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The entry knowledge of Australian pre-service teachers in the area of phonological awareness and phonics

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Abstract

This paper reports on part of an ongoing project in an Australian tertiary institution to pre-test primary teacher education students on their entry level phonological awareness and phonics skills, and to use the results of this test to inform the teaching of their Curriculum Studies English classes. A 25-item multiple choice test selected from the phonological and phonic knowledge outlined in the NSW *English K–6 Syllabus*, was devised by the authors. A cohort of 140 pre-service teachers undertook this test prior to commencing their class in Curriculum Studies English I. This paper analyses the results of this pre-test and discusses the implications for teaching pre-service teachers domain-specific knowledge in the area of phonological awareness and phonics.

Two recent inquiries initiated by the Australian Federal Government (DEST, 2005; House of Representatives Standing Committee on Education and Vocational Training, 2007) have highlighted concerns about the extent to which current Australian teacher education programs are adequately preparing graduates for effective teaching of reading skills. Although these concerns are wide-ranging, this paper will focus specifically on implications for early reading instruction. It will also discuss attempts by one teacher education program to address implicit

suggestions in recommendations arising out of these reports that, first, beginning teachers may not have the necessary domain-specific knowledge of phonological awareness and phonics for the effective teaching of early reading skills (DEST, 2005, Recommendation 11, p20); and second, they may not have attained sufficiently high levels of personal literacy skills to enable them to promote high academic standards among their students (House of Representatives Standing Committee on Education and Vocational Training, 2007, Recommendation 4b, pxvi). Although the importance of an ‘integrated’ approach to the teaching of reading, involving both explicit and implicit forms of instruction (McNaughton, 2006) is recognised, this paper will focus on explicit instructional approaches as recommended in the report on Teaching Reading (DEST, 2005).

Pre-service and in-service teacher perceptions and knowledge of the metalinguistic processes associated with learning to read, has been the focus of considerable recent research, both overseas (e.g. Bos, Mather, Dickson, Podhaiski, & Chard, 2001; Cunningham, Perry, Stanovich, & Stanovich, 2004; Moats & Foorman, 2003; Spear-Swerling, Brucker, & Alfano, 2005), and in Australia (e.g. Fielding-Barnsley & Purdie, 2005; Leigh & Ryan, 2006; Louden, Rohl, Gore, Greaves, McIntoch, Wright, Siemon & House, 2004; Rennie & Harper, 2006; Rohl & Greaves, 2005). In general, this research indicates a mismatch between, on the one hand, what converging ‘evidence-based’ research supports as effective early reading instruction, and, on the other hand, the knowledge and skills which new teachers actually bring to the task of teaching beginning reading (Bos et al., 2001; DEST, 2005; Fielding-Barnsley & Purdie, 2005; Louden et al., 2004; Rohl & Greaves, 2005; Spear-Swerling et al., 2005).

This mismatch has manifested itself in at least two ways. First, it has been demonstrated that many pre-service and in-service teachers have limited knowledge of phonological awareness, spelling and the terminology associated with language structure and phonics (Bos et al., 2001; Cunningham et al., 2004; Fielding-Barnsley & Purdie, 2005; Moats & Foorman, 2003; Rennie & Harper, 2006; Rohl & Greaves, 2005). Consequently, these teachers may have difficulty in teaching word-level reading skills in the systematic and explicit manner which research has found to be of particular importance for students with diverse learning

needs (Fielding-Barnsley & Purdue, 2005; Moats & Foorman, 2003; Rennie & Harper, 2006; Rohl & Greaves, 2005). Further, they may also confuse children with incorrect information, as for example, when a child comes to the word 'done' and they are told to sound it out (Moats & Foorman, 2003). In addition, they may have trouble interpreting screening and diagnostic assessment data (Moats & Foorman, 2003), as well as psychological and specialist reports (Fielding-Barnsley & Purdue, 2005).

