

At the end of a lesson, do you ask questions to find out what pupils have learned?				
	Never	Rarely	Sometimes	Always
1996/97 All (*N*=344)	**-**	**2 (0.6%)**	**95 (27.5%)**	**247 (71.6%)**
1996/97 Junior (*N*=221)	-	1 (0.5%)	56 (25.3%)	164 (74.2%)
1996/97 Senior (*N*=120)	-	1 (0.8%)	37 (30.8%)	82 (68.3%)
1999/2000 All (*N*=265)	**-**	**1 (0.4%)**	**83 (31.3%)**	**181 (68.3%)**
1999/2000 Junior (*N*=158)	-	1 (0.6%)	52 (32.9%)	105 (66.5%)
1999/2000 Senior (*N*=103)	-	-	30 (29.4%)	72 (70.6%)

In a related item, teachers were asked to indicate the extent to which they believed that their success or failure in teaching their pupils was due to factors beyond their control rather than their own efforts and abilities (Table 6.13).

Table 6.13. Numbers and percentages of Junior, Senior, and all class teachers in 1996/97 and 1999/2000 who indicated various levels of agreement with the statement that their success or failure in teaching pupils is due primarily to factors beyond their control rather than to their own efforts and ability.

Do you believe that your success or failure in teaching pupils is due primarily to factors beyond your control rather than to your own efforts and ability?					
	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1996/97 (*N*=339)	57 (16.5%)	132 (38.3%)	79 (22.9%)	62 (18.0%)	9 (2.6%)
1997/98 (*N*=290)	35 (12.1%)	87 (30.0%)	83 (28.6%)	76 (26.2%)	9 (3.1%)
1998/99 (*N*=311)	33 (10.6%)	109 (35.0%)	91 (29.3%)	73 (23.5%)	5 (1.6%)
1999/2000 (*N*=260)	**18 (6.9%)**	**128 (49.2%)**	**69 (26.5%)**	**41 (15.8%)**	**4 (1.5%)**

The findings suggest that initially the scheme had a positive effect on teachers' perceptions. For example, between 1996/97 and 1997/98, there was a significant *decrease* (X^2=9.59, *df*=1, p<.01) in the percentage of teachers who strongly agreed, or agreed, that their pupils' performance was due to factors beyond their control. However, the percentage of teachers who strongly agreed, or agreed, with the statement *increased* significantly between 1998/99 and 1999/2000 (X^2=5.83, *df*=1, p<.01).

The finding that over half of teachers in 1999/2000 attributed their pupils' performance to factors beyond their control is discouraging in light of the research on school effectiveness, which suggests that teachers' acceptance of responsibility for their pupils' success or failure is one feature of effective teaching (Kellaghan, 1994). The findings are also of concern insofar as there is a possibility that such attributions influenced their teaching practices. For example, if teachers discount the importance of their own teaching abilities and efforts, they may be less inclined to modify and adapt their teaching practices.

Since the use of a wide variety of instructional strategies depending upon the situation is a practice associated with effective teaching (Hertling et al., 2000), teachers were asked about the extent to which they adhered to a specific teaching methodology or varied their teaching style for different pupils when presenting a topic. Teachers were significantly more likely (X^2=4.14, *df*=1, p<.05) in 1999/2000 than in 1996/97 to report that they varied their teaching style for different pupils (Table 6.14).

The vast majority of both Junior and Senior class teachers in 1999/2000 reported that they tailored their teaching styles to different pupils (98.7% and 92.0% respectively). The fact that significantly more Junior class teachers than Senior class teachers in both years preferred to vary their teaching styles might also suggest that the reduction in class size had some influence on teachers' practices, as smaller classes facilitate teachers in tailoring their instructional strategies to suit individual pupils' learning styles (Hertling et al., 2000). Again, however, the absence of data on

Junior and Senior class teachers' practices in 1995/96 is problematic as such differences may have existed prior to the introduction of the reduced pupil-teacher ratios.

Table 6.14. Numbers and percentages of Junior, Senior, and all class teachers in 1996/97 and 1999/2000 who indicated which *one* of the two options listed they tried to do more.

When presenting a topic do you try to adhere to a specific methodology or vary your teaching style for different pupils?		
	Specific Methodology	Vary teaching style
1996/97 All (*N*=341)	**28 (8.2%)**	**313 (91.8%)**
1996/97 Junior (*N*=220)	12 (5.5%)	208 (94.5%)
1996/97 Senior (*N*=118)	16 (13.6%)	102 (86.4%)
1999/2000 All (*N*=261)	**10 (3.8%)**	**251 (96.2%)**
1999/2000 Junior (*N*=157)	2 (1.3%)	155 (98.7%)
1999/2000 Senior (*N*=100)	8 (8.0%)	92 (92.0%)

Teachers were also asked about their homework assignment practices. In both 1996/97 and 1999/2000, the vast majority of teachers (94.8% and 92.5% respectively) assigned homework to their pupils (Table 6.15).

Table 6.15. Numbers and percentages of teachers in 1996/97 and 1999/2000 who indicated whether or not they assigned homework to their pupils.

	Yes	No
1996/97 (*N*=343)	325 (94.8%)	18 (5.2%)
1999/2000 (*N*=265)	**245 (92.5%)**	**20 (7.5%)**

In a related item, teachers were asked to indicate how often they sought to involve parents in their children's homework. As Table 6.16 illustrates, the percentage of teachers who reported that they asked all parents to *help* with homework increased significantly (X^2=11.12, *df*=1, *p*<.001) between 1996/97 and 1999/2000 (47.5% and 61.9%, respectively). Furthermore, the majority of teachers in both years asked all, or some, parents to ensure that their children completed their homework. Finally, the percentage of teachers who asked all parents to sign their children's homework increased significantly in 1999/2000 (X^2=5.07, *df*=1, *p*<.05).

Overall, it would seem that the majority of teachers in 1999/2000 promoted parents' involvement in their children's homework. Furthermore, the finding that more teachers were asking all parents to *help* with their children's homework suggests that teachers were trying to get parents more *actively* involved. This finding is consistent with the scheme's objective of promoting parental involvement in their children's education. The results are also positive, given that parental involvement has been identified as a key factor in school effectiveness (MacGilchrist et al., 1997). It

should be noted, however, that all schools in *Breaking the Cycle* have a home-school community liaison (HSCL) teacher. Therefore, much of the effort to promote links between the school and the home is co-ordinated by the HSCL teacher, and cannot be viewed as solely a consequence of participation in *Breaking the Cycle*.

Table 6.16. Numbers and percentages of teachers in 1996/97 and 1999/2000 who indicated that they asked some, all, or no, parents to help pupils with their homework, to ensure that homework was completed, and to sign homework.

		All	Some	None
Do you ask parents to help with homework?	1996/97	164 (47.5%)	133 (38.6%)	27 (7.8%)
	1999/2000	**153 (61.9%)**	**80 (32.4%)**	**14 (5.7%)**
Do you ask parents to make sure their children do their homework?	1996/97	277 (91.4%)	21 (6.9%)	5 (1.7%)
	1999/2000	**222 (89.9%)**	**23 (9.3%)**	**2 (0.8%)**
Do you ask parents to sign pupils' homework?	1996/97	217 (62.9%)	64 (18.6%)	42 (12.2%)
	1999/2000	**179 (72.2%)**	**31 (12.5%)**	**38 (15.3%)**

6.3 TEACHERS' PERCEPTIONS OF PUPILS' BACKGROUND AND ATTITUDES

In this section, teachers were asked for their perceptions of how pupils' home lives might affect their academic performance, and for their long-term expectations for their pupils.

Teachers were asked to indicate the percentage of their pupils whom they believed to have home backgrounds that interfered seriously with their ability to learn effectively (Table 6.17). There were no significant changes in teachers' estimates since the outset of the scheme. As was the case in 1996/97, almost half of teachers in 1999/2000 (47.3% in 1999/2000 vs. 44.8% in 1996/97) estimated that 61% or more of their pupils had home backgrounds which seriously interfered with their ability to learn effectively.

Table 6.17. Numbers and percentages of teachers in 1996/97 and 1999/2000 who indicated their perception of the percentage of pupils whose home background interfered seriously with their ability to learn effectively.

	< 20%	20-40%	41-60%	61-80%	>80%
1996/97 (*N*=358)	29 (8.1%)	98 (27.4%)	69 (19.3%)	111 (31.0%)	51 (14.2%)
1999/2000 (*N*=264)	**17 (6.4%)**	**61 (23.1%)**	**61 (23.1%)**	**79 (29.9%)**	**46 (17.4%)**

As research indicates that effective teachers have high expectations for their pupils, regardless of their pupils' background and life experience (e.g., Lumsden, 1997), teachers were also asked about their long-term expectations for their pupils. Specifically, they were asked to estimate the percentage of their pupils that they expected to continue in school beyond the Junior Certificate Examination. As was the case in 1996/97, less than 3% of teachers in 1999/2000 believed that 80% or more pupils would continue their schooling after the Junior Certificate (Table 6.18). However, there was a significant increase (X^2=9.14, *df*=1, *p*<.01) in 1999/2000 in the percentage of teachers who felt that 61-80% of their pupils would continue beyond Junior Certificate (9.3% in 1996/97 vs. 17.9% in 1999/2000), suggesting that participation in the scheme had some positive impact on teachers' expectations.

It is estimated that, on average, 96% of pupils nationally completed the Junior Cycle between 1990 and 1997 (McCormack & Archer, 1998; Collins & Williams, 1998). Furthermore, the Government White Paper on education (*Charting our Education Future)* indicated that over 80% of those who entered second-level schools completed the Leaving Certificate (or Applied Leaving Certificate) in 1995 (Ireland, 1995). Hence, it can be estimated that between 80% and 90% of pupils (approximately) continue in school beyond the Junior Certificate each year. Thus, although teachers' expectations had increased considerably in 1999/2000, an overwhelming majority (97.7%) expected the early school-leaving rate of pupils in their schools to be higher than the national figure.

Table 6.18. Numbers and percentages of teachers in 1996/97, 1997/98, 1998/99 and 1999/2000 who indicated their perception of the percentage of their pupils that would continue beyond Junior Certificate.

About what percentage of your pupils will, in your opinion, continue beyond Junior Certificate?					
	< 20%	*20-40%*	*41-60%*	*61-80%*	*80%+*
1996/97 (*N*=355)	77 (21.7%)	115 (32.4%)	120 (33.8%)	33 (9.3%)	10 (2.8%)
1999/2000 (*N*=262)	**44 (16.8%)**	**85 (32.4%)**	**80 (30.5%)**	**47 (17.9%)**	**6 (2.3%)**

In a related item, teachers were asked whether they agreed that, if taught properly, almost all pupils could learn to read and write satisfactorily. While over half of teachers in 1999/2000 agreed with this statement (Table 6.19), there was a significant *decrease* (X^2=9.08, *df*=1, *p*<.01) between 1996/97 and 1999/2000 in the percentage of teachers who strongly agreed, or agreed, that all children could achieve at least a basic level of literacy if taught properly (69.0% vs. 56.9%, respectively). In fact, teachers were significantly more likely (X^2=4.30, *df*=1, *p*<.05) in 1999/2000 than in 1996/97 to indicate that they were *uncertain* whether all children could learn to read and write satisfactorily if taught properly (18% in 1996/97 vs. 25.2% in 1999/2000).

Table 6.19. Numbers and percentages of teachers in 1996/97 and 1999/2000 endorsing various levels of agreement with the statement that, if taught properly, almost all children can learn to read and write satisfactorily.

If taught properly, almost all children can learn to read and write satisfactorily.					
	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1996/97	78 (21.5%)	172 (47.5%)	62 (18.0%)	45 (12.4%)	1 (0.3%)
1999/2000	**24 (9.2%)**	**125 (47.7%)**	**66 (25.2%)**	**46 (17.6%)**	**1 (0.4%)**

Taken together, these results seem to provide evidence that, on the whole, teachers' participation in the scheme did not result in any significant shifts in their attitudes and expectations. This conclusion should be considered in light of the fact that teachers' expectations and the assumptions they make about pupils' potential may have significant effects on how well and how much pupils learn. Specifically, teachers often, either consciously or unconsciously, communicate their expectations to their pupils. Pupils, in turn, tend to adopt the beliefs that teachers have about their ability and adjust their behaviour accordingly, thereby reinforcing teachers' original expectations (Lumsden, 1997). There is an obvious danger that teachers in the scheme conveyed their low expectations to their pupils. The possibility that pupils were not performing to their full potential as a result of teachers' low expectations, might help explain why their Mathematics and English achievement scores did not improve in 2000.

6.4 TEACHERS' OPINIONS AND EXPERIENCES OF *BREAKING THE CYCLE*

Teachers were asked about their opinions and experiences of participating in the scheme. In particular, in all four years, they were asked about how the scheme had affected their attitudes and teaching practices. The 1997/98, 1998/99, and 1999/2000 questionnaires also included items regarding teachers' views on the scheme's impact on their pupils.

Over half of teachers in 1999/2000 (56.3%) felt that their participation in the scheme had improved their understanding of the nature of educational disadvantage a lot, while 37.9% believed that their understanding had improved somewhat (Table 6.20). The fact that there was a significant increase (X^2=47.58, df=1, p<.001) in 1999/2000 in the percentage of teachers who felt that their ability to understand the nature of educational disadvantage had improved a lot as a result of participation in the scheme seems to indicate that the scheme was effective in this regard. Similarly, there was a significant increase (X^2=4.70, df=1, p<.05) in the percentage of teachers who reported a lot of improvement in their ability to review and record pupils' progress (28.5% in 1996/97 vs. 37.2% in 1999/2000).

Table 6.20. Percentages of teachers in 1996/97, 1997/98, 1998/99 and 1999/2000 who believed that *Breaking the Cycle* had improved their ability to….

Understand the nature of educational disadvantage.			
	A lot	Somewhat	Not at all
1996/97 (*N*=340)	28.2%	50.9%	20.9%
1999/2000 (*N*=261)	**56.4%**	**37.9%**	**5.7%**
Review and record pupils' progress.			
	A lot	Somewhat	Not at all
1996/97 (*N*=337)	34.3%	45.3%	20.4%
1999/2000 (*N*=261)	**37.2%**	**55.2%**	**7.7%**

Two further items required teachers to indicate the extent to which their teaching practices, opinions, and attitudes had changed as a result of being involved in *Breaking the Cycle*. In 1999/2000, the vast majority of teachers (82%) indicated that their teaching practices had very much, or somewhat, changed as a result of their participation in the scheme (Table 6.21). Similarly, 80.9% of teachers in 1999/2000 felt that the scheme had influenced their opinions and attitudes.

