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Invented spelling : the role of developmental spelling in early childhood classrooms

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Invented spelling : the role of developmental spelling in early childhood classrooms

Abstract

This paper is a review of literature relative to the importance of Invented Spelling in early childhood classrooms. The primary focus of this paper was to develop guidelines which should be used to implement a model program. The literature examined included the features of Invented Spelling and the stages of Invented Spelling. Also, the advantage and disadvantages of Invented Spelling were discussed.

The conclusion of this paper offers suggestions to educators on how to implement a model Invented Spelling program. Recommendations for further research in the area are stated.

INVENTED SPELLING: THE ROLE OF DEVELOPMENTAL SPELLING
IN EARLY CHILDHOOD CLASSROOMS

A Graduate Research Paper

Submitted to the

Division of

Department of Curriculum and Instruction

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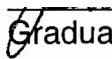
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ABSTRACT

This paper is a review of literature relative to the importance of invented spelling in early childhood classrooms. The primary focus of this paper was to develop guidelines which should be used to implement a model invented spelling program.

The literature examined concerning invented spelling included the features of invented spelling and the stages of invented spelling. Also, the advantage and disadvantages of invented spelling were discussed.

The conclusion of this paper offers suggestions to educators on how to implement a model invented spelling program. Recommendations for further research in the area of invented spelling are stated.

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INVENTED SPELLING: THE ROLE OF DEVELOPMENTAL SPELLING IN EARLY CHILDHOOD CLASSROOMS

CHAPTER I

INTRODUCTION

In the early 1970's two linguists, Charles Read and Carol Chomsky, suggested that spelling was much more than simply memorizing words. Both researchers claimed spelling is a developmental process that evolves from the children's understanding of a system beyond rote memorization of words (Elizabeth Gibbons Pryor and Denise Stuart, 1991).

By analyzing the written productions of preschool and kindergarten children, Read (1971) observed emerging patterns in their writing. He claimed that the children's initial attempts at spelling were strongly influenced by their awareness of speech sounds and the relationships among speech sounds. He concluded that children organize sounds into categories.

Chomsky (1971) described accounts of children's success in learning to write by spontaneously inventing their own spelling with sound patterns. She recognized that these invented spellings occur either before or simultaneously with learning to read. The findings of Read and Chomsky have produced a growing interest in invented spelling and have generated a literature concerning spelling development (Linda K. Clarke, 1988).

Clarke's (1988) naturalistic study compared progress of first graders using

invented spelling to those using traditional spelling. The results of her study indicated that children using invented spelling were able to write more on their own for longer periods of time. Also, children who used invented spelling knew more about phonics and word analysis, but they were less capable with flash card recognition.

Rhea Paul (1976) has provided descriptive accounts of children's success in learning to write by inventing their own spontaneous spelling. She stated, "Children's spontaneously invented spelling provides them with opportunities for independence in enhancing their written communication skills. The strategies children employ reflect their developing language abilities" (p.195).

Purpose of the Study

The purpose of this study is to examine the literature concerning invented spelling and develop a model invented spelling program that can be implemented in early childhood classrooms. This purpose will be achieved by addressing the following questions:

1. What are the features of invented spelling?
2. What are the stages in invented spelling?
3. What are the advantages of invented spelling?
4. What are the disadvantages of invented spelling?
5. What are the guidelines which should be used to implement a model invented spelling program?

Need for the Study

Movement toward increased emphasis on writing in language arts

instruction have led educators to encourage children to use invented spelling (Clarke, 1988). An awareness and understanding of invented spelling enables educators to provide instruction that is appropriate for a child's stage of development, and this awareness can be used to make modifications for individual needs (Karen D'Angelo Bromley, 1991).

Limitations of the Study

Limitations of this literature review were while many sources were available, other sources were unavailable. In addition, terminology, especially in the area of invented spelling features and stages have changed throughout the years.