Moreover, there is evidence that some teachers may over-estimate their knowledge of reading-related skills, being unaware of what they know and do not know, leading Cunningham and her colleagues (2004, p162) to conclude that, "While teachers cannot teach what they do not know ... [they] ... do not always know what they do not know". On the other hand, many pre-service and beginning teachers, while indicating positive attitudes towards explicit code instruction, have expressed frustration at their lack of knowledge and lack of preparedness for teaching phonics and other word-level early reading skills (Bos et al., 2001; Rennie & Harper, 2006). Further, pre-service teachers have expressed dissatisfaction in not being taught how and why all of the conventions of phonology and written language fit together (Rennie & Harper, 2006).

A second area of concern which may impact on teacher preparedness for literacy teaching is evidence of a decline in the academic aptitude of pre-service teachers. Research findings by Leigh and Ryan (2006) indicate that literacy and numeracy standards for students entering Australian teacher education programs had fallen from an average percentile rank of 74 in 1983 to an average of 61 in 2003. In support of this Zipin and Brennan (2006) provide anecdotal evidence, which, no doubt, could be corroborated in most Australian universities, that a significant number of teacher education students in their university struggle with attaining the required university coursework 'standards' for essay writing. Zipin and Brennan (2006) estimate that well upwards of 15 per cent of students are "weak" or "very weak" in spelling, grammar and sentence structure, while up to 50–60 per cent are "weak" or "very weak" in synthesis and analysis of the key concepts and arguments in required readings in their coursework. While the possible reasons for these findings of a drop in literacy standards of the current cohort of

teacher education students are complex, and beyond the scope of this paper, the fact remains that prospective teachers who themselves struggle with academic literacies, are likely to perpetuate the cycle of low literacy standards for the next generation of readers (Zipin & Brennan, 2006).

Although the research evidence cited above indicating possible deficiencies in both the personal literacy skills and the domain-specific knowledge of language structure concepts such as phonological awareness and phonics, of pre-service and beginning teachers, represents a poor prognosis for the future teaching of reading, there are some positive implications for educational practice. Accumulating evidence exists which suggests that, given explicit instruction in phonological and orthographic information and the opportunity to practice their new-found skills in supervised, appropriately designed field-work experiences, pre-service teachers can develop the knowledge and skills necessary for effective early literacy teaching (Al Otaiba, 2005; Rohl & Greaves, 2005). Improved teacher knowledge and skills lead, in turn, to improved student outcomes in reading acquisition (Al Otaiba, 2005; de Lemos, 2005).

From this perspective, one can understand the relevance of recommendations that primary education literacy coursework should include “evidence-based ... instruction on how to teach phonemic awareness” and “phonics” (DEST, 2005, pp20,52), and that teacher education students should “undergo diagnostic testing of their literacy and numeracy skills” with a view to assisting those students with “identified deficiencies ... to develop skills to the required level” (House of Representatives Standing Committee on Education and Vocational Training, 2007, ppixvi,60). Such testing would also allow teacher educators to be aware of gaps and inaccuracies in pre-service teachers’ knowledge, so that they can shape their coursework to promote the development of high standards of personal literacy and domain-specific knowledge of early reading skills for all (Rennie & Harper, 2006; Spear-Swerling et al., 2005).

The present study reports on part of an ongoing project in an Australian tertiary institution designed to pre-test primary teacher education

students on their entry level phonological awareness and phonics skills, and to use the results of this test to inform the teaching of their Curriculum Studies English classes. This was a pilot study which sought to combine descriptive statistics and qualitative analysis techniques to analyse the usefulness of the test as a valid indicator of strengths and weaknesses in phonological awareness and phonics skills of beginning teachers. The study also sought to explore pre-service teacher perceptions and reactions with regard to the testing of their entry-level knowledge of phonological awareness and phonics.