Table 6.21. Numbers and percentages of teachers in 1997/98, 1998/99 and 1999/2000 who believed that their teaching practices, and opinions and attitudes had changed as a result of being involved in the *Breaking the Cycle* scheme.

My teaching practices have changed as a result of being involved in the *Breaking the Cycle* scheme.					
	Very much so	Somewhat	Unsure	Not really	Not at all
1997/98 (*N*=314)	65 (20.7%)	174 (55.4%)	22 (7.0%)	43 (13.7%)	10 (3.2%)
1998/99 (*N*=308)	67 (21.8%)	198 (64.3%)	23 (7.5%)	18 (5.9%)	2 (0.6%)
1999/2000 (*N*=256)	**62 (24.2%)**	**148 (57.8%)**	**22 (8.6%)**	**24 (9.4%)**	**-**
My opinions and attitudes have changed as a result of being involved in the *Breaking the Cycle* scheme.					
	Very much so	Somewhat	Unsure	Not really	Not at all
1997/98 (*N*=317)	70 (22.1%)	170 (53.6%)	26 (8.2%)	39 (12.3%)	12 (3.8%)
1998/99 (*N*=309)	92 (29.8%)	177 (57.3%)	17 (5.5%)	18 (5.8%)	5 (1.6%)
1999/2000 (*N*=261)	**73 (28.0%)**	**138 (52.9%)**	**20 (7.7%)**	**29 (11.1%)**	**1 (0.4%)**

Teachers were asked in 1997/98, 1998/99 and 1999/2000 whether they believed that marginalised pupils in their school had benefited from participating in *Breaking the Cycle*. The vast majority of teachers in 1997/98, 1998/99, and 1999/2000 (82.8%, 93.7% and 87%, respectively) felt that the scheme had been of benefit (Table 6.22).

Table 6.22. Numbers and percentages of teachers in 1997/98, 1998/99 and 1999/2000 who believed that marginalised pupils in their school had benefited from participating in *Breaking the Cycle*.

	Yes	Unsure	No
1997/98 (*N*=314)	260 (82.8%)	47 (15.0%)	7 (2.2%)
1998/99 (*N*=302)	283 (93.7%)	16 (5.3%)	3 (1.0%)
1999/2000 (*N*=258)	**266 (87.6%)**	**29 (11.2%)**	**3 (1.2%)**

However, a comparison of teachers' responses over the three years suggests that teachers, although initially optimistic about the scheme's impact on their pupils, were increasingly unsure about the benefits of the scheme towards the end of the pilot phase. Specifically, teachers in 1998/99 were significantly more likely (X^2=16.47, *df*=1, *p*<.001) than in 1997/98 to report that the scheme was of benefit to marginalised pupils (82.8% vs. 93.7%). However, in 1999/2000 there was a significant *decrease* (X^2=5.54, *df*=1, *p*<.05) in the percentage of teachers who felt that marginalised pupils were benefiting (93.7% in 1998/99 vs. 87.6% in 1999/2000). Only a minority of teachers in each year felt that scheme was not of benefit to marginalised pupils. Instead, teachers were significantly more likely (X^2=5.79, *df*=1, *p*<.05) in 1999/2000 than in 1998/99 to report that they were *unsure* of the scheme's benefit. These results seem to suggest that although teachers' perceptions of the scheme were initially positive, they began to question the benefits of the scheme in the later years of the pilot project.

In a follow-up item, teachers were asked to explain why they believed marginalised pupils had, or had not, benefited from the scheme. Teachers' responses are presented in Table 6.23.

Table 6.23. Numbers and percentages of teachers in 1997/98, 1998/99 and 1999/2000 who gave various explanations as to why they believed "marginalised" pupils had or had not benefited from *Breaking the Cycle*.

Category	**Number (%) 1997/98** (*N*=295)*	**Number (%) 1998/99** (*N*=251)*	**Number (%) 1999/2000** (*N*=239)*
Benefited from lower PTR in Junior classes / more individual attention / improved pupil-teacher relationship / teacher attends to the academic and emotional needs of children	209 (70.9%)	166 (66.1%)	188 (78.7%)
Pupil self-esteem / social skills / self-confidence improved (due to extra attention from teachers) / pupils have a more positive attitude to school / more motivated / pupils' perception of school changed, e.g. more interesting	52 (17.6%)	54 (21.5%)	55 (23.0%)
Chance to partake in activities not otherwise possible / out-of-school activities	30 (10.2%)	35 (13.9%)	37 (15.5%)
Attend school more often / educational standards have improved / reading skills improved	18 (6.1%)	22 (8.8%)	5 (2.1%)
Financial benefits / resources (unspecific)	15 (5.1%)	22 (8.8%)	32 (11.5%)
Extra equipment / materials	30 (10.2%)	24 (9.6%)	18 (7.5%)
Problems identified earlier	31 (10.5%)	16 (5.5%)	9 (3.8%)
No benefit / general negative comment	8 (2.7%)	11 (4.4%)	15 (6.3%)
More parental interest	2 (0.7%)	4 (1.6%)	7 (2.9%)
Too early to tell	8 (2.7%)	3 (1.2%)	5 (2.1%)
Other	85 (28.9%)	31 (12.4%)	1 (0.4%)

* Percentages are greater than 100% as teachers were allowed to give more than one explanation

There was little change over the three years in the main reasons teachers cited for believing that marginalised pupils had benefited from the scheme. In 1997/98, 1998/99, and 1999/2000, the vast majority of teachers provided responses which related to improved teacher-pupil interactions and the benefits of the reduced class sizes (70.9%, 66.1% and 78.7%, respectively). For example, one teacher commented:

> Having fewer children in class means it is harder for any child to slip through unnoticed…

Another teacher noted that:

> Small numbers create time to develop better relationships with children. Learning becomes safer and more enjoyable…

The finding that a majority of teachers felt that they had more time to work with individual pupils is somewhat surprising, given that there was a *decrease* in 1999/2000 in the mean amount of time teachers reported spending on individual pupil instruction for English and Irish.

The next most common explanation provided by teachers in all three years related to improvements in pupils' self-esteem, social skills, motivation, and perception of school. Over 10% of

teachers in each year also agreed that the scheme had allowed pupils the opportunity to partake in activities which were not otherwise possible.

Between 1998/99 and 1999/2000, there was a decrease in the percentage of teachers who commented that educational standards, school attendance, and pupils' reading skills had improved (8.8% and 2.1%, respectively). In contrast, there was an increase between 1997/98 and 1999/2000 in the percentage of teachers who felt that there was no benefit, or who made a negative comment (2.7% in 1997/98, 4.4% in 1998/99, and 6.3% in 1999/2000). These results seem to indicate that at least some teachers were aware that their pupils' performance was not improving. Finally, a large percentage of teachers gave explanations which were classified as "other". For example, teachers stated that they had learned to focus on disadvantaged pupils, that children who were frequently absent from school did not benefit, and that the in-service was beneficial.

Overall, a pattern of results emerged which suggest that, between 1996/97 and 1998/99, teachers were optimistic about the potential benefits of *Breaking the Cycle*. However, it would seem that, towards the end of the pilot project (i.e., in 1999/2000), teachers were increasingly uncertain both about the benefits of the scheme, and about their own ability to influence their pupils' performance.

6.5 TEACHER TURNOVER AND CORE TEACHERS' RESPONSES

The findings presented in Sections 6.1 to 6.4 were based on the responses of all teachers who completed questionnaires between 1996/97 and 1999/2000 and did not take into account the length of time that teachers were involved in the scheme. To ascertain whether the scheme differed in its impact on teachers who participated for all four years, the responses of 143 teachers who completed questionnaires in both 1996/97 and in 1999/2000 (i.e., core teachers) were examined separately[4]. The findings are presented in the following sections.

6.5.1 Teacher Turnover

All teachers who participated in *Breaking the Cycle* were assigned an identification number, thus making it possible to track turnover between 1996/97 and 1999/2000. Only 195 of the original 410 teachers from 1996/97 were still in their posts in 1999/2000. Between 1996/97 and 1999/2000, 300 teachers vacated their teaching posts (Table 6.24). During the same time, 241 teachers were hired. While the mean turnover rate among the 32 urban schools participating in *Breaking the Cycle* was 47.8%, there was a wide variation between schools; for example, in one school, 100% of the original teachers remained in the school for all four years of the project, while in another school only 14.3% of

[4] Although there were 195 core teachers, only 143 of these teachers completed questionnaires in 1996/97 *and* in 1999/2000.

the original teachers from 1996/97 were still in their posts in 1999/2000. Overall, however, the teacher turnover rate between 1996/97 and 1999/2000 was 65.1%[5].

Table 6.24. Total number of teachers, number of teachers who vacated their posts, and number of new teachers in the 32 urban schools participating in the scheme in 1996/97, 1997/98, 1998/99, and 1999/2000.

1996/97	**1997/98**			**1998/99**			**1999/2000**		
Total number of teachers	Vacated post	New teachers	**Total number of teachers**	Vacated post	New teachers	**Total number of teachers**	Vacated post	New teachers	**Total number of teachers**
410	59	78	**429**	134	66	**361**	107	107*	**361**

*This figure includes 16 teachers who left and subsequently returned to their original post in 1999/2000.

Since data on the national rate of turnover among teachers is not available, it is unclear whether the high turnover rate is part of a national pattern, or whether there are specific factors which render the teaching posts in urban *Breaking the Cycle* schools unattractive. However, the finding that the turnover among teachers participating in the scheme was high may explain, in part, why the scheme failed to have the desired impact on pupils' Mathematic and English achievement. For example, a major element of the scheme was the provision of in-career development courses to support teachers in offsetting the educational effects of disadvantage. It is possible that the high rate of teacher turnover reduced the effectiveness of such training, as over a third of the teachers vacated their posts in both 1997/98 and in 1998/99, taking with them the knowledge and skills acquired in the courses. At the same time, the new teachers would have had fewer opportunities to attend in-service training. Furthermore, high turnover impedes staff communication regarding pupils.

One might expect to see more significant changes in the attitudes and teaching practices of teachers who participated in the project from 1996/97 to 1999/2000, as these teachers would have received more in-service training, and would have had more opportunities to establish home-school links and develop relationships with pupils and parents. Furthermore, teachers who were present at the outset of the pilot project would have had an opportunity to observe what the school and pupils were like prior to the introduction of the scheme.

Thus, the responses of the 143 teachers who completed questionnaires in each of the four years were analysed separately. This provided an opportunity to examine the changes in the perceptions and teaching practices of the "core" teachers (i.e., teachers who participated in the scheme for each of the first four years of the project). It also allowed a comparison of core teachers' responses

[5] This figure includes those teachers who were hired, and subsequently left their post between 1996/97 and 1999/00. The turnover rate of the original teachers from 1996/97 *only* is 53.4%.

in 1999/2000 with those of 123 "non-core" teachers (i.e., teachers who began working at *Breaking the Cycle* schools at various times between 1996/97 and 1999/2000) [6].

6.5.2 Core teachers' work

The time that core teachers spent on the various curriculum areas in 1996/97 and 1999/2000 was comparable to the time spent by non-core teachers on the range of subjects. As was the case with non-core teachers, core teachers spent the most time on English, followed by Mathematics, and Irish (Table 6.25). There was a significant increase in 1999/2000 (t=2.10, df=279, p<.05) in the mean time that core teachers allocated to Social and Environmental studies. There were no significant differences between 1996/97 and 1999/2000 in the time allocated to the other subject areas.

Table 6.25. Mean number of hours per week core teachers devoted to the main curriculum areas in 1996/97 and 1999/2000. Also, mean number of hours per week non-core teachers spent on curriculum areas in 1999/2000.

Subject area	**Core teachers 1996/97 (*N*=141)**	**Core teachers 1999/2000 (*N*=140)**	**Non-core teachers 1999/2000 (*N*=119)**
English	5.53	5.39	5.25
Mathematics	4.40	4.27	4.33
Irish	3.56	3.26	3.13
Art and Craft	1.74	1.74	1.57
P.E.	1.16	1.08	1.04
Social & Environmental studies	1.48	2.37*	1.82
Music	1.00	1.36	0.99
Total	**18.87**	**19.47**	**18.13**

**t- test* revealed a significant difference (p<.05) between 1996/97 and 1999/2000 mean times.

An analysis of the percentage of English and Mathematics class time that teachers devoted to whole class, small group, and individual teaching indicates that the teaching practices of core teachers were, for the most part, comparable with those of non-core teachers. There was also little change in the teaching styles of core teachers over the life of the scheme. In both 1996/97 and 1999/2000, core teachers spent approximately half of English and Mathematics time on whole class teaching and over a quarter of the time on small group activity. Of the three teaching styles, the least amount of English and Mathematics time was devoted to individual instruction (Tables 6.27 and 6.28).

[6] Of the 123 non-core teachers, 66 had participated in the scheme for only one year, 34 had participated for two years and 23 had participated in the scheme for three years.

Table 6.27. Mean percentage of time that core teachers spent instructing the whole class, small groups, and individual children English in 1996/97 and 1999/2000. Also, time spent by non-core teachers on whole class, small group and individual instruction in English in 1999/2000*.

	Whole class	**Small group**	**Individual child**
Core 1996/97 (*N*=124)	51.86	26.62	21.46
Core 1999/2000 (*N*=140)	51.34	29.27	19.38
Non-core 1999/2000 (*N*=120)	48.14	31.78	20.08

* Percentages do not sum to 100% as only responses which totalled between 90%-105% were included in the analysis.

Table 6.28. Mean percentage of time that core teachers spent instructing the whole class, small groups, and individual children Mathematics in 1996/97 and 1999/2000. Also, time spent by non-core teachers on whole class, small group and individual instruction in Mathematics in 1999/2000*.

	Whole class	**Small group**	**Individual child**
Core 1996/97 (*N*=125)	54.84	25.28	19.88
Core 1999/2000 (*N*=137)	53.38	26.95	19.59
Non-core 1999/2000 (*N*=120)	53.21	27.37	19.43

* Percentages do not sum to 100% as only responses which totalled between 90%-105% were included in the analysis.

