

## Article

# Phonological Awareness and Word Decoding Ability of Second Year BSED-English Major Students in University of Southeastern Philippines Tagum Campus

Babiano, Samuel Jr. R.<sup>1</sup>, Genelza, Genesis G.<sup>2,\*</sup>, Corpus, Donna M.<sup>1</sup>, Fernandez, Manilyn B.<sup>1</sup>, Hilario, Jessebelle A.<sup>1</sup>, Naig and Kirstine Allison<sup>1</sup>

<sup>1</sup> University of Southeastern Philippines Tagum Campus, Tagum City, Philippines

<sup>2</sup> University of Southeastern Philippines Tagum Campus, University of Mindanao Tagum College, Tagum City, Philippines

\* Correspondence: genesis.genelza@umindanao.edu.ph

**ABSTRACT :** This study focused on the level of Phonological awareness and Word Decoding ability among second year BSED English students in the University of Southeastern Philippines in terms of critical sound. Moreover, it aimed to recognize the significant relationship between the two variables. To verify, there were tests being employed to gather the necessary data. These were: listening test for measuring the respondents' level of awareness to words with critical sounds; phonetic transcription test to identify the respondents' level of awareness to sound-symbol relationship; and spelling test to know the respondents' level of ability for transcriptions to be translated to its Standard English spelling. After the data have been gathered, it was interpreted that the students have a moderate Phonological awareness. On the other hand, their Word Decoding ability resulted to high level. As being correlated, it is being found that there is a great significant relationship between the two variables. With these marks, the researchers encourage the schools in enhancing the students' sound-word relationship knowledge by primarily utilizing speech laboratory and establishing a speech club in the school for extending their exposure about these concepts.

**Keywords:** phonological awareness; phonology; word decoding ability; spelling

## 1. The Problem and Related Literature

### *Background of the Study*

Spoken language is a conglomeration of sounds that an experienced listener deciphers into meaningful chunks. This sorting takes a person several years to perfect. A learner of a foreign language must do the same thing, breaking down strange sounds into understandable chunks: phrases or sentences, words, syllables, and even phonemes (the smallest sound segments). For years, reading experts have recognized that difficulties with the sorting process, often known as phonological abilities, are linked to many pupils' reading and spelling difficulties. Studies investigating native English-speaking students having difficulty learning a foreign language recently discovered that these students have issues similar to poor readers and spellers in that they are unable to perceive and manipulate the sound system and its corresponding written code effectively. To put it another way, at-risk foreign language students have poor phonological skills as well (Schwarz, 2012).

Phonological awareness is the recognition that spoken language is made up of a series of sounds. It entails being able to recognize, hear, and modify specific sounds inside spoken words. Blending, stretching, isolating, segmenting, deleting, and substituting

sounds in words are all examples of sound manipulation (Mcgee & Richgels, 2003). However, the claim that college students are aware of this is debatable, which piqued the researchers' interest in doing the study.

Because they are highly influenced by similar Chinese sounds, some Chinese speakers in China have problems with English sounds. A sound that does not exist in the local language can therefore be difficult for second language learners to make, or they may attempt to replace similar sounds from their mother tongue. As a result, kids have difficulty perceiving these sounds and, as a result, try to locate closest analogues to replace those new sounds, which is quite frustrating for them when learning uncommon noises (Zhang and Yin, 2009).

Furthermore, in the Philippines, the widespread belief that English is degrading might be viewed as an example of indigenization, resulting in a language variant that qualifies as a dialect despite the fact that the process that produced it departs from the classic description of dialectalization. It has distinct linguistic characteristics that resulted from a gradual shift in language learning away from native language speakers, such that generations of Filipino English learners have picked up the forms and rules of the English language from Filipino second-language learners who were trained by other Filipino second-language learners. Due to it, many versions of pronunciation may bring confusion to the Filipino speaker when this different sound will be introduced to them and that they find it difficult to decode the word. Thus, emerging of different pronunciation will lead the learner into poor decoding ability (Malicsi, 2010).

Besides, Ballesteros (2002) exemplified some critical sounds in English which some adult Filipinos trip on. These are /f/, /v/, and /th/ sounds. Filipinos confused on how to sound out those critical sounds. Thus, Filipinos have difficulty in recognizing the said critical sounds of English.

Furthermore, in the study conducted in the University of Southeastern Philippines Tagum Campus entitled Critical Sounds in English and Decoding Skills of Second year BSED-English students, it was quantified that there were still sounds considered least recognized. This implied that the respondents of the said study have a low level of detecting critical sounds which eventually hampered them in identifying other critical sounds. Significantly, there is a clear existing weakness to identifying critical sounds (Durango, Egina, & Falcon, 2013).

Generally, the importance of pursuing this study is for the researchers to determine the phonological awareness impeded by aforementioned factors and its relation to word decoding ability of second year BSED-English students. This is a great help for the researchers to provide people the needed activities, reinforcements, remediation and programs to address the problem of the study.

#### *Review of Related Literature*

This section includes a discussion of independent and dependent variables; Phonological Awareness and Word Decoding Ability, respectively. The attributed indicators for the Phonological Awareness are critical sounds, and phonetics while spelling is used as an indicator of Word Decoding Ability.

**Phonological Awareness.** An early step for a reader is to be able to distinguish the sounds of language. According to White and Lonigan (2002), in alphabetic writing system, decoding text involves the translation of units of print (graphemes) to unit of sounds (phonemes). In their study, it was stated that in the past two decades, a strong consensus has emerged concerning the role of phonological awareness in the acquisition of reading and spelling in alphabetic language. Learner will be able to read if they recognize the sound of the letter. To put it simply, phonological awareness plays a significant role in decoding a single word. Phonological awareness helps them to combine the letter-sound to become word.

