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INFORMAL TEACHING IN THE PRIMARY SCHOOL: CHARACTERISTICS AND CORRELATES

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A questionnaire on teaching approaches and practices was sent to a national sample of primary teachers at all grades in Irish national schools; 675 (or 66%) responded. Responses to the questionnaire were reduced to 25 variables, including 21 factor scores, which referred to curricular priorities and organizational practices in the classroom. With the exception of two variables (emphasis on basic skills in English and Irish) all referred to some aspects of informality. Responses were grouped by a cluster analysis, producing two final groups of teachers, one of which (n=312) outscored the other (n=363) on every aspect of informality. Teachers in the informal group were more likely to teach lower grades and to be in girls' schools. They were also more likely to be women than men. Certain specific aspects of informality were also linked with school size, class size, college of education attended, and teaching experience. Informal teachers placed a little less emphasis on some skills of written Irish and English in the lower grades.

The changes which began to be felt in primary education in this country in the late 1960s and which led eventually to the publication of the new curriculum handbooks for teachers (23) had a number of underlying themes which favoured a more informal style of teaching. Five, in particular, can be mentioned: children's rights, childhood as a cultural entity, the mind of the child, affective education, and functional education. To each of these themes there corresponds a slightly different meaning or emphasis for the terms 'formal' and 'informal' as they are now applied to teaching methods.

Aspects of informality

It is often asked nowadays whether the moral and even the legal rights of children are always fully respected in our society (33) and naturally the question has been posed whether schoolteachers fully respect the rights of children in the classroom. In this connection, the term 'formal' has come to mean 'authoritarian' for some authors. Elliott (14, p. 12) claims that this is the meaning which teachers give most readily

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to the term in descriptions of teaching style In advocating informality, therefore, what is often meant is greater respect for the rights of the pupils their rights to have their own opinions, to choose their own work, to use their own methods, and more generally, the right to take initiatives, including, at least to some degree, the initiative to move around the classroom and talk quietly to their classmates

A second theme, closely related to that of children's rights, is that of childhood as a unique cultural entity, a minority culture in effect, and perhaps one which has not been treated fairly (2) Again the traditional school teacher has been singled out as a possible offender Older teaching methods, it is alleged, treated childhood merely as a preparation for adulthood Nowadays student teachers are told that the first goal of primary education is 'to enable the child to live a full life as a child' (23, p 12), implying that the narrower goal of simply educating the child, in the usual sense, may lead the teacher to discriminate against important features of childhood culture The traditional games and folklore of childhood (8, 28) are brought to the attention of teachers, often with an implied criticism of the traditional curriculum for not including more of them More generally it is urged that the curriculum be implemented in a flexible, unobtrusive manner, so that children will always be able to behave like 'typical' children This recommendation is also an important aspect of the call for a more informal style of teaching

The third theme is the uniqueness of the child's mind Theories of primary education, professional and lay, now contain a considerable amount of child psychology Moreover, among the early proponents of informal styles of teaching there was a surprising consensus on what constituted 'the mind of the child' – a consensus, it must be added, which was never shared by child psychiatrists and psychologists (17) Children, it was claimed, have a global awareness of reality They see things in wholes, they relate everything to everything else, they have a vivid sensory and emotional life, they are typically extraverted, and they are most themselves when they act spontaneously Once again, central features of traditional teaching, in particular those features which suggested orderliness and abstraction, were interpreted as insensitivity towards children Even the division of the curriculum into separate subject-areas was described as self-serving, a joint product of adult egocentrism and laziness (23, p 19) From now on teaching would have to avoid adult 'formalisms' The teacher should be prepared to follow the trend of the child's thinking, moving from one subject area to another as necessary, and making the maximum use of classroom situations which arise spontaneously In terms of child psychology and teaching tactics, this is a large part of what was meant by informal teaching

A fourth theme is affective education. One of the most common criticisms levelled against the old curriculum was that it placed an excessive emphasis on cognitive development to the detriment of affective and imaginative development. Thus the repeated reference to 'the whole person' in the new curriculum was taken to mean that a new importance should be attached to the role of the arts and the humanities in primary education (7). From this point of view, 'formal' means 'cognitive' and a less formal curriculum would be one in which more time was found for poetry, music, painting, dancing, and drama, as indicated by the increased coverage of the affective domain in the handbooks (23). The opposition of the new curriculum to streaming, which is implied more often than it is stated openly, is also a reaction against an excessive emphasis of the older curriculum on the cognitive domain.