Methodology

Participants

The participants were a cohort of 140 pre-service teachers, 127 of whom were undertaking a BEd (Primary) degree while the remainder were enrolled in either BEd (Early Childhood) (N=6), or a two-year, graduate-entry BTch (Primary) degree (N=7). As can be seen in Table 5.1, the group was comprised of 28 males and 112 females ranging in ages from 18 to 52. The mean age was 21.7 years and the median was 20 years. A proportionally larger number of the older students were males.

| Age Range | Male | Female | Total |
|-----------|------|--------|-------|
| 18 – 20 | 12 | 72 | 84 |
| 21 – 25 | 10 | 30 | 40 |
| 26 – 30 | 0 | 5 | 5 |
| 31 – 35 | 1 | 4 | 5 |
| 36 – 40 | 2 | 1 | 3 |
| 41 – 45 | 2 | 0 | 2 |
| 45 – 50 | 0 | 0 | 0 |
| 51 – 55 | 1 | 0 | 1 |
| | 28 | 112 | 140 |

Table 5.1: Respondents by age and sex

So as to explore the possibility that factors other than schooling may have contributed to pre-service teacher knowledge of phonics and phonological awareness, subjects were asked to complete a questionnaire

indicating their pathway into the course (direct from school, transfer from another course, or after being in full-time work), and whether or not they had lived or travelled in non-English speaking country. (See Appendix One for a copy of the questionnaire.) As indicated in Table 5.2, of the 131 students who responded to this questionnaire, slightly more than half (approximately 56 per cent) had come directly from school while a further fifteen students (approximately 11 per cent) had transferred from another course. Thirty-nine of the respondents, or approximately 37 per cent, had previously worked full time, while only three students, all female, had experienced life in a country where English was not the primary language. An inspection of the data in Table 5.2 indicates that, in comparison to the females, the males were more likely to have been in full-time employment prior to entering the course, while the females were more likely to have come direct from school, or to have transferred from another course.

| Background experience | Male | Female | Total |
|------------------------------|-------------|---------------|--------------|
| Direct from school | 9 | 65 | 74 |
| Transfer from another course | 1 | 14 | 15 |
| Travel through NES countries | 0 | 3 | 3 |
| Full-time work | 16 | 23 | 39 |
| | 26 | 105 | 131 |

Table 5.2: Respondents by background experience and sex

Measures

A 25-item multiple choice phonics test, designed by the authors, and selected from concepts and terminology as outlined in the “Scope and Sequence of Phonological and Graphological Skills” of the NSW *English K–6 Syllabus* (Board of Studies NSW, 1998), was used to assess pre-service teacher entry-level phonological awareness and phonics skills. (See Appendix Two for a copy of the test.) For the purposes of statistical analysis the test was sub-divided into three sections, namely: ‘Rules-based Items’ (8 questions); ‘Orthographic/Phonological Items’ (8 questions); and ‘Knowledge of Terminology’ (9 questions).

Subsequent to completion of the test, students were asked to provide a written reflection on their reaction to the experience of undertaking the test.

Testing procedures

Testing took place during the first class period for the semester of the subject Curriculum Studies English I, which is a subject designed to familiarise pre-service teachers with the Early Stage I and Stage I sections of the NSW *English K–6 Syllabus* (Board of Studies NSW, 1998). The BEd (Primary) participants were in the second year of their degree course, while the BEd (Early Childhood) participants were in their third year, and the BTch participants were in either the first or second year of their course. None of the participants had previously undertaken a subject which focussed on early reading skills. Testing took place in two successive years (2006 and 2007) with test results from both groups being combined for the purposes of analysis.

Before commencing the test it was explained to the participants that this was part of a research project designed to help the lecturer understand and focus on those aspects of beginning literacy instruction with which they were unfamiliar. It was also emphasised that in no way would the marks from this test contribute towards their final semester grade.