Core and non-core teachers' responses to a series of items about their teaching methods were also analysed. There was a significant increase (X^2=4.54, *df*=1, *p*<.05) in 1999/2000 in the percentage of teachers who indicated that they sometimes, or always, laid out the aim of lessons prior to instruction (Table 6.29). Also, it appears that the teaching methods of core teachers were similar to those of non-core teachers in 1999/2000, as the vast majority of both core and non-core teachers in 1999/2000 (97.1% and 95.2% respectively) indicated that they sometimes, or always, set out for the class what they hoped to teach.

Table 6.29. Numbers and percentages of core teachers in 1996/97 and 1999/2000, and non-core teachers in 1999/2000, who indicated that they never, rarely, sometimes, or always, at the beginning of a lesson, set out for the class what they hoped to teach.

At the beginning of a lesson, do you set out for the class what you hope to teach?				
	Never	**Rarely**	**Sometimes**	**Always**
Core teachers 1996/97 (*N*=143)	3 (2.1%)	11 (7.7%)	79 (55.2%)	50 (35.0%)
Core teachers 1999/2000 (*N*=140)	1 (0.7%)	3 (2.1%)	80 (57.1%)	56 (40.0%)
Non-core teachers 1999/2000 (N=123)	2 (1.6%)	4 (3.3%)	82 (66.7%)	35 (28.5%)

There was little change since the outset of the scheme in the percentage of core teachers who reported that they ascertained pupils' level of knowledge prior to class (Table 6.30). In 1999/2000, all

core teachers, and all but one non-core teacher, reported that they sometimes, or always, asked pupils questions at the beginning of the class.

Table 6.30. Numbers and percentages of core teachers in 1996/97 and 1999/2000, and non-core teachers in 1999/2000, who indicated that they never, rarely, sometimes, or always, at the beginning of class, asked questions of several pupils to find out what they already knew.

At the beginning of a lesson, do you ask questions of several pupils to find out what they already know?				
	Never	**Rarely**	**Sometimes**	**Always**
Core teachers 1996/97 (*N*=139)	-	1 (0.7%)	86 (61.9%)	52 (37.4%)
Core teachers 1999/2000 (*N*=143)	-	-	78 (54.5%)	65 (45.5%)
Non-core teachers 1999/2000 (N=123)	-	1 (0.8%)	60 (48.8%)	62 (50.4%)

There was no significant difference between 1996/97 and 1999/2000 in the percentage of core teachers who indicated that they sometimes, or always, asked pupils questions at the end of class to find out what they learned (Table 6.31). The responses of core teachers were almost identical to the responses of non-core teachers. In 1999/2000, all non-core teachers, and all but one core teacher, reported that they sometimes, or always, ascertained what pupils had learned at the end of the lesson.

Table 6.31. Numbers and percentages of core teachers in 1996/97 and 1999/2000, and non-core teachers in 1999/2000, who indicated that they never, rarely, sometimes, or always ask pupils questions at the end of a lesson to find out what they learned.

At the end of a lesson, do you ask questions to find out what pupils have learned?				
	Never	**Rarely**	**Sometimes**	**Always**
Core teachers 1996/97 (*N*=143)	-	-	41 (28.7%)	102 (71.3%)
Core teachers 1999/2000 (*N*=142)	-	1 (0.7%)	47 (33.1%)	94 (66.2%)
Non-core teachers 1999/2000 (N=123)	-	-	36 (29.3%)	87 (70.7%)

In a related item, teachers were asked if they believed that their pupils' performance was due to factors beyond their control rather than to their own abilities and efforts (Table 6.32). Although there was no difference between 1996/97 and 1999/2000 in the percentage of teachers who *agreed* with the statement, there was a significant decrease in 1999/2000 (X^2=4.76, *df*=1, p<.05) in the percentage of teachers who *strongly agreed* that their pupils' performance was due to factors beyond their control (17.1% in 1996/97 vs. 5.9% in 1999/2000). Again, the responses of core teachers were comparable with non-core teachers in 1999/2000. The fact that 58.2% of core teachers and 53.8% of non-core teachers in 1999/2000 attributed their pupils' performance to factors beyond their control is

of some concern, given that teachers' acceptance of responsibility for their pupils' success or failure has been identified as one feature of effective teaching (Kellaghan, 1994).

Table 6.32. Numbers and percentages of core teachers in 1996/97 and 1999/2000, and non-core teachers in 1999/2000, who indicated various levels of agreement with the statement that their success or failure in teaching pupils is due primarily to factors beyond their control rather than to their own efforts and ability.

Do you believe your success or failure in teaching pupils is due primarily to factors beyond your control rather than to your own efforts and ability?					
	Strongly agree	**Agree**	**Uncertain**	**Disagree**	**Strongly disagree**
1996/97 Core (*N*=140)	24 (17.1%)	60 (42.9%)	33 (23.6%)	18 (12.9%)	5 (3.6%)
1999/2000 Core (*N*=141)	11 (7.8%)	71 (50.4%)	38 (27.0%)	20 (14.2%)	1 (0.7%)
1999/2000 Non-core (*N*=119)	7 (5.9%)	57 (47.9%)	31 (26.1%)	21 (17.6%)	3 (2.5%)

Teachers were also asked how often they sought to involve parents in their children's homework. In 1999/2000, core teachers were significantly more likely (X^2=5.61, *df*=1, p<.05) than in 1996/97 to report that they asked *all* parents to help with their children's homework (50.9% in 1996/97 vs. 64.9% in 1999/2000) (Table 6.33). In both 1996/97 and 1999/2000, the majority of core teachers asked all parents to sign their children's homework, and to ensure that their children completed their homework. The pattern of responses provided by core teachers were similar to those given by non-core teachers. Thus, it appears that, regardless of the length of time they were involved in the scheme, all teachers sought to increase parental involvement in their children's education.

Table 6.33. Numbers and percentages of core teachers in 1996/97 and 1999/2000, and non-core teachers in 1999/2000, who indicated that they asked some, all, or no, parents to (a) help pupils with their homework, (b) ensure that homework was completed and (c) sign homework in 1996/97 and 1999/2000.

		All	**Some**	**None**
Do you ask parents to help with homework?	Core 1996/97	67 (48.6%)	56 (40.5%)	15 (10.9%)
	Core 1999/2000	87 (63.5%)	43 (31.4%)	7 (5.1%)
	Non-core 1999/2000	66 (60.0%)	37 (33.6%)	7 (6.4%)
Do you ask parents to make sure their children do their homework?	Core 1996/97	123 (89.1%)	14 (10.1%)	1 (0.8%)
	Core 1999/2000	126 (91.3%)	11 (8.0%)	1 (0.7%)
	Non-core 1999/2000	96 (88.1%)	12 (11.0%)	3 (0.9%)
Do you ask parents to sign pupils' homework?	Core 1996/97	101 (73.7%)	24 (17.5%)	12 (8.8%)
	Core 1999/2000	103 (74.6%)	13 (9.4%)	22 (15.9%)
	Non-core 1999/2000	76 (69.1%)	18 (16.4%)	16 (14.5%)

6.5.3 Core teachers' perceptions of pupils' background and attitudes

Teachers were specifically asked to indicate the percentage of their pupils whom they believed to have home backgrounds that interfered seriously with their ability to learn effectively. There was little difference between 1996/97 and 1999/2000 in the responses of core teachers (Table 6.34). Furthermore, there were no statistically significant differences between core and non-core teachers' responses. This finding suggests that, regardless of the length of time that teachers participated in the project, the scheme had little overall impact on their perceptions of the influence of pupils' home backgrounds.

Table 6.34. Numbers and percentages of core teachers in 1996/97 and 1999/2000, and non-core teachers in 1999/2000, who indicated their perception of the percentage of pupils whose home background interfered seriously with their ability to learn effectively.

	< 20%	**20-40%**	**41-60%**	**61-80%**	**80%+**
Core teachers 1996/97 (*N*=142)	12 (8.5%)	36 (25.4%)	28 (19.7%)	44 (29.9%)	22 (15.5%)
Core teachers 1999/2000 (*N*=142)	11 (7.7%)	35 (24.6%)	29 (20.4%)	42 (29.6%)	25 (17.6%)
Non-core teachers 1999/2000 (*N*=122)	6 (4.9%)	26 (21.3%)	32 (26.2%)	37 (30.3%)	21 (17.2%)

However, it appears that the scheme had some impact on core teachers' long-term expectations for their pupils, as there was a significant increase (X^2=11.06, *df*=1, *p*<.001) in 1999/2000 in the percentage of core teachers who believed that 61% or more of their pupils would progress beyond Junior Certificate (9.1% in 1996/97 vs. 24.5% in 1999/2000) (Table 6.35). There were no significant differences between core and non-core teachers' long-term expectations in 1999/2000.

Table 6.35. Numbers and percentages of core teachers in 1996/97 and 1999/2000, and non-core teachers in 1999/2000, who indicated their perception of the percentage of their pupils that would continue beyond Junior Certificate.

About what percentage of your pupils will, in your opinion, continue beyond Junior Certificate?					
	< 20%	**20-40%**	**41-60%**	**61-80%**	**80%+**
Core teachers 1996/97 (*N*=143)	28 (19.6%)	48 (33.6%)	54 (37.8%)	4 (8.4%)	1 (0.7%)
Core teachers 1999/2000 (*N*=143)	26 (18.2%)	42 (29.4%)	40 (28.0%)	30 (21.0%)	5 (3.5%)
Non-core teachers 1999/2000 (*N*=119)	18 (15.1%)	43 (36.1%)	40 (33.6%)	17 (14.3%)	1 (0.8%)

In a related item, teachers were asked whether they agreed that, if taught properly, almost all pupils could learn to read and write satisfactorily. Although there was no change between 1996/97 and 1999/2000 in the percentage of core teachers who agreed with the statement, there was a

significant *decrease* (X^2=7.61, *df*=1, *p*<.01) in the percentage who *strongly agreed* that all pupils could achieve a basic level of literacy (16.8% in 1996/97 vs. 5.7% in 1997/98). The responses of core teachers were almost identical to those of non-core teachers (Table 6.36). Specifically, 57.1% of core teachers and 56.4% of non-core teachers in 1999/2000 strongly agreed, or agreed, that all pupils, if taught properly, could learn to read and write satisfactorily.

Table 6.36. Numbers and percentages of core teachers in 1996/97 and 1999/2000, and non-core teachers in 1999/2000, endorsing various levels of agreement with the statement that, if taught properly, almost all children can learn to read and write satisfactorily.

If taught properly, almost all children can learn to read and write satisfactorily.					
	Strongly Agree	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
Core 1996/97 (*N*=143)	24 (16.8%)	75 (52.4%)	25 (17.5%)	18 (12.6%)	1 (0.7%)
Core 1999/2000 (*N*=140)	8 (5.7%)	72 (51.4%)	33 (23.6%)	26 (18.6%)	1 (0.7%)
Non-core 1999/2000 (*N*=122)	16 (13.1%)	53 (43.3%)	33 (27.0%)	29 (16.4%)	-

6.5.4 Core teachers' opinions and experiences of *Breaking the Cycle*

When asked if their ability to understand and respond to the needs of educationally disadvantaged children had improved, the responses of core teachers mirrored those given by non-core teachers (Table 6.37). As was the case with non-core teachers, the vast majority of core teachers reported that their ability to understand educational disadvantage had improved a lot, or somewhat (95.9% and 92.8% respectively). Similarly, 91.3% of core teachers in 1999/2000 felt that their record keeping practices had improved. These findings suggest that the vast majority of teachers perceived the scheme as having some effect on their attitudes and practices, regardless of how long they were involved in the scheme.

Table 6.37. Numbers and percentages of core and non-core teachers in 1999/2000 who believed that *Breaking the Cycle* had improved their ability to….

Understand the nature of educational disadvantage.			
	A lot	Somewhat	Not at all
1999/2000 Core (*N*=140)	72 (51.4%)	58 (41.4%)	10 (7.1%)
1999/2000 Non-core (*N*=121)	75 (62.0%)	41 (33.9%)	5 (4.1%)
Review and record pupils' progress.			
	A lot	Somewhat	Not at all
1999/2000 Core (*N*=139)	53 (38.1%)	74 (53.2%)	12 (8.6%)
1999/2000 Non-core (*N*=122)	44 (36.1%)	70 (57.4%)	8 (6.6%)

In a related item, teachers were asked whether participation in the scheme had affected their teaching practices, and attitudes and opinions. There was little difference in the percentage of core and non-core teachers who reported that their opinions and attitudes had changed a lot, or somewhat, as a result of participation in the scheme (Table 6.38). However, core teachers were significantly more likely than non-core teachers (X^2=4.48, *df*=1, *p*<.05) to report that their teaching practices had changed as a result of participation in the scheme (87.0% vs. 76.0% respectively).

Table 6.38. Numbers and percentages of core and non-core teachers in 1999/2000 who believed that their teaching practices and opinions and attitudes had changed as a result of being involved in the *Breaking the Cycle* scheme.

My teaching practices have changed as a result of being involved in *Breaking the Cycle*.					
	Very much	Somewhat	Unsure	Not really	Not at all
1999/2000 Core (*N*=139)	32 (23.0%)	89 (64.0%)	7 (5.0%)	11 (7.9%)	-
1999/2000 Non-core (*N*=117)	30 (25.6%)	59 (50.4%)	15 (12.8%)	13 (11.1%)	-
My opinions and attitudes have changed as a result of being involved in *Breaking the Cycle*.					
	Very much	Somewhat	Unsure	Not really	Not at all
1999/2000 Core (*N*=142)	36 (25.4%)	84 (59.2%)	8 (5.6%)	14 (9.9%)	-
1999/2000 Non-Core (*N*=119)	37 (31.1%)	54 (45.4%)	12 (10.1%)	15 (12.6%)	1 (0.8%)

Teachers were also asked whether they believed that marginalised pupils had benefited from participating in the scheme (Table 6.39).

Table 6.39. Numbers and percentages of core and non-core teachers in 1999/2000 who believed that marginalised pupils in their school had benefited from participating in *Breaking the Cycle*.

	Yes	**Unsure**	**No**
1998/99 Core (*N*=128)	119 (93.0%)	8 (6.2%)	1 (0.8%)
1999/2000 Core (*N*=141)	128 (90.8%)	12 (8.5%)	1 (0.7%)
1999/2000 Non-core (*N*=117)	98 (79.7%)	17 (13.8%)	2 (1.6%)

A significantly higher percentage of core teachers compared to non-core teachers (X^2=5.26, *df*=1, *p*<.05) felt that the scheme was of benefit to marginalised pupils (90.8% vs. 79.7% respectively). This is not surprising, given that core teachers had the opportunity to observe pupils' performance before the scheme was introduced, and thus had a baseline against which to gauge marginalised pupils' progress. This finding seems to suggest that, despite the fact that pupils' English and Mathematics achievement did not improve, core teachers felt that pupils had still benefited as a result of their involvement in the scheme.