Liberian, Shankweiler, and Troia (2004) asserted that phonological awareness is required for learning English in an alphabetic system of writing in which letters reflect

single speech sounds both alone and in combination. People with a good foundation in phonological awareness can break words down into sounds, recognize their identities, and put them back together again. Students may be perplexed by the print system and how it represents the spoken word if they lack phonological awareness. Furthermore, it was mentioned that if students lack phonological awareness, learning the language will be challenging, particularly in reading and spelling, because knowing the basic sound is the foundation for learning to decode.

The influence of phonological awareness and letter-name knowledge on letter-sound learning was investigated in 32 Brazilian pupils. Cardoso-Martins, Mesquita, and Ehri (2011) discovered that children who lack phonological awareness have a hard time understanding letter-sound relationships in Portuguese. However, when students were given phonological awareness training, letter-sound learning improved massively, particularly for letters-sounds that were embedded in the letter-name.

On the other hand, phonological awareness develops during childhood years as the learner started to familiarize the unit of sounds by training into different activities. Hence, it is important that the training is understood and organized and is not difficult for the learner so that they will fully develop their phonological awareness (Philips, 2008). He also suggested something rather of relying on one level entirely, teachers of starting readers should try to integrate exercises that build a variety of phonological awareness levels, such as word syllable, onset-rime, and phonemic awareness. As a result, the more activities they engage in, the more they will learn.

Furthermore, phonological awareness is critical for forecasting future reading and spelling performance through printed word recognition. Even before a pupil learns to read, we can determine whether he or her will be a good reader or a poor reader with a reasonable level of accuracy. Simple tests that measure awareness of speech in words, knowledge of letter names, knowledge of sound-symbol relationship, and terminology can be used to make these predictions (Good, Simmons, & Torgesen, 2001, 2004).

Furthermore, Cassar, Treiman, Moats, Poolo, and Kessler (2005) asserted that the majority of poor readers struggle with phonological awareness and other phonological abilities. It is believed that phonological awareness and/or phonological memory are deficient in at least 80% of all poor readers. Readers who struggle with speech perception are also the worst spellers.

Students with weak spelling skills are found to have a lack of phoneme awareness, and they may not even understand what the term "sound" means. They can typically hear well and may even be able to name the letters of the alphabet, but they have little or no understanding of what the letters mean. If pupils are asked to say the first sound in the word dog, for example, they are likely to say "woof-woof!" " As a result, before pupils can understand what the letter d symbolizes in those terms, they must be able to identify /d/ in the word dog and distinguish it from others (Gillon, 2004).

Nunes (2006) backed up the previous statement by highlighting that the letters represent English language sounds. Students, she claims, need to be able to view sounds in order to figure out what each letter stands for. As a result, a learner who understands the strands of letters for a specific sound will be able to write the proper terminology.

As a result, according to Hempenstall (2011), in order to decipher written words, the child must first understand the logic of the writing system as well as the logic of spoken production. The relationship between decoding and writing must be understood by students. Learners must comprehend that comprehension of the writing system is necessary in order to properly interpret words, which necessitates phonological awareness.

The proceeding sections of this literature review will explore into the two indicators of Phonological Awareness. The indicators include critical sounds and phonetics.

**Critical Sounds.** Nerrière and Hon (2009) defined critical sounds as sounds in English language that tend to be unfamiliar among listeners. They claimed that scholars from numerous native languages acquire various sounds that are usual to them. In short,

English sounds are considered critical as it varies in students' familiarity of the heard words. Moreover, they recognized that critical sounds are those problematic sounds in more than three languages including mainly Spanish such as: /ʌ / as in mud, /ɪə / as in fear, / θ / as in thing, /oo/ as in no, / au / as in now, and /ei/ as in face. These critical sounds were identified through letting the students read a given context. It seems that these students from respectively mother tongue had worry when they express English – with an extra modified set of sounds, particularly the originate critical sounds.

Furthermore, in the Philippine context, Ballesteros (2002) exemplified that some critical sounds in English are /f/, /v/, and /th/. She addressed those critical sounds after reading stories to her son. It had led her to an accidental learning insight that constant introduction of the subject paves way to awareness of the said critical sounds to young learners which some adult Filipinos trip on because the latter are confused on how to sound out those critical sounds. Thus, they found to have difficulty in recognizing the said critical sounds of English.

Teachers think that because all learners have mastered their first language, they all have the same ability to take up a second language. However, some teachers have difficulty resolving their students' pronunciation problems. A number of scholars have worked to address this issue, asserting and recommending that a variety of factors influence students' pronunciation. Previous research has shown that factors such as native language age, exposure, innate phonetic ability, identity and linguistic ego, motivation and consideration for good linguistic ability, and motivation and concern for good pronunciation ability, all appear to have an impact on teaching and learning pronunciation. The items given are instruments that will assist students in their study (Celce-Murcia, 2000).

Furthermore, Sennel (2006) stated that it is preferable for learners to encounter faults from their native language in the target language, such as aspiration, intonation, rhythm, and melody, in order to understand the genuine scenario of learning. The issues arise when the rules for combining sounds in syllable forms differ between languages. When it comes to learning or strengthening speech skills, age is crucial. He claims that introvert kids cannot learn properly in the classroom because they are unsure if they can accomplish it. If learners can pronounce the second language as if it were their natural tongue, they have most likely improved their skill since they were children.