Results and discussion

The phonics test

Table 5.3 displays a range of statistics that apply to the three sub-scales ('Rule-based Items', 'Orthographic/Phonological Items' and 'Knowledge of Terminology Items') and the total score. These include: the measures of central tendency; measures of spread; range; minimum and maximum scores and the quarterly percentage scores. The box plots derived from these results are shown in Figure 5.1. This reveals that the scores generated from the two sub-scales 'Rule-based Items' and 'Knowledge of Terminology Items' are uniformly spread with median measures lying approximately in the middle of the range. This indicates that, for a pre-test situation, the difficulty of the two sub-scales is about right. In contrast the scores generated from the sub-scale 'Orthographical

/Phonological Items' are skewed toward the upper end of the range, indicating that this scale is probably too easy for a pre-test.

| | Rule-based Items | Orthog/Phon Items | Knowledge of Terminology | Test Total |
|------------------|---------------------|----------------------|--------------------------------|---------------|
| No. of Items | 8 | 8 | 9 | 25 |
| Mean | 5.3 | 6.6 | 4.7 | 16.6 |
| Median | 5 | 7 | 5 | 17 |
| Mode | 6 | 7 | 5 | 17 |
| St. Deviation | 1.42 | 1.23 | 1.53 | 2.82 |
| Range | 6 | 6 | 8 | 16 |
| Minimum Score | 2 | 2 | 1 | 6 |
| Maximum Score | 8 | 8 | 9 | 22 |
| Quarterly % 25 | 4 | 6 | 3 | 15 |
| 75 | 6 | 8 | 6 | 19 |

Table 5.3: Sub-scales and test-total by measures of central tendency, standard deviation, range, maximum and minimum scores and quarterly percentiles.

The 'Total Score' is generated by the sum of the three sub-scales and has a range of 16 points out of a possible 25 points with a median measure of 17. The box plot reveals that the total score is somewhat skewed toward the upper end. This however, should be corrected if the sub-scale 'Orthographical/Phonological Items' is made more difficult.

The correlation table (Table 5.4) reveals an interesting side view of the participants in the study and pertinent information about the sub-scales. Firstly, there is a slight tendency for the males among the respondent to be older than the females ($r = - 0.30$), while there were no correlations between age or sex and the sub-scales of the test. More importantly it can be seen that there is a slight tendency for those who scored well on

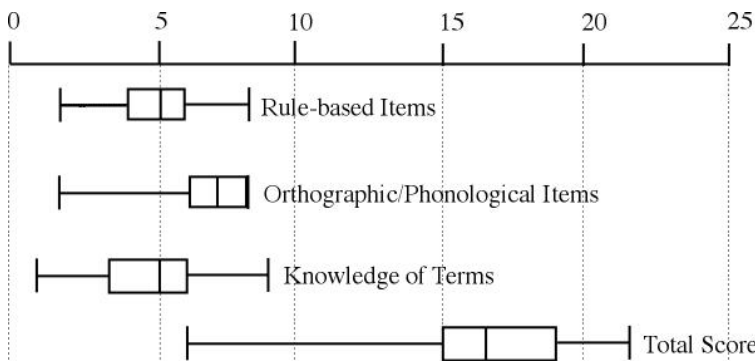


Figure 5.1: Box plots for sub-scales and total score

the sub-scale ‘Rule-based Items’ to also score well on the sub-scale ‘Orthographic/Phonological Items’ and vice versa ($r = + 0.32$). Despite this, with a shared variance of about 10 per cent, these two sub-scales can be regarded as having relatively little overlap. On the other hand the sub-scale ‘Knowledge of Terminology’ can be regarded as being independent of the other two sub-scales ($r = + 0.09$ and $r = + 0.16$ respectively). In other words, there is prima-facie evidence that all three sub-scales provide measures of different constructs. Finally, it is to be expected that correlations between the three sub-scales and the ‘Total Score’ would be relatively strong ($r = + 0.69$, $r = + 0.68$ and $r = + 0.66$ respectively).

