



The theoretical beliefs of effective teachers of literacy in primary schools: an exploratory study of orientations to reading and writing

Louise Poulson, Elias Avramidis, Richard Fox,
Jane Medwell and David Wray

ABSTRACT

Raising standards of literacy has become a key issue for education policy in many countries. A critical factor in any attempt to improve education is the quality and consistency of teaching: thus there has been an increasing interest in teachers themselves. This has included not only what teachers do, but also what they know and believe; and how teachers' knowledge and beliefs relate to classroom practice.

This paper reports an exploratory study of the theoretical beliefs of a sample of 225 British primary school teachers who were identified as successful in teaching literacy. The research took place in England between 1996 and 1998. Its main aim was to examine the characteristics of effective teachers of literacy – in particular their background, experience, professional development, knowledge, beliefs and classroom practice – and to compare them with a sample of 71 primary teachers who represented the range of effectiveness in literacy teaching. The findings of this study indicated differences in theoretical orientation to literacy within the effective teacher sample, according to the type of teacher training course taken, the number of years' experience of teaching gained after qualifying, and the highest level of professional qualification. There were also differences in theoretical orientation between the effective teachers and the comparison sample. The paper concludes that these differences in beliefs about literacy and its teaching have implications for policy and professional development.

Keywords: teachers' beliefs; literacy; effective teachers

Louise Poulson is Senior Lecturer in Education, University of Bath; Elias Avramidis is Research Fellow, University of Exeter; Richard Fox is Senior Lecturer in Education, University of Exeter; Jane Medwell is Lecturer in Education, University of Warwick; and David Wray is Professor of Education, University of Warwick.

BACKGROUND

Raising standards of literacy is usually considered to be crucial to the achievement of a high-skills economy, now regarded as necessary for nations to compete successfully in global markets. Thus improving the teaching and learning of literacy has been high on the education policy agenda in many parts of the world. In a number of countries, such as the USA, UK and Australia, a focus on learning outcomes in literacy has led to ambitious programmes of curriculum reform, professional development, or a combination of both (Westwood *et al.*, 1997). In the USA, the *Success for All* programme (e.g. Slavin *et al.*, 1994) has been adopted in a number of states; it has also influenced developments elsewhere such as in the UK, Canada, Australia, Mexico and Israel (Beard, 1998, p. 12). Key features of this programme are a highly structured, externally developed curriculum; the use of direct interactive teaching; and systematic teaching of phonics. In Britain, the National Literacy Strategy has adopted these features within its *Framework for Teaching* (DFEE, 1998). Slavin (1996) argued that using a ready made, structured programme, based on research evidence of what seems to work, freed individual teachers and schools from the necessity of, metaphorically, reinventing the wheel; and enabled them to concentrate on teaching. Although the arguments for using externally devised curricula and pedagogies appear seductively logical, there are also potential problems: primarily because these curricula and teaching methods are external. The teachers and schools who are key agents for change have no real stake in the success of new curricula or teaching methods. As teachers themselves are central to any attempt to improve the teaching of literacy in order to raise standards, this is an important issue.

However, it is over-simplistic to assume that specifying certain kinds of knowledge and pedagogy for all teachers will result in an increase in student achievement. A growing body of research on teachers' cognition, suggests that it is not only behaviour in the classroom which influences students' learning, but also teachers' knowledge (both formal and practical),¹ values, beliefs, theories and thought processes which are important. Interest in teachers' cognition, and its relationship to classroom practice, has coincided with an increasing concern with educational outcomes, accountability and the effectiveness of individual teachers and schools. The important role of teachers' beliefs in mediating the extent to which they will adopt innovations in curriculum or pedagogy, or accept advice and support from external sources, has been highlighted by a number of educational researchers (e.g. De Ford, 1985; Fullan, 1991; Richardson *et al.*, 1991; Westwood *et al.*, 1997) They have pointed out that ignoring teachers' beliefs in implementing innovations can lead to disappointing results in the longer term.

The aim of the research reported in this paper was to examine the characteristics of a sample of British primary school teachers who were identified as effective in teaching literacy. Given the developing body of research on teachers, and the centrality of their role in the government's stated aim of raising standards of literacy, we investigated effective teachers' educational background, teaching experience, professional development; and also their knowledge, beliefs and classroom practices. The study took place in England between 1996 and 1998: a time when there was considerable concern about ways of improving literacy teaching in British primary schools; and much debate about, and investigation of, the best ways of doing so. Here we report on part of the study which examined effective teachers' theoretical beliefs about the teaching and learning of literacy; and compared them with those of a sample of teachers which included the range of effectiveness in teaching literacy.

RESEARCH ON TEACHERS' BELIEFS

Although teachers' beliefs and values, and their relationship to classroom action, are increasingly coming to be accepted as an important dimension in understanding teaching, it is an area of research in which there has been considerable diversity of approach. Part of the problem has been that beliefs, and their relationship to knowledge,² have been defined in different ways by educational researchers. Some researchers, usually within a psychological perspective (e.g. Kagan, 1990), assume beliefs and knowledge to be the same; whereas others, often with an interest in philosophy and epistemology (e.g. Fenstermacher, 1994), have drawn a distinction between them. A further challenge has been the fact that teachers' beliefs and values are often implicit and not easy to access directly. The relationship between beliefs and practice is complex: it appears to be dialectical rather than unilateral, in that practice does not always follow directly from beliefs; and, sometimes, changes in belief may come after, or as a result of, change in practice. In an overview of research on the relationship between teachers' beliefs and practice, Fang (1996, p. 52) identifies the 'consistency thesis' as dominating much of this work. He points out that researchers have reached varied conclusions about the degree to which teachers' beliefs and practice are consistent. He also points out that in research on reading, a substantial number of studies support the notion that teachers possess theoretical beliefs towards reading; and that such beliefs tend to shape the nature of their teaching (e.g. Harste and Burke, 1977; De Ford, 1985; Richardson *et al.*, 1991). However, other studies (e.g. Bennett, *et al.*, 1984; Desforges and Cockburn, 1987) highlight apparent inconsistency between teachers' stated beliefs, intentions, and their observed classroom practice. Duffy and Anderson, (1984) suggest that although there may be some congruence between practice and beliefs, the relationship is not strong.

Pajares (1992, p. 326) warns that regarding teachers' educational beliefs as detached from, and unconnected to, broader belief systems and values, is 'ill-advised and probably unproductive'. Drawing on the work of Munby (1982, p. 216), he suggests that when teachers' beliefs about a particular subject are inconsistent with their practice in that area, it may be that different and weightier beliefs are the cause. Pajares argues that it is important to think of connections among beliefs, instead of beliefs as independent sub-systems. Apparently inconsistent findings can become clearer and more meaningful when educational beliefs are carefully conceptualized, and their implications seen against the background of a broader belief system.