The fifth theme is functional education. Outside of educational circles the term 'formal education' probably suggests, first of all, a contrast between 'school' or 'book' learning and learning which takes place in a real-life setting. The criticism which is implied in the expressions 'book learning' or 'school learning' has had a major impact on curriculum development in our time. Its impact is most obvious in second-level education, where the themes of 'relevance' and 'education for life' have achieved a prominence which may already be excessive (25). But these themes also have an impact on primary education. Examples of such impact are the 'functional' approach to literacy, the use of mass media, the introduction of health education modules, and the increasing emphasis on the environment outside the school. As a result, informality of teaching methods also connotes a certain opposition to 'academicism' and a wish to make school learning, in whatever area, more like learning from direct experience.

Research on informal teaching

Here then are five important themes in the new curriculum for primary schools, each of which favours a style of teaching which is informal in one sense or another. Yet it is difficult to say whether teaching methods did in fact become more informal following the introduction of the new curriculum. Evidence began to accumulate in the late 70s, here and in Britain, that teachers were still teaching more or less as they always had done, dealing for the most part with the class as a unit, and using smaller groups not to encourage co-operation or discovery, but merely to bring the lesson in more detail to individual pupils (5, 19, 21). In this country, direct teaching, as defined in the Flanders method, was still the principle method used by young teachers in the mid-70s, and efforts to change it met with little success (22).

The finding that teachers still teach in the traditional manner is not necessarily incompatible with the impression that primary education is changing rapidly In a complete description of teaching one must distinguish between an *approach* to teaching and a teaching *technique* An approach is defined largely by priorities in terms of curriculum content, preferred resources, and general strategies of classroom management Technique, on the other hand, refers to the actual procedures used to put an approach into practice the style of exposition, the kind of questioning, and other details of the interchange between teacher and pupil [The distinction we are making between approach and technique is in broad agreement with that made by Galton, Simon, and Croll (19) between *aims* and *strategies* on the one hand, and *tactics* on the other] It is obvious that teaching technique cannot be adequately described without the use of observational methods An approach to teaching, on the other hand, might be adequately described, at least in general terms, by means of a self report or an interview

We would suggest that recent research has provided considerable evidence for the implementation of the new curriculum as an *approach* to teaching and very little evidence for its implementation as a teaching *technique* To some extent the authors of the handbooks anticipated such a development What they have produced, in effect, is a curriculum which embodies, in its content and emphasis, a very definite approach to teaching, but which is compatible with a wide range of techniques

Moderate to high levels of implementation of the new curriculum, as a general approach to teaching, have been consistently reported by studies based on self report In 1974 the Conference of Convent Primary Schools in Ireland surveyed its members, religious teachers working mostly in girls' schools, and found strong support for the new programme (11) Only 8% of the teachers favoured a return to the old curriculum Pupils were reported to be happier and on better terms with each other, with their teachers, with visitors, and with other classes in the school, all as a result of the new curriculum Large classes were singled out as the greatest obstacle to implementation In a survey conducted in 1975 the INTO also reported that its members were strongly supportive of the new programme (24) Large classes and poor buildings were mentioned as the main obstacles to implementation In a survey conducted by the Department of Education (16) implementation of the new curriculum, as estimated by school principals, was highest in small schools, in junior classes, and in classes with young teachers, though the principals themselves were more likely to be in agreement with the programme if they were in a large school In a cross border comparison, Dunn and

Morgan (12) reported that southerners, women, and Catholics scored highest on a measure of progressiveness based on questionnaire items favourable to child-centred education. The authors suggest that the debate about new methods in Great Britain might have been responsible for the more conservative attitudes in the north. Walshe (34) found that women teachers and younger teachers scored higher on items favouring informal methods but found no effect for attendance at inservice courses. In a study of sixth class teachers, Burke and Fontes (9) noted only a few differences between boys' and girls' schools: more time for mathematics in the former, more time for art and craft in the latter, and a tendency for teachers in boys' schools to favour more traditional methods in classroom management.

In this paper the results of a national survey of teaching approaches in primary schools are reported. The survey, like those done previously, is based on questionnaire responses. However, it concentrates on specific practices and priorities in selected curricular areas and, unlike some previous studies, includes all grade levels, from infant grades to sixth class.