Definitions of Terms

Terms used in this study will be defined to mean the following:

Affrication – A certain way of stopping air which results in a *shhh* sound. It involves consonants and is represented by a phonetic base, for instance, sounds such as *jr* and *dr* (*jrag* for drag) or *tr* and *ch* (*trip* for chip).

Alternations – Occur when children do not recognize various uses of past tense or plural representations belonging to the same morphological item, for instance, *hapt* for hopped.

Alveolar flaps – An abstract representation in invented spelling and the lack of contrast between two consonants when they occur between a vowel, for instance, *ladr* for letter.

Digraph – Letter combinations that represent single sounds (*ch, sh, th, wh, ph*)

Environmental print – Print encountered outside of books that is a pervasive part of everyday living.

Invented spelling – Spellings that result from a beginning writer's initial attempts to associate sounds with letters. The ability to attend to sound units in words and associate letters with those units in a systematic, though nonconventional way. Also known as developmental, phonetic spelling, creative spelling, and estimated spelling.

Morphological item – The aspects of language structure related to the ways words are formed from prefixes, roots, and suffixes and are related to each other, for instance, mis-spell-ing (meaning units).

Nasals – Feature of invented spelling involving *m* and *n* as in bumpy, end, and sing.

Phoneme – One of the smallest units of speech that distinguishes one utterance or word from another, for instance, the *b*, *a*, and *t* sounds that make up the word bat.

Phonemic Awareness – The ability to recognize spoken words as a sequence of sounds.

Phonics – The relationship between letters and sounds in written words or an instructional method that teaches children these connections.

Phonological awareness – The whole spectrum from primitive awareness of speech sounds and rhythms to rhyme awareness and sound similarities and, at the highest level, awareness of syllables or phonemes.

Phonology – Refers to the sound system of our language, a system of regular processes that determine the pronunciation of words (sound units).

Scaffolding – Appropriate adult mediation to help children accomplish more difficult tasks than they could normally do on their own.

Syllabic Segments – A vowel occurs between two consonants or at the end of a word after a consonant, for instance, *atm* for atom or *botl* for bottle.

Traditional spelling – Refers to children's use of the standard spelling of words.

Velar Nasals – Give the same spelling for *ng* and *n*. The *g* represents *g* and the nasal has been omitted, for instance, *fegr* for finger and *logr* for longer.

Vowel alternations – Substitution of one vowel sound for another.

Word analysis – Strategies consisting of using context, phonics, structure, and the ability to combine these elements.

Word Patterns – Spellings exhibit conventions of English orthography, such as vowels in every syllable, e-marker, and digraph patterns correctly spelled inflectional endings and frequent English letter sequences

Zone of Proximal Development (ZPD) – The level of development where children know enough (it's not too easy nor too hard) to learn with the help of teachers who explain things in terms the children can comprehend

CHAPTER II
REVIEW OF LITERATURE
Features of Invented Spelling

Read (1971) described a number of features he had observed in young children's written productions. These features include the following: vowels, vowel alternations, affrication, flaps, nasals, syllabic segments, and alternations.

Vowel and vowel alternations represent an abstract feature observed in invented spelling. Read (1976) stated that "... children's created spellings, no less than the standard ones, are the results of a systematic categorization of English vowels according to certain articulatory properties" (p.13). He suggested that a child's goal is to master new principles to what he or she already knows of the English sound system.

The feature of affrication involve consonants. These representatives have a phonetic basis. Read (1976) stated "The invented spellings of *t* and *d* before *r* is *ch* and *j*, respectively" (p.13). Examples of affrications include *as chary* for ash tray and *jragin* for dragon.

Another abstract representation in a child's invented spelling involves alveolar flaps. These result from tapping the tongue against the alveolar ridge behind the upper teeth. An example of alveolar flaps is the lack of contrast between *t* and *d* when they occur between a vowel, as in *ladr* (letter) and *bedr* (better) (Read, 1976).