It is also important to bear in mind that teachers' beliefs and values are not only individual and personal; they also have a socio-historical dimension, and are shaped, in part, by time, context and circumstance. Duffy and Anderson (1984) argue that while teachers might be able to articulate their beliefs outside the classroom, their actual practices were often governed by the nature of teaching and classroom life. Fang's review (1996, p. 54) also points out that a range of research (e.g. Davis *et al.*, 1993) has shown that differences in the degree of consistency between beliefs and practice also stemmed from the diverse contexts in which teachers worked, and the constraints which these imposed: for example, school climate; or the need to follow national, state and local district policies and mandates. Fullan and Hargreaves (1994) outline a number of contextual factors which help to shape teachers' beliefs and values. These include the times when they train and enter the profession, and the dominant values of those times; the particular stage of their career, and the degree of confidence in their own teaching. A further factor, highlighted by Alexander (1992), is that people may be reluctant to express unpopular beliefs – particularly ones that seem to be counter to current thinking and official policy, particularly if career progress is perceived to be associated with allegiance to particular beliefs.

However, Pajares (1992) maintains that, overall, despite the theoretical and methodological diversity in studies of teachers' beliefs, the research literature does suggest that teachers' educational and pedagogical beliefs and values influence their classroom practice and teaching decisions. But he also cautions that researchers need to examine and make explicit their assumptions, and operational definitions of teachers' beliefs in order to make clearer what has been considered to be a 'messy construct' (*ibid.*, p. 329).

METHODOLOGY

The complexity of teachers' beliefs has also led to methodological diversity in their study. Pajares (*ibid.*) argued that if reasonable inferences about beliefs required assessments of what individuals say, intend and do, then teachers' verbal expressions, predisposition to action, and teaching behaviour must all be included in their study. Although Munby (1984) suggested that qualitative methodologies were especially appropriate to the study of beliefs, the choice of qualitative or quantitative approaches would ultimately depend on what researchers wished to know (Pajares, 1992, p. 327). Reviewing research on teacher cognition, Kagan (1990) argued that many studies of teacher beliefs were strongly embedded in a specific context; and while they had a high degree of internal validity, they were small in scale (usually between 1 and 12 subjects) and often appeared 'to be so context or teacher-specific that generalization seems risky' (p. 420). Wideen *et al.* (1998, p. 144) also pointed out that a difficulty in reaching a cohesive picture of the role of teachers' beliefs lies in their situated nature. They also remarked that while a high degree of contextualization in terms of methodology, and in reporting, contributed to the validity of such studies, it made comparisons and cross-generalizations problematic. In other words, internal validity may be achieved at the expense of external validity.

Notwithstanding the reservations indicated above regarding highly contextualized, qualitative studies, three substantial reviews of literature on teachers' beliefs (Kagan, 1990; Pajares, 1992; Fang, 1996) have also highlighted the problems in using other approaches, such as self-report instruments. However, Pajares (*ibid.*, p. 327) does suggest that the use of belief inventories can help to detect inconsistencies and areas that merit attention, but that additional measures such as interviews, responses to dilemmas or vignettes, and observation of behaviour should be included, if richer and more accurate inferences are to be made. What agreement there is on ways of studying teachers' beliefs suggests the desirability of multi-method approaches, using a range of tasks and instruments to elicit teachers' beliefs; and the triangulation of data from these multiple sources.

In designing the study reported in this paper, it seemed appropriate to take account of the conclusions of Pajares, Kagan and Fang about ways of investigating teachers' beliefs, and their relationship to classroom practice and educational outcomes. Thus the research design incorporated a range of methods. Together these constituted what Denzin and Lincoln (1994), drawing on Levi-Strauss, identified as bricolage. The bricoleur assembles different facets of a problem, drawn from a range of sources, which together provides a more detailed picture. In this case, elements of the bricolage included personal and situational data from a survey of a large sample of primary school teachers identified as effective at teaching literacy, and from a comparison sample of primary teachers which included the full range of effectiveness; observation of lessons; interviews with teachers and headteachers; and the completion of tasks related to aspects of literacy teaching. However, the focus of this paper is on teachers' theoretical beliefs about the teaching and learning of literacy, conceptualised as theoretical orientation.

Harste and Burke (1977) defined theoretical orientation in reading as particular knowledge and belief systems held about reading: the philosophical principles that guide teachers in their decision-making.

THE INSTRUMENT

Within an extensive questionnaire survey covering a range of personal and situational variables, we included a section which probed teachers' theoretical beliefs about literacy teaching and learning. Rather than investigate the range and diversity of individual teachers' beliefs in the survey, we wanted to examine whether there were any clear patterns of orientation to dominant philosophies of, and approaches to, literacy teaching; and also whether there were any differences between the effective teachers of literacy and a comparison sample. Individuals' beliefs and values, and the relationship between beliefs and practice, we intended to examine through observation, interview and through the completion of tasks.

In designing the section of the questionnaire related to teachers' beliefs, we drew on existing research literature on teachers' theoretical orientation. De Ford (1985) had already constructed a theoretical orientation to reading profile (TORP), which was validated through a multi-method process of analysis. This instrument had also been used extensively by other researchers in North America (e.g. Richards *et al.*, 1987; Levande, 1990; Mergendoller and Sacks, 1994; Ketner *et al.*, 1997). De Ford identified three clusters of theoretical orientation to reading which reflected differing degrees of emphasis on three levels of language or discourse: sub-word, word and sentence, and thirdly text-level features. The first was bottom-up, focusing on sub-word and word-level units first, and then working up to text; then, once the foundation in sound/letter correspondence had been established, teaching activities increasingly centred on comprehension and fluency. This was described by De Ford (1985) as a 'phonic' orientation. The second orientation emphasized building up an adequate sight vocabulary in reading, and skill in recognizing whole words. New items were introduced in context; and while sound/letter correspondence was evident, it tended to concentrate on initial and ending consonants. Word attack skills, such as breaking down and building up words, were also emphasized (e.g. affixes, compound words, use of context cues). The quality of reading material improved with increases in vocabulary. This De Ford (*ibid.*) termed a 'skills' orientation. The third of these was top down, and focused on the provision of good quality literature from the outset; with an initial emphasis on developing a sense of story and text as a framework for dealing with smaller units of language such as words and segments of words. Such an orientation placed emphasis on students' own writing and the experience of shared reading. This third orientation was termed 'whole language'. De Ford's instrument consisted of a total of 28 statements, divided more or less evenly between the three orientations. Teachers whose practice appeared to be consistent with one of these orientations would be more likely to agree with statements related to that position.

For the purposes of our study, the De Ford TORP appeared to offer a useful initial way of exploring teachers' theoretical orientations to literacy within the questionnaire survey. Since we began this research, other instruments have been developed to measure teachers' beliefs about literacy and their relationship to practice: for example the Teachers' Beliefs About Literacy Questionnaire (TBALQ) reported by Westwood *et al.*, (1997); and Lenski *et al.*'s (1998) Literacy Orientation Survey (LOSS). As the examination of teachers' theoretical orientations formed only one section of a lengthy questionnaire, and its purpose was to identify any general patterns

within a fairly large sample of teachers, to be further explored through interview, observation and the completion of literacy related tasks, the original instrument was modified. Thus from the original TORP statements, six items relating to beliefs were chosen. A further six statements were selected, or rewritten, to represent the practical action a teacher would be likely to take if he/she had a particular orientation; and these were presented separately. Some items from the TORP were re-worded using terminology more familiar to British teachers.