This is reflected in core teachers' explanations for why they felt that pupils had or had not benefited from participating in the scheme. As Table 6.40 illustrates, 78.3% of core teachers felt that pupils had benefited from the smaller class sizes and improved pupil-teacher relationships, while 16.1% felt that pupils had the opportunity to participate in activities which would not have been

possible otherwise. Core teachers in 1999/2000 (17.5%) also commented on pupils' improved self-esteem, social skills, and attitudes, and noted the financial benefits of the scheme (12.6%).

Table 6.40. Numbers and percentages of core and non-core teachers in 1999/2000 who gave various explanations as to why they believed marginalised pupils had or had not benefited from *Breaking the Cycle*.

Category	**Number (%) of core teachers in 1999/2000** (*N*=143)*
Benefited from lower PTR in junior classes / more individual attention / improved pupil-teacher relationship / teacher attends to the academic and emotional needs of children	112 (78.3%)
Pupil self-esteem / social skills / self-confidence improved (due to extra attention from teachers) / pupils have a more positive attitude to school / more motivated / pupils' perception of school changed, e.g. more interesting	25 (17.5%)
Chance to partake in activities not otherwise possible / out-of-school activities	23 (16.1%)
Financial benefits / resources (unspecific)	18 (12.6%)
Extra equipment / materials	9 (6.3%)
More parental interest	5 (3.5%)
General negative comment	5 (3.5%)
No benefit	3 (2.1%)
Other (e.g., Attend school more often / educational standards have improved)	3 (2.1%)

* Percentages do not sum to 100% as some teachers provided more than one explanation.

6.6 CONCLUSION

The responses of all teachers who participated in the scheme between 1996/97 and 1999/00 were analysed in order to ascertain whether teachers' participation in the scheme had impacted on their attitudes and teaching practices. Particular emphasis was placed on the results of the 1996/97 teacher questionnaire, which described teachers' views at the outset of the scheme, and the 1999/00 teacher questionnaire, which provided insight into teachers' perceptions towards the end of the five-year pilot project.

In both 1996/97 and 1999/2000, teachers reported spending the most time per week on the curriculum area of English, followed by Mathematics, and Irish. However, there was a significant decrease between 1996/97 and 1999/2000 in the mean amount of class time that teachers devoted to English (5.65 hours per week in 1996/97 vs. 5.35 hours per week in 1999/2000). This finding might explain, to some extent, the lack of improvement in pupils' English achievement scores. However, it is noteworthy that the time teachers spent on Mathematics and English in 1999/2000 was considerably higher than the minimum time recommended in the new Primary School Curriculum (National Council for Curriculum and Assessment, 1999). The fact that pupils' achievements in reading and Mathematics were poor despite a proportionately greater amount of time spent on instruction in these areas is a matter of concern. This points to a need for a multi-faceted solution, perhaps involving more

targeted inservice for teachers, the introduction of specific reading and Mathematics schemes for pupils, and a raising of awareness of literacy and numeracy issues among parents.

Analyses of teachers' responses also revealed that teachers in 1999/2000 spent approximately one third of English and Mathematics time engaging in small group instruction and the vast majority appeared to have adopted more effective grouping practices. However, in 1999/2000, teachers spent less than 20% of English and Mathematics time engaged in individual pupil instruction. Furthermore, towards the end of the scheme there was a significant decrease in the percentage of English time that teachers spent working with individual pupils. Given that one-to-one tutoring has a positive impact on pupils' achievement (O'Connell & Smith, 2000), these findings may also explain, in part, why pupils' English achievement scores did not improve in 2000.

The majority of teachers in 1999/2000 (96.2%) sometimes, or always, at the beginning of a lesson, set out for the class what they hoped to teach. Furthermore, all but one teacher in 1999/2000 reported that they sometimes, or always, asked pupils questions at the end of the lesson to find out what they had learned. Such practices should have contributed to the clarity of purpose in teaching and helped ensure that pupils had successfully acquired the knowledge and skills which were taught. There was also a significant increase in 1999/2000 in the percentage of teachers who always ascertained pupils' level of knowledge at the beginning of class. Furthermore, a majority of teachers in 1999/2000 (96.2%) varied their teaching styles for different pupils. Finally, it appears that teachers were committed to promoting active parental involvement in their children's education, as there was a significant increase in 1999/2000 in the percentage of teachers who asked all parents to help their children with their homework. Overall, these results may be taken as a sign that involvement in the scheme resulted in some positive changes in teachers' practices.

It would seem that participation in the scheme was less effective in influencing teachers' perceptions. For example, although teachers in 1997/98 and 1998/99 were more likely to take responsibility for their pupils' performance than was the case in 1996/97, towards the end of the scheme, this pattern was reversed. Specifically, between 1998/99 and 1999/2000, there was a significant *increase* in the percentage of teachers who attributed their pupils' performance to factors beyond their control. Furthermore, as was the case in 1996/97, almost half of teachers in 1999/2000 estimated that 61% or more of their pupils had home backgrounds which impeded their ability to learn effectively. Teachers were also significantly less likely in 1999/2000 than in 1996/97 to agree, or strongly agree, that all children, if taught properly, could achieve a basic level of literacy.

Teachers' long-term expectations for their pupils improved significantly as a result of participation in the scheme, as evidenced in the percentage of teachers who estimated that 61-80% of their pupils would continue beyond their Junior Certificate (9.3% 1996/97 vs. 17.9% in 1999/2000). Nevertheless, only 2.3% of teachers in 1999/2000 estimated that 80% or more of their pupils would continue past their Junior Certificate. This means that 97.7% of teachers expected the early school leaving rate of pupils to be higher than the national figure. Taken together, the findings suggest that

participation in the scheme did not have a positive impact on their perceptions of and expectations for pupils. These findings are of concern in light of the fact that teachers' expectations and the assumptions they make about pupils' potential may have significant effects on how well and how much pupils learn.

Although the data suggest that the scheme had only a limited impact on teachers' attitudes, the vast majority of teachers in 1999/2000 (80.9%) indicated that their attitudes and opinions had changed as a result of being involved in the scheme. The majority also felt that their teaching practices had changed since the outset of the scheme. Teachers' perceptions of the scheme's impact on pupils was less positive. Although the majority of teachers in 1999/2000 (87.6%) perceived the scheme as having a positive impact on marginalised pupils, the data indicate that there was a significant increase between 1998/99 and 1999/2000 in the percentage of teachers who were *uncertain* as to whether the scheme was of benefit to marginalised pupils. This finding is consistent with the fact that teachers' were more likely in 1999/2000 than in 1998/99 to attribute their pupils' performance to factors beyond their control, and seems to provide further evidence that teachers' attitudes were becoming more fatalistic towards the end of the pilot phase of the scheme. Although the reasons for this shift in attitude are unclear, it may be that as teachers continuously interacted with pupils and monitored their progress, they perceived that the scheme was less successful than had been hoped in terms of its impact on pupils' achievement. The realisation that pupils were not improving, despite their involvement in the scheme, may have caused teachers to re-evaluate their beliefs and question their ability to influence pupils' performance. Some support for this assertion comes from the fact that, when asked to comment on how pupils had benefited from the scheme, few teachers noted improvements in pupils' academic performance. In all three years, teachers were most likely to report that the reduced pupil-teacher ratios and improved pupil-teacher relationships were of benefit to the marginalised pupils.

6.6.1 The reduction of the pupil-teacher ratio in Junior classes.

Although the majority of teachers and principals reported that the smaller classes led to positive outcomes, such as improved pupil-teacher relationships and earlier identification of problems, the fact that the mean scores of 3rd class *Breaking the Cycle* pupils in 2000 (i.e., those pupils who had the full advantage of small classes from Junior Infants up to 2nd class) were well below average on Mathematics, and the finding that their English achievements disimproved between 1997 and 2000 (Chapter 3), suggests that the reduced pupil-teacher ratios did not have as strong an impact on achievement as was hoped. Thus, some of the factors which may have limited the impact of the reduced pupil-teacher ratios in *Breaking the Cycle* schools are examined, in light of a brief review of three recent research projects on reduced class size.

Tennessee's Project Student Teacher Achievement Ratio (STAR) has been hailed as the best study of small class size to date (Ehrenberg, Brewer, Gamoran & Willms, 2001). Project STAR was a 4-year longitudinal project which began in 1985 and involved between 6,400 and 12,000 pupils each year. In the study, kindergarten pupils and teachers were randomly assigned to one of three categories: a small class (12-17 students), a regular class (22-26 students), or a regular-size class with both a teacher and a full-time teacher's aide. Pupils remained in their assigned category until they reached 4th grade, at which point they joined a regular classroom. At the end of each year, pupils' achievements were assessed using a range of norm- and criterion- referenced tests. The study found that students in small classes outperformed their peers in regular classes by one-fifth of a standard deviation. The effects were stronger for inner-city and minority pupils.

A more recent study on the effects of class size was conducted in Wisconsin in 1996. However, unlike Project STAR, Wisconsin's Student Achievement Guarantee in Education (SAGE) programme targeted schools in which at least 30% of pupils were below the poverty line. In the SAGE project, the average class sizes in kindergarten through to 3rd grade in 14 schools were reduced from 22.42 pupils to 13.46 pupils. As was the case in Project STAR, significant improvements in achievement (0.2 standard deviations) were evident among 1st grade SAGE pupils.

Although the findings of studies such as STAR and SAGE provide evidence that smaller classes can improve pupils' performance, the class-size reduction initiative introduced in California in 1996 illustrated how lack of foresight and poor implementation can limit the effectiveness of such programmes. The California programme was a state-wide initiative which sought to reduce class size from 33 pupils to 20 pupils in kindergarten through to grade three. Although evaluators found statistically significant gains in 3rd grade pupils' reading, writing, and Mathematics achievements, the improvements were smaller (0.05 to 0.1 standard deviation) than those found in Project STAR and SAGE (0.2 standard deviations). One of the key criticisms of the California programme was that it was introduced despite a shortage in qualified teachers. Furthermore, rather than targeting schools in low-income areas, the initiative was introduced in both rich and poor districts. This meant that schools in disadvantaged areas *and* schools in more affluent areas required additional teachers. Consequently, the best teachers (including some in low-income areas) sought posts in the schools in better-paying, more affluent areas, and the urban districts ended up with many inexperienced and unqualified teachers (Ehrenberg et al., 2001).

Both Project STAR and the California programme demonstrate that the positive benefits of small class size may not occur if there is an inadequate supply of qualified teachers (McRobbie, Finn, & Harman, 1998). The finding that the turnover among teachers in participating schools was very high (65.1%), and the fact that the vast majority of *Breaking the Cycle* principals were experiencing difficulties attracting and retaining qualified and experienced teachers (Table 5.2) may explain, to some extent, why the reduction in class size was not reflected in improved pupil performance.

Project STAR teachers, and teachers in a variety of studies, reported that smaller classes enabled them to tailor instruction to each pupil's ability and provided more opportunities to work with individual pupils. Furthermore, since classroom management is easier with fewer pupils, teachers had more freedom to engage in small group activities (Hertling et al., 2000). Although there is still uncertainty regarding what teaching strategies are the most effective in small classes, researchers suspect that the benefits of the small classes derive from factors such as those listed above (Ehrenberg et al., 2001). However, as Hertling et al. (2000) noted, "a reduction in class size doesn't automatically ensure that classrooms will be characterised by these elements. Research in fact has shown that most teachers do not change their teaching practices when they move to smaller classes" (p.5).

Since teachers were not asked about their instructional practices in 1995/96 (e.g., prior to the reduction of pupil-teacher ratios), it is difficult to ascertain whether Junior class teachers modified their teaching practices to take advantage of the smaller class sizes. It is worth noting, however, that the vast majority of Junior class teachers in both 1996/97 and 1999/2000 varied their teaching styles for different pupils. This finding, which is consistent with the research on small class size, may indicate that Junior class teachers were taking advantage of the smaller pupil-teacher ratios.

On the other hand, given the research on smaller class size, one might have expected an increase in the time that Junior class teachers spent working with individual pupils. However, in 1999/2000, there was a significant *decrease* in the percentage of English time that Junior class teachers spent working with individual pupils. The data also indicate that while Junior class teachers spent significantly more Mathematics time than Senior class teachers on individual pupil instruction in 1996/97, there was no such discrepancy between Junior and Senior class teachers in 1999/2000. This finding is also contrary to what one would expect (i.e., even if it was the case that Senior class teachers increased the time they spent working with individual pupils, one might have expected Junior class teachers to have done the same given the smaller class sizes). Given that the benefits of small classes may derive from conditions such as increased individual instruction, these findings point to a need to encourage Junior class teachers to modify their teaching practices to take advantage of the small classes (for example, by devoting more time to individual instruction).

It is worth noting that the evaluation relied on teachers' descriptions of their own practices. However, Wisconsin's SAGE study found that even though teachers in smaller classes felt that their teaching practices had changed, independent observers reported that there were no distinct differences between teachers in large and small classes (Hertling et al., 2000). Also, the absence of data on teachers' practices in 1995/96 is problematic. Thus, a more in-depth investigation, possibly using observational methods, into the teaching practices of Junior class teachers in *Breaking the Cycle* might be necessary. The results of such investigations might then be used to direct the content of future inservice programmes. Finally, the shortage of qualified teachers and the high turnover rate in *Breaking the Cycle* schools, unless they are addressed, are likely to continue to limit the positive benefits of the reduced pupil-teacher ratios.

6.6.2. Core teachers

Given the high turnover among teachers, an attempt was made to ascertain whether the length of time teachers were involved in the scheme mediated the scheme's impact. The responses of core teachers, who were involved in the scheme since the outset, were analysed separately and were compared with those of non-core teachers, who started teaching in participating schools after the scheme had begun.

With the exception of Social and Environmental studies, there were no changes since the outset of the scheme in the time that core teachers allocated to the seven curriculum areas. Furthermore, there were no significant differences between core and non-core teachers in the amount of time that they devoted to the curriculum areas in 1999/2000. Analysis of the percentage of English and Mathematics time that core teachers devoted to whole class, small group, and individual teaching revealed no significant changes between 1996/97 and 1999/2000. As was the case among non-core teachers, core teachers in 1999/2000 spent approximately half of the time on whole class lecturing, approximately 25-30% of the time instructing small groups, and less than 20% of the time working with individual pupils.

