The aim of the current research was to examine pre—service, general and special education teachers attitudes to and knowledge of metalinguistics (awareness of language structure) in the process of learning to read. Effective teachers of reading, writing, and spelling need to understand the relationship between speech and print because these basic language processes are often deficient in cases of reading failure. Teachers also need to be knowledgeable in this area to benefit from psychologist and specialist reports. Using a questionnaire adapted front the Teacher attitudes about early reading and spelling survey and the Survey of linguistic knowledge, 93 pre-service teachers; 209 general teachers and 38 special education teachers were surveyed. Results indicate a positive attitude to but poor knowledge of metalinguistics in the process of learning to read. Special education teachers performed significantly higher than both other groups on aspects of attitude and knowledge.

Introduction
Successful readers need to develop a range of attitudes, understandings and skills including positive attitudes towards print, concepts about print, exposure to print, extended vocabulary, comprehension, fluency, word identification, practise at reading connected text and metalinguistic awareness. Metalinguistics is an acquired awareness of language structure and function that allows one to reflect on and consciously manipulate the language. It includes an awareness of phonemes, syllables, rhyme and morphology. It allows for a reader to detect errors and correct them. Many unsuccessful readers have been shown to lack letter knowledge, phonological awareness, grapheme-phoneme skills and oral language (Snowling et al., 2003). The role of the teacher in developing all of these skills is paramount. However, it cannot be assumed that intervention in any one of these skills will remediate reading difficulties. For example it has been demonstrated that phonological awareness is a necessary but not sufficient skill in the whole reading process (Adams, 1991).

There is evidence suggesting that many teachers are not adequately prepared for the task of teaching reading to young children because they understand too little about spoken and written language structure—metalinguistics (Moats, 1994). The statistics from American studies are alarming in that they suggest the current minimal requirements in literacy education range from no course work in reading to an average of three to six credit hours (Nolen et al., 1990). Lyon et al. (1989) reported that of a sample of 440 teachers only 20% of general educators and 10% of special educators felt that they had adequate content preparation in reading and reading instruction. However, more recently and in light of the fore mentioned shortcomings The National Commission on Excellence in Teacher Preparation in Reading (2003) includes key findings providing compelling evidence that an investment in quality reading teacher preparation at the undergraduate level contributes to effective teaching and learning of reading in elementary schools.

According to Mather et al. (2001) general educators must acknowledge and understand the role of explicit reading instruction. Teachers must be aware of language elements and how they are represented in writing. Metalinguistic knowledge can assist teachers to accurately present linguistic concepts and be better able to assess the students’ level of reading by direct observation of his or her performance (Moats. 1994). One group of teachers who do have a grasp of this concept is English as a Second Language (ESL) and Languages Other Than English (LOTE) teachers. This is because these teachers realize that students need to be made aware of the fact that phonemes are categorized differently in some languages (for example, if students’ first language was Japanese or Chinese, they may select an ‘l’ when they should write an ‘r’ (Ehri & Nunes, 2002).
Although teachers may have adequate implicit awareness of metalinguistics to apply to their own reading, this does not necessarily give them the skills to apply it to their teaching. Teachers also need to be able to reflect on their metalinguistic knowledge and own reading ability so as to gain an explicit understanding of metalinguistics before they can apply it to their classroom practices (Andrews, 1999; McCutchen et al., 2002).

Despite the fact that most children accomplish the task of reading successfully, many children is with learning difficulties are unable to process metalinguistic information in relation to print (Rack et al., 1992). In general, most reading and spelling disabilities originate with a specific impairment of language processing (Moats, 1994). One promising factor, however, is that early instruction in metalinguistics can often improve children’s early reading skills, and thus reduce the number of students identified as having a specific learning disability (Bos et al., 1999; McCutchen et al., 2002). Studies show the necessity of teaching unskilled readers explicit knowledge of language structures (Moats & Lyon, 1996; Fielding-Barnsley, 1997).