Smith (2007), on the other hand, claims that the most challenging degree of phonological awareness is becoming aware of particular sounds in words. He stated that languages change and that they vary. This was referred to as "sound modification" by him. He also claimed that phonology had something to do with how sounds are combined to form meaningful utterances. In this way, phonology's study of sound change has a systematic distinction.

According to Colloms (2015), the able to evaluate audio level is not a talent or a property of hyperactive imagination; rather, it is a taught talent that can be mastered through example, instruction, and experience. In the other word, each student has their own styles in learning. Ingenuity should be express and be open in order for the skill to be enhanced and be shared to others. Students must enjoy while learning for the talent to be practice having the self-confidence for the reason that when the students can have it they can show to the world that they can do it. Edification is the means to have the parcel that is why the students must master the skill until they can have it.

Also, the study of Kuhl (2011) together with his colleague demonstrated that when we acquire the second language, the brain automatically groups according to their similarity with phonemes. For instance, categorizing the range of reproduction phonemes between /r/ and /l/, it is intended to the native English speaker not Japanese speakers because it perceives sounds as all like either /r/ or /l/, a phenomenon that Kuhl has likened to a "perceptual magnet". During the conversation of the young one and the adult actually emphasizes this phonetic distinction associated to standard speech among adults. Thus,

learning language during the developmental retro needs augmentation and reshaping of innate biases by appropriate postnatal experience.

**Phonetics.** Phonetics, according to the University of Oulu (2012), is the science that considers and investigates all aspects of speech. These features include how we create speech with our speech organs, the qualities of speech sounds in the air as they travel from the speaker's lips to the listener's ear, and how we hear speech and identify its design components as linguistic symbols or signs. To put it another way, it is the discipline of linguistics concerned with the generation, combination, description, and representation of speech sounds via written symbols.

However, many people disagree regarding the parallels and distinctions between phonetics and phonology. The study of how sounds are made, transferred, and understood is known as phonetics (we will only look at the production of sounds). Phonology is the study of how sounds in a language interact with one another. In other words, phonetics is concerned with the sounds of language, whereas phonology is concerned with the sound systems of language. Hamann & Schmitz define phonetics as a descriptive analysis used to explore the phonological features of a language (2005).

Many different English vowels tend to sound the same to many non-native English speakers, according to Johnson and Kozikowska (2009), including qualities in 'bit' and 'beat,' 'bid' and 'bead,' and groups like 'bad,' 'bud,' and 'barred,' which are notoriously problematic for foreign learners of the language. Understanding, hearing, and reproducing distinct vowel characteristics is made easier with phonetics. Unfortunately, the pronunciation part of foreign language learning and teaching is frequently disregarded, leaving students deaf to the sounds of their second language (s). Apart from the pronunciation of speech sounds, intonation is an important feature of phonetics that is frequently overlooked in foreign language learning and instruction. Both students and teachers frequently overlook the importance of tone in conveying meaning and expressing speakers' emotions and attitudes.

Furthermore, it is frequently defined in terms of phonology. Both professions are concerned with the acoustic medium of language, therefore making a strong distinction between them is pointless. Phonetics has always been useful. It has traditionally been used in language education and speech and language therapy. It now helps with voice technology and, eventually, forensic science. As previously said, this is the sound we make when we speak and how our mouth functions vibrate (British Association of academic Phoneticians, 2015).

Speech, according to Stetson (2015), is a collection of audible movements rather than a collection of sounds created by movements. In order for this dialect to be meaningful, it must be created via action. Phonetics is separated into three categories: speaker, sound, and listener. The speaker is the primary source of sound for the listener to hear.

Vajda (2006) also mentioned phonetics as the study of speech sounds. She agreed that not all noises are created equal. Some have almost no phonetic traits in common, while others have only one. (For example, [f] and [v] differ in only one attribute, whereas [m] and [h] differ in several.) The sounds that share a phonetic property can then be classified together into what are known as appropriate curriculum (vowels, consonants, nasals, voiced sounds, etc.).

Phonological Structure and Phonetic Form are highly recommended for academics and students alike, according to Lambacher (2006) in a relevant study review. It adds to the growing 'interface' between phonetics and phonology in a favorable way, and it, like its antecedents in this field, will play a key role in the emergence of experimental phonological as a recognized science.

*Word Decoding Ability.* According to Bailey's (2015) research, word decoding is an important aspect of learning to read and increasing reading fluency. These abilities include recognizing the basic sounds and sound blends inside a word, comprehending its meaning, understanding the role the word plays in the sentence, both grammatically and contextually, and understanding how the word changes when prefixes or suffixes are



added. Decoding skills, in other words, are the abilities required to interpret and analyze words when reading. It takes a long time and effort to learn how to decode. It may take a long time for a learner to sound out each individual word or to break words down into bits in order to comprehend the entire term. Decoding skills, on the other hand, are necessary for proficient reading. Reading will be more spontaneous when a student improves their decoding abilities and gets more skilled at identifying words. This will allow the student to focus on the meaning rather than the specific words.

The ability to decode printed words is employed to make sense of them. This entails being able to detect and evaluate printed words in order to link them to the spoken words they reflect. These abilities include the ability to detect the basic sounds and sound blends (phonemes) that make up a word, as well as the ability to understand what it means, recognize it in context, and determine whether it is being used properly in a statement (Morin, 2015).