| | Age | Sex | Rule-Based | Orthog/Phon | Knowl. Terms | Total Score |
|--------------------|------|--------|------------|-------------|--------------|-------------|
| Age | +1.0 | -0.30* | + 0.08 | - 0.02 | + 0.10 | + 0.09 |
| Sex | | + 1.0 | + 0.20 | 0.00 | + 0.06 | + 0.04 |
| Rule-Based Items | | | + 1.0 | + 0.32* | + 0.09 | + 0.69* |
| Orthog/Phon Items | | | | + 1.0 | + 0.16 | + 0.68* |
| Knowledge of Terms | | | | | + 1.0 | + 0.66* |
| Total Score | | | | | | + 1.0 |

Table 5.4: Correlations for age, sex, sub-scales and total score

An inspection of the items which proved to be the easiest and those which caused the most difficulty revealed some interesting trends. As indicated in the descriptive analysis above, items which probed knowledge of terminology were answered the most poorly. For example, only 11.5 per cent of participants could correctly identify the number of phonemes in the word “black” (Item 19), with most choosing a response of either two or three phonemes. Although 83 per cent were able to correctly identify only two phonemes in the word “shoe” (Item 23), only 20 per cent could correctly identify the number of graphemes in the same word (Item 24), indicating that the concepts of phonemes and of grapheme-phoneme correspondence are not well understood. Other terminology which was not particularly well known included consonant blends (Item 11 with 44 per cent correct), homonyms (Item 21 with 45 per cent correct), and vowel digraphs (Item 25 with 46 per cent correct).

Another trend that became evident was that, although the majority displayed good phonological awareness in being able to identify individual phonemes (Items 3, 7, 8, & 13, all with approximately 95 per cent correct), and syllables (Items 12 & 22 with over 90 per cent correct) in words, many had trouble with rule-based applications of this knowledge. For example, while the majority were able to identify short vowel sounds in a one-syllable word (Item 13 with 96 per cent correct), only about half were able to identify long vowel sounds and the rules governing the spelling of long vowel sounds (Items 2, 5, 15, & 16). Again, although the majority (93 per cent) could distinguish the soft sound of ‘c’ in the word ‘cent’, when compared with words that have the hard sound of ‘c’ (Item 8), only 76 per cent were able to apply the spelling rule for distinguishing the soft and hard ‘c’ sounds (Item 18). There was also some confusion between compound and affixed words (Item 21), with only 79 per cent of participants correctly identifying the compound word.

Taken together, these results indicate that for this cohort of pre-service teachers, entry knowledge of graphological/phonological rules and terminology tends to be fragmentary, suggesting that without further instruction in domain-specific knowledge in the area of phonological awareness and phonics, they may have difficulty providing systematic

and explicit beginning reading instruction. This supports findings from previous studies which found that many pre-service and in-service teachers have limited knowledge of phonological awareness and phonics (e.g. Fielding-Barnsley & Purdue, 2005; Moats & Foorman, 2003; Rennie & Harper, 2006; Rohl & Greaves, 2005).

Reflections on the test

Previous studies have reported that many beginning teachers feel frustrated by their lack of knowledge and lack of preparedness for teaching phonics and other word-level early reading skills (Bos et al., 2001; Rennie & Harper, 2006). This finding was also demonstrated in the present study. Written reflections on the experience of taking the test confirmed that many were confused with the terminology, and in most cases, resorted to guessing. Typical comments (with no attempt to correct grammatical errors) were:

The content covered in the test had aspects and topics, which I had either never heard of in my life or had very little understanding of.

A few students, despite assurances that the marks for this test would not count towards their final grade, even expressed feelings of fear and humiliation.

Not knowing the answer to the questions and not grasping an understanding of what the questions were asking was horrible, I felt stupid. The test was a very negative experience for me. It made me feel somewhat incompetent and it is not an experience I would want one of my students to go through.

Some students, similarly to those reported by Rennie and Harper (2006), expressed frustration that they had not been taught these things in school.

When I attempted the test I really struggled, as when I was at school they taught what a noun, verb and syllable was but that was about it.

Some students, however, (mainly older students) felt that they had learnt these things before but had forgotten them.