The treatment of nasals *m* and *n* is also a feature of children's spelling. When nasal sounds occur in the initial or final position, children almost

always spell the nasal sound in the usual way such as, *nit* (night) and *wan* (when). However, when the nasal sound occurs before a consonant, children usually omit the nasal from their spelling. For example, *plat* (plant) and *bopy* (bumpy). Less common are velar nasals before phonetic consonants. Examples include *agre* (angry) and *sic* (sink) (Read, 1976).

Syllabic segments are represented when a vowel occurs between two consonants or in the final syllable of a word between two consonants. Examples of children omitting such a vowel are *tigr* (tiger) and *wagn* (wagon). They also occur, in medial syllabic consonants such as, *grl* (girl) and *brd* (bird) (Read, 1976).

Finally, alternations occur when children do not recognize various uses of past tense or plural representations belonging to the same morphological item. For example, *hapt* (hopped) (Read, 1976).

Stages in Invented Spelling

Children usually do not always use conventional alphabet letters when they begin to write. Children frequently create print markings such as continuous scribble, separated scribble, mock letters, or conventional letters with errors (Judith Schickedanz, Mary York, Ida Santos Stewart, and Doris White, 1998).

Research conducted by Chomsky (1970) and Read (1971) on how children learn to spell led the way for Edmond H. Henderson (1980) and J. Richard Gentry (1981) to identify developmental stages involved in becoming good spellers. The following is a description of the six sequential stages of developmental spelling as identified by Henderson and Gentry:

The first stage for both Henderson and Gentry was typified by the random ordering of letters and/or symbols and was called the *deviant stage*. For instance, some children will simply scribble lines to symbolize words or write a string of single letters to represent the sound of the full letter name. Example of the *deviant stage* include: *btBpa* for monster (Sheri Coat and Marrietta Castle, 1989; Bromley, 1988; Paul, 1976). Children frequently verbalize what they are scribbling. This demonstrates children's understanding that written symbols have meaning and reveals how children attempt to communicate through writing (Susan B. Newman, Carol Copple, and Sue Bredekamp, 2000). Gentry (1993) later identified this stage as the *precommunicative* stage. He defined *precommunicative* as "...writing before it can be read by people other than the inventive speller who produced it (p. 26)." Gentry stated the most important aspect of this stage was the child becoming familiar with letters.

The second stage according to Henderson and Gentry is called the *prephonetic stage*. Characteristics of this stage involve one, two, or three letter spellings that represent some sounds in a word. Examples of the *prephonetic stage* include: *msr* for monster and *klz* for closed (Bromley, 1988). Children use the first consonant in their name or other common words to stand for the whole word. An example is *m* for mom. Children progress from one-letter spellings to adding other common consonants to form two-letter and three-letter groups of letters (Newman, Copple, and Bredekamp, 2000). Gentry (1993) later identified the second stage as the *semiphonetic* stage. He defined *semiphonetic* as "...the spelling used to represent only some of the surface sound features of the word

being spelled” (p. 27). Gentry stated the important aspect at this stage was an awareness of phonemes, the smallest units of speech that distinguish one utterance or letter sound from another.

The third stage by Henderson and Gentry is characterized by a nearly perfect match between letters and sounds. This stage is called *phonetic stage*. Examples of *phonetic stage* include: *dras* for dress and *kramid* for crammed (Bromley, 1988). As children demonstrate the knowledge of simple rules, their understanding of the patterns in language are developing (Newman, Copple, and Bredekamp, 2000). Gentry (1993) stated the important aspect at this stage was that all words could be represented phonetically.

The fourth stage for Henderson and Gentry involves more abstract representation with vowels included in every syllable. This stage is called *transitional stage*. Examples of *transitional stage* include: *egul* for eagle and *younited* for united (Bromley, 1988). Gentry (1993) stated the important aspect at this stage was that the writer must write what the words sound and look like. In the *semiphonetic* and *phonetic stages*, children learn and spell what words sound like. The *transitional* speller develops the ability to know what the words look like. A key understanding for children is that they not only comprehend what words sound like but they also are able to think about what words look like. This skill is an important step in the change which children make from *phonetic* to *transitional* spelling. The *transitional* speller begins to realize that words have semantic, historical, and visual demands as well as phonetic sounds.