METHOD

Sample

The sample consisted of teachers of all grades in a random sample of 160 national schools. The population of schools was stratified for type (infants, boys, girls, mixed) and size (1-3 teachers, 4-7, 8-12, 13+). The strata were filled according to the pattern shown in Table 1, which is a compromise between proportionate sampling and equal allocation (32, p. 111). Two larger schools from which no reply was received were replaced, as was a Dublin school which requested replacement on the grounds that it had just participated in a research project. In all, 4% of the teachers in the original sample were replaced.

Responses were received from 675 teachers, which is 66% of those contacted and 4% of the population. A description of the final sample is shown in Table 1. The sample may be considered as a random sample of teachers for our present purposes since the design effect (deff) does not exceed 1.5 for the variables under study (see Table 2). Unweighted data were used for contrasts between subpopulations, including strata. In the occasional estimation of population characteristics, data were weighted to equalize the sampling fraction within strata. Significance tests were based on an 'effective' sample size of n/deff (26, p. 259), which is in the order of 450 for the present data.

TABLE 1

SAMPLE RESPONSE RATE AND
ACHIEVED SAMPLING FRACTIONS (f)

	Size of School (Number of teachers)				Type of School
	1–3	4–7	8–12	13+	
Schools contacted	5	5	5	5	Infants
Teachers replying	12	24	28	39	
Response rate	1 00	83	55	46	
Achieved f	35	15	10	04	
Schools contacted	5	10	5	5	Boys
Teachers replying	10	39	41	58	
Response rate	71	80	93	63	
Achieved f	05	05	06	03	
Schools contacted	5	10	10	10	Girls
Teachers replying	7	31	62	90	
Response rate	47	61	68	59	
Achieved f	11	04	07	03	
Schools contacted	50	20	5	5	Mixed
Teachers replying	78	57	37	62	
Response rate	66	61	84	72	
Achieved f	02	02	05	07	

Total	
Schools contacted	160
Teachers replying	675
Response rate	66
Achieved f	04

Questionnaire

In October of 1979 an eight page questionnaire was posted to the teachers in the sample It contained over 200 questions about teaching approaches and related matters Teachers were asked about their qualifi cations and experience, and their practices concerning timetabling, the assignment of homework, the use of discovery methods, and the inte gration of subject areas These questions were asked for each of the 14 curricular areas mentioned in the handbooks for the new curriculum Special sections of the questionnaire dealt with teaching practices in Irish, English, and mathematics Teachers were also asked to evaluate their training and to give their interpretation of the new curriculum,

its priorities, the extent of its implementation, and its impact on academic achievement. These questions too were subdivided according to curricular area.

RESULTS

Classification of teaching methods

Teachers were assigned to groups using Ward's error sum of squares method (3, Ch. 6). No criterion of formality or informality was used. Teachers were grouped together if their responses to the questionnaire were similar in the least squared difference sense; they were placed in different groups if their responses were dissimilar. Prior to clustering, the questionnaire was divided into six sections dealing respectively with (i) organization of classroom and curriculum, (ii) Irish, (iii) English, (iv) mathematics, (v) history and geography, (vi) reported use of discovery methods, and (vii) attitudes towards the new curriculum. A principal components analysis was performed on the responses in each section and a sufficient number of factors was retained to account for at least 60% of the variance in the section. This produced a total of 21 factors, all of which referred to aspects of teaching practice. To these were added two composite variables recording (viii) amount of integration of subjects, summed over 14 curricular areas, and (ix) amount of freedom given to pupils to move around the class and to talk quietly to each other. Finally, two autonomous variables were added, (x) the percentage of time spent teaching the class as a whole and (xi) the number of textbooks in use in English reading.

Each questionnaire was therefore represented by 25 variables at the beginning of the clustering procedure. All variables, with two exceptions, were such that higher scores on them, after suitable reflection, indicated higher degrees of informality. The exceptions were two factors referring to the importance of basic skills in Irish and English. Since the new curriculum emphasizes the importance of basic skills, these variables were not used as indices of informality but were set aside for separate analysis.