It has become real to me that I have forgotten many things that I was originally taught when I was younger, and at several times throughout the test I felt like I knew an answer, or I had come across several terms before, but could not remember what to do. This test in itself has really opened up my eyes on what is needed to be learned to be a successful teacher of English.

Some comments also reflected a tendency for some students to have previously had an inflated idea of their degree of understanding of English phonology, as suggested by Cunningham et al. (2004), with observations such as:

Now I know how much I really have to learn! The test was a real wake-up call because I had considered English as being straightforward to teach. I know that the test was probably full of 'basics', but I was so lost!

Some students expressed appreciation of being shown how much they had yet to learn, and of the importance of the knowledge of such concepts in beginning reading instruction. For example:

The test made me realise I have a lot to learn before I am ready to be thrown into a classroom. Its given me something to learn from so I can have the ability and confidence to teach a class full of children how to read Its good to see that the things we are being taught in this class will actually have practical use in a classroom.

While the majority of students, as noted above, viewed the whole exercise positively, as a chance to highlight what they still needed to know, three students expressed the view that they considered the learning of terminology associated with basic literacy skills to be irrelevant and a waste of time.

I feel it is beyond the level of knowledge a student doing this particular course is required to know. So far on prac my teachers have never mentioned those words when teaching or in preparing lessons. If they were to come up in books a teacher reads well there is always the dictionary. Some words I agree are useful to learn, however lots of this I feel is not using our time wisely and it is unnecessary.

Such comments reflect the polarisation between code-based and meaning-based approaches to literacy instruction, which currently exists in the Australian educational community, and the need to find a proper balance between the two (de Lemos, 2005; Harris, 2006; McNaughton, 2006). While this paper acknowledges the importance of an integrated approach, it has focussed on pre-service teacher knowledge and understanding of code-based instruction because of converging research evidence that many beginning teachers have deficiencies in this area (DEST, 2005; Louden et al., 2004; Rennie & Harper, 2006). The written comments have also highlighted, unintentionally, the fact that a number of the pre-service teachers in the present study, like those in reported by Zipin and Brennan (2006), showed deficiencies in personal literacy skills with regard to grammar, punctuation and sentence structure. The development of a diagnostic test of personal literacy skills could be the focus of future research.

Conclusion

The present study has reported on part of an ongoing project in an Australian tertiary institution to pre-test primary teacher education students on their entry level phonological awareness and phonics skills, and to use the results of this test to inform the teaching of their Curriculum Studies English I class. This project, which commenced in 2006, has, in a sense, anticipated a recommendation of the Report on the Inquiry into Teacher Education (House of Representatives Standing Committee on Education and Vocational Training, 2007), albeit on a limited scale, that teacher education students should undergo diagnostic testing in literacy and numeracy at the beginning of their coursework with a view to assisting them to develop skills to the required level.

The phonics test reported on in this paper proved to be useful, even in its original form, for highlighting gaps in the entry knowledge of pre-service teachers in the area of phonological awareness and phonics. This information has enabled the lecturer (the lead author) to be more informed and more intentional in her instruction in systematic and explicit beginning literacy knowledge and skills as recommended by the Report and Recommendations on Teaching Reading (DEST, 2005). Consequently, the participants showed an overall mean gain in scores on

a similar, but more difficult, test in their final examinations. Based on the findings of the present study the original test has now been modified so as to increase the difficulty of the Orthographic/Phonological sub-scale, and the modified version is currently being trialled with a view to using it as a pre-, post- and maintenance test for research with future cohorts of pre-service teachers. The final goal of this project is that, with enhanced knowledge and understanding of phonological awareness and phonics, together with instruction in other aspects of literacy which form part of the undergraduate coursework of this institution, pre-service teachers will be better equipped for effective teaching of reading in the early years of schooling.