The fifth stage is called *derivational stage*. At this stage word patterns

are used. For example *sot* for slot, *camp* for champ, and *sope* for soap (Bromley, 1988).

The sixth stage according to Henderson and Gentry for spelling development is called the *standard stage*. At this stage the spelling is accurate and the child should be involved in formal instruction (Bromley, 1988).

Gentry (1993) combined the fifth and sixth stage and called it the *conventional stage*. Gentry stated that at this stage there were many important aspects integrated. He stated that *conventional* spelling is a lifelong process. Experience and formal training enhance the knowledge of the *conventional* speller.

The National Association for the Education of Young Children (NAEYC) stated that by second grade, children should move toward conventional spelling. Children should only use invented spelling in their draft writings and begin to edit their own written work starting in the second grade (Neuman, Copple, and Bredekamp, 2000). Teachers should ensure a plan is developed for transitioning children out of invented spelling into a standard, conventional spelling instruction (Gentry, 1993).

Advantages of Invented Spelling

The greatest advantage of the invented spelling is the opportunity for young children to write independently. This can occur long before they are ready for a standard spelling program (Paul, 1976). Research has shown that as young children engage in invented spelling, they can become better spellers (Clarke, 1988; Donald Richgel, 1987). Invented spelling is a purposeful way for children to

possess knowledge in sound-symbol relationships of the English language (Paul, 1976). Invented spelling does not limit children to words they already know how to spell; therefore, invented spelling enhances their writing development (Newman, Copple, and Bredekamp, 2000).

Other research findings relate invented spelling and reading tasks. Invented spellers produced a distinct relationship with the ability to use phonological knowledge and phonemes segmentation (Jeanne M. Burns and Richgels, 1989). Another advantage is that invented spellers were more competent at the following tasks: consonant sound/letter association task, vowel sound/letter association task, sound unit segmentation task, contextual environmental print task, isolated environmental print task, word list task, and sentence task.

No significant differences were found between non-spellers and invented spellers in their ability to recite letters of the alphabet and identify letter names. In addition, both groups demonstrated an awareness of basic concepts related to print and showed no differences in their ability to divide words into syllables (Burns and Richgels, 1989).

Disadvantages of Invented Spelling

More and more early childhood educators are encouraging children to engage in writing with invented spelling. While many children will benefit from this practice, some researchers have expressed concerns about the use of invented spelling. These concerns focus on the use of the indirect approach to skill development (Patricia M. Cunningham and James W. Cunningham, 1992).

At-risk children often lack the knowledge to use phonemic awareness and letter-sound relationships. At-risk children need a more direct approach to develop these skills (Cunningham and Cunningham, 1992). Also, while most young children are risk-takers and are willing to participate in invented spelling, some children find it frustrating. Other concerns involve children becoming habitual misspellers by viewing their own misspelling time and time again. Educators who dismiss children's questions about their spelling by saying, "Spell it anyway you want to write it," do not help children's acquisition of language development (Schickedanz, 1999). An intervention teaching strategy called scaffolding provides children with assistance before they have reached their highest level of independent performance. For instance, in scaffolding a teacher builds on the child's knowledge and expands on what the child can do on his/her own (Newman, Copple, and Bredekamp, 2000).

Some children receiving an intervention in phoneme awareness differ in invented spelling from children who do not have this intervention. Research findings indicate that children who receive intervention experiences in phoneme awareness produced developmentally superior invented spellings. In addition, the treatment group outperformed the control group in letter name and letter sound knowledge, phoneme segmentation, and two of the three measures of beginning word recognition. These measures of beginning word recognition included phonetically reading words and nonwords (Darlene M. Tangel and Benita A. Blachman, 1992, Catherine McBride-Chang, 1998).