The 23 aspects of informality used to classify the teachers are summarized in Table 2. The final classification of teachers produced two groups with a high degree of internal consistency, one group (n=312) outscoring the other (n=363) on all 23 variables, significantly so on twenty. We will refer to the former as the 'informal' group, and the latter as the 'formal' group. More complex classification, involving three or more groups, greatly increased heterogeneity within groups and was not considered further. To control for pupil age, the classification was repeated within

TABLE 2

PERCENTAGE OF VARIANCE EXPLAINED BY INDEPENDENT VARIABLES
CORRELATION (r) OF INFORMAL GROUP WITH ASPECTS OF INFORMALITY AND DESIGN EFFECTS (deff)

Dependent variables	Independent variables									
	Grade	Size of school	Type of school	Sex of teacher	Teaching experience	College of training	Class size	Total	r	deff
a Aspects of informality										
Organizational										
1 Integration of subject areas	0	0	4	1	0	0	0	5	29	94
2 Groupwork	1	0	0	0	0	3	0	4	15	1 47
3 Free movement/conversation	0	2	2	0	0	0	1	5	40	1 01
4 Number of textbooks in use	1	3	0	0	0	3	0	7	25	1 21
Irish priority/emphasis										
1 Poems drama speech	8	0	3	2	0	0	0	13	28	1 29
2 Music mass media	10	1	1	0	2	0	0	14	22	79
English priority/emphasis										
1 Self-expression	0	0	0	1	1	2	0	4	27	1 04
2 Poetry (composition) media	7	0	2	0	0	0	0	9	29	1 01
3 Stories read or told	20	0	0	1	0	0	0	21	19	1 10
4 Songs drama phonics	14	0	2	0	1	0	0	17	17	1 35
Mathematics										
1 Use of discovery methods	14	0	2	2	1	0	0	19	35	1 33
History and Geography										
1 Emphasis on local environment	0	0	0	0	2	0	0	2	21	72
2 Opposition to memorization	0	0	0	0	0	3	0	3	02	1 28

Table 2 — Contd.

Dependent variables	Independent variables									
	Grade	Size of school	Type of school	Sex of teacher	Teaching experience	College of training	Class size	Total	r	deff
Discovery methods: reported use										
1. In Environmental Studies	1	0	0	0	1	0	0	2	.09	.91
2. In Drama, Art,and Phys. Ed.	5	2	1	1	2	0	0	11	.34	1.18
3. In Irish, English, and maths	0	0	0	0	1	0	0	1	.23	1.17
4. In Singing and Music	0	0	0	0	0	0	0	0	.17	1.01
Opinions/Attitudes										
1. For: New Curriculum (a)	3	0	7	0	0	1	0	11	.45	1.26
2. For: New Curriculum (b)	0	0	0	0	0	0	1	1	.06	1.49
3. Against: marks, awards, tests	1	0	0	0	0	0	0	0	.09	1.31
4. Against: stricter discipline	0	0	0	0	1	0	1	2	.21	1.35
5. Against: academic emphasis	1	0	3	1	0	0	1	6	.21	1.14
6. Against: streaming	0	1	0	0	0	0	0	1	.15	1.32
All aspects (sum of above)	5	0	7	2	0	0	0	14	.65	1.20
b. Emphasis on basic skills										
1. Irish	20	0	1	1	0	0	0	22	−.27	1.07
2. English	10	0	1	0	0	0	0	11	−.16	1.02

(Non-significant percentages reported as zero.)

grade levels In 79% of cases the results coincided with the original classification, which was preferred on the grounds that it spans the entire population of primary teachers A summary quantitative index of informality was provided by adding the 23 variables (after standardization)

The chief characteristics of the informal group can be inferred from the specific aspects of implementation which correlate most highly with group membership, having controlled for grade (Table 2) They are freedom for the pupils to move around the classroom and to speak quietly to each other, use of poems and drama in Irish, use of poetry in English, use of discovery methods in maths, drama, art, and physical education, and positive attitudes towards the new curriculum

Correlates of informality

Informality, as measured by the 23 variables presented in Table 2, was related by regression methods to the following independent variables grade, size of school, type of school, gender of teacher, teaching experience, college of education attended, and class size The independent variables were entered into the regression equation in the order specified Size of school was entered as a continuous variable (i e , number of teachers in the school), as was grade, years of teaching experience, and class size The other variables were entered as categories by means of dummy variables

Percentages of variance accounted for m each aspect of informality, by each independent variable, are presented in Table 2 The usual correction to R^2 is applied (10, p 106) Non significant percentages are reported as zero