As the TORP had investigated only orientations to the teaching of reading, a parallel set of three pairs of statements relating to the teaching of writing was devised which reflected the three identified theoretical orientations. In devising these, we examined research and professional literature on writing development and instruction, and drew upon on statements generated by teachers during in-service courses. The first orientation was concerned with word-level and presentation features in writing, such as spelling and handwriting; this was termed 'presentation' orientation. The second prioritized understanding of writing as communication, engagement in the writing process and whole text composition: this was termed a 'process' orientation. The third orientation reflected a concern with vocabulary choice, sentence organization, and the importance of learning the relationship between purpose, form and structure in writing: this was termed a 'forms' orientation. Again, for each of these hypothesized orientations, two teaching activities were suggested which would be consistent with each one. Strength of agreement or disagreement with each of the 12 items for both reading and writing was measured using a Likert scale which offered the following choices: strongly agree (1); agree (2); neutral (3); disagree (4); and strongly disagree (5).

Modifications to the original De Ford TORP had already been used in a previous study investigating changes in student teachers' beliefs about the teaching of reading (Wray and Medwell, 1993); and were also piloted with a smaller sample of teachers who were interviewed and classroom practices observed. On both occasions, the instrument provided reliable scores. Although it could be argued that changes to the original instrument had weakened the construct validity of the TORP, we felt that these changes reflected the focus on literacy (as opposed to reading) in this study. A further point is that we were not using the instrument to predict, or make firm claims about, the sample's classroom practice. It was used to explore the patterns of theoretical orientation within a relatively large sample of effective teachers, and to compare them with a sample of mathematics co-ordinators in similar primary schools. The patterns emerging from the questionnaire data would then provide a basis for further exploration through interview and observation. A further point, indicated earlier, was that the theoretical orientation profile was only one section in a much longer questionnaire, and we did not wish to discourage respondents from completing all the items. Indeed, the return rate for the questionnaire was relatively good for a postal survey (59 per cent of effective teachers, and 47 per cent of comparison sample); and, most important, there were few missing values within the TORP item data. (The items included in the modified TORP can be found – although not in the same order – in Tables 3 and 4. The whole instrument is available from the authors on request.)

SAMPLING

As there was no obvious sampling frame from which to choose effective teachers of literacy, we used a three-stage process to identify an appropriate sample. The first step was to ask for nominations from local education authority (area) advisers or inspectors in 14 localities. These localities included a range of geographical areas in England (our study was limited to teachers

in England) such as, north, south, midlands, west and greater London; areas with different demographic patterns (for example, urban, suburban, rural) and school types (such as small schools, large combined primary schools and separate infant and junior schools). Through this process, we drew up a list of over 600 teachers, recommended as effective. Aware of the limitations of selecting a sample based only on personal recommendation, we also checked available external data sources on the recommended teachers and schools for evidence of effective literacy teaching. These included inspection reports, national curriculum assessment (SAT) results, value-added data from previous research, and OFSTED and LEA databases. Only those teachers for whom there was adequate evidence of effectiveness, from a range of sources, were retained. The next step was to contact the schools in which these teachers worked, and ask the headteacher whether she/ he agreed that the person in question was effective at teaching literacy; and whether there was objective evidence to support their opinion. The key issue was whether the headteachers could supply additional evidence of above average pupil learning gains in the classes taught by these teachers (such as standardized test scores for at least two years). Satisfactory answers to the two questions led to inclusion in the final sample of 382 effective teachers, to whom the questionnaire survey was sent. In some cases, there was more than one effective teacher in a particular school.

In addition, we also identified a comparison sample of teachers which included the full range of effectiveness. For ethical and practical reasons, we decided not to identify a sample of ineffective, or less effective, teachers. The sampling frame we used was mathematics co-ordinators in the same schools as the effective teachers, or in similar schools in the same localities. In this way, 150 mathematics co-ordinators were selected. The purpose of the comparison sample was to check whether characteristics identified among the effective teachers of literacy might also be found among teachers who represented the full range of effectiveness. We chose the mathematics co-ordinators because they were less likely to be subject specialists in English/literacy. However, it is worth noting that as many of the mathematics co-ordinators worked in the same schools as the effective teachers of literacy and it is possible that this had an effect on the overall quality of the comparison sample's literacy teaching.

Completed questionnaires were returned by 225 of the effective teacher sample (382 were sent out) which represented a return rate of 58.90 per cent; and by 71 of the mathematics co-ordinators (150 were sent out): a return rate of 47.33 per cent. Background details of the two samples are outlined in Table 1

The specific questions addressed in analysis of the questionnaire data relating to theoretical orientation were as follows:

- 1 What were the theoretical orientations of the effective teacher and mathematics co-ordinator samples, as measured by the TORP; and what were the differences, if any, between the two groups?
- 2 Were there any differences in theoretical orientation within the sample of identified effective teachers according to years' teaching experience, level of academic qualifications, or type of degree course or training?

Analysis of the data was conducted using both descriptive and inferential statistical tests. Findings are presented below.

Table 1: Gender, age and teaching experience of the participants

	Effective teachers		Comparison sample	
	Frequency	%	Frequency	%
Gender				
Male	11	4.9	16	22.5
Female	210	93.3	54	71.1
Missing Values	4	1.8	1	1.4
Age				
23–29	23	10.2	11	15.5
30–39	39	17.3	11	15.5
40–49	121	53.8	38	53.5
49+	40	17.8	11	15.5
Missing Values	2	.9		
Teaching Experience				
1–5 years	28	12.4	12	16.9
1–10 years	36	16.0	11	15.5
10+	159	70.7	48	67.6
Missing Values	2	.9		
Total	225	100.0	71	100.0

FINDINGS

Theoretical orientation

Correlational analysis

As indicated earlier, the modified TORP instrument used in the study comprised six Likert-type statements. Each of the three theoretical orientations towards the teaching of reading was represented by two of them; and the three theoretical orientations towards the teaching of writing were each represented by another two statements (a total of 12 statements). It was important to examine at the outset whether there were similar patterns of response for each of the six orientations. For this purpose, correlations between the pairs of statements representing particular orientations were calculated for the whole sample of teachers. The full correlation matrices for both the reading and writing orientations are given in Tables 2a and 2b.