CHAPTER III
DEVELOPMENT and IMPLEMENTATION OF A
MODEL INVENTED SPELLING PROGRAM

The National Association for the Education of Young Children (NAEYC) has developed guidelines (found in Appendix A) which can be used to assist children's emerging spelling development (Neuman, Copple, and Bredekamp, 2000). These guidelines include:

1. Don't expect immediate correctness in young children's spelling.
2. Look for opportunities to talk about writing.
3. Encourage children to read their "writing" before you try to interpret it.
4. Don't make developmental spelling an end in itself. (p.86)

Based on these and other sources, this author developed guidelines for the development and implementation of a model invented spelling program. The first guideline states that *children should have a variety of opportunities with language in a print rich environment.*

Fostering invented spelling in the classroom can be implemented by providing an environment rich in print. An environment rich in print involves labeling the following: objects in the classroom (i.e. clocks, table, water fountain, etc.) and various centers. Other sources of print in the classroom may include signs, advertisements, schedules, classroom duties, children's names, and other written media. Children who have a print rich environment may show great gains in phoneme awareness (Tangel and Blachman, 1992).

The second guideline indicates that *children should be provided with many opportunities to write*, which is an effective way to foster growth in their spelling ability (Pryor and Stuart, 1991). Integrating language arts throughout the curriculum makes writing relevant. Providing available writing materials in the classroom allows children the opportunity to write. Such materials could include: crayons, markers, pencils, paper of all kinds, message pads, and appointment books. Readily available writing material promote children's spontaneous writing.

Adults can accept and encourage children in the development of their spelling by recording stories children dictate. These stories can be recorded in the form of language experience charts. Children can read their written products to the class.

The third guideline for encouraging invented spelling states that *teachers need to be aware that spelling occurs in developmental stages, from concrete to abstract*. An environment that involves the above mentioned essentials encourages children to naturally use invented spelling through these developmental stages (Pryor and Stuart, 1991).

The fourth guideline is for *teachers to directly teach literacy skills needed for children to be successful invented spellers*. Teachers can achieve this by understanding the children's Zone of Proximal Development (ZPD). The ZPD is the level of development where children know enough (it's not too easy nor too hard) to learn with the help of teachers who explain things in terms the children can comprehend. Once teachers understand ZPD they can incorporate scaffolding into their teaching by asking children questions about their spellings.

An example of this is when the child spells cat as *k* and the teacher says *do you hear any other sounds?* The teacher does not say *do you remember kuh can be spelled with a c?*

Early childhood programs should offer many opportunities for literacy development. The activities should involve singing, finger plays, rhyming games, listening to poems, clapping out the syllables of names and words, and reading books. These activities promote phonemic and print awareness (Newman, Cople, and Bredekamp, 2000). Reading predictable big books to children is another way a teacher can be a positive role model for enhancing developmental spelling (Pryor and Stuart, 1991). NAEYC defined phonemic awareness as "...the ability to hear and distinguish the smallest sounds of the language. The English language uses a 26-letter alphabet to represent 44 different sounds. These sounds make up all the words we speak and write." (p. 118) Without the phonemic awareness skill, children would not understand letter/sound relationships (phonics). The NAEYC's position is that teachers should spend some time each day on the spelling/sound patterns. Research indicates that children who had phonemic awareness in kindergarten were better readers (Newman, Cople, and Bredekamp, 2000).

The fifth guideline states that *continuous assessment and evaluation of the children's invented spelling is needed*. This process includes assessing where the child is in the invented spelling stages. Gentry (1993) developed a developmental spelling test, see Appendix B, to analyze the invented spellers developmental level. The developmental spelling test includes ten words for five-,

six-, or seven-year old children to spell. The percentage of words spelled in each category indicates the speller's developmental level. For example, if the majority of words were spelled in the phonetic category, the speller would most likely be at the phonetic developmental level (Gentry, 1993).