Decoding is the process of converting written words into sounds and meanings (often silently). The reverse process is encoding, or spelling. Encoding skills are frequently developed in tandem with decoding skills and reflect similar learning. Learners must first gain some basic understandings of print and how it relates to spoken English in order to become competent decoders and spellers. Learners must have established phonological awareness, which means they must know the names of the letters of the alphabet as well as the sounds the letters represent, as well as understand essential print concepts. Readers will not learn to decipher without this information, and writers will not learn to spell without it (National Centre of Literacy and Numeracy for Adults, 2012).

Additionally, word decoding ability is the capacity to accurately pronounce written words using knowledge of letter-sound correlations, including understanding of letter patterns. Students can rapidly recognize known words and work out words they haven't encountered before by comprehending these relationships. While some students may be able to figure out some of these relationships on their own, the majority of students will benefit from formal education in this area. As far as phonics is concerned, it is one of the methods for teaching pupils the concepts of letter-sound relationships as well as how to sound out words (WETA Washington, 2013).

Decoding, according to Archer (2011), is the capacity to use letter-sound (phoneme-grapheme) relationships as well as structural factors to determine the pronunciation of unknown words. She underlined in her study that decoding is closely tied to comprehension, and that no comprehension approach is powerful enough to compensate for a student's inability to read the words. The biggest discrepancies between high performing and poorly performing learners are due to inadequate word recognition skills. She also mentioned that the capacity to decipher multisyllabic words is especially difficult for older struggling readers.

Word decoding, on the other hand, is just a method of breaking down a word into intelligible pieces. Phonetics tells you how to pronounce words, but it doesn't help you understand them in context or recall that different portions of words have comparable, sometimes more specific, sometimes more flexible meanings. Phonetics is a method of teaching reading skills based on the sound of words. It is most useful for beginners who are learning English and are unfamiliar with common sound spellings, but it is less useful for intermediate and advanced students. This is because phonics does not aid in the decoding of a word's meaning. It is not the case that just because a person knows how a written word sounds when spoken, that he or she understands its meaning. However, because phonetics is often for more advanced learners, it may be useful to ESL (English as a Second Language) learners who are working on their written English pronunciation (College of the Redwoods, 2006).

Students learning shallow orthographies, on the other hand, master decoding more quickly than students learning deep orthographies, according to Wagner (2008). Poor readers of shallow orthographies, such as Finnish, decode words rather accurately but in a dysfluent manner, whereas poor readers of deep orthographies, such as English, decode words inaccurately and in a dysfluent manner. This makes sense because words in

shallow orthographies can be decoded simply by knowing the sounds of individual letters in the word. However, he claims that accurate decoding of words in deep orthographies necessitates memorizing a large number of words that cannot be fully decoded simply by knowing the sounds of the letters. As a result, decoding plays a part in reading.

Students must use their attention skills in order to correctly decipher words. In order to form a meaningful word, pupils must be able to discern the salient or key elements of letters and words while matching sounds (phonemes) to symbols (letters). Students must constantly check their work and self-monitor while they read to ensure that the sounds they are mixing and the words they are revealing are meaningful. Word decoding is determining the letter sequence in a word and remembering that information while combining sounds to produce a meaningful word. The ability of a student's active working memory to store numerous letters sounds together on a 'thinking counter space' is aided by this skill. Decoding words necessitates the application of analytical skills to a word's phonological (sound) and structural (symbol) properties (All Kinds of Minds, 2015).

Penner-Wilger (2008) expanded on the concept of components in reading by stating that decoding plays an important role. The ability to correctly produce a phonological representation of each word, either because it is part of the reader's sight-word lexicon or by using a more effortful decoding method such as sounding out the word, is one component. The second is automaticity, which relates to the capacity to detect words rapidly and automatically without exerting cognitive effort or attention. As a result, letter-sound correspondence knowledge and phonological awareness skills are the foundations of literacy learning.

Further, Allaith (2009) found three predictors in his findings: second language decoding skills, second language spelling skills, and second language reading skills. First, first language decoding skills were the best predictors of second language decoding skills. Second, first language spelling skills and phonological awareness were the best predictors of second language spelling skills. Finally, automaticity, which refers to the capacity to figure out words without exerting cognitive effort or attention, is the best predictor of second language reading. As a result, the ability to decode words is critical for developing good internal representations of words and writing patterns.

Simply explained, decoding is the process of breaking down a printed word into its constituent pieces and establishing the word's pronunciation using typical English sound/letter patterns. Decoding teaches kids how to read any length of word and figure out what it means. While decoding abilities are important for reading, pupils must also be able to spell the words they hear and say in order to become genuinely literate. Encoding skills are a type of "reverse" talent. Students who understand how to encode can turn sounds to letters and combine letters to form words (Reading Horizons, 2014).

This section of the review of related literature involves the discussion of the dependent variable of the study. The indicator attributed to Word Decoding Ability is spelling.

**Spelling.** Spelling in printed linguistic is the high-quality and procedure of letters that method words. It is a combination of different sounds to form a comprehensible word. Therefore, in order to spell, one must know on how letters are individually represented, on how they are arranged and on how they are joined to form comprehensive sounds (Norquist, 2010).

However, there are English spellings which sounds are not very well represented by the letters used in writing it. This is because English language is not phonetic which means that most English sounds have varied spellings. These sounds are critical and confusing to spell like the vowel sounds basically because there are at least fourteen vowel sounds in standard American English (Oliver, 2007).