As indicated in Tables 2a and 2b, all the items reflecting similar orientations were statistically significant at the .01 level of confidence. That is, a similar pattern of response was given to each of the statements designed to investigate a particular orientation. It should be noted that one of the items designed to reflect the skills/word orientation was found to be also associated with an item reflecting a phonic orientation. However, there was no expectation that any of the six theoretical orientations represented by the modified TORP instrument would be mutually exclusive. Given that the two skills/word items were taken from the original TORP instrument, it was decided that they could also be taken together as a pair both for the presentation of the

Table 2a: Correlations between items designed to represent reading theoretical orientations

	Phonic 1	Phonic 2	SkillWrd1	SkillWrd2	WhoLan.1	WhoLan.2
Phonic 1	1.00	.54**	.28**	.34**	-.18**	-.17**
Phonic 2		1.00	.30**	.28**	-.16**	-.19**
SkillWrd1			1.00	.29**	-.08*	-.11
SkillWrd2				1.00	-.10	-.13*
WhoLan.1					1.00	.31**
WhoLan.2						1.00

Table 2b: Correlations between items designed to represent writing theoretical orientations

	Pres. 1	Pres. 2	Proc. 1	Proc. 2	Forms 1	Forms 2
Pres. 1	1.00	.34**	-.15*	-.22**	-.12*	-.19**
Pres. 2		1.00	-.13*	-.19**	-.01	-.14*
Proc. 1			1.00	.24**	.17**	.22**
Proc. 2				1.00	.23**	.21**
Forms 1					1.00	.39**
Forms 2						1.00

Note: * Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

participants’ responses, and for the subsequent analysis. It is to the descriptive presentation of the participants’ responses that we first turn.

Descriptive statistics

The mean responses of both groups to each of the attitude statements are given in Table 3. Statements designed to reflect similar theoretical orientations were grouped together, and the first column of the table gives details of these orientations. Low mean responses represent agreement with the statement and high mean responses disagreement.

Table 3 indicates that the effective teachers appeared to be inclined towards a whole language orientation to the teaching of reading. Their responses indicated that they tended to give emphasis to students making sense of texts; and that they believed authentic texts should be used as the principal reading material rather than decontextualized sentences, or words. (See their responses in the items representing the whole language orientation.) Although the effective teachers of literacy appeared to agree with a statement about the importance of spelling and letter sounds, they placed less emphasis than the comparison group on the importance of children’s use of sound-symbol correspondences in decoding new words (see their responses to the items

Table 3: Mean responses of both teacher groups to each statement

Theoretical orientation	Statements	Effective			Comparison		
		N	M	SD	N	M	SD
Phonic	When children do not know a word they should be instructed to sound out its parts.	203	2.67	1.18	68	2.01	.89
	Phonic analysis (that is breaking a word into its sounds) is the most important form of analysis used when meeting new words.	215	3.24	1.18	70	2.49	1.11
Skills/word	It is necessary to introduce new words before they appear in a child's reading book.	212	3.67	1.21	71	3.44	1.08
	It is important for a word to be repeated a number of times after it has been introduced to ensure that it will become part of a child's sight vocabulary.	217	1.87	1.19	71	1.46	.67
Whole Language	When coming to a word that is unknown, the reader should be encouraged to guess a meaning and carry on.	212	2.03	.94	70	2.44	1.10
	If a child says 'house' for the written word 'home', the response should be left uncorrected.	212	2.46	1.11	70	2.90	1.33
Presentation	It is important to correct children's spellings as they write.	206	3.47	1.12	68	3.10	1.12
	Fluent, accurate handwriting is a very high priority in early writing teaching.	218	3.93	1.06	70	3.17	1.32
Process	If children have spelt a word wrongly but their attempt is clearly logically based it should usually be left uncorrected.	200	2.63	1.10	66	2.83	1.17
	In the early stages, getting children to be confident in writing is a higher priority than making sure they are accurate.	220	1.38	.74	71	1.39	.57
Forms	Most children's writing should be for audiences other than the teacher.	213	2.11	.97	71	2.13	.92
	Young writers should choose their own reasons for writing.	211	2.56	.99	70	2.57	1.00

representing the phonic orientation). Although both groups tended to disagree with the statement that young readers should be introduced to new words before meeting them in context in a book, both effective teachers and mathematics co-ordinators agreed that repetition of words was important in early reading. Indeed this item had the highest level of agreement of all the items; with the comparison sample appearing to agree more strongly than the effective teachers. This suggests a strong emphasis on building up young readers' sight vocabulary (see the responses of both groups in the items representing the skills/word orientation). Finally, regarding the respondents' theoretical orientations towards the teaching of writing, the effective teachers of literacy appeared to disagree with prioritizing presentation features in the teaching of writing, whereas the comparison group appeared to be neutral about this (see their responses in the items representing the presentation orientation). Interestingly, similar patterns of response were given by both groups to the items representing the process and forms orientations to writing.

As we have noted already, there was no expectation that any of the six theoretical orientations represented by the modified TORP instrument would be mutually exclusive. Nevertheless, the patterns of responses presented in the descriptive Table 3 require further scrutiny and it is to the statistical analysis of these that we turn next.

Multivariate Analysis of Variance (MANOVA)

To make statistical comparisons between the two samples (effective-comparison), items which reflect the same theoretical orientation were grouped together, resulting in six composite scores (six dependent variables). A one-way MANOVA was then performed to test for differences between effective teachers and the comparison sample in the three theoretical orientations to the teaching of reading (phonic, skills/word and whole language); and another one-way MANOVA was performed for the remaining three orientations related to the teaching of writing (presentation, process and forms).

Analysis of the effective teachers and the comparison sample in the three theoretical orientations relating to reading indicated a multivariate effect $F(3,252) = 10.87, p < .001$. Univariate analysis revealed that the multivariate difference was due to differences between the effective teachers and the comparison sample in all three orientations. In the phonic orientation $F(1,265) = 27.84, p < .001$; in the skills/word orientation $F(1,278) = 6.8, p < .01$; and in the whole language orientation $F(1,274) = 10.04, p < .001$ (see Table 4).

Examination of the above mean scores (Table 4) indicates that the comparison sample appeared to agree with statements which reflect a phonic and a skills/word orientation. By contrast, the effective teachers appeared to be neutral towards these two orientations (with the

Table 4: Mean scores of the effective teachers and the comparison sample for the three theoretical orientations relating to reading

	N	Phonic	Skills/word	Whole Language
Effective teachers	225	N = 200 2.94	N = 209 2.77	N = 206 2.23
Comparison sample	71	N = 67 2.21	N = 71 2.45	N = 70 2.67

Table 5: Mean scores of the effective teachers and the comparison sample for the three theoretical orientations relating to writing

	N	Presentation	Process	Forms
Effective teachers	225	N = 206 3.70	N = 199 2.00	N = 207 2.34
Comparison sample	71	N = 67 3.14	N = 66 2.12	N = 70 2.35

exception of the item relating to building up sight vocabulary), and more inclined towards whole language. Analysis of differences between the effective teachers and the comparison sample in the three theoretical orientations relating to writing, also indicated a multivariate effect $F(3,247) = 6.88, p. < .001$. Univariate analysis revealed that the multivariate difference was due to differences between the effective teachers and the comparison sample in the presentation orientation ($F(1,271) = 19.30, p. < .001$ (see Table 5).