Finally, the teaching practices of core teachers in 1999/2000 were comparable with those of non-core teachers, with both groups equally likely to report that they set out what they hoped to teach at the beginning of a lesson (97.1% vs. 95.2% respectively), assessed pupils' knowledge prior to beginning a lesson (100% vs. 99.2%, respectively), and asked pupils questions at the end of a class (99.3% vs. 100%, respectively). Like non-core teachers, the vast majority of core teachers in 1999/2000 promoted parents' active involvement in their children's education by asking them to help with, sign, and monitor their children's homework. Taken together, these findings suggest that the length of time teachers participated in the scheme did not mediate the effect that the scheme had on their *teaching practices.* Despite these findings, core teachers were significantly more likely than non-core teachers to indicate that their teaching practices had changed as a result of their involvement in the scheme.

It appears that the scheme was not entirely effective in influencing the attitudes and expectations of teachers who were involved since the outset of the five-year pilot project, as over half of core teachers in 1999/2000 (56.5%) attributed their pupils' performance to factors beyond their control, and a considerable percentage of core teachers (43%) were uncertain, or did not agree, that almost all children could achieve a basic level of literacy if taught properly. Furthermore, there was little change in core teachers' perception of the percentage of pupils whose home backgrounds seriously interfered with their ability to learn. However, significantly more core teachers in 1999/2000 than in 1996/97 believed that 61% or more of their pupils would progress beyond their Junior Certificate. Notably, core teachers' expectations for and perceptions of their pupils were comparable to those of non-core teachers in 1999/2000.

Overall, the findings suggest a need for further inservice development for teachers in participating schools. For example, given that a majority of teachers had low expectations for their

pupils, training to sensitize teachers to their possible biases and to increase their awareness of the possible detrimental effects that these biases can have on their pupils may be useful. Also, Junior class teachers may benefit from further in-service training to equip them with the skills and pedagogical strategies suitable for small classrooms. Furthermore, the fact that core and non-core teachers' responses were, for the most part, similar, suggests that *all* teachers, regardless of the length of time they were involved in the scheme, would benefit from such training. Also, the findings point to the need for training and support which is *on-going*. This would ensure that new teachers have the opportunity to participate in workshops, and would give established teachers a chance to refine their strategies. It is worth noting that teachers were required to attend six days of incareer development for the new primary school curriculum in 1999/2000, and schools were therefore unable to release teachers to participate in *Breaking the Cycle* inservice programmes during the year. Indeed, given that targeted incareer development programmes were a key element of the scheme, these cutbacks may explain why the scheme was less successful than had been hoped in terms of its impact on teachers.

Although training is crucial for ensuring quality teaching in the classrooms, it is also important to address factors such as teachers' working conditions and morale (Ingersoll, 1999). The finding that the turnover among teachers in urban *Breaking the Cycle* schools is very high (65.1%) suggests that there are factors present which render the posts unattractive. Thus, further investigation into the factors contributing to this high turnover and attempts to promote teacher retention in the schools participating in the scheme are indicated.

7. CONCLUSION

This chapter focuses on major findings described in previous chapters regarding the scheme's impact on schools, staff and pupils. Where appropriate, material reported in earlier evaluation reports is cited (Weir & Eivers, 1998; Weir & Ryan, 2000). As the evaluation methods used to assess the impact of the scheme are themselves, imperfect, the first section in the chapter describes some of the evaluation's limitations, and factors which were unrelated to the scheme but were likely to have had a significant impact on schools during the pilot phase of the project.

In reviewing the findings, an attempt is made to identify strengths and weaknesses in the implementation of the scheme. In particular, where aims of the scheme have been found difficult to meet, suggestions for improved strategies are made. Positive outcomes of the scheme are also highlighted.

7.1. FACTORS AFFECTING THE EVALUATION

7.1.1. Methodological considerations.

The evaluation was subject to several limitations. First, data collection did not begin until early in the first year of the scheme, and so the scheme was already in operation when baseline data were gathered. While this was unfortunate, it was unavoidable, as the request to evaluate the scheme was not made until after the scheme had started.

Throughout this report, we have attempted to assess the extent to which the scheme has had an impact on various areas of school life, but it would be naïve to think that all observed changes were entirely attributable to participation in the scheme. Many other developments occurred during the first five years of the scheme, including the introduction of the new (more child-centred) curriculum, the establishment of the Education Welfare Boards and the National Educational Psychological Service, and schools' participation in the IT 2000 project. Schools may also have been involved in other initiatives, information on which was sought in 1999 and was presented in an earlier report (Weir & Ryan, 2000). In total, 20 schools in that year indicated that they were involved in other local or national schemes, initiatives, or pilot projects aimed at pupils in disadvantaged areas[1]. It might be expected that participation in other schemes would have had a variety of effects on schools, and it is clearly impossible to isolate these from those of *Breaking the Cycle.* The evaluation was also somewhat constrained by the lack of a control group (i.e., a sample of schools with similar characteristics to those participating in *Breaking the Cycle*, but which were not participating in the

[1]Not including the Scheme of Assistance for Schools in Designated Areas of Disadvantage, the Home-School-Community Liaison Scheme, the 8 to 15-year old Early Leavers project, the Teacher-Counsellor scheme, and Early Start.

scheme). The availability of such a group would have permitted the effects of the scheme on achievement to be assessed more precisely. However, the selection of schools for participation in the scheme was such that only the most disadvantaged schools in urban areas were chosen to participate, meaning that matching the selected schools with others on the basis of level of disadvantage would not have been possible.

The data collected for the evaluation, while extremely broad in scope, were not completely comprehensive. In particular, it would have been useful to have sought the input of parents of pupils in participating schools, given their key role as the primary educators of their children. Also, due in part to the large number of participating schools, the data collected over the course of the evaluation tended to be very quantitative in nature. However, some important variables, such as school climate and atmosphere, are very difficult to quantify. There was an attempt to measure the impact of the scheme on school atmosphere in 1999, when teachers were asked to rate their schools prior to and following the introduction of the scheme on a variety of variables (see Weir & Ryan, 2000). The data indicated that teachers perceived the atmosphere in their schools to be more welcoming, friendly, pleasant and warm, as well as more colourful, clean, ordered and disciplined than was the case prior to the introduction of the scheme.

It is acknowledged that the evaluation failed to take into account the breadth of achievements among pupils in participating schools. Achievements were measured in only two curriculum areas using multiple-choice tests with a fairly narrow focus, which may seem restrictive given the emphasis placed on a "Multiple Intelligences" approach to teaching promoted at inservice for participating staff. However, clearly pupils' achievements in reading and Mathematics are of great significance for their future educational development and beyond. Various studies confirm that literacy and numeracy levels significantly affect an individual's employment prospects (e.g., Morgan, Hickey & Kellaghan, 1997).

Schools' participation in the scheme was contingent upon their agreement to the administration of tests to pupils at regular intervals. However, this was the only aspect of the evaluation for which the prior co-operation of staff was sought. Despite this, the evaluators were struck by the high response rates among principals and teachers to questionnaires, particularly given their often quite lengthy nature. In 1997, 1998, 1999, and 2000, response rates for questionnaires administered to teachers were 88.7%, 83.9%, 83.6% and 83.1%, respectively. The slight decline in response rates after the first year is not surprising, as enthusiasm levels might be expected to be highest at the start. Response rates among principals were even higher than among teachers. All school principals returned completed questionnaires in 1997 and 1999, while 96.9% did so in 1998, 96.9% in 2000, and 90.6% in 2001. A once-off questionnaire on school planning administered in the last year of the scheme, which was designed to be completed by principals in consultation with class teachers, was completed by 87.1% of schools.

All schools were extremely co-operative in relation to the administration of achievement tests to pupils in 1997 and 2000, and teachers of 3rd and 6th class pupils made every effort to facilitate the scheduling of testing sessions. It should be noted, however, that the scheduling of sessions, particularly in 2000, was an extremely difficult task in some schools. This was partly due to the fact that the time of year chosen (May/June[2]) coincided with preparation for the Sacraments of Communion and Confirmation, which either involved 3rd and 6th class pupils directly or in preparatory activities (e.g., choir practice). Furthermore, the decision not to administer more than two of the five subtests (and preferably only one) to pupils on any given day meant that each child needed to be available for between three and five days to take the subtests. In addition to these factors, there was a range of other competing activities at that time of year, such as concerts, out-of-school activities funded by the scheme, and sports days. School staff advised the testers not to schedule tests for first thing in the morning due to the problem of significant numbers of children arriving late for school. Furthermore, informal feedback from staff indicated that some families had already taken their children out of school for the summer and had gone on holidays.

While the vast majority of teachers were happy to have outside testers administer the achievement tests to their pupils, a small number felt that the tests should have been administered by the pupils' class teachers. There are arguments for and against both approaches. It is possible that pupils would have been more at ease with their class teachers than with outsiders, but it was felt that standardised procedures would be easier to implement with specially trained testers who had no previous contact with pupils. Teachers were, however, encouraged to be present during test administration, which may have helped to put pupils at their ease.

The test administrators, themselves, provided feedback on their experiences of the testing process. Many said that they were conscious of pupils' difficulties in completing the test items. They noted that many of the children completed the test early, and in some cases they attributed this to pupils' guessing the answers. Unfortunately, some pupils were upset by their inability to do the tests and, in fact, one tester said that a class teacher became visibly upset on witnessing the distress of her pupils.

7.1.2. Demographic changes.

From the time the scheme began in 1996/97 until the end of its pilot phase in 2001, Ireland experienced unprecedented economic growth. Among other things, this growth was associated with falling unemployment levels. Long-term unemployment (which was one of the variables used in the selection of schools for the scheme) fell nationally from 7% in April 1996 to 1.6% in the Spring of 2000 (Central Statistics Office, 2000). These changes in the broader economy impacted on families served by participating schools. A comparison of data from schools' applications to join *Breaking the Cycle* in 1996 with data collected in 2000 as part of a national survey of disadvantage in primary

[2] This time of year was chosen so that pupils would have covered as much of the curriculum as possible.

schools (Department of Education and Science, 2001) indicates that the circumstances of families served improved significantly over this period. When schools were selected for participation in the scheme, larger percentages of the families they served were characterised by long-term unemployment, medical card possession, and residence in local authority housing than was the case in the 2000 survey (see Table 3.41). Although the decreases in the percentages of families satisfying the criteria are quite significant, families served by the schools were still faring much more poorly relative to the national population in 2000. It is also worth noting that, for example, increased employment opportunities may have impacted differently on different sectors of the population, and the extent to which the long-term employment prospects of families in severely disadvantaged areas has been enhanced remains to be seen. Data from principals suggest that, while employment levels have increased among pupils' families, the positions held tend to be low-level, low-paid, and insecure, and were likely to be the most vulnerable in the event of an economic downturn.

The profile of the population served by participating schools also changed slightly in other ways since the scheme began. There was a slight increase between 1998/99 and 2000/01 in the percentage of schools in which children from the Travelling Community were enrolled. It also appears that the percentage of schools in which children of refugees, asylum-seekers, and non-nationals were enrolled increased. When combined (on the assumption that the two groups can be treated as mutually exclusive), the percentages of non-national and Traveller children represented 7.6% of the total population in participating schools in 2000/01. From the schools' point of view, the implications of catering for significant numbers of such children are broad. For example, the presence of such children serves to confirm and highlight the disadvantaged profile of the school. The poor achievement profile of the schools may also be exacerbated by serving significant numbers of pupils with language difficulties. The fact that the attendance pattern of children from the Travelling Community tends to be erratic (Department of Education, 1994) presents problems from a classroom management point of view, as well as having a potential impact on achievement levels. Furthermore, the parents of non-national children may have difficulty communicating in English, which in turn may hinder their involvement in school activities generally, and prevent them from assisting their children with schoolwork. These findings point to a need for schools to adopt special strategies to target these particular groups of parents.

7.2. SCHOOL RESOURCES AND ORGANISATION

7.2.1. Personnel and physical resources.

Despite declining enrolments, the number of class teachers in *Breaking the Cycle* schools increased between 1995/96 (the year before the start of the scheme) and 2000. This was largely due to the requirement that schools operate a 15:1 pupil-teacher ratio in Junior classes, which is one of the major provisions of the scheme. However, there is evidence that schools' access to non-class teachers (such

as Arts teachers and P.E. instructors) also increased during this period. In some cases, schools used a proportion of the additional funding allocated for "special projects" to employ sessional teachers in various areas.

While the number of teachers in participating schools increased as a result of the scheme, at the same time, *Breaking the Cycle* schools were experiencing considerable difficulties with staff shortages and turnover. First, the vast majority of principals reported some, or great, difficulty in attracting teachers to take up posts in their school. Evidence to support this comes from a survey of principals in 2001/2002 which revealed that 72% of participating schools had teachers with no primary teaching qualifications, or with restricted qualifications, working in their schools. Second, almost one-third of principals reported difficulties in retaining teachers. Finally, records reveal a very high staff turnover rate in schools between 1996/1997 and 1999/2000 (by 1999/2000, 65.1% of teachers working in the schools had taken up their posts since the scheme began). A survey undertaken by the Joint Committee on Education and Science (Ireland, 2000) suggested that *Breaking the Cycle* principals were not alone in their struggle to fill teaching posts and retain teachers. The vast majority of schools that replied to the Committee's survey said that they were having more difficulty recruiting qualified teachers than three years previously. Furthermore, it appears that the problem is more acute in urban areas, where almost all urban schools reported problems filling vacancies. This seems to mirror the experiences of *Breaking the Cycle* principals. The fact that the turnover rate in schools participating in the scheme is so high provides further evidence of the undesirability of teaching posts in participating schools.

Schools were much better resourced in terms of teaching equipment and materials in 2000 than had been the case in the year immediately preceding the scheme. Items such as overhead projectors, cameras, televisions and photocopiers were found in much greater numbers than was the case prior to the scheme. One area in which very substantial improvements were noted was in the availability of computer hardware and software, but this undoubtedly is due to schools' participation in the Schools IT2000 initiative rather than a result of *Breaking the Cycle*. In the case of both equipment and books, there was a large decrease between 1995/96 and 2000/01 in the percentage of principals who indicated that their schools were adversely affected by equipment and book shortages in the areas of English and Mathematics. However, areas such as Irish, Music, P.E., and Art and Craft were still perceived to be inadequately served by equipment and books in 2000/01. This may, however, reflect a dearth of commercially available materials in some curriculum areas (e.g., in Irish) rather than a lack of funds to invest in such materials.