Grade Informal teaching is more common in the lower grades The percentage of teachers classified as informal is 64 in infant grades, 40 in 3rd and 4th grades, and 34 in 5th and 6th grades Aspects of informality which are less prevalent in the higher grades are grouping, the use of multiple textbooks, the use of poetry and drama in Irish, songs and drama in English, and discovery methods in maths, drama, art, and physical education Teachers in higher grades feel that the new curriculum can lead to time wasting and that pupils need more direction and discipline Aspects of informality which are more prevalent in the higher grades are the use of materials from the mass media in Irish and English

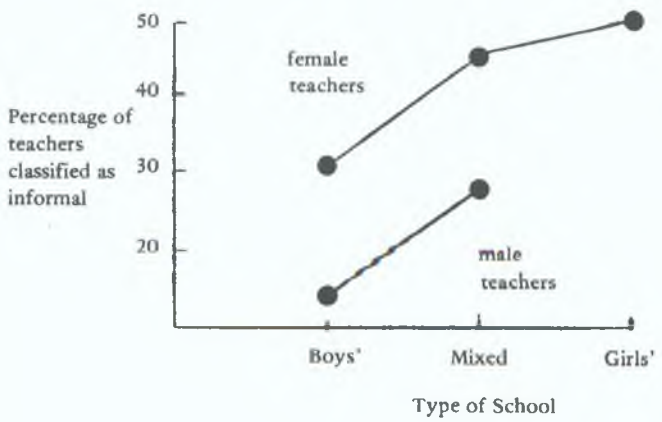
School size Freedom to move around the classroom and to speak to a classmate is more common in smaller schools as is the use of multiple text books and the use of materials from the mass media in Irish Teachers in smaller schools also express strong opposition to streaming On the other hand, the use of discovery methods in drama, art, and physical education is reported more frequently in larger schools

Type of school. Girls' schools score highest and boys' schools lowest on the following aspects of informality: integration of subject areas, freedom in the classroom, the use of poetry, drama, and music in Irish, the use of poetry, songs, and drama in English,and the use of discovery methods in maths, drama, art, and physical education. Teachers in girls' schools believe more strongly in the value of the new curriculum for personal development and place more emphasis on the pupils' happiness as opposed to their academic achievement.

Gender of teacher. Because of the presence of women teachers in boys' schools (n=43 in this sample), and men in mixed schools (n=75), teacher gender explains a small additional amount of variance after the removal of variance due to school type. Women teachers report a greater integration of subject areas, a greater emphasis on poetry, drama, and oral language in Irish, on self-expression and the use of stories in English, and on discovery methods in maths, drama, art, and physical education. Women teachers also feel more strongly than men that the happiness of the pupils is as important as academic standards. The relationship between the two gender-related variables in this analysis, gender of pupils in school and gender of teacher, is illustrated in Figure 1, which shows the percentage of teachers classified as informal in boys', girls', and mixed schools. As in the analyses reported above, the effects of grade level and school size have been removed. Infant classes were not considered.

FIGURE 1

INFORMALITY AS A FUNCTION OF
TYPE OF SCHOOL AND GENDER OF TEACHER



Teaching experience Older teachers report a greater use of music and the mass media in Irish and a greater emphasis on self-expression, songs, drama, and phonics in English They also report a greater use of discovery methods in environmental studies Younger teachers report a greater use of discovery methods in maths, Irish, English, drama, art, and physical education and a greater emphasis on the local environment in history and geography They also feel that there is too much emphasis on discipline in primary education

College of education attended Past students of some colleges of education are more informal in their approach to teaching than past students of other colleges The difference emerges in the use of groups and multiple text books, emphasis on self-expression in English, opposition to memor ization in history and geography, and general attitudes towards the new curriculum

Class size Teachers of larger classes report a lesser degree of freedom for pupils in the classroom They also have less favourable attitudes towards the new curriculum, they emphasize the importance of discipline, and they are not as strongly opposed to streaming as teachers of smaller classes

Emphasis on basic skills

Informal teachers place less emphasis on certain basic skills, reading and writing in Irish, and spelling in English The effect is largely confined to the lower grades, from second class down There is no difference between formal and informal teachers in the emphasis placed on handwriting and grammar in English or on oral skills in both languages Teachers in general place more emphasis on basic skills in the higher grades, but this is truer of boys' and mixed schools than it is of girls' schools Male teachers place more emphasis on basic skills in Irish than their female counterparts