Examination of the above mean scores (Table 5) indicates that both the effective teachers and the comparison sample agreed with the process and forms orientations towards the teaching of writing. However, in relation to the presentation orientation, while the comparison group could be characterized as neutral ($M = 3.14$), the effective teacher group appeared to disagree ($M = 3.70$).

Teaching activities

Descriptive statistics

As outlined earlier, the questionnaire included another list of 12 teaching activities representing the three theoretical positions relating to the teaching of reading and the three theoretical positions relating to the teaching of writing. The respondents were asked to rate each teaching activity on a five-point Likert scale according to their views about its likely usefulness in teaching reading and writing. Low mean responses represent agreement with the usefulness of the activity and high mean responses disagreement with its usefulness. The mean responses of each group to each of the teaching activities are given in Table 6.

As seen in Table 6, the effective teachers of literacy rated favourably teaching activities that focused upon communication and composition. For example, although they agreed with the activity which involved students sounding out the parts of an unknown word, they did not rate favourably the activity: '*Children completing phonic worksheets and exercises*'. This was rated more favourably by the comparison sample (see the responses of both groups to the items representing the phonic orientation). This is consistent with their reported beliefs, presented in Table 3. Moreover, the comparison sample appeared to be more positive towards the teaching activities reflecting a skills/word orientation than the effective teachers group who were, in turn, very positive towards teaching activities associated with a whole language orientation. Again, these tendencies appeared to be consistent with the respondents' reported beliefs in Table 3. Finally, in relation to the teaching of writing, the effective teachers did not rate favourably the teaching of spelling by means of spelling lists. Consistent with their tendency to emphasize

Table 6: Mean responses of both teacher groups to each teaching strategy

Theoretical orientation	Teaching strategy	Effective			Comparison		
		N	M	SD	N	M	SD
Phonic	Teaching letter sounds as a way of helping children build up words.	221	1.64	.73	71	1.61	.76
	Children completing phonic worksheets and exercises.	220	3.03	1.29	69	2.51	1.05
Skills/word	Using flashcards to teach children to read words by sight.	220	2.70	1.24	68	2.31	.95
	Using graded reading schemes to structure children's introduction to reading.	215	2.42	1.20	70	2.11	.93
Whole Language	Children listening to tape-recorded versions of stories while following the text in a book.	222	1.64	.65	70	1.83	.68
	Using big books with a group of children to model and share reading.	221	1.30	.53	70	1.73	.74
Presentation	Children copying or tracing over an adult's writing.	219	2.98	1.27	68	2.71	1.07
	Regular spelling tests using published spelling lists.	220	3.40	1.24	69	2.75	1.16
Process	Children using the 'magic line' when writing: that is, when they reach a word they cannot spell, writing its initial sound followed by a line and then checking the correct spelling afterwards.	219	2.05	1.01	67	2.19	.80
	Asking children to comment upon and help revise each other's writing.	220	1.55	.72	71	1.93	1.05
Forms	Getting children to write to other children in other schools or areas of the country.	218	1.96	.79	69	1.94	.66
	Using worksheets or frames to guide children's writing in particular forms.	215	2.28	1.07	70	2.39	.91

communication over presentation, they were more likely to place higher value on children helping each other revise their writing.

Correlational analysis

To investigate whether teachers’ responses to the statements about teaching activities showed a similar pattern to their responses to statements about literacy teaching, we computed correlations between each composite score representing a theoretical orientation and the teaching activities designed to reflect all three orientations (twelve statements in total). The correlations for the effective teachers, for both reading and writing, are shown in Tables 7a and 7b; and for the comparison sample in Tables 8a and 8b.

As seen in Tables 7a and 7b, of the 12 relevant correlations in the analysis (i.e. each theoretical orientation matched with the items designed to reflect teaching activities for that orientation), significant levels of agreement were shown by 10 (8 at the 0.01 level of confidence), which suggests a level of consistency between the reported beliefs of the effective teachers of literacy and their views about particular teaching activities. By contrast, a similar level of agreement could not be established between the reported beliefs of the comparison group and their views about particular teaching activities, where only 4 of the 12 relevant correlations were significant (see Tables 8a and 8b). However, caution should be exercised in interpreting the degree of consistency between beliefs and practice indicated by the correlational analysis alone. As pointed out earlier, this was an exploratory study: we did not specifically set out to test hypotheses about consistency between beliefs and practice through this instrument. Other more ecological methods would be required to do this as outlined earlier in the review of relevant literature.

Table 7a: Correlations between theoretical orientations to the teaching of reading (total scores) and statements about teaching activities – effective teachers of literacy

	Phonic 1	Phonic 2	SkillWrd1	SkillWrd2	WhoLan.1	WhoLan.2
Phonic	.34**	.35**	.31**	.30**	-.09	-.13
SkillWrd	.17*	.34**	.33**	.34**	.13	-.11
WhoLan.	-.05	-.27**	-.18*	-.16*	.16*	.28**

Table 7b: Correlations between theoretical orientations to the teaching of writing (total scores) and statements about teaching activities – effective teachers of literacy

	Pres. 1	Pres. 2	Proc. 1	Proc. 2	Forms 1	Forms 2
Pres.	.21**	.36**	-.14*	-.15*	-.15*	.14*
Proc.	-.21**	-.19**	.05	.15*	.18*	-.10
Forms	-.24**	-.18**	.12	.30**	.25**	.03

Note: * Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 8a: Correlations between theoretical orientations to the teaching of reading (total scores) and statements about teaching activities – comparison sample

	Phonic 1	Phonic 2	SkillWrd1	SkillWrd2	WhoLan.1	WhoLan.2
Phonic	.21	.16	.25*	.25*	.03	-.26*
SkillWrd	.24*	.36**	.43**	.51**	.14	-.01
WhoLan.	.078	.02	-.15	-.28*	.15	.21

Table 8b: Correlations between theoretical orientations to the teaching of writing (total scores) and statements about teaching activities – comparison sample

	Pres. 1	Pres. 2	Proc. 1	Proc. 2	Forms 1	Forms 2
Pres.	.37**	.34**	-.04	-.16	.15	.24*
Proc.	-.53	-.05	.05	.16	.07	0.7
Forms	.05	-.26*	.08	.25*	.22	.07

Note: * Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

The theoretical orientations relating to the teaching of reading and writing of different groups of effective teachers

Multivariate Analysis of Variance (MANOVA)

As well as examining effective literacy teachers' responses to the TORP items in relation to those of a comparison sample, we also wanted to examine whether there were any differences in response within the effective teacher sample. For this purpose, four one-way MANOVA were calculated to test for differences in theoretical orientation to the teaching of reading, and to the teaching of writing, within the effective teacher sample according to four variables: (i) number of years' teaching experience; (ii) type of teacher training course; (iii) highest level of professional qualification; and (iv) whether they held a responsibility post for co-ordinating English/literacy within their school. The variable 'teaching experience' comprised three groups: (a) 1–5 years N = 28; (b) 6–10 years N = 36; and (c) more than 10 years N = 159. The variable 'type of teacher-training course' comprised three groups: (a) 4 year BEd, or BA/BSc with QTS N = 58; (b) Degree + PGCE N = 28; and (c) 2 or 3 year Certificate in Education N = 133. The variable 'highest level of professional qualification' comprised three groups: (a) Certificate in Education N = 96; (b) Bachelor's degree N = 114; and (c) Master's degree N = 15. Finally the variable 'responsibility for co-ordinating English' comprised two groups: (a) the participants who held a responsibility post for co-ordinating English/literacy in their schools N = 130; and (b) those who did not N = 93.