In addition, the American Speech Language Hearing Association (2013) stated that there are English words that are spelled in such a way that is different on how they sound. Second language learners find these words critical and confusing, hence, difficult to spell

primarily because some English words have an established inconsistent symbol-sound relationship. It gave instances of these words, such as define (dufin), definition (defunlshun), courage (keruj), courageous (kuraijus), compete (kumpeet), computation (kumpitlshun), punish (punish), and punitive (punish) (pewnutlv). As a result, the English language system is essential for both reading and writing.

Also, according to BBC Learning English (2015), a word's spelling is not always indicative of how it is pronounced. Similarly, knowing how to pronounce a word isn't always reliable when determining how to spell it. This indicates that the number of letters in a word does not always equal the number of sounds.

Warda (2005), on the other hand, saw those terms as having a lot of abnormalities and orthographic issues because it has been impacted by a lot of various civilizations. As a result, students of various mother tongues pick up on distinct sounds, which might be confusing. The impact of the first language on children's pronunciation is significant. This is due to the learners' cultural influences on how they decode sounds. Children's phonological awareness may be harmed as a result of their learned pronunciation in their culture or in their first language. One way to solve the problem is to put the student in a scenario where he or she can practice Standard English Pronunciation.

Furthermore, Nerrière and Hon (2009) have emphasized on the differences between English pronunciation and American pronunciation and other dialects in English language that make it more difficult. They claimed that matching the new sounds to English spelling makes it even more difficult. Emerging of different pronunciation will lead the learner into difficulty in decoding properly. Consequently, they supported the idea that learners from various mother tongues study many sounds that are uncommon to them. These learnt sounds from mother tongue confused them on how to properly pronounce the letters.

Gagen (2013) stated that the letter of the word follows the process of spelling where students base their orthographic structure on adapting the resonances from spoken word into print is an approach of spelling phonemically. He also emphasizes that if learners learn to 'spell' words based on phonemic dispensation, then, there is a gentle improvement in their spelling ability. There are English words that are spelled in such a way that is different on how they sound. Second language learners find these words critical and confusing, hence, difficult to spell. Moreover, some English words have an established inconsistent symbol-sound relationship. He also acknowledged that spelling is one of the key sub-skills of efficient written correspondence in the English language system. Both the reading and writing processes rely on it. He also stated that a student's right written representation of his or her language is how-to-spell. As a result, he recommended the six foundations for spelling success as well as ways to improve spelling skills. He said in his sixth foundation that English spelling is specific and difficult. As a result, precise spelling can be difficult, and it necessitates memorizing which spelling patterns are employed in specific terms.

Similarly, Carreker (2010) stated that kids require sufficient information to recognize spelling patterns. She claimed that in order to achieve the goal of spelling education, pupils must be more aware of the sounds in words and the frequently repeated patterns that spell those sounds. It is necessary to teach reliable spelling patterns. Students learn about the origins of words, which enhances their learning. In this approach, the process of spelling out words isn't just memorized, but also follows a pattern to improve spelling competence.

Likewise, The State of South Australia (2013) defined spelling proficiency as the use of a variety of ways in which students demonstrate their spelling and proficiency by self-monitoring and self-correcting their writing. In a spelling test, proficient spellers have well-developed visual and aural abilities that enable them to recognize when a word does not seem or sound right. As indicated in their studies, they look for patterns in words or look at word parts. It is also reported that student was a proficient speller at the age of ten



years old and higher. As a result, pupils at a higher level are required to be proficient in correctly spelling words.

Nevertheless, according to Allaith (2009), spelling plays an important role in our daily lives. In one's many daily activities, it is important to look up terms in one's phonebook to more difficult tasks for reading and writing enhancement. In fact, she discovered that the National Commission on Writing for America's Families, Schools, and Colleges documented 80 percent of poorly written and spelt applications in 2005. She went on to say that English language learners whose first language is written in the Roman alphabet, such as Spanish, German, and eventually Filipinos, may be aware that words may be split into phonemes, and hence use this information to spell English words. According to the findings of her research, respondents employed the English IPA sound symbols to spell English words with critical sounds.

Also, according to Johnston (2001), learning the rules for spelling out important sound symbols may increase pupils' ability to spell, but teaching them in isolation is insufficient. He believes that understanding the underlying words and how they are altered is critical. He also mentioned that students' lack of awareness of simple one-to-one letter/sound correspondences in words, as well as apparent exceptions to spelling rules, contribute to spelling errors. As a result, it's important to recognize that students can't learn good spelling habits without specific teaching.

Hub Pages' (2015) action research in English and Bengali medium schools found that pupils in their country have a limited comprehension of the phonic and spelling systems in English, necessitating effective supervision in word reconstruction during instruction. It has been noted that students mostly rely on memory, and that they are prone to forgetting spelling and having no idea how to reconstruct it. The students therefore tend to rely significantly on the teacher's pronunciation, which can lead them astray. Furthermore, it was argued that the educational system's tradition in some ways encourages these kids to pursue learning retention goals. All of these elements contributed to rote memory, and the situation persisted until tertiary level, obstructing spelling skill.

In another paper, Templeton (2002) outlined four aspects of spelling that can be used to determine a student's skill level. That is, the spelling system is logical, learning to spell is a lifelong process, students' spellings are related to their word knowledge, and good spelling education aids both reading and vocabulary growth. As a result, before good instruction can take place, a teacher must first understand the spelling level of the students. Once the spelling level has been determined, word categorization tasks can be used to help children recognize spelling generalizations as a useful spelling approach, particularly for important sounds.