Project RIME (Bos et al., 1999) taught teachers explicit techniques for teaching phonological awareness, word recognition, and spelling skills to children at risk for reading failure. Results showed that children who were instructed by teachers from the project made greater gains in reading skills than students instructed by non-project teachers. Ultimately, it is believed that most children at risk of reading failure can he taught to read as long as appropriate instruction is given (Snowling et al., 2003). Even good readers can benefit from such instruction, showing more rapid progress and better spelling skills (Fielding-Barnsley, 1997).

To reduce the incidence of reading failure, teachers should increase their understanding of how the English language is constructed and how speech sounds relate to print (Nolen et al., 1990; Torgeson, 1997). ‘Effective reading instruction includes teaching children to break apart and manipulate the sounds in words…” (Hall, 2000, p. 3). Recent major reports, such as those by the National Research Council, concur with these findings (Snow et al., 1998). When it is skillfully implemented, metalinguistic instruction is sets effective for beginning and problem readers.

It must be emphasized that the level of metalinguistic knowledge required by teachers is distinct from the detailed content taught in speech-language pathology. Metalinguistic knowledge does not need to be as detailed for teachers, but they do need to understand the relationship between the spoken and written language (Moats, 1994). Research into the role of metalinguistics will have little impact on practice unless teachers are knowledgeable enough to understand and apply research findings. Furthermore, teachers’ understanding should be sufficient for them to interpret reports from speech pathologists who work with children who are reading disabled (Snow et al., 1999).

There often appears to be a discrepancy between teachers’ actual and perceived knowledge. For instance, in a study of teacher efficacy, Wheatley (2000) indicated that teachers who believe that they have teaching all figured out need to be open minded, to be honest about their own lack of knowledge, and about the limitation of their present conceptions and requirements for effective teaching (Hill, 1997). The literature on teaching clearly indicates that teachers often hide their uncertainties and lack of knowledge from others (Lieberman & Miller, 1991). It can be difficult to ascertain exactly how much knowledge a teacher actually has, especially when a self-rating scale is the only measure of knowledge. It is reasonable to assume that the same discrepancy between actual and perceived knowledge, and the difficulty of ascertaining this, also applies to teachers’ metalinguistic knowledge.

Although there are indications that teachers in the US are lacking in metalinguistic knowledge, the situation in Australia is less clear. However, the current popularity of in-service courses for programs such as THRASS (Teaching Handwriting Reading and Spelling Skills; Davies, 1999), suggests that teachers report being inadequately prepared to include metalinguistic components in their teaching of teaching. THRASS emphasizes the importance of teacher knowledge of phonology, onset, rhyme and alliteration, and unstressed vowels. It must be stressed that this program is not endorsed by the authors, as being a total solution for the effective teaching of reading. However, the need for teacher in-service training for courses in metalinguistic knowledge would he lessened if metalinguistic instruction was included in undergraduate education programs.

Teacher preparation and professional development are integral to reducing the number of children with reading failure. There would be obvious cost savings from the better preparation of teachers that
results in fewer children requiring expensive remediation such as that provided by the Reading Recovery program (Clay, 2001). This program has been shown to be far more effective when a substantial metalinguistics/phonemic awareness component is included (Iverson & Tunmer, 1993).

In light of the foregoing, the current study addressed the following specific research questions:

- What are primary school teachers’ attitudes towards using explicit metalinguistic instruction in the teaching of reading, writing, and spelling?
- How much knowledge do primary school teachers’ have about specific aspects of metalinguistics such as phonology, syllabic structure, rhyme and morphology?
- What are the differences between experienced, inexperienced, and specialist teachers with respect to metalinguistic attitudes and knowledge?
- Do attitudes and knowledge vary with years of teaching experience?
- Do language—based qualifications (e.g., in ESL, LOTE, Reading Recovery) interact with teachers’ attitudes to and knowledge of metalinguistics?
- What is the relationship between primary school teachers’ attitudes and knowledge with respect to metalinguistics?

**Method**

**Participants**

A total of 340 teachers from one State in Australia (Queensland) completed the survey. Teachers were classified into three groups (a) final year pre-service primary teachers from three tertiary institutions (n=93); (b) primary in-service teachers (without special education qualification, (n=209); and (c) teachers who had tertiary qualifications in special education (n=38).