It should be noted that a number of respondents had initially trained as teachers by taking two- or three-year Certificate courses, but had later upgraded their qualifications by taking in-service courses to attain a Bachelor's degree.

Theoretical orientations relating to the teaching of reading

Analysis of the relationship between number of years' teaching experience and effective teachers' theoretical orientations to the teaching of reading indicated a multivariate effect ($F(6, 368) = 3.88, p < .001$). Univariate analysis revealed that the multivariate difference was due to difference in the phonic orientation ($F(2, 195) = 3.12, p < .05$). The post-hoc test (Tukey) revealed that the univariate effect was due to a difference between participants with 1–5 years of experience and those with more than ten years (see Table 9).

Examination of data presented in Table 9, indicates that teachers in the younger age-range appeared to be more in agreement with a phonic orientation to the teaching of reading, whereas the other two groups were neutral towards this orientation. By contrast, all three age ranges appeared to agree with the effectiveness of the whole language orientation.

Analysis of the relationship between type of teacher-training course taken and theoretical orientation to the teaching of reading indicated a multivariate effect ($F(6, 362) = 1.11, p < .001$). Univariate analysis revealed that the multivariate difference was due to difference in the skills/word orientation ($F(2, 201) = 3.15, p < .05$). Although the post-hoc test (Tukey) conducted failed to reveal significant differences, in Table 10, a tendency can be detected for

Table 9: Mean scores of effective teachers with different number of years' teaching experience for the three theoretical orientations relating to the teaching of reading

Number of years' teaching experience	N	Phonic	Skills/word	Whole-language
1–5 years	28	N = 25 2.48	N = 27 3.07	N = 27 2.50
6–10 years	36	N = 31 3.08	N = 34 2.98	N = 32 2.25
More than 10 years	159	N = 142 3.00	N = 146 2.67	N = 145 2.17

Table 10: Mean scores of effective teachers with different types of teacher-training course for the three theoretical orientations relating to the teaching of reading

Type of teacher training course	N	Phonic	Skills/word	Whole Language
4 Yr. BEd or BA/BSc with QTS	58	N = 54 2.89	N = 55 2.97	N = 54 2.24
Degree + PGCE	28	N = 21 2.93	N = 27 2.96	N = 25 2.32
2 or 3 Yr. Certificate in Education	133	N = 120 2.86	N = 122 2.62	N = 122 2.22

Table 11: Mean scores of groups of effective teachers with different levels of qualification for the three theoretical orientations relating to the teaching of reading

Highest level qualification	N	Phonic	Skills/word	Whole Language
Certificate in Education	96	N = 86 2.98	N = 89 2.58	N = 90 2.21
Bachelor's degree	114	N = 102 2.81	N = 106 2.89	N = 104 2.27
Master's degree	15	N = 12 3.83	N = 14 3.03	N = 12 2.00

participants with a BEd/BA/BSc, or with a degree plus PGCE, to be more neutral towards the skills/word orientation, whereas those with a Certificate in Education appeared to be in agreement with it.

Analysis of effective teachers' orientations, determined according to the highest level of professional qualification, indicated a multivariate effect ($F(6, 372) = 3.36, p < .01$). Univariate analysis revealed that the multivariate difference was due to difference in the Phonic orientation $F(2, 197) = 5.72, p < .01$. The post-hoc test (Tukey) revealed the univariate effect was due to differences both between participants with a Certificate-level qualification and those with a Master's degree; and also between the participants with a Bachelor's degree and those with a Master's degree (Table 11).

Examination of Table 11 indicates that the effective teachers who had acquired the highest level of qualification appeared to be negative towards the phonic orientation, neutral towards the skills/word orientation and very positive towards the whole language orientation. It is worth stressing here, that all the groups of effective teachers can be seen as being very positive towards the whole language orientation.

The one-way MANOVA to test for differences among the effective teachers of literacy according to whether they held a responsibility post for co-ordinating English/literacy within their school, (English/literacy co-ordinators; and those without any responsibility), did not reveal significant differences in relation to the three orientations.

In relation to the variance within the effective teacher sample, the proportion of teachers within each of the groups identified by the variables, needs to be borne in mind. The largest number of teachers had more than ten years' teaching experience ($N=159$); a large number had originally trained by taking a two- or three-year Certificate in Education course in a teacher-training college; and the most frequently held level of qualification was a Bachelor's degree (some teachers who originally trained by taking a Certificate in Education had since followed courses to up-grade their qualification to degree level). Nonetheless the analysis does identify interesting variations in orientation to literacy among the effective teachers.

Four one-way MANOVA, determined again in terms of years' teaching experience, type of teacher-training course, highest level of professional qualification and responsibility for co-ordinating English, were calculated to test for differences among the effective teachers to the three theoretical orientations to the teaching of writing. The analyses revealed no significant differences in relation to any of the three orientations (presentation, process and forms).

DISCUSSION

Analysis of responses to the modified TORP items indicated that there were differences in the theoretical beliefs about reading and writing held by the effective teachers according to the number of years' teaching experience they had; the type of training they had experienced; and the highest level of qualification they held. There was no difference in theoretical orientation between those who held a responsibility post within their school for English or literacy, and those who did not. There were also differences in theoretical orientation between the effective teachers and a comparison sample of primary school mathematics co-ordinators. The effective teachers of literacy showed a greater degree of consistency between responses relating to a particular theoretical orientation, and the hypothetical teaching activities which would accompany such an orientation.

We have emphasized already that theoretical orientations were not mutually exclusive categories. In fact, teachers in both samples probably could be situated along continua of orientations, as suggested by other researchers in this area (e.g. Richardson *et al.*, 1991; Westwood *et al.*, 1997). Overall, the effective teachers of literacy showed a higher level of consistency between their theoretical beliefs and choice of teaching activities than did the comparison sample. They were more positively oriented to whole language theoretical positions which promoted the creation of meaning in reading and writing in the following ways: a strong emphasis on helping learners to understand text; the use of authentic texts and activities in teaching reading; a focus on process in writing; and developing children's understanding of a range of text forms and structures, and their ability to write for a range of purposes. The effective teachers were negatively oriented to theoretical positions which emphasized presentation features in writing, and teaching strategies which focused on achieving technical accuracy at the expense of meaning. Overall, the theoretical orientation of effective teachers of literacy appeared, in many respects, to be constructivist: prioritizing pupils' ability to make sense of, and produce, written texts in a range of contexts and for authentic purposes.