Therefore, proficiency in spelling as well as high awareness on critical sounds in English is joined in a term phonological awareness, thus, affirmed the connectionist Theory of Sadoski and Pavio (2000). Connectionist model emphasizes that phonological awareness is needed along with orthographic and semantic knowledge in order to read regular and irregularly spelled words. Phonology is also integral to the development of word recognition. Therefore, phonological awareness largely affects the spelling ability of the learners.

With the findings and discussions located and identified by the researchers regarding the phonological awareness and word decoding ability, the necessity for conducting this study is paramount important. Finding out if this is manifested by the second year BSEd-English majors, is truly a venture the researchers are interested in. Hence, the researcher would examine further to find out if there is a significant relationship between phonological awareness and word decoding ability of second year BSEd-English students.

#### *Theoretical Framework*

The study is anchored on the Connectionist Theory of Sadoski and Pavio (2002) stating that phonological awareness (sound) influenced word recognition and spelling behaviors (decoding). The theorists suggest that learning the connection between sounds

and spelling is an important step in students' word decoding ability. Learners with high awareness in phonemic will also have high decoding ability and otherwise. In addition, the theorists emphasize the standing of learning the sounds hence, it interprets words properly.

In relation to the above-statements, research study of Nerrière and Hon (2009) revealed that there are seven sounds that are still a problem for students among representatives for the languages being studied. In more than three languages which mainly included Spanish, these problematic sounds are /ʌ / as in mud, /ɪə / as in fear, / θ / as in thing, /ou/ as in no, / aʊ / as in now, and /ei/ as in face. These critical sounds were identified through letting the students read a given context. It appears that when these pupils spoke English with an extra adapted set of sounds, particularly the discovered critical sounds, they had difficulty. As a result, second language learners' phonological awareness is influenced by their mother tongue.

Moreover, second language learners have experienced difficulty in some critical sounds in English especially when they are not a native speaker of English language. Like in the Philippines, Ballesteros (2002) identified critical sounds of English which are /f/, /v/, and /th/. Filipinos also have different sounds in some letters because of the influenced of mother tongue.

The alphabetic principle and phonics expertise, on the other hand, are required for youngsters to understand phonemic awareness. It can be accomplished through exposure to language and text, as well as time to investigate and explore with language use. Children should employ curiosity, curiosity, and spontaneous to help them learn, according to constructivist theory and best practices for teaching phonemic awareness (Morrow, 2009).

Additionally, the study, which was based on the Emergent Literacy Theory, assumed that children's literacy development began early in life and continues throughout their lives. Development occurs in purposeful, consequential, everyday circumstances. Emergent literacy theory advocates for explicitly teaching phonemic awareness and phonics as part of a larger literacy curriculum (Yopp & Yopp, 2000).

### *Conceptual Framework*

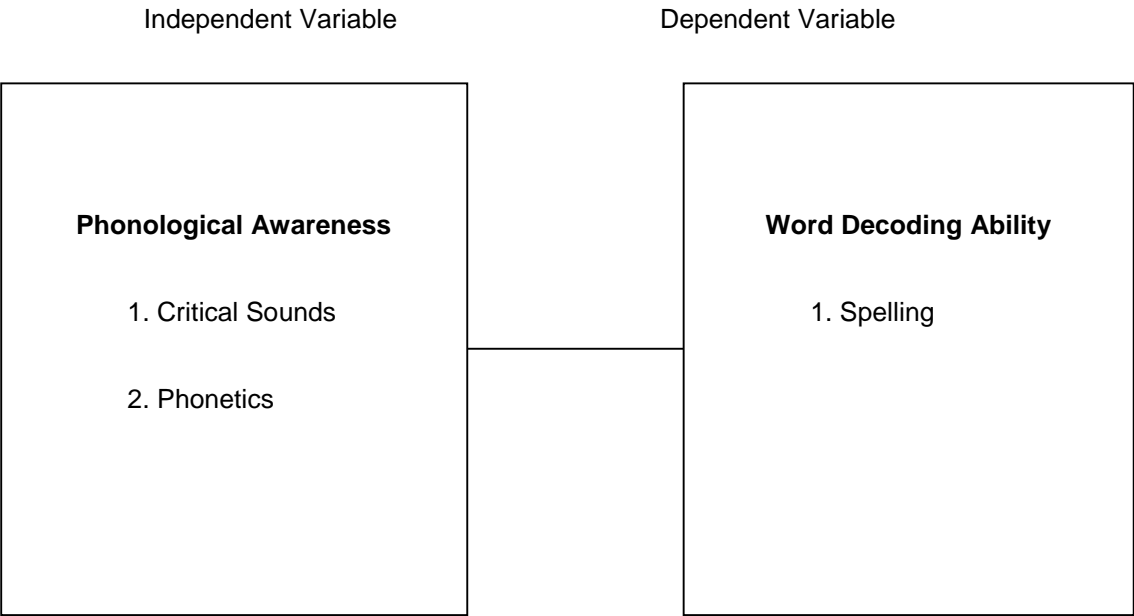
This research pursues to identify the influence of phonological awareness of Second Year BSED-English students in terms of critical sounds and phonetics to the word decoding ability in spelling with critical sounds in English. The independent variable of this study is the Phonological awareness which is attributed by the indicators: critical sounds and phonetics. Phonological awareness referred by Chabot (2010) as the sensitivity to any unit size of sound. It is necessary for efficient decoding of printed words as well as the ability to connect sounds and letters when spelling.