Overall, it seems that the additional funding provided under the scheme enabled participating schools to purchase a wide range of necessary items over the first five years of the scheme. Principals and teachers cited the extra funding for materials and equipment as one of the most important benefits of the scheme: Some even said that it brought their school up to the standard of non-disadvantaged

schools in a variety of areas. This was deemed to be particularly important because of the difficulties of fundraising in very disadvantaged communities.

7.2.2. School planning for *Breaking the Cycle.*

At the time of applying to participate in *Breaking the Cycle*, schools undertook to develop a five-year plan designed to respond to the needs of the children in their schools. Data on the planning process in the areas of curriculum, school organisation, and home-school liaison were gathered from schools on two occasions, once in 1998, and again in 2001 at the end of the pilot phase of the scheme. It is clear that schools' work on planning was more of a process than a product, in the sense that plans evolved during the scheme, and that priorities and strategies were revised in light of evaluation. Thus, the planning process was flexible, rather than fixed and rigid. Due to the volume of potential data on school planning, during the last year of the pilot phase schools were asked to provide details of one curriculum, one home-school, and one organisational priority for the purpose of the evaluation. Therefore, the evaluation data on school planning are far from comprehensive, but they do provide a flavour of the kinds of issues schools judged to be important, and give some insight into the strategies employed to achieve specified objectives in various areas.

The majority of schools in 2001 selected English as their curriculum priority, with about two-thirds focusing primarily on oral language development. This was not surprising, as feedback from teachers over the course of the evaluation indicated that they considered that oral language required attention. Of the remaining schools which specified the curriculum area of English as a priority, the majority aimed to improve pupils' reading skills. This, too, is not surprising, given the often reported association between disadvantage and low literacy levels (e.g., Kellaghan et al., 1995). The two most common home-school priorities cited by schools were quite general in nature, and involved the promotion of parental support of children's education, followed by increasing parental involvement in school activities. Other priorities in this area included encouraging parental input to the decision-making process in the school, and increasing the uptake of educational courses for parents. The improvement of within-school communication was the most frequently cited organisational priority, followed by improving discipline within the school. Other priorities included increasing co-operative planning and consultation among teachers and improving communication with families or community groups.

Although the development and implementation of plans were not without problems (e.g., over-ambitious targets were set by some schools and some initiatives were impeded by high levels of teacher turnover), the available data indicate that the effects of the planning process on schools were very beneficial. Apart from the fact that the majority of schools noted improvements in prioritised areas, other positive outcomes were noted. For example, the development of a plan forced schools to focus on weak areas and to consider how they might be tackled. Schools were also required to identify challenges, to set targets, and to decide on methods of evaluating the success of the strategies

employed. Furthermore, the development of a plan was described by some as having led to a greater sense of connectedness and community among school staff. An examination of the methods of evaluating the success or otherwise of planning strategies revealed that, towards the end of the scheme, evaluation methods were becoming much more objective. Rather than relying mainly on teachers' opinion, schools were increasingly relying on objective records to judge success, for example, by noting the numbers of parents attending meetings, or recording instances of pupil misbehaviour. This shift in approach alone suggests that the development of a plan for *Breaking the Cycle* not only had positive outcomes in targeted areas, but operated as a learning process for schools.

7.2.3. Home-school links.

The particular importance, when working with disadvantaged communities, of fostering links between the home and the school is widely acknowledged. Indeed, this view led to the establishment of the Home-School-Community Liaison (HSCL) scheme in 1990. All schools in *Breaking the Cycle* also participate in the HSCL scheme.

It is impossible to separate the effects on home-school links of participation in *Breaking the Cycle* from those of the HSCL scheme. Indeed, the aims of both schemes are complementary, and evidence for the dove-tailing of the two schemes comes from schools' descriptions of their home-school strategies in their five-year plan for *Breaking the Cycle,* in which many mentioned the involvement of HSCL co-ordinators. Data collected from principals over the first four years of the scheme indicate that parents were involved in a wide range of school-related activities, from participating in educational courses to assisting in the running of events such as concerts, sports days, and homework clubs. About 8 out of 10 schools in each year provided education programmes which were designed to enable parents to assist their children with their schoolwork. The nature of the educational courses offered changed somewhat over the four-year period, with a decrease towards the end of the pilot phase in the percentage of schools that offered programmes in English, Mathematics, and, in particular, Irish. In contrast, there was a slight increase in the percentage of schools that offered pre-entry programmes and courses in computers, the latter being consistent with schools' efforts to improve pupils' computer literacy and I.T. skills. The emphasis of the, what might be termed "extra-curricular", courses offered for parents also appears to have changed somewhat between the first and the fourth year. At the start of the scheme, schools tended to offer courses in personal development, while in year four, the focus was on more practical topics such as health information, cookery, and arts and crafts. This shift in focus is not surprising, however, as schools serve a limited pool of parents, and one would expect schools to avoid repeating topics which had been offered in previous years.

One interesting finding is that, over the course of the scheme, the percentage of parents who visited the school on their own initiative (for reasons other than to deliver or collect their children) increased considerably. This may indicate that the school was perceived by parents to be a more

welcoming, or at least a less threatening, place. Equally, it may mean that parents were becoming more proactive in their children's education. Data from principals provide some support for the latter view. In the fourth year of the scheme, they perceived a decrease in the percentage of parents that lacked an interest in the educational progress of their children, as well as in the percentage that had low educational expectations for their children.

Overall, the data suggest that parents had a good deal of contact with schools over the five years of the pilot scheme. However, in some cases, principals noted that the parents who became involved were not those whom the school considered to be the most marginalised. It also appears that parental involvement in, and commitment to, children's education improved somewhat since the start of the scheme. While these results are encouraging, there is obvious potential for improving parents' educational expectations for their children. In 2001, almost one in five principals reported that the vast majority of parents had low educational expectations. Given parents' potential to wittingly or unwittingly influence their children's attitudes to education, it might be worth attempting to raise parents' awareness of the detrimental effects that low expectations can have on children's progress. Schools might also attempt to raise awareness among parents of the importance of the regular attendance of their children at school, in light of the fact that parents, rather than pupils, are thought to be largely responsible for attendance problems.

7.3. THE IMPACT OF THE SCHEME ON STAFF

7.3.1. Principals' views of the scheme.

Principals were unanimous in their agreement that *Breaking the Cycle* had had a positive overall effect on their schools. Nine out of ten reported that teaching practice had been positively affected by participation, and all indicated that the scheme had boosted staff morale. A range of positive effects on pupils were also noted. Most felt that pupils' academic achievement had improved somewhat, both as measured by formal and informal tests and according to teacher opinion. In light of data gathered for the evaluation which indicate that there was more of a disimprovement than an improvement in pupils' achievements between 1997 and 2000, it is surprising that no principals in the last year of the pilot phase indicated that pupils' achievements had *disimproved*. However, it is possible that principals were thinking of achievement in broad terms, rather than the relatively narrow areas of Mathematics and reading. All principals perceived an increase in pupils' self-esteem, while all but one noted a positive effect on pupils' standard of social interaction. These perceptions are consistent with those of teachers, and there is also some evidence of improvements in these areas from 6th class pupils' responses to questionnaire items on self-esteem and peer relationships.

All principals in the final year of the pilot phase indicated that marginalised pupils had benefited from participation in the scheme. When invited to explain why, the most common response was that pupils had benefited from the lower pupil-teacher ratio. Principals felt that the extra

individual attention given to pupils in small groups was of benefit, and that this had facilitated teachers in the early identification of problems. Several principals commented on the financial benefits of the scheme, while others noted that pupils were better behaved, and that attendance and the school environment had improved. More than one-third of principals thought that the reduced pupil-teacher ratio should be extended to other classes in the school, as they felt that the benefits of being in a small class were negated by placing pupils in much larger 3rd classes.

Another major provision of the scheme is the additional funding provided to schools for special projects and out-of-school activities. All principals indicated that pupils had benefited from participation in such activities, with 8 out of 10 claiming that pupils had benefited to "a great extent". The kinds of activities funded by this grant were described in an earlier report on the scheme (Weir & Ryan, 2000), but the most popular activities (pursued by more than 8 in 10 schools in 1998/99) included theatre/cinema trips or drama workshops, attending concerts, or using the funding to pay for music lessons. This was followed by artistic activities such as visiting galleries, and hiring specialist art or craft teachers, while more than half of schools brought pupils on outings of other kinds such as nature trips or trips to places of historical interest. Finally, almost half of schools used some of the available funding for sporting pursuits, such as paying for swimming lessons, or visits to sports arenas.

In the last year of the pilot phase of the scheme, principals were asked to indicate the amount of class time (in hours) in a typical week that Junior, Middle, and Senior pupils engaged in out-of-school activities and special projects. The results indicate that, on average, pupils at all levels spent more than one hour but less than two hours per week on such activities. The time spent increased with grade level, with Junior pupils spending the least time, and Senior pupils the most time, on such activities. The time spent on these activities represents a considerable proportion of the total time available during the school week, and while such activities may provide a multiplicity of benefits to pupils, teachers should aim to maximise the instructional opportunities provided by the activities. While this is clearly more appropriate for some activities (e.g., nature trips lend themselves more easily to class discussion and integration with the general curriculum than do swimming lessons), it is important that the activities undertaken are incorporated into lessons and are not viewed as isolated treats. There is no doubt, however, that out-of-school activities and special projects were perceived by principals to have had a very positive impact on pupils, and that the dedicated funding under the scheme provided pupils with opportunities that they would have otherwise been denied.

7.3.2. Teachers' views of the scheme and educational expectations for pupils.

Teachers' perceptions of the scheme were also, in the main, positive. In 1999/2000, the vast majority indicated that their ability to understand the nature of educational disadvantage had improved, and that their opinions, attitudes, and teaching practices had changed as a result of participating in the scheme.

Although most teachers felt that the scheme was of benefit to marginalised pupils, it seems that in the last two years of the pilot phase of the project, teachers became increasingly uncertain about the scheme's impact on pupils. This finding may be related to the high turnover of teachers, as those who were involved in the scheme for only a short period of time may have been less certain of its impact on pupils. Some support for this comes from the fact that there were no such shifts in the perceptions of teachers who were involved since the outset of the scheme. In fact, such teachers were significantly more likely than 'non-core' teachers to report that the scheme was of benefit to pupils. This is not surprising, as 'core' teachers would have had the opportunity to observe pupils' performance prior to the introduction of the scheme, and therefore would have a baseline against which to gauge pupils' progress.

In addition to questioning the scheme's potential impact on pupils, it seems that, towards the end of the scheme, teachers became less certain about their own ability to influence pupils' performance. For example, fewer teachers in 1999/2000 than in 1996/97 agreed that all pupils could achieve a basic level of literacy if taught properly, and almost half of teachers estimated that 61% or more of their pupils came from home backgrounds which seriously impeded their ability to learn. Furthermore, in the last two years of the scheme, an increasing percentage of teachers attributed their pupils' performance to factors beyond their control rather than to their own teaching ability and efforts. Although there was a significant increase in the percentage of teachers who estimated that 60-80% of their pupils would continue beyond the Junior Certificate, virtually all teachers in 1999/2000 still expected the early-school leaving rate of their pupils to be higher than the national figure.

It was hoped that participation in the scheme would have had a positive impact on teachers' expectations of their pupils since such expectations, and the assumptions teachers make about pupils' potential, may have significant effects on how well and how much pupils learn. It was also hoped that teachers in participating schools would increasingly accept responsibility for their pupils' success and failure, given that this has been identified as a feature of effective teaching (Kellaghan, 1994). However, the findings suggest that the scheme was not very effective in these respects.

Although one might speculate that the high teacher turnover limited the scheme's influence on teachers' expectations, the fact that 'core' teachers' attitudes towards and expectations for their pupils were comparable with those of 'non-core' teachers suggests that this was not the case. Since research has shown that when teachers are regularly provided with opportunities to discuss their teaching strategies with their colleagues, they begin to value and question the expertise they bring to teaching (Edmonton Public Schools & University of Alberta, 2001), the failure to find a shift in teachers' attitudes may relate to the decrease in the provision of inservice training for *Breaking the Cycle* towards the end of the pilot phase of the scheme. Indeed, the fact that teachers' attitudes became more fatalistic during the years when the scheme's incareer development programmes were curtailed suggests that the early inservice programmes had benefited teachers. It is also possible that teachers were increasingly aware that pupils' English and Mathematics achievements were not improving,

despite their involvement in the scheme. This realisation may have caused them to re-evaluate their beliefs and question their ability to influence pupils' performance. Some support for this view may be found in the fact that, when asked to explain how they felt pupils had benefited from the scheme, teachers were more likely to report that pupils benefited personally and socially, rather than academically.

The fact that the majority of teachers held low expectations for their pupils indicates that further consideration should be given to strategies to sensitize teachers to possible biases in their evaluations of pupils. Providing teachers with general opportunities to meet, and encouraging interaction among them, should be beneficial. It is possible that teachers will have more opportunities to participate in inservice for *Breaking the Cycle* once the primary school curriculum has been fully implemented. Given that the provision of incareer development programmes for staff was one of the key elements of the scheme, strategies to prevent cutbacks of such programmes from recurring in the future should be put in place.

7.3.3. Teachers' instructional practices

Research has consistently demonstrated that no organisational reform can substitute for high-quality teaching (e.g., McRobbie et al., 1998). Thus, the incareer development programmes, in addition to developing teachers' understanding of disadvantage, were also aimed at encouraging teachers to adopt effective teaching practices.

Teachers in 1999/2000 spent approximately a third of class time on small-group instruction in English and Mathematics, and almost all teachers sometimes, or always, outlined the aim of a lesson prior to instruction and asked pupils questions at the end of the lesson to find out what they had learned. Furthermore, an increasing number of teachers in 1999/2000 always ascertained pupils' level of knowledge at the beginning of a lesson and varied their teaching style for different pupils. The majority asked parents to help with, monitor, and sign their children's homework. These findings reflect an effort to engage in purposeful teaching, build on pupils' existing knowledge, monitor and evaluate pupils' performance, and promote parents' involvement in their children's learning. It is also worth noting that the teaching practices of 'core' teachers were comparable with those of 'non-core' teachers, suggesting that the length of time teachers participated in the scheme did not mediate the effect that the scheme had on their practices.