Although they were more negatively oriented to theoretical positions and teaching activities which emphasized grapho-phonetic decoding, that did not mean they were against the teaching of phonics *per se*. Apparently contradictory responses to the two items representing a phonic theoretical orientation suggest that they were positive about teaching letter-sound correspondences to help children build-up words; but were rather more negative towards using phonic analysis as the main strategy in decoding unfamiliar words. (See Table 3 for the effective teachers' contradictory responses to items representing the phonic orientation.) Although this finding should be interpreted cautiously, it does suggest that the effective teachers appeared to support some aspects of what has been termed a 'synthetic phonic' approach (Adams, 1990). However, it may be that the relatively recent developments in research on the role of

phonological awareness and analytic phonics has yet to make a strong impact on teachers' beliefs about literacy and its teaching.

Analysis of theoretical orientation within the effective teacher sample according to number of years' teaching experience, type of teacher training course, highest level of qualification, and responsibility for co-ordinating English/literacy, yielded some interesting results. In relation to number of years' teaching experience, those who had only 1–5 years' experience appeared to be more positive towards a phonic theoretical orientation; more neutral towards whole language theories; and more negative towards a skills/word approach, than effective teachers with 6–10, or more than ten years' experience. Teachers with 6–10, and more than ten, years' experience were more neutral towards the phonic orientation. However, all three groups of effective teachers were positively orientated towards a whole language theoretical perspective.

The more positive orientation towards phonic theoretical perspectives found among effective teachers with the least experience may be interpreted in two ways. First, it could be argued that greater experience leads to a less positive orientation towards phonic theories: an interpretation which appears to be supported by similar findings in other research (e.g. Pesce, 1990; Troyer and Yopp, 1990). Alternatively, it might be that teachers with 1–5 years' experience had qualified more recently, and had experienced courses which reflected more recent approaches to the use of phonics in learning to read. The latter is plausible, in that courses of initial teacher training have probably reflected more recent research developments relating to the teaching and learning of reading. Adams (1990) has highlighted the impact of recent research in cognitive psychology on our understanding of how successful readers process text. Her review of research on the teaching of reading also indicates strong evidence for the success of approaches which combine systematic teaching of phonics with the use of authentic texts in reading instruction, and a focus on text comprehension and structure. Work on phonological awareness and phonic and syllabic analysis of words, such as that of Goswami and Bryant (e.g. 1990) may also have been reflected in teacher-training courses in the last decade. Further longitudinal study would be necessary to make any firm claims about changes in teachers' theoretical orientation as they gained more experience in the classroom. However, Pajares (1992) suggests that teachers' beliefs tend to remain relatively unchanged over time. Interestingly, our data showed that teachers who had trained by taking a two- or three-year Certificate in Education course – which were phased out in Britain over 20 years ago – were more positively oriented towards word recognition approaches to reading. They were the only group which was positive towards a skills/word theoretical orientation. Again, it is possible that approaches to reading which emphasized whole word recognition and the development of sight vocabulary were more likely to have been influential in primary teacher-training courses in the 1960s and early 70s, when those who had taken Certificate courses would have trained.

Differences between the effective teachers in terms of the highest level of qualification held, indicated that those who held Master's level qualifications were more negative towards a phonic orientation and very positively orientated towards whole language theories (although it is worth emphasizing that all three groups were positive towards a whole language orientation to reading). Again, this finding needs to be interpreted cautiously. While a Master's-level qualification might indicate greater familiarity with theoretical issues in the teaching and learning of literacy, and more opportunities to construct a robust personal philosophy of the teaching of reading, the Master's-level qualifications were not necessarily gained in the area of reading or literacy. However, this finding is generally consistent with other research on teachers' theoretical orientations to literacy, which suggests that those favouring a whole language approach were also likely to have the highest level of training (e.g. Pesce, 1990; Troyer and

Yopp, 1990). Interestingly, a study by Ketner *et al.* (1997) of teachers in the USA, indicated a much higher number who had Master's-level qualifications than in England (although this was a smaller sample than ours, and all the teachers came from only one school district).

Our data indicated that there was no significant difference in theoretical orientation according to whether or not the effective teachers held responsibility posts for co-ordinating English or literacy within their schools. Furthermore, in relation to theoretical orientation towards the teaching of writing, there were no significant differences within the effective teachers according to the four variables already described. This may suggest that differences in theoretical approaches to the teaching of writing may have had less impact on the teachers in this study; or that they have had much less prominence in initial training, and professional development courses. It is certainly true that public debates about the teaching and learning of literacy, largely conducted through the popular media, have tended to focus on the teaching of reading – in particular, fears that reading standards may be falling – whereas writing has often been overlooked in these debates.

This exploratory study of teachers' theoretical beliefs about the teaching and learning of literacy raises a number of issues for further investigation; and has some implications for policy relating to professional development. One of the most important is that the differences in theoretical orientation which this exploratory investigation revealed, may lead not only to differences in practice, but also to differences in ways of interpreting, and make sense of policy requirements relating to literacy. This is particularly important where ambitious nation or state-wide programmes are being implemented, such as the British National Literacy Strategy. Programme innovations of this nature usually make some provision for professional development, or in-service training, for teachers. However, such provision has often been either localized, and fragmented – left to individual schools or districts to take on 'ownership' of the programme or reform; or, conversely, highly centralized with prescribed content and forms of delivery. In Britain, and probably in other parts of the world as well, preparation to implement new programmes appears to have taken little account of the historical and socio-cultural contexts in which teachers' theoretical beliefs are formed. Rarely has provision for professional development been differentiated to take account of teachers' levels of expertise, experience, professional qualifications, or theoretical perspective. The discourses which frame educational reforms tend to construct the new as good, and the old as bad; yet fail to provide ways of helping teachers to accommodate, or adjust to, innovations by relating them to their existing theoretical belief structures. The assumption that teachers can be provided with externally devised curricula, and teaching approaches, in order to free them to be more creative in the classroom, may also be reconsidered in the light of this, and other research on teachers' beliefs.

In conclusion, this exploratory study has revealed interesting differences in teachers' theoretical orientation to literacy, and consistency between theoretical beliefs and choice of teaching activities. As we have already pointed out, we make no claims about the relationship between those beliefs and teachers' observed classroom practice on the basis of their responses to a modified theoretical orientation profile. We intend to explore teachers' practice in a future paper, based on analysis of lesson observations and interviews. Research on teachers' thought processes has tended to focus on the extent to which their teaching is consistent with their theoretical beliefs. But, as Fang (1996, p. 58) points out, less attention has been paid to a more important practical concern: how teachers can apply their theoretical beliefs within the constraints imposed by the complexities of classroom life.

NOTES

- 1 As this paper is not primarily concerned with the different types and definitions of teachers' knowledge, we would point readers in the direction of Shulman (1987); Elbaz (1983); Fenstermacher (1994) for more detailed discussion. See, also Alexander *et al.* (1991), who discuss the wide range of different terms used in the literature on teachers' knowledge and thinking.
- 2 See for example, Fenstermacher (1994) for explanations of the distinction between formal and practical knowledge.