The indicators on this variable are Critical sound which defined by Nerrière and Hon (2009) as sounds in English language that tends to be unfamiliar among listeners. And, Phonetics, that is worried with how resonances are shaped; transmitted and perceived (University of Oulu, 2012).

The dependent variable, on the other side, is Word Decoding Ability, which includes the indicator; Spelling. Decoding ability is the capacity to accurately pronounce written words using knowledge of letter-sound correlations, especially letter patterns. According to WETA Washington (2013), recognizing these relationships allows pupils to recognize known words quickly and figure out ones they haven't encountered before.

Furthermore, according to Norquist (2010), spelling is the choice and arrangement of letters that make words in written languages. The learner's spelling style is determined by how he or she heard the sounds. Thus, knowing the sounds has a huge impact on spelling in one way or another.

Presented in Figure 1.1 is the conceptual paradigm showing the variables of the study.



**Figure 1.** 1 Conceptual Paradigm showing the variables of the study.

*Statement of the problem*

The study attempts to determine the relationship between Phonological Awareness and Word Decoding ability of Second Year BSED-English Students in University of Southeastern Philippines. The questions presented below are considered for thorough discussion.

1. What is the level of phonological awareness of the second year BSED English Students in terms of:
  - 1.1 Critical Sounds;
  - 1.2 Phonetics?
2. What is the level of decoding ability of Second Year BSED-English students?
3. Is there a significant relationship between phonological awareness and word decoding ability of Second Year BSED-English students in University of Southeastern Philippines?

Null Hypothesis

The following null hypothesis was tested at 0.05 level of significance using appropriate statistical tools:

There is no significant relationship between phonological awareness and word decoding ability of Second Year BSED-English students in University of Southeastern Philippines.

**2. Methods**

This chapter presents the method used in this study. This includes the following: Research Design, Research Respondents, Research Instruments, Gathering Data Procedure, and Data Analysis.

*Research Design*

A quantitative, non-experimental design is employed in this research. Further, a descriptive-correlational method is utilized in describing the level of phonological

awareness in terms of critical sounds and phonetics. Moreover, this method also determines the significant relationship between phonological awareness and word decoding ability of Second Year students in University of Southeastern Philippines Tagum Campus. This research work involves gathering of data in order to test hypotheses or answer questions pertaining to the current issue of the research problem.

#### *Research Respondents*

The respondents of this study involved 105 Second Year students of BSED majoring in English in the University of Southeastern Philippines in Apokon, Tagum City. This study used total enumeration technique that involves students who are enrolled in English 3 with the description of Speech and Oral Communication. The respondents involved 35 students from 2SE1, 37 students from 2SE2 and 33 students from 2SE3 that complete the computed number of respondents.

#### *Research Instrument*

This study utilized adapted tests. These tests are the Listening test, Phonetic Transcription test and Spelling test.

The purpose of these instruments is to test the indicators of each variable. The Phonological Awareness utilized Listening Test for the indicator, Critical Sounds and Phonetic Transcription Test for the indicator, Phonetics. On the other side, the Word Decoding Ability utilized Spelling Test for the indicator, Spelling. All items of all tests were based on the observed seven critical sounds from the research study of Hon and Nerrière (2009) which are /ʌ/, /æ/, /ɪə/, /θ/, /oʊ/, /əʊ/, and /eɪ/ and another two critical sounds which are /f/ and /v/ according to Ballesteros (2008).

Each test for each indicator is composed of 45 items. Listening test involves audio materials of 45-item words with critical sounds to be identified. Similarly, the Phonetic Transcription test involves 45-item words with underlined sound to be transcribed. Also, 45 items for Spelling test that intends to make out the ability of the students to translate the given transcribed words into its Standard English spelling.

Scores for each test used the given scale, descriptive equivalent, and interpretation. To mention, the percentage equivalent distribution is based on the University Standard where the study was conducted.

| <b>Scale of Scores</b> | <b>Descriptive Equivalent</b> | <b>Interpretation</b>   |
|------------------------|-------------------------------|---|
| 5                      | Outstanding                   | This indicates that the respondent answered the test very well with a percentage equivalent of 93.64-100.00                 |
| 4                      | Excellent                     | This indicates that the respondent answered the test well with percentage equivalence from 87.26 – 93.63                    |
| 3                      | Good                          | This indicates that the respondent answered the test fairly with percentage equivalent of 80.88 – 87.25                     |
| 2                      | Satisfactory                  | This indicates that the respondent answered the test quiet fair with percentage equivalent of 74.50 – 80.87                 |
| 1                      | Poor                          | This indicates that the respondent answered the test badly with percentage equivalent below 74.50, which indicates failure. |

Scores from the administered tests were interpreted accordingly. Range of means is indicated below as the basis to quantify the level of Phonological Awareness and Phonetics and Word Decoding ability of Second Year BSED-English Students.

| <b>Range of means</b> | <b>Descriptive Equivalent</b> | <b>Interpretation</b>   |
|-----------------------|-------------------------------|---|
| 4.5-5.00              | Very High                     | This indicates that the respondents' awareness/ability is manifested in 9-10 out of 10 occasions. |

|          |          |   |
|----------|----------|---|
| 3.5-4.49 | High     | This indicates that the respondents' awareness/ability is manifested about 7-8 out of 10 occasions. |
| 2.5-3.49 | Moderate | This indicates that the respondents' awareness/ability is manifested about 5-6 out of 10 occasions. |
| 1.5-2.49 | Low      | This indicates that the respondents' awareness/ability is manifested about 3-4 out of 10 occasions. |
| 1-1.49   | Very Low | This indicates that the respondents' awareness/ability is manifested about 0-2 out of 10 occasions. |

#### *Data Gathering Procedure*

In gathering data for this study, the researchers followed the following procedure:

The researchers sent a letter to the Dean of College of Teacher Education and Technology (CTET) with the cooperation of the Department Chairman requesting for the permission and recommendation to conduct this study among the second year BSEd-English students at University of Southeastern Philippines. In administering the tests, the researchers presented to the subject teacher, apportioned on the time the test was administered, and respondents the letter of approval from the Dean.