Of the 209 non special education general teachers, 63 had less than one year of teaching experience, 37 had two to ten years of experience, 40 had 11 to 20 years of experience, and 66 had more than 20 years of experience (there were three counts of missing data on this variable). In this same group, 10 teachers reported having qualifications in Reading Recovery, 13 teachers had qualifications in teaching Languages other than English (LOTE), and 11 teachers had qualifications in teaching English as a second language (ESL).

Pre-service teachers were randomly selected from the pool of final year students at participating universities. These students were asked to remain at the end of a core unit lecture. They were given an overview of the research project and asked to indicate their willingness or otherwise to participate in the research. General teachers were recruited from a random selection of approximately 100 primary schools in rural and urban Queensland. A trained research assistant liaised with each school principal to organize appropriate times for visiting the school to explain the project to teachers and seek their participation. Special education teachers were recruited from those involved in postgraduate studies in the Learning Support Program at one of the participating universities, and from the other participating schools. General and special education teachers were selected from both government and independent school sectors, in rural and urban locations.

**Instrument**

The first section of the instrument contained 12 items exploring participants’ attitudes towards early reading and spelling. These items were based on the *Teacher attitudes about early reading and spelling* survey (Bos et al., 1999), which was developed around two clear theoretical orientations toward reading (a) explicit code-based instruction (CB); and (b) implicit meaning based or holistic instruction (MB) Mather et al., 2001. An example of a CB item is ‘Teachers should know how to teach phonological awareness’. An example of an MB item is ‘When early readers do not know how to pronounce a word, the most beneficial strategy to suggest is to use the context’. Teachers rated the extent to which they agreed with each item on a six point scale (from strongly disagree to strongly agree). Also included were four neutral items not representative of either MB or CB instruction (e.g., the development of word identification and spelling are closely related).

The next section contained 10 multiple—choice questions relating to participants’ knowledge of metalinguistics. Items were adapted from the *Survey of linguistic knowledge* (Moats, 1994) and were designed to examine knowledge of the structure of the English language at both word and sound...
levels (e.g., ‘A pronounceable group of letters containing a vowel is a (a) phoneme; (b) grapheme; (c) syllable; or (d) morpheme?’).

Procedure

It was important that participants completed the surveys in such a way as to indicate their current metalinguistic knowledge i.e., there should be no opportunity to gain this knowledge from other sources such as other teachers or textbooks). Thus, pre-service teachers completed the survey during class time and in-service and special education teachers completed the survey during non-teaching time in the presence of a trained research assistant. Surveys took 15 – 20 minutes to complete.

Results

What are primary school teachers’ attitudes towards using explicit metalinguistic instruction in the teaching of reading, writing, and spelling?

We began by factor analyzing the 12 attitude items to verify the existence of two distinct theoretical orientations. Eight items representing two factors (with loadings all above .30 and on item cross loading greater than .15) were retained: Two items represented MB instruction, and six items represented CB instruction. The reliability coefficient (Cronbach’s alpha) for CB was low but acceptable (.63) (see comments in conclusion). The coefficient for MB was somewhat lower (.54) probably because of the low number of items.

Total MB and CB scores were computed by summing items and dividing by the number of items in each factor. The mean score for MB was 3.83 (SD= 1.04), and the mean score for CB was 4.92 (SD=.54). Thus, teachers had positive attitudes (mean greater than three) towards both MB and CB reading instruction, although attitude towards CB (M=4.92) was significantly higher than attitude to MB (M=3.83), t (339) =16.64, p<.001.

How much knowledge do primary school teachers’ have about specific aspects of metalinguistics such as phonology, syllabic structure, rhyme, and morphology?

A total knowledge score was computed for each participant by summing the number of correct items (possible score=10). The mean number of correct items was 6.12 (SD=1.86). Table 1 shows that there was variation in teachers’ knowledge of the various components of metalinguistics. For instance, their knowledge of short vowel sounds (92.3% correct) was markedly greater than knowledge of the number of speech sounds in a given word (24.1% correct).

What are the differences between experienced, inexperienced, and specialist teachers with respect to metalinguistic attitudes and knowledge?