Although teachers, for the most part, reported adopting a range of instructional strategies which are generally associated with 'effective teaching', there appear to be some areas of teachers' work which require further attention. First, teachers spent significantly less time on individual pupil instruction in English and Irish in the fourth year of the scheme than in the first. Second, over the course of the first four years, there was a *decrease* in the mean number of hours per week that teachers spent on English but not on Mathematics, and an increase in the proportion of time teachers allocated

to Social and Environmental Studies. Given that the amount of time spent on task has been shown to be positively correlated with pupils' achievement, this trend might help explain why pupils' literacy achievements did not improve in 2000. However, it may be noted that the time teachers spent on Mathematics and English was considerably higher than the minimum recommended in the revised Primary School Curriculum (National Council for Curriculum and Assessment, 1999).

A major provision of the scheme was the reduction of the pupil-teacher ratio in Junior classes to about 15:1. Since teachers were not asked about their instructional practices in 1995/96 (e.g., prior to the reduction of pupil-teacher ratios), it is difficult to ascertain whether Junior class teachers modified their teaching practices to take advantage of the smaller class sizes. Given these limitations, a more in-depth investigation, possibly using observational methods, into the teaching practices of Junior class teachers in *Breaking the Cycle* would be informative. Nevertheless, there is some evidence that Junior class teachers would benefit from further in-service training to equip them with the skills and pedagogical strategies suitable for small classrooms. For example, the fact that there was a significant decrease in the percentage of English time that Junior class teachers spent on individual pupil instruction is contrary to what one would expect given that smaller classes enable teachers to spend *more* time working with individual pupils. Given that the benefits of small classes may derive from conditions such as increased individual instruction, this finding points to a need to encourage Junior class teachers to devote more time to individual instruction.

It is worth noting that the professional development opportunities available to Junior class teachers were limited. Although they participated in the workshop "Creating a classroom environment where learning can take place" in the first year of the scheme (in 1997), no further courses on effective instructional strategies for small class sizes were offered in subsequent years. Since teachers in *Breaking the Cycle* schools were unable to attend incareer development programmes in 1999/2000 and 2000/01, the national co-ordinator of the scheme in urban schools had to rely on principals to encourage teachers to modify their instructional practices. This was difficult since over a third of principals in 1999/2000 had full-time teaching responsibilities, and would have had only a limited amount of time to work with class teachers. Indeed, in 1999/2000, full-time teaching principals reported spending only 2.9 hours per week working with teachers. Moreover, even where principals had an opportunity to work with Junior class teachers, research has shown that getting teachers to change their practices is no easy feat. For example, Project STAR found that teachers' attendance at a summer professional development programme did not result in changes in their instructional styles (Ehrenberg et al., 2001).

The fact that training was only provided in the first year of the scheme is also problematic given the high turnover rate among teachers, as it is probable that some of the teachers who participated in previous inservice programmes had left their posts. Since incareer development programmes were not available for Junior class teachers between 1997/98 and 2000/01, teachers who took up posts in the last four years of the scheme would not have received professional development to

guide them in small-class instruction. In fact, given that the initiative to reduce pupil-teacher ratios was unique to urban *Breaking the Cycle* schools, it is unlikely that newly qualified teachers, and teachers coming from schools outside the scheme (e.g., where pupil-teacher ratios are greater than 15:1), would have had previous exposure to such training. Overall, these findings suggest a need for further training and *on-going* support for all Junior class teachers. This would ensure that new teachers receive training on effective teaching practices for small classes, and would give established teachers a chance to refine their strategies.

Finally, both Project STAR and the California programme (see Section 6.6.1) demonstrated that the positive benefits of small class size may not occur if there is an inadequate supply of qualified teachers (McRobbie et al., 1998). Thus, the high turnover rate, and principals' difficulties in attracting and retaining qualified teachers, unless addressed, are likely to continue to limit the positive benefits of reduced class sizes.

7.4. THE IMPACT OF THE SCHEME ON PUPILS

The most important aim of an initiative such as *Breaking the Cycle* is it to produce a positive impact on pupils. Hence, the scheme's effect on pupils is of critical importance in judging its effectiveness. The range of potential positive effects at pupil level is broad, and may include a reduction in absenteeism, improvements in behaviour and discipline, changes in pupils' attitudes towards school and schoolwork, and improved achievement. The evaluation attempted to assess the extent to which each of the foregoing has been affected by participation in the scheme.

7.4.1. Attendance.

There are two sources of information on pupil attendance: responses to a series of items in a school questionnaire which principals completed on an annual basis and records of the attendance rates of 3rd and 6th class pupils during the reading and Mathematics achievement testing sessions in 1997 and 2000.

In an item in the annual school questionnaire, principals were asked to give the annual percentage attendance rate for their schools. This information, which is available for participating schools over an eight-year period (1992/93 to 1999/2000 inclusive), shows that there was no overall improvement in attendance rates since the introduction of the scheme in 1996/97 (see Table 5.22 in Chapter 5). The average attendance rate in *Breaking the Cycle* schools of about 86% clearly compares unfavourably with the daily attendance rates of 91%, 91%, 90%, and 90% in all Dublin city schools for the years 1996/1997 through 1999/2000 (School Attendance Committee 1997, 1998, 1999, 2000). However, there are substantial differences between participating schools in their attendance rates. For example, in 1999/2000, one school had an attendance rate of 79.0%, while the highest rate of any school that year was 91.0%.

A reliance on annual percentage attendance rates as indicators of attendance may mask the fact that attendance problems are particularly significant for some families. For this reason, it is worth examining the attendance of pupils who could be considered very poor attenders. Between the first year of the scheme (1996/97) and 1999/2000, there was a three-fold increase in the number of chronic low attenders (i.e., pupils who did not transfer to another school or were not ill, but who attended for 10 days or fewer in the first quarter of the school year). However, it should be noted that the numbers of pupils with such poor attendance records is very small, and only averaged 3.4 pupils per school in 1999/2000. It is also worth noting that there was a decrease across all grade levels in the percentage of pupils who were disciplined for absenteeism between 1995/96 and 1999/2000. This is surprising given the increase in the prevalence of the problem among Junior and Senior pupils during this period.

Absenteeism on the days of achievement testing was high at both class levels in 1997 and 2000. Attendance was lower at 6th class level than at 3rd, and lower in 2000 than in 1997. It is unfortunate that attendance data were not available for each pupil, since such data would have permitted an examination of the relationship between achievement and attendance at the individual pupil level. However, school-level attendance information (described earlier in this section) is available. Although it is acknowledged that it represents only a very crude measure of association between achievement and attendance, schools' annual percentage attendance rates in 2000 were correlated with the aggregated reading and Mathematics test scores of 3rd and 6th class pupils in the same year. Although none of the correlations is significant, all are positive (r=.26, r=.38, r=.34, and r=.26 for 3rd class reading and Mathematics and 6th class reading and Mathematics respectively), indicating that as attendance rose, so too did achievement. It should be noted that while the number of pupils is large, the achievement data were aggregated to a small number of schools (N=21), and it can be difficult to obtain a significant correlation with such a small number.

Other research has generally demonstrated an association between poor attendance and low achievement. For example, in the 1999 phase of the Third International Mathematics and Science Study (TIMSS R), higher Mathematics scores at eighth grade were found to be associated with higher attendance levels (Mullis, Martin, Gonzalez, O'Connor, Chrostowski, Gregory, Garden, & Smith, 2001). Similarly, the Scottish Council for Research in Education examined the links between pupils' attendance and their achievements in the final two years of secondary school and found that as absenteeism increased, students' level of examination grades decreased (Malcolm et al., 1996).

The chances of efforts to improve attendance (such as attendance drives) being successful would be enhanced by an understanding of the factors which lead to children being absent from school. In the final year of the pilot phase, principals were asked to explain why pupils were frequently absent from school. Over one-third attributed pupil absences to lack of parental interest, motivation, and commitment to their children's education. This was followed by absence due to illness – which is probably a more significant problem in disadvantaged than in less disadvantaged

communities – and, for a variety of reasons, parents' inability to get their children ready for school in the morning. It is noteworthy that only a small percentage of principals indicated that pupils *themselves* were responsible (i.e., pupils either refused to go to school or skipped school without their parents' knowledge). Given that principals perceive problems with attendance to be largely attributable to parents, this clearly could be a fruitful area of focus in schools' efforts to reduce absenteeism, particularly in view of the fact that strategies developed by schools tend to target *pupils* more than parents. It is acknowledged, however, that the home-school liaison co-ordinators (available in all participating schools) are probably already using some strategies designed to make parents more accountable for their children's absence from school. It will also be interesting to monitor the effects of the relatively newly established Education Welfare Boards on the significant attendance problem in disadvantaged areas.

7.4.2. Discipline.

One potential effect of a scheme like *Breaking the Cycle* is a reduction in the incidence of discipline problems in schools. The data provide evidence that improvements in discipline were greater among Junior and Middle-level pupils than among Senior pupils. For example, there were no significant increases among Junior and Middle classes in the incidence of the various types of misbehaviour. However, at the Senior level, the prevalence of late arrival at school and absenteeism increased significantly. This is consistent with evidence obtained during achievement testing in the same year, where 6th class pupils were found be poorer attenders than 3rd class pupils.

Further evidence of a decline in discipline problems since the beginning of the scheme comes from data on the number of pupil suspensions from school as a result of serious breaches of discipline. About half as many 3-day and 10-day suspensions were applied to pupils in 1999/2000 as in 1995/96, while the number of serious breaches of discipline deemed not to warrant suspending the pupil decreased by about one-third. These findings, combined with the fact that more than a quarter of principals reported improvements in discipline in their school in 2000/01 (see Chapter 2), suggest that the scheme had a positive impact on Junior and Middle grade pupils' behaviour. The problem of rising levels of misbehaviour among Senior pupils, however, remains a matter of concern, particularly in the area of absenteeism and late arrival for school.

7.4.3. Attitudes.

Data on the attitudes to school and schoolwork, self, and home of 6th class pupils in participating schools are available for 1997 and 2000. Identical questionnaire items were administered to the 6th class cohorts on both occasions.

The positive attitude to school of pupils in both 1997 and 2000 cohorts is striking. Pupils' liking for school was already high in 1997, and the same percentage in 2000 agreed that they liked school. The data, however, contain no evidence of an increase in pupils' liking for school following

the introduction of the scheme. Comparative data on liking for school among a national sample are available for 5th class pupils who participated in the National Assessment of English Reading in 1998 (Cosgrove et al., 2000). In that study, a smaller percentage of pupils indicated that they liked school or liked school "a lot", than was the case in *Breaking the Cycle* schools. Furthermore, while there was a positive correlation between liking for school and reading achievement among the National Assessment sample, no such association was found in *Breaking the Cycle* schools. However, in *Breaking the Cycle* schools, the relationship between achievement and liking for school was non-linear. Indeed, an examination of the data revealed that pupils who indicated that they liked school "a lot" had lower mean reading and Mathematics scores than those who claimed to merely "like", or "dislike" school.

The vast majority of pupils in *Breaking the Cycle* schools in 2000 claimed that they were proud of their school work and felt that they were doing well at school. As was the case with liking for school, pride in schoolwork and achievement were not correlated. The high percentages of pupils who felt that they were doing well at school is clearly at odds with their measured achievements. This raises two issues. First, it might be assumed (as was found in the 1998 National Assessment), that liking for school would increase in line with achievement. This is not the case in *Breaking the Cycle* schools. Second, one might expect overall levels of liking for school to be lower in schools where mean achievement is relatively poor. However, this was also found not to be the case. The fact that liking for school and achievement are unrelated in our sample raises questions about the determinants of positive attitudes to school. It is possible that teachers in participating schools should be credited with instilling in their pupils positive attitudes which are not solely dependent on academic success. If this is so, it is a very positive finding, as pupils who are weak academically, but enjoy school, may remain in the education system longer. However, the fact that pupils have unrealistic views of their scholastic abilities may point to the need for teachers to present more challenges in the classroom and to revise their educational expectations for pupils.

Teachers were not the only ones to develop increasingly fatalistic attitudes about the determinants of scholastic success. Between 1997 and 2000 there was an increase in the percentage of pupils who thought that success at school depended on factors outside their own control. Specifically, significant increases were found in the percentages of pupils that agreed that success at school depended on being "smart" and being "lucky". A greater percentage of pupils in 2000 than in 1997 indicated that they wished to go to college or university. However, the discrepancy between the percentage of pupils *wanting* to go to college and *expecting* to go to college increased between 1997 and 2000 (16% in 1997 vs 18.9% in 2000). A comparison of these data with data from the National Assessment of English Reading in 1998 (Cosgrove et al., 2000) reveals that there was a greater discrepancy between the educational aspirations and expectations of *Breaking the Cycle* pupils than among pupils in the National Assessment.

There were some differences between boys and girls in their responses to the pupil questionnaire. Girls were more positively disposed towards school than were boys, with dislike for school being much more common among boys than among girls. This finding is consistent with those of other studies, such as the National Assessment of English Reading in 1998 (Cosgrove et al., 2000). The educational aspirations of girls in *Breaking the Cycle* schools also exceeded those of boys, although their educational expectations did not differ much from those of boys. It is unclear why boys have less positive attitudes towards school than do girls. However, the finding is consistent with the fact that a greater percentage of boys than of girls who received their primary education in participating schools left school prior to taking the Junior Certificate Examination (see Weir & Ryan, 2000). Furthermore, principals reported that levels of psychological assessments were higher among boys than among girls, and that it was much more common for boys than for girls to be referred for assessment for behavioural problems.

7.4.4. Achievement.

One of the most frequently cited and widely acknowledged correlates of disadvantage is poor scholastic performance. It follows, therefore, that a successful intervention should aim to positively impact on pupils' achievements. The baseline achievements of 3rd and 6th class pupils in participating schools were described by Weir and Eivers (1998), while the achievements of pupils in these grade levels three years later were described in Chapter 3 of this report.

At the outset of the scheme, there were a number of expectations about its potential effects on pupil achievement. The first was that participation in the scheme should impact positively on pupils' achievements. The second was that any impact on achievement might be felt most strongly at Junior level due to the implementation of reduced class sizes. Third, the scheme, if effective, might help to reduce the achievement gap between pupils from disadvantaged backgrounds and pupils with more favourable backgrounds. The data do not lend much support to the first and third expectations, but there is some evidence to support the second.