DISCUSSION

The findings of this study confirm those of previous studies (11, 16, 24) which show that there is a widespread acceptance of the principles of the new curriculum in this country Moreover, they show that this acceptance constitutes an integrated approach to teaching, manifesting itself in a variety of quite different ways in organizational practices (integration of subject areas, relaxation of classroom discipline, use of several text books), in curricular emphasis (humanistic and affective content, use of materials from the mass media), in preferred approaches to subject areas (views on discovery methods, emphasis on basic skills), and in general attitudes to the new curriculum While some authors (1, 6) claim that a classification

of teaching approaches requires at least three categories, formal, informal, and mixed, a simple contrast between formal and informal approaches fits the present data best. An informal approach is adopted by about two thirds of the teaching population in the lower grades, and a formal approach by the remaining one third. The reverse is the case in the higher grades.

Two qualifications are necessary. In the first place, while informality exists as a distinctive approach to teaching, the data do not allow us to assess the 'fidelity' (18) of this approach to the model presented in the teacher's handbooks for the new curriculum. We cannot offer any figure to represent the degree to which the new curriculum has been implemented. All that the study establishes is that the population of teachers can be split into two fairly homogeneous groups, one of which is informal in its approach to teaching by comparison with the other.

Secondly, no conclusions can be drawn from this study about the prevalence of various teaching 'techniques', as we defined this term earlier, for example 'directive' versus 'non-directive' or 'questioning' techniques. We cannot say what techniques would be adopted by teachers in either group to bring about their stated goals and priorities; in fact, we cannot say whether there would be any difference between them in this regard. The only item of information in the present study which touches on teaching technique is the percentage of time spent by the teacher teaching the class as a unit and here the data show a high rate of didactic teaching both for formal and informal approaches, with only a marginal difference between the groups. Nothing in this study is therefore in conflict with those studies which have shown that traditional, didactic teaching is still the basic technique used by all teachers, both here and in Britain (5, 6, 21, 22).

The prominence of the informal approach in the lower grades is to be expected and has been reported before (16). It is true that basic skills must sometimes be emphasized with younger pupils. But while directive teaching methods would suit such concerns, any tendency towards formality with this age group is greatly outweighed by other factors operating in the opposite direction, such as the large affective content of the curriculum at this level and the degree of flexibility in classroom management which is demanded by current attitudes towards children of this age.

The fact that informality is greater in girls' schools, and greater also among women teachers when compared with men teachers in comparable

classes, is surprising This has not been reported before, with the exception of Dunn and Morgan's (12) finding that women, both here and in Northern Ireland, had more 'progressive' attitudes towards education than men It does not necessarily follow, however, that teachers in this country are unusual in any way Most English-speaking countries no longer have primary teacher populations which could reveal a relationship between teaching style and gender of teachers and pupils Ireland, on the other hand, is uniquely suited to reveal such a relationship since it has a large number of single-gender schools and also a large, if diminishing, number of male primary teachers, many of whom teach in mixed schools

Since mixed class groups, in almost all cases, occupied an intermediate position on the informality scales, we can talk about a relationship between informality and 'femininity' in a broad sense of that term, including both the gender of the teacher and the gender composition of the class group The relationship affects all aspects of informality, from organizational practices to curriculum content, which suggests that some prevailing gender typing favours informality when a woman is teaching girls and inhibits it when a man is teaching boys Whether such an explanation is encouraging or disturbing will depend on one's attitudes to informality itself Some authors have spoken of an excessive 'feminization' of certain aspects of the American primary school curriculum (4) and similar anxieties are implicit in the concern expressed in this country about the declining number of male teachers in primary schools In this connection it is worth noting that women teachers reported a greater increase in job satisfaction as a result of the new curriculum than their male counterparts (24) We will not discuss this issue further here, however, but will defer it to a later paper, in which the effects of informality on scholastic achievement will be presented (13)

While Walshe (34) reported greater acceptance for informality among younger teachers in Ireland, no consistent age effect was found in my study Some aspects of informality were more prevalent among younger teachers, other aspects among older teachers, but overall the effect was not large It would seem therefore that the new curriculum has won acceptance by endorsing attitudes and practices shared by teachers of all ages If 'traditional' is used as a synonym for 'formal', therefore, it should not be taken to imply that the formal approach is more prevalent among older teachers

Differences observed between colleges of education should be distinguished from the gender related differences reported earlier Because the latter are removed from the analysis before the former are tested, the

contrast between colleges is, in effect, a contrast between same-gender teachers who attended different training colleges. The most important finding is that women trained in some colleges are more informal in certain aspects of teaching than women trained in other colleges.