Attitudes. Results from a one way analysis of variance (ANOVA) indicated that preservice, experienced, and special education teachers did not differ significantly on CB, F (2,337) =2.23, p=.11. There was, however, a significant difference between the three groups on MB, F (2,337) =3.88, p=.02. Post hoc Scheffé tests (alpha =.05 for this and all subsequent tests) showed that special education teachers scored significantly lower on MB than both pre-service and general teachers.

Knowledge. ANOVA results indicated that pre-service, experienced, and special education teachers differed significantly on Knowledge, F (2336) = 16.22, p<.001. Post hoc Scheffé tests showed that special education teachers scored significantly higher on Knowledge than both pre-service and general teachers; general teachers scored significantly higher than pre-service teachers.

Does attitude and knowledge vary with years of teaching experience?

There were no significant differences between the four Years of Experience groups on MB, F (3,202) = 0.55, p=.65; CB, F (3,202) = 0.16, p=.92; or Knowledge, F (3,201) =0.81, p=.49.

Do other language-based qualifications (e.g., in ESL, LOTE, Reading Recovery) interact with teachers’ attitudes to and knowledge of metalinguistics?
ANOVA results indicated significant differences on knowledge between teachers with no special language based qualification, ESL teachers, LOTE teachers, and Reading Recovery teachers, F (3,301) = 3.13, p = .03; and on CB, F (3,302) = 2.77, p = .04. The result was not significant for MB, F (3,302) = 0.40, p = .75. However, paired comparisons (Scheffé tests) indicated no significant differences between any of the groups for either Knowledge or CB. Effect sizes calculated for each of the paired comparisons ranged from .32 to .78, suggesting that the lack of significance may have been related to the small numbers in each of the language groups.

Table 1. Percentage of correct answers on knowledge assessment items

<table>
<thead>
<tr>
<th>Questions</th>
<th>Pre-service %</th>
<th>General %</th>
<th>Special ed. %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which word contains a short vowel sound:</td>
<td>84</td>
<td>95</td>
<td>100</td>
<td>92</td>
</tr>
<tr>
<td>(a) Treat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Start</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Slip</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Paw</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Father</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A pronounceable group of letters containing a vowel is:</td>
<td>47</td>
<td>53</td>
<td>76</td>
<td>54</td>
</tr>
<tr>
<td>(a) A phoneme</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) A grapheme</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(c) A syllable</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(d) A morpheme</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A diphthong is found in the word:</td>
<td>15</td>
<td>23</td>
<td>34</td>
<td>22</td>
</tr>
<tr>
<td>(a) Coat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Boy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Battle</td>
<td></td>
<td></td>
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<tr>
<td>(d) Sing</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(e) Been</td>
<td></td>
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<tr>
<td>A voiced consonant digraph is in the word:</td>
<td>17</td>
<td>18</td>
<td>37</td>
<td>20</td>
</tr>
<tr>
<td>(a) Think</td>
<td></td>
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<td></td>
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<tr>
<td>(b) Ship</td>
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<td></td>
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<tr>
<td>(c) Whip</td>
<td></td>
<td></td>
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<tr>
<td>(d) The</td>
<td></td>
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<tr>
<td>(e) Photo</td>
<td></td>
<td></td>
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<tr>
<td>How many speech sounds are in the word 'box'?</td>
<td>15</td>
<td>26</td>
<td>37</td>
<td>24</td>
</tr>
<tr>
<td>(a) One</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Two</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Three</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Four</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Why may students confuse the sounds 'b' and 'p' or 'f' and 'v'?</td>
<td>73</td>
<td>74</td>
<td>76</td>
<td>74</td>
</tr>
<tr>
<td>(a) Students are visually scanning the letters in a way that the letters are misperceived.</td>
<td></td>
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<tr>
<td>(b) The students can't remember the letter sounds so they are randomly guessing.</td>
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<tr>
<td>(c) The speech sounds within each pair are produced in the same place and in the same way but one is voiced and the other is not.</td>
<td></td>
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<tr>
<td>(d) The speech sounds within each pair are both voiced and produced at the back of the month.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthographic awareness would be most related to:</td>
<td>40</td>
<td>41</td>
<td>55</td>
<td>42</td>
</tr>
<tr>
<td>(a) Acquiring a sight vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Sounding out words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Learning to spell words with irregular sound symbol correspondence</td>
<td></td>
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<tr>
<td>(d) Preview</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) Grouping</td>
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<td></td>
</tr>
</tbody>
</table>
Count the number of syllables in the word ‘unbelievable’  90 90 82 89