REFERENCES

- ADAMS, M.J. (1990). *Beginning to Read: Thinking and Learning about Print*. Cambridge, Mass.: MIT Press.
- ALEXANDER, R. (1992). *Policy and Practice in Primary Education*. London: Routledge.
- ALEXANDER, P.A., SCHALLERT, D.L. and HARE, V.C. (1991). 'Coming to terms: how researchers in learning and literacy talk about knowledge', *Review of Educational Research*, 61, 3, 315–43.
- BEARD, R. (1998). *National literacy strategy: review of research and other related evidence*. London: DFEE.
- BENNETT, N., DESFORGES, C., COCKBURN, A. and WILKINSON, B. (1984). *The Quality of Pupils' Learning Experiences*. London: Lawrence Erlbaum Associates.
- DAVIS, M.M., KONOPAK, B.C. and READENCE, J.E. (1993). 'An investigation of two chapter 1 teachers' beliefs about reading and instructional practices', *Reading Research and Instruction*, 33, 2, 105–33.
- DE FORD, D. (1985). 'Validating the construct of theoretical orientation in reading instruction', *Reading Research Quarterly*, XX, 3, 351–68.
- DENZIN, N. and LINCOLN, Y. (Eds) (1994). *Handbook of Qualitative Research*. London: Sage.
- DFEE (1998). *The National Literacy Strategy: Framework for Teaching*. London: DFEE.
- DESFORGES, C. and COCKBURN, A. (1987). *Understanding the Mathematics Teacher: A Study of Practice in First Schools*. London: Falmer.
- DUFFY, G. and ANDERSON, L. (1984). 'Teachers' theoretical orientations and the real classroom', *Reading Psychology*, 5, 1–2, 97–104.
- ELBAZ, F. (1983). *Teacher Thinking: A Study of Practical Knowledge*. London: Croom Helm.
- FANG, Z.F. (1996). 'A review of research on teacher beliefs and practices', *Educational Research*, 38, 1, 47–65.
- FENSTERMACHER, G. D. (1994). 'The knower and the known in teacher-knowledge research'. In: DARLING-HAMMOND, L. (Ed.) *Review of Research in Education*, Vol. 20. Washington, D.C.: American Education Research Association.
- FULLAN, M. and HARGREAVES, A. (1994). 'The teacher as a person'. In: POLLARD, A. and BOURNE, J. (Eds) *Teaching and Learning in the Primary School*. London: Routledge, pp. 67–72.
- FULLAN, M. with STIEGELBAUER, S. (1991). *The New Meaning of Educational Change*. London: Cassell.
- GOSWAMI, U. and BRYANT, P. (1990). *Phonological Skills and Learning to Read*. Hove: Lawrence Erlbaum.
- HARSTE, J. C. and BURKE, C. L. (1977). 'A new hypothesis for reading teacher research'. In: Pearson, P.D. (Ed.) *Reading: Theory, research and practice*. New York: Mason Publishing, pp. 32–40.
- KAGAN, D. (1990). 'Ways of evaluating teacher cognition: inferences concerning the Goldilocks Principle', *Review of Educational Research*, 60, 1, 419–70.
- KETNER, C.S., SMITH, K.E. and KAYE PARNELL, M. (1997). 'The relationship between teacher theoretical orientation to reading and endorsement of developmentally appropriate practice', *Journal of Educational Research*, 70, 4, 212–21.

- LENSKI, S.D., WHAM, M.A. and GRIFFEY, D.C. (1998). 'Literacy Orientation Survey: a survey to clarify teachers' beliefs and practices', *Reading Research and Instruction*, 37, 3, 217–36.
- LEVANDE, D.I. (1990). 'Teacher-reported factors influencing reading instruction', *Reading Improvement*, 27, 2–9.
- MEDWELL, J., WRAY, D., POULSON, L. and FOX, R. (1998). *Effective Teachers of Literacy in Primary Schools: final report of a research project*. Exeter: University of Exeter.
- MERGENDOLLER, J. and SACKS, C. (1994). 'Concerning the relationship between teachers' theoretical orientations towards reading and their concept maps', *Teaching and Teacher Education*, 10, 6, 589–99.
- MUNBY, H. (1982). 'The place of teachers' beliefs in research on teacher thinking and decision making, and an alternative methodology', *Instructional Science*, 11, 201–25.
- MUNBY, H. (1984). 'A qualitative approach to the study of teacher' beliefs', *Journal of Research in Science Teaching*, 21, 27–38.
- PAJARES, M.F. (1992). 'Teachers' beliefs and educational research: cleaning up a messy construct', *Review of Educational Research*, 62, 3, 307–32.
- PESCE, R. (1990). 'First-grade reading instruction: current trends in the Northern Valley regional District', *ERIC document No: ED 320 118*.
- RICHARDS, J.C., GIPE, J.P. and THOMPSON, B. (1987). 'Teachers' beliefs about good reading instruction', *Reading Psychology*, 8, 1, 1–6.
- RICHARDSON, V., ANDERS, P., TIDWELL, D. and LLOYD, C. (1991). 'The relationship between teachers' beliefs and practices in reading comprehension instruction', *American Education Research Journal*, 28, 3, 559–86.
- SHULMAN, L.S. (1987). 'Knowledge and teaching: foundations of the new reform', *Harvard Educational Review*, 57, 1, 1–22.
- SLAVIN, R.E., MADDEN, N.A., DOLAN, L.J., WASIK, B.A., ROSS, S.M. and SMITH, L.J. (1994). "'Whenever and wherever we choose": replication of *Success for All*', *Phi Delta Kappa*, 75, 8, 639–47.
- SLAVIN, R.E. (1996). *Education For All*. Lisse: Swets and Zeitlinger.
- TROYER, S.J. and YOPP, H.K. (1990). 'Kindergarten teachers' knowledge of emergent literacy concepts', *Reading Improvement*, 27, 34–40.
- WIDEEN, M., MAYER-SMITH, J., MOON, B. (1998). 'A critical analysis of the research on learning to teach: making the case for an ecological perspective on inquiry', *Review of Educational Research*, 68, 2, 130–201.
- WESTWOOD, P., ALLEN KNIGHT, B., REDDEN, E. (1997). 'Assessing teachers' beliefs about literacy acquisition: the development of the teachers' beliefs about literacy questionnaire (TBALQ)', *Journal of Research in Reading*, 20, 3, 224–35.
- WRAY, D. and MEDWELL, J. (1993). 'The development of student teachers' knowledge, competence and beliefs about the teaching of reading'. Paper presented at *International Conference on Reading*, St. Martin's College, Lancaster, UK, September.

CORRESPONDENCE:

Louise Poulson, Department of Education, University of Bath, Claverton Down, BATH BA2 7AY, UK.

Email: L.Poulson @bath.ac.uk