To provide continuous assessment and evaluation, teachers should include anecdotal records and samples of the children's progress throughout the year. In Appendix C, NAEYC outlined observable behaviors for anecdotal notes that teachers may use as a baseline. Other types of documentation for assessment and evaluation may include individual portfolios, project narratives, observations of child development, child self-reflections, and products: individual or group (Newman, Copple, and Bredekamp, 2000). When a teacher knows the developmental level of each child, she/he can build on the child's baseline knowledge and plan activities to enhance the child's emerging needs, thus scaffolding the child's learning.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The review demonstrated how invented spelling is a predictable developmental process in young children's writing. The review also revealed ways in which early childhood educators can promote invented spelling in their classroom. The following questions were addressed in this literature review: What are the features of invented spelling? This question addressed the features found in young children's written productions by one of invented spelling's pioneers, Charles Read. By observing children's writing, Read (1976) concluded that children organize sounds into categories. These features include the following: vowels, vowel alternations, affrication, flaps, nasals, syllabic segments, and alternations.

What are the stages in invented spelling? This question addressed the six sequential stages of developmental spelling. Developmental stages, according to Henderson and Gentry, involved in becoming a good speller include: deviant (random ordering of letters); prephonetic (one, two, or three letter spellings that represent some sounds in a word); phonetic (nearly perfect match between letters and sounds); derivational (word patterns are used); standard (spelling is accurate) (Bromley, 1988).

What are the advantages of invented spelling? The greatest advantage of the invented spelling approach is the opportunity for young children to write independently (Paul, 1976). They can become better spellers (Clarke, 1988;

Donald Richgel, 1987). It is also a purposeful way for children to acquire knowledge in sound-symbol relationships of the English language (Paul, 1976).

What are the disadvantages to invented spelling? Some researchers have expressed concerns on the indirect approach of skill development (Patricia M. Cunningham and James W. Cunningham, 1992). At-risk children need a more direct approach to develop skills for learning sound-letter relationships (Cunningham and Cunningham, 1992). Also, some children find invented spelling frustrating.

What are the guidelines which should be used to implement a model invented spelling program? The final question focused on guidelines to be used by educators to develop invented spelling in classrooms. These include providing a rich literacy environment, opportunities to write, understanding invented spelling occurs in developmental stages, teach literacy skills, and continuous assessment and evaluation of the children's invented spelling.

Conclusions

The following conclusions were drawn from this study:

1. Recognizing the features of young children's written productions, allows educators to assess what stage of development they are in their invented spelling development.

2. Invented spelling occurs in a sequential pattern beginning with continuous scribble, separated scribble, mock letters, and conventional letters with errors.

3. Although there are many advantages of invented spelling, some children may need a more direct approach to learning sound-symbol relationships in order to benefit from invented spelling.
4. A nurturing and stimulating environment that is meaningful to young children promotes the development of invented spelling.
5. Early childhood educators play an important role in encouraging and enhancing children's spontaneous writing.
6. Guidelines are needed in the development and implementation of invented spelling programs.

Recommendations

Early childhood educators need to become aware of the role invented spelling has in the development of young children's written language. Teachers need to prepare classrooms that foster invented spelling. Also, teachers need to be educated in the developmental process of children's initial attempts in their written language. When early childhood educators understand the role invented spelling has in children's literacy development, they will have a desire to use guidelines for enabling young children's writing.

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Appendix A
National Association for the Education of Young Children (NAEYC)
Developmental Spelling Guidelines

The National Association for the Education of Young Children (NAEYC) stated the following guidelines to assist children's emerging spelling development (Neuman, Copple, and Bredekamp, 2000).

- **Don't expect immediate correctness in young children's spelling.**

Their spellings will become more standard as they write and read and as they learn more about spelling patterns. In the meantime, they are learning to enjoy writing and to feel they can do it on their own. By contrast, worrying about making a spelling error and feeling dependent on the adult to supply all spellings inhibits children's engagement in writing and the active listening for the sounds in words that is so useful for budding readers.