The next item involves saying a word and then reversing the order of the sounds. For example, the word ‘back’ would be ‘cab’. If you say the word, then reverse the order of the sounds, enough would be:
(a) Fun
(b) Phone
(c) Funny
(d) One

What is the relationship between teachers’ attitudes and knowledge with respect to metalinguistics?

Pearson correlation coefficients indicated that overall there was no relationship between the attitude and knowledge variables (’Att, Kn=.01, ’CB, Kn=-.06,’ MB, Kn=-.07).

Discussion
‘Teachers with greater professional understanding of instruction and the authority to act on that expertise are central to creating classroom interventions that accelerate the development of all children’ (Allington, 2002, p. 276). The current study sought to explore the status of metalinguistic knowledge and attitudes of a group pre-service, general and specialist teachers in Queensland, Australia. The findings of our study need to be interpreted in the light of several limitations. The principal weakness related to the low reliability of the instrument. Although the Teacher attitudes about early reading and spelling survey (Bos et al., 1999) was designed to capture the two theoretical orientations toward reading (CB and MB), our analyses of items suggested that further work is needed on the instrument to depict this differentiation more strongly. The second limitation related to the low cell sizes in some of our analyses such that, for instance, there was uncertainty about the extent to which language based qualifications are related to teachers’ attitudes to and knowledge of metalinguistics.

Limitations aside, overall, our results indicate that many teachers have positive attitudes to both code—based and meaning—based reading instruction, although attitudes are, surprisingly, somewhat more positive toward code—based instruction. This is an encouraging result suggesting a swing towards a more balanced approach to reading instruction, which has suffered in recent years from a strong movement away from a skills-based approach. Adams (1991) clearly demonstrated in her synthesis of research on beginning reading the importance of teaching children explicit instruction in English orthography. Additionally, her research demonstrated that different types of literacy experiences are required for the development of sound reading ability, including explicit phonics instruction, exposure to rich vocabulary, and practice in reading varied and interesting texts. However, Adams emphasized the key role of phonemic awareness in fostering an understanding of how print works.

On the other hand, despite a relatively positive attitude to both code and meaning—based reading instruction, teachers’ metalinguistic knowledge was not strong overall. Thus, although teachers appeared to acknowledge the importance of metalinguistics in the process of learning to read, they did not necessarily have the requisite knowledge. This finding was somewhat tempered by the differences in the knowledge of pre-service, general, and specialist teachers. As expected, specialist teachers had superior knowledge, although as a group they only achieved a 73% success rate on the 10 questions. Not one of these teachers had a perfect score. Pre-service and general teachers were even less knowledgeable, with ratings of 54% and 62% respectively. These findings are similar to those of Mather et al., (2001) who obtained figures of 50% for pre-service teachers, and 68% for general teachers (they did not include special education teachers in their sample).

There was variability in the types of knowledge that teachers had. They had more rudimentary knowledge but were less successful on the more complex aspects of language. For instance, the highest scores were for knowledge of short vowel sounds (92%) and counting the number of syllables in unbelievavable (89%). The ability to count syllables is a more natural ability than that required to count individual sounds/phonemes in words. However, being able to count syllables in words and actually describing why syllable boundaries occur is a different matter. For example, even though
most teachers were able to count the syllable, 54% were not able to give the correct definition for a syllable (a pronounceable group of letters containing a vowel).

It is important that teachers are able to consciously dissociate the actual sounds of sounds of words from their spelling. However, the low scores on the items which required participants to count (24% correct) or reverse the sounds in words (72%) indicate an inability by teachers to consciously dissociate sounds from word spellings. For example, teachers were not able to identify box as having three graphemes but four sounds (‘x’ corresponds to ‘k’ and ‘s’). Thus, if a child spells box as boks a teacher should have a proper understanding of the error in order to be able to help the child understand his or her error. In addition, the item which required teachers to reverse the order of sounds in the word enough to produce the correct response of funny was similarly difficult.