Understandably, teachers in larger classes cannot give pupils the degree of freedom to move around the classroom and to speak to each other which is possible in smaller classes. In view of the strong view of teachers that large classes constitute the major obstacle to the implementation of the new curriculum (11, 16, 24), the effect of class size might have been expected to be more obvious in the present study. On the other hand, the measures of informality used here are not particularly sensitive to such effects. They are based mostly on stated curricular priorities, which will probably remain constant as priorities, even if it is difficult to put them into practice in larger classes. It should be noted too that effects for class size were not tested in the present analysis until all other effects had been removed.

Finally, the study shows that the informal approach is associated with a slight lessening of emphasis on certain basic skills, reading and writing in Irish, and spelling in English. The effect is confined to the lower grades and no difference between formal and informal teachers was recorded for emphasis on handwriting and grammar in English or on oral skills in either English or Irish. The effect is larger in Irish than in English, which suggests that Irish is associated with 'formal' teaching in some of its pejorative senses. Certainly Irish, or indeed any second language, poses a problem for educators who are intent on maximizing the continuity of life within the school with life outside it. The fact that informal teachers do not place any less emphasis on oral skills (in Irish or in English) than their formal counterparts is probably due to the movement away from written language in the new curriculum and, more generally perhaps, to the functionalism which is inherent in the informal approach.

In summary, informality in all of the senses outlined in the introduction exists as an integrated approach to primary education in this country. It includes relaxed classroom discipline, integration of subject areas, emphasis on the humanities and affective education, concern about the autonomy of childhood as a cultural entity, the use of discovery methods, and a functional as opposed to an academic approach to language learning. The informal approach is generally associated with the lower grade levels, with girls' schools, and with women teachers. Specific aspects of informality can be linked with school size, class size, college of education attended, and teaching experience. Finally, in the lower grades informal teachers place less emphasis on certain skills of written Irish and English.

In conclusion, a brief comment is necessary on the use of questionnaires in this study A limitation is acknowledged by speaking only about approaches to teaching and not about techniques of teaching However, since teaching approaches, as assessed through self report, cannot be linked with any particular technique of teaching, they are dismissed by some authors as purely attitudinal or ideological variables which are largely irrelevant in educational research because they lack any firm foundations in behavioural observations (15, 19) It is not necessary here to join the debate concerning the relative merits of observational research and research based on self-report A very general point may, however, be made It is not the closeness of a research variable to observational data which determines its scientific usefulness, but its capacity to shed light on the causal structure of the phenomenon under study On this score, it has long been known that teachers' self descriptions, especially when they are global, are more reliable in the psychometric sense and more closely related to pupil attainment than the frequency-counts used in observational research (30, 31) In any case, the assumption which underlies most criticisms of self report, that it is a poor form of observational research, is clearly false Questionnaires on teaching methods, including that used in the present study, hardly ever ask questions which could be answered more reliably by observation They enquire directly about the teachers' priorities and only rarely do they attempt to ascertain the methods used to put them into practice In a word, they ask about approach rather than technique

Of course it is legitimate to ask how useful such questions are For example, teachers who wish to learn better techniques are not greatly helped by research on teaching approaches Indeed, from their perspective such research often appears polemical and unconstructive (15, 35) But it would be wrong too to think of teachers as pure exponents of one technique rather than another, unaffected by approaches in our sense Indeed a large part of a teacher's training is nothing other than the discussion and evaluation of approaches to teaching, one in particular in recent years, the 'informal' approach as we have been calling it As is noted in a recent study, 'the formal informal, traditional progressive debate continues to represent one of the more popular ways of speculating on the effectiveness of teachers, regardless of the cautions of researchers to the contrary' (20, p 196) The speculation, however, has often been lacking in clarity, particularly on the characteristics of informal teaching (6, 27, 29) It is hoped that the present study, which validates the basic contrast between formal and informal teaching approaches, will also help to describe these approaches in more detail, distinguishing them from techniques of teaching and establishing the principal forms they take in

this country and the factors which seem to favour their adoption. In a later paper I will examine the effects of teaching approach on pupil achievement in Irish and English (13).

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