Upon approval, the researchers personally distributed and administered the tests. Also, they asked for the written outputs and collected them with the guarantee of secrecy and for academic purposes only. Then, the data were collected, tallied, tabulated, and interpreted confidentially and accordingly.

#### *Data Analysis*

In the analysis of data of this research, the statistical tools employed were Mean, Pearson r, and T-test.

**Mean** was used to answer Problems 1 and 2 which determined the Phonological Awareness of the students in terms of Critical Sounds and Phonetics and the Word Decoding Ability of the students in terms of Spelling.

**Pearson r.** This was used to measure significant relationship between students' Phonological awareness and Word Decoding ability of the Second Year BSED-English students.

**T-test.** This was used to compute the r value.

### **3. Results and Discussion**

This chapter presents the results and discussions of the gathered data. This section also answers quantitatively and analytically the posted inquiries in Chapter 1. Tables below show the interpreted and discussed results of tests which identify the level of the respondents in their Phonological Awareness in terms of critical sounds, phonetics; their Word Decoding ability in spelling; and the significant relationship between the two variables.

#### *Phonological Awareness of Second Year BSEd –*

##### *English Students in USEP Tagum Campus*

**Critical Sounds.** The level of phonological awareness in terms of Critical Sounds is specified in Table 3.1. Specifically, this illustrates high level of awareness of the Second Year BSED-English major students on critical sounds which are /ʌ/, /ɪə/, /oʊ/, /eɪ/, /æ/, /aʊ/, and /θ/ through Listening test. Results show that the most correctly determined sound is /ʌ/ with a mean of 4.18 followed by the /aʊ/, /ɪə/, /eɪ/ and /θ/ sounds which also belong to high level of awareness on these sounds. Lastly, /v/ sound is considered to be the least



determined with the mean of 2.88 which entails a moderate level of awareness of this sound.

Thus, it means that respondents find the said sound least to be recognized.

**Table 3.** 1. Level of Phonological Awareness in terms of Critical Sound as responded by Second Year BSED-English Students in University of Southeastern Philippines Tagum Campus.

| Critical Sound | N   | SD   | Mean | Description |
|----------------|-----|------|------|-------------|
| /ʌ/            | 105 | 2.78 | 4.18 | High        |
| /ɪə/           | 105 | 1.29 | 3.69 | High        |
| /oʊ/           | 105 | 1.27 | 3.11 | Moderate    |
| /eɪ/           | 105 | 1.27 | 3.62 | High        |
| /æ/            | 105 | 1.45 | 3.40 | Moderate    |
| /aʊ/           | 105 | 1.13 | 4.08 | High        |
| /θ/            | 105 | 1.38 | 3.59 | High        |
| /v/            | 105 | 1.52 | 2.88 | Moderate    |
| /f/            | 105 | 1.36 | 3.16 | Moderate    |
| Overall        | 105 | 0.81 | 3.51 | High        |

Legend

| Range of Means | Descriptive Equivalent |
|----------------|------------------------|
| 4.5-5.00       | Very High              |
| 3.5-4.49       | High                   |
| 2.5-3.49       | Moderate               |
| 1.5-2.49       | Low                    |
| 1-1.49         | Very Low               |

Belonging also to sounds which students have moderate level of awareness are the /æ/, /f, and /oʊ/ sounds. Regardless of this, still, the total calculated mean presented is 3.51 described as high.

In addition, it is interpreted that the Phonological awareness in terms of critical sounds of second year BSEd – English students in USeP Tagum Campus is manifested in about 7 to 8 out of 10 occasions. This would mean that the respondents have high level of awareness on critical sounds in English. The most determined among the critical sounds in English are the /ʌ/, /ɪə/, /eɪ/, /aʊ/ and /θ/ sounds. Among these determined sounds, the respondents have the highest level of awareness in the /ʌ/ sound because the respondents seem to be familiar and exposed into it on their English 3 subject while the lowest is the /θ/ because it is not totally used in their actual life outside the school. But still, this means that students can highly recognize and identify most of the critical sounds.

This finding may be credited to the students’ exposure to the critical sounds as these are used and analytically discerned at some point of academic or typical spoken discourse. Particularly on the English 3 subject, second year BSEd – English students seemed to learn about these sounds and tried their best to retain that knowledge to be used for essential communication. It is important to know what is being said with these kinds of sounds since as by name, these are critical especially for most Filipinos.

Nunes (2006) backs up the results by emphasizing that letters represent English language sounds. Students, she claims, need to be able to access sounds in order to better understand what letters mean. As a result, having a high awareness of critical sound suggests that they have a high perceptive of spoken language sounds, which will work together to form words.

The least among the critical sounds are the /v/, /oʊ/, /æ/ and /f/ sounds with moderate level of phonological awareness in terms of critical sounds. Among these least determined