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APPENDIX ONE

QUESTIONNAIRE FOR PHONICS TEST

Date _____

Name _____

Age _____

Gender: Male Female

1. Have you studied linguistics prior to studying at Avondale College? Circle one of the following:

Yes

No

2. Have you engaged in any teacher-related experiences prior to studying at Avondale College? Circle one of the following:

Yes

No

Elaborate _____

3. Circle your current course at Avondale:

a) B.Ed

b) B.Tch

c) Early Childhood

d) Other _____

4. Experience prior to commencing Curriculum Studies - English I.

Circle one of the following. Did you:

a) come direct from high school;

b) transfer from another tertiary course;

c) travel overseas to a non-English speaking country;

d) take part in paid full-time work;

5. If you have been employed then list fields of employment and time spent at each job.

Example- Forklift driver – 3 months

Employment

Duration

6. Any other relative comments you wish to include.

APPENDIX TWO
PHONICS TEST FOR PRE-SERVICE TEACHERS

Name _____ Date _____

1. If the letter “*i*” were inserted after the “*a*” in “*pad*”, “*man*” and “*pants*”, the “*a*” would be:
 - a. long “*a*”
 - b. short “*a*”
 - c. silent “*a*”
 - d. *r*-controlled

2. If “*daper*” were a word, the “*a*” would probably be:
 - a. long “*a*”
 - b. short “*a*”
 - c. silent “*v*”
 - d. “*r*”-controlled

3. The vowel sound in “*rare*” sounds like the vowel sound in:
 - a. *ate*
 - b. *are*
 - c. *there*
 - d. *ball*

4. The sound of “*a*” in the sound pattern “*ance*” or “*adge*” is usually:
 - a. long
 - b. short
 - c. silent
 - d. schwa

5. If a word contains two vowels, one of which is a final “*e*”, the first vowel sound is probably:
 - a. long
 - b. short
 - c. silent
 - d. schwa

6. Which one of the following consonants influences the sound of vowels?

- a. "b"
- b. "r"
- c. "m"
- d. "j"

7. Which word has a different ending sound?

- a. crab
- b. comb
- c. grab
- d. rub

8. Which word has a different beginning sound?

- a. cat
- b. cent
- c. cut
- d. cook

9. Which word has a different sound represented by "ch"?

- a. chaperone
- b. chef
- c. chalet
- d. charcoal

10. When two "d's" appear together in a word, as in "daddy", "middle" and "puddle":

- a. both "d's" are heard
- b. the first "d" is heard and other one is silent
- c. the second "d" is heard and the first one is silent
- d. both "d's" are silent

11. Which of the following consonant clusters is not a consonant blend?

- a. "cl"
- b. "cr"
- c. "ch"
- d. "br"

12. Which of the following words has two syllables?
- asked
 - acted
 - turned
 - watched
13. The short sound of “i” is heard in:
- hid
 - hide
 - tie
 - high
14. Which of the following consonant combinations is not a consonant digraph?
- “ch”
 - “sh”
 - “th”
 - “rh”
15. Which of the following words has a long vowel sound?
- watch
 - cheer
 - fur
 - feed
16. Which of the following words has a long “oo” sound?
- book
 - boot
 - hood
 - pull
17. “dis” is an example of a:
- synonym
 - diphthong
 - prefix
 - suffix

18. The letter “c” followed by “e”, “i”, or “y” usually has the sound of:
- “ch”
 - “ck”
 - “s”
 - “sh”
19. How many phonemes are in the word “black”?
- 2
 - 3
 - 4
 - 5
20. Which of the following is a compound word?
- truthful
 - campground
 - likeable
 - trusting
21. The words “sale” and “sail” are:
- homonyms
 - synonyms
 - antonyms
 - rhyiming words
22. How many syllables in the word “responsibility”?
- 6
 - 8
 - 10
 - 14
23. How many phonemes are in the word “shoe”?
- 2
 - 3
 - 4
 - 5

24. How many graphemes in the word “*shoe*”?

- a. 2
- b. 3
- c. 4
- d. 5

25. “*ea*” is an example of a/an:

- a. diphthong
- b. onset-rime
- c. vowel digraph
- d. blend