- **Look for opportunities to talk about writing.** For example, when you write a caption on a child's picture, you might ask, "What letters should I write for this picture?" or say, "You can write about your picture---what letters do you need?" (Remember never to write directly on their work, but at the bottom of the page or on a separate strip). Such questions enhance children's phonemic awareness as they attempt to write down the letters that they can hear in words.

- **Encourage children to read their "writing" before you try to interpret it.** You might say, "Can you read your writing to me?" Using the term *writing* rather than *drawing* helps children begin to think of themselves as writers. If they choose not to read it, then you might point out some of the interesting features that you see in their writing.

- **Don't make developmental spelling an end in itself.** When a child asks you to spell a word for him, he shows his awareness that a "right" spelling exists---and he wants to know what it is. This is not the time to say, "What do you think?" Whenever possible write the whole word on a card. Seeing the word in its entirety, rather than hearing individual letter names being spelled aloud, helps the child form a visual picture of the word and its configuration (p. 86).

Appendix B
The Developmental Spelling Test

The Developmental Spelling Test (Gentry, 1993).

Here are the ten words and the sentences used in the test:

1. monster The boy was eaten by a monster.
2. united You live in the United States.
3. dress The girl wore a new dress.
4. bottom A big fish lives at the bottom of the lake.
5. hiked We hiked to the top of the mountain.
6. human Miss Piggy is not a human.
7. eagle An eagle is a powerful bird.
8. closed The little girl closed the door.
9. bumped The car bumped into the bus.
10. type Type the letter on the typewriter

Find the error type in the table below and write the developmental label beside each of the ten spellings. Where most of the child's spellings fall is the child's probable developmental level.

Possible Test Responses

Word	Precommunicative	Semiphonetic	Phonetic	Transitional	Conventional
monster	random letters	MTR	MOSTR	MONSTUR	monster
united	random letters	U	UNITD	YOUNIGHTED	united
dress	random letters	JRS	JRAS	DRES	dress
bottom	random letters	BT	BODM	BOTTUM	bottom
hiked	random letters	H	HIKT	HICKED	hiked
human	random letters	UM	HUMN	HUMAN	human
eagle	random letters	EL	EGL	EGUL	eagle

Word	Precommunicative	Semiphonetic	Phonetic	Transitional	Conventional
closed	random letters	KD	KLOSD	CLOSED	closed
bumped	random letters	B	BOPT	BUMPPED	bumped
type	random letters	TP	TIP	TIPE	type

Appendix C

Observable Behaviors for Anecdotal Notes

Observable Behaviors for Anecdotal Notes
(Neuman, Copple, and Bredekamp, 2000).

PHONEMIC AWARENESS

Observable behaviors

1. Can hear and pronounce the sounds of English correctly
2. Can “stretch” a word out to hear the sounds
3. Can hear the distinctions between words in continuous speech

PHONICS: LETTER AND SOUND RELATIONSHIPS

Observable behaviors

1. Can recognize the visual form and name the letters of the alphabet
2. Can identify initial consonants in context
3. Can identify rhyming words
4. Can recognize spelling patterns and use more conventional spelling in writing
5. Can recognize some high frequency words

BOOK HANDLING SKILLS

Observable behaviors

1. Holds the books appropriately
2. “Reads” from front to back
3. Knows the difference between the pictures and the words
4. Understands the terms “beginning of” and “end of” the book
5. Understands the term “cover of the book”

CONCEPTS ABOUT PRINT

Observable behaviors

1. Points to the words and not the pictures while being read to
2. Is able to touch each word as it is read (one-to-one correspondence)
3. Knows that we read from left to right and top to bottom
4. Knows that we read a book from front to back
5. Knows the difference between a letter, a word, and a sentence.

COMPREHENSION

Observable behaviors

1. Answers literal questions about text
2. Paraphrases text when asked what it was about
3. Can give the main idea of a story
4. Can answer critical questions about text
5. Asks questions when meaning is not clear