There is no evidence that the scheme led to an increase in the reading achievements of either 3rd or 6th class pupils. In fact, even though a greater percentage of weak pupils were excluded from testing in 2000 than in 1997, the mean reading achievements of both grade levels were significantly lower in 2000 than in 1997. Furthermore, a greater percentage of pupils' reading scores was one standard deviation below the national mean in 2000 than had been the case in 1997. Extreme low scorers were also more common in 2000 than in 1997, with greater percentages of 3rd and 6th class pupils performing below the 10th percentile in reading. As the 10th percentile was suggested by the Special Education Review Body (Department of Education, 1993) as an appropriate benchmark for the need for remediation in reading, it may be concluded that more than one-third of 6th class pupils in participating schools would be deemed in need of such learning support.

The position in relation to Mathematics achievement is slightly different. While the mean Mathematics score of 6th class pupils in 2000 was significantly lower than that of their counterparts in 1997, the mean Mathematics score at 3rd class level in 2000 did not differ significantly from that of the 3rd class cohort in 1997. However, even in Mathematics, the percentages of low-scorers were greater in 2000 than in 1997. One interesting finding was that there were more *high* achievers in Mathematics at 3rd class level in 2000 than in 1997. However, at the other end of the scale, there were even more extreme low-scorers in Mathematics than in reading in 2000, with a greater percentage of 3rd and 6th class pupils achieving scores below the 10th percentile. In fact, 4 pupils in every 10 in 6th class performed at a level in Mathematics which would signal the need for learning support, and would clearly represent a severe handicap in post-primary school. The fact that 3rd class pupils performed better relative to 6th in both subjects, and particularly given that there was no decline in 3rd class Mathematics achievement, may lend some support to the expectation that the scheme would have a greater impact at Junior than at Senior level.

The third expectation – that an effective scheme might help to reduce the widening achievement gap between disadvantaged and non-disadvantaged pupils as they progress through the school system – does not appear to be supported by the data. The reading and Mathematics achievements of pupils in our sample resemble those of the norm group less as they progress from Middle to Senior classes. Furthermore, the data suggest that the achievement gap which favours 3rd class pupils actually grew between 1997 and 2000.

As is the case with the phenomenon of disadvantage itself, multiple factors seem to have been implicated in the failure to achieve improvements in reading and Mathematics scores in participating schools. One determinant may be poor attendance, but this, in turn, may be exacerbated by low educational expectations on the part of teachers or parents, or a high teacher turnover rate. Increasing disaffection among families served by the schools, resulting from a relative decline[3] in their economic circumstances, might also be a contributory factor. Indeed, some commentators believe that the social context of the school is of key importance, and that the disadvantages associated with poverty are exacerbated when there are high concentrations of pupils from poor backgrounds in a school (as is the case in all *Breaking the Cycle* schools) (Patterson, 1991; Smyth, 1999; Willms, 1985). This suggests that the problems experienced by schools serving large proportions of pupils from disadvantaged backgrounds might merit the attention of other government departments, such as those responsible for the planning of housing[4]. Some measures have already been introduced to ensure that a proportion of all new housing developments are reserved for social housing. If successful, this strategy should result

[3] Although the economic circumstances of families improved since the beginning of the scheme (e.g., in terms of percentages in employment), they have disimproved relative to the national population (see Chapter 3).

[4] Data from principals in *Breaking the Cycle* indicated that an average of 95.7% of pupils lived within the immediate vicinity of the school, suggesting that the vast majority of parents in the area sent their children to the nearest school, and that families served were resident in the same or neighbouring housing schemes.

in a greater social mix within the housing developments of the future, and a corresponding reduction in the concentration of disadvantage in particular locations, and possibly, in particular schools.

Future work might be best directed at a more intense examination of a sample of participating schools, in which observational methods might be introduced alongside more quantitative methods. Of particular interest would be a study of the instructional style adopted by teachers in Junior classes, and its relationship to achievement. This would seem important in light of previous research which has shown that educators rarely change their instructional style to match the size of their classes. In schools where achievement gains were noted, a case-study methodology could be useful in determining the individual factors associated with such gains. Also, because the ability to read is central to pupils' capacity to understand texts in most curriculum areas, it might be worth introducing specific reading programmes, such as that promoted by Shanahan (2001), to try to boost reading achievement in participating schools. Shanahan claimed improvements in achievement scores among disadvantaged pupils on standardised tests using a reading framework, the major components of which involve ensuring that schools offer substantial amounts of reading and writing instruction (a minimum of 2-3 hours per day is suggested), a focus on content which has been demonstrably shown to be essential to reading development, and continuity and connectedness of instruction across teachers and grade levels. The effects of the scheme on pupils' achievements will continue to be monitored, and it is planned to re-assess pupils' literacy and numeracy achievements in 2003.

8. REFERENCES.

Buckeye Institute for Public Policy Solutions. (1998). *Public choices, private costs: An analysis of spending and achievement in Ohio public schools.* Dayton, OH: Author.

Central Statistics Office. (2000). *Quarterly national household survey: First quarter 2000.* Dublin: Stationery Office.

Commission on Class Size and Composition. (2001). *Discussion paper*. Winnipeg: Manitoba Education and Training.

Collins, C., & Williams, J. (1998). *The 1997 annual school leavers' survey: Results of the school leavers' surveys, 1995-97.* Dublin: Department of Enterprise, Trade and Employment / Economic and Social Research Institute / Department of Education and Science.

Cosgrove, J., Kellaghan, T., Forde, P., & Morgan, M. (2000). *The 1998 National Assessment of English Reading.* Dublin: Educational Research Centre.

Creemers, B. (1994). *The effective classroom*. London: Cassell.

Department of Education. (1993). *Report of the Special Education Review Body.* Dublin: Stationery Office.

Department of Education. (1994). *School attendance / Truancy report*. Dublin: Author.

Department of Education. (1998). *A national educational psychological service: Report of the planning group.* Dublin: Stationery Office.

Department of Education and Science. (2001). *Giving children an even break by tackling disadvantage*. Dublin: Stationery Office.

Douglas, J.W.B. (1964). *The home and the school*. London: McGibbon & Kee.

Edmonton Public Schools and University of Alberta. (2001). *Small class size project: Final report*. Alberta: Edmonton Public Schools / Alberta Learning.

Educational Research Centre. (1993). *The Drumcondra Primary Reading Test.* Dublin: Author.

Educational Research Centre. (1997). *The Drumcondra Primary Mathematics Test.* Dublin: Author.

Ehrenberg, R.G., Brewer, D.J., Gamoran, A., & Willms, J.D. (November, 2001). Does class size matter? *Scientific American*, 68-73.

Gardner, H. (1984). *Frames of mind: The theory of multiple intelligences*. London: Heinemann.

Grant, M. (1998). *An analysis of the early implementation of the Breaking the Cycle project in a sample of urban schools.* Unpublished master's thesis, Trinity College, Dublin.

Harris, J., & Murtagh, L. (1999). *Teaching and learning Irish in primary school: A review of research and development.* Dublin: Institiúid Teangeolaíochta Éireann.

Harter, S. (1998). The development of self-representations. In N. Eisenberg (Ed.) *Social, emotional and personality development: Handbook of child psychology* (pp.553-618). New York: Wiley.

Hayes, N., & Kernan, M. (2001). *Seven years old: School experience in Ireland. National report of the IEA preprimary project.* Dublin: Centre for Social and Educational Research, Dublin Institute of Technology.

Hertling, E., Leonard, C., Lumsden, L., Smith, S., & Picus, L. (2000). *Policy report: Reporting on policy issues in K-12 educational management.* Eugene, OR: ERIC Clearing House on Educational Management.

Ingersoll, R. (1999, Spring). Invited commentary: Understanding the problem of teacher quality in American schools. *Education Statistics Quarterly, 1(1).* Retrieved February 6, 2002, from http://nces.ed.gov/pubs99/quarterlyapr/2-feature/2-esq11-c.html

Ireland. (1995). *Charting our education future. White paper on education*. Dublin: Stationery Office.

Ireland. (1996). *Parliamentary Debates*, Dáil Éireann, *469*, (1).

Ireland. (1999). *Social Inclusion Strategy. 1998/99 annual report of the Interdepartmental Policy Committee.* Dublin: Stationery Office.

Ireland. (2000). *Report of the Joint Committee on Education and Science on the Availability of Teaching Staff in Primary Schools*. Retrieved February 6, 2002, from http://www.gov.ie/ committees-00/c-education/rep-staff/default.htm

Irish National Teachers' Organisation. (1995). *Promoting school attendance*. Dublin: Author.

Irish Refugee Council. (2001, November 15). *Beyond the pale: Asylum-seeking children and social exclusion in Ireland.* Retrieved January 15, 2002, from http://www.irishrefugeecouncil.ie/ pub01/ beyondthepalerep.html

Irish Traveller Movement. (n.d.). *Core campaigning issues: Education index.* Retrieved January 15, 2002, from http://www.itmtrav.com/education.html

Kellaghan, T. (1994). *Using the findings of research on school effectiveness for school evaluation.* Unpublished Manuscript.

Kellaghan, T., & Fontes, P. J. (1988). Gender differences in the scholastic self-concepts of Irish pupils. *Irish Journal of Education, 22,* 42–52.

Kellaghan, T., Weir, S., Ó hUallacháin, S., & Morgan, M. (1995*). Educational disadvantage in Ireland.* Dublin : Department of Education / Combat Poverty Agency / Educational Research Centre.

Lumsden, L. (1997). *Expectations for students*. Eugene, OR: ERIC Clearinghouse on Educational Management. (ERIC Document Reproduction Service No. ED 409 609)

MacGilchrist, B., Myers, K., & Reed, J. (1997). *The intelligent school*. London: Paul Chapman.

Malcolm, H., Thorpe, G., & Lowden, K. (1996). *Understanding truancy: Links between attendance, truancy and performance.* Edinburgh: Scottish Council for Research in Education.

Martin, M.O. (1979). Reading and socio-economic background: A progressive achievement gap? *Irish Journal of Education, 13,* 62-78.

Martin, M.O., & Hickey, B.L. (1993). A survey of the prevalence of pupils with disabilities and special needs in ordinary classes in primary schools. In Special Education Review Committee, *Report* (pp.243-289). Dublin: Stationery Office.

Martin, M.O., Mullis, I.V.S., Gonzalez, E.J., Smith, A.T., & Kelly, D.L. (1999). *School contexts for learning and instruction in IEA's third international mathematics and science study.* Boston: TIMSS International Study Center, Boston College.

McCormack, T., & Archer, P. (1998). Inequality in education: The role of assessment and certification. In CORI (Ed.), *Inequality in Education. The role of assessment and certification. Analysis and options for change* (pp.13-46). Dublin: CORI, Education Commission.

McRobbie, J., Finn, J.D., & Harman, P. (1998). *Class size reduction: Lessons learned from experience.* Retrieved January 8, 2002, from http://www.wested.org/policy/pubs/full_text/pb_ft_csr23.htm

Morgan, M., Hickey, B., & Kellaghan, T. (with A. Cronin & D. Millar) (1997). *Report to the Minister for Education on the International Adult Literacy Survey: Results for Ireland.* Dublin: Stationery office.

Mullis, I.V.S., Martin, M.O., Beaton, A., Gonzalez, E., Kelly, D.L., & Smith, T.A. (1997). *Mathematics achievement in the primary school years: IEA's third international mathematics and science study.* Boston : Center for the Study of Testing, Evaluation, and Educational Policy.

Mullis, I.V.S., Martin, M.O., Gonzalez, E., O'Connor, K.M., Chrostowski, S.J., Gregory, K.D., Garden, R.A., & Smith, T.A. (2001). *Mathematics benchmarking report TIMSS 1999 – Eighth grade achievement for U.S. states and districts in an international context.* Boston: International Association for the Evaluation of Educational Achievement.

Myers, D.G. (1993). *Social psychology.* New York: McGraw Hill.

National Council for Curriculum and Assessment. (1999). *Primary school curriculum: Introduction.* Dublin: Stationery Office.

National Economic and Social Forum. (2001). *Lone parents.* Forum Report No. 20. Dublin: Author.

Nolan, B., & Whelan, C.T. (1999). *Loading the dice? A study of cumulative disadvantage*. Dublin: Oak Tree Press.

O'Connell, J. (1998). *Travellers in Ireland: An examination of discrimination and racism.* Retrieved January 17, 2002, from http://www.paveepoint.ie/TinIpt1.htm

O'Connell, J., & Smith, S. (2000). *Capitalizing on small class size.* Eugene, OR: ERIC Clearinghouse on Educational Management. (ERIC Document Reproduction Service No. ED 440 430).

Patterson, L. (1991). Socioeconomic status and educational attainment: A multi-dimensional and multi-level study. *Evaluation and Research in Education, 5,* 97-121.

Ryan, S. (1999). *The Home-School-Community Liaison scheme: Summary evaluation report.* Dublin: Educational Research Centre.

School Attendance Committee. (1997). *Annual report for year ended 30 June 1997*. Dublin: School Attendance Department.

School Attendance Committee. (1998). *School Attendance Committees, Co. Borough of Dublin: Annual report for year ended 30 June 1998*. Dublin: School Attendance Department.

School Attendance Committee. (1999). *School Attendance Committees, County Borough of Dublin: Annual report for year ended 30 June 1999*. Dublin: School Attendance Department.

School Attendance Committee. (2000). *School Attendance Department, County Borough of Dublin: Annual report for year ended 30 June 2000*. Dublin: School Attendance Department.

Shanahan, T. (2001). Improving reading education for low-income children. In G. Shiel & U. Ní Dhálaigh (Eds.), *Reading matters: A fresh start* (pp. 157-165). Dublin: Reading Association of Ireland.

Shapson, S., Wright, E., Eason, G., & Fitzgerald, J. (1980). An experimental study of the effects of class size. *American Educational Research Journal, 17*, 141-152.

Smyth, E. (1999). *Do schools differ? Academic and personal development among pupils in the second-level sector.* Dublin: Oak Tree Press.

Sukhnandan, L., & Lee, B. (1998). *Streaming, setting, and grouping by ability: A review of the literature.* Slough, Berkshire: National Foundation for Educational Research.

Weir, S. (1999). *An analysis of the application variables used to select schools for the Breaking the Cycle scheme. Report to the Department of Education and Science.* Dublin: Educational Research Centre.

Weir, S., & Eivers, E. (1998). *The Breaking the Cycle scheme in urban schools: A report for 1996/97. Report to the Department of Education and Science.* Dublin: Educational Research Centre.

Weir, S., & Ryan, C. (2000). *Interim report on the Breaking the Cycle scheme in urban schools. Report to the Department of Education and Science.* Dublin: Educational Research Centre.

Willms, J. D. (1985). The balance thesis: Contextual effects of ability on pupils' O-grade examination results. *Oxford Review of Education, 11*, 33-41.