The lowest scores were for the questions which required knowledge of voiced/unvoiced sounds (20%) and diphthongs (22%). Both of these aspects of metalinguistics are important in the process of learning to read and cause much confusion for many children. Whilst a knowledge of voiced/unvoiced sounds can be difficult to acquire, it can nevertheless be taught relatively easily in a classroom situation by directing children to feel their vocal chords whilst uttering voiced and unvoiced sounds.

Knowledge of schwas was low (31%) but understandable given its greater complexity when compared with, for instance, knowledge of syllables. However, its importance is clearly demonstrated in the following example taken from a training video for specialist teachers of literacy (Appraisement, Education Queensland. 1998). In the video, a teacher is pointing out to an 11-year-old student that he had misspelled hospital as hospitl and that he must say the word properly to be able to spell it. The teacher demonstrated that hospital is said hos-pit-al with pronounced emphasis on the ‘al’. This sound should have been a schwa (i.e., the vowel ‘a’ is not heard when we say hospital). If the teacher had been able to explain this fact, and to explain about syllables and how they must contain a vowel, this would have been of more help to the student who was struggling to work out how to match the spoken word with the alphabetic code.

Attitudes to and knowledge of metalinguistics did not vary according to teachers’ years of experience. This was a somewhat surprising result given the expectation that teachers who trained several decades ago were more likely than recently graduated teachers to have experienced teacher education courses that included a greater emphasis on code-based instruction. One possible explanation is that literacy general programs since the 1970s have emphasized the whole language approach to the teaching of reading. Thus, older teachers who originally may have had a skills-based approach have moved away from this in keeping with the trends of the time.

The type of specialist training received by teachers may be important in the acquisition of their metalinguistic knowledge. The lack of significant difference between ESL teachers, LOTE teachers, Reading Recovery teachers, and teachers with no special language qualification may have been the result of very low numbers in the language—based groups. Trends in the means suggested that teachers in the three specialist language groups had greater metalinguistic knowledge than teachers without specialist language training. Ehri and Nunes (2002) noted that the study of phonology is part of ESL and LOTE teachers’ training. Furthermore, the recently revised Reading Recovery program (Clay, 2001) includes a greater skill component. Thus, it would not be surprising for these specialist groups of teachers to demonstrate superior metalinguistic knowledge when compared with teachers without specific training in the understanding of language. Another study targeting specialist groups would enable a more thorough investigation of this phenomenon.

Although we have indicated that special education teachers in this study have superior metalinguistics knowledge, we did not have evidence to show how this relates to reading outcomes for their students. However, there is ample evidence demonstrating the importance of a skills-based approach. Pressley (1998) claimed that ‘the scientific evidence is simply overwhelming that letter-sound cues are more important in recognizing words than either semantic or syntactic cues …’ (p. 16) and that heavy reliance on the latter is a ‘disastrous strategy’ (p. 32) for beginning readers. Over a decade ago Liberman et al., (1989) noted that too many teachers were being prepared to teach reading without adequate knowledge of how an alphabetic orthography represents the spoken language. It is heartening news that in Australia there have been recent calls for a more balanced approach to literacy development that includes both code-based and meaning-based approaches embedded in the four resources model of reading e.g., Luke & Freebody, 1998).
The critical features of effective teacher preparation programs in reading must include a balance of oral language, phonemic awareness, phonics, word identification, fluency, vocabulary, comprehension, the assessment of all aspects of literacy learning and managing literacy instruction across grade levels (International Reading Association, 2003).

In conclusion this study has justified the following findings: That many teachers have positive attitudes to both meaning-based and code-based teaching; that teachers’ metalinguistic knowledge is not strong; that some knowledge (e.g., number of syllables) was more widely shared than other knowledge (e.g., definition of a syllable) and that attitudes and knowledge of metalinguistics did not vary according to years of experience, or specialist LOTE, ESL or Reading Recovery training, but were influenced by special education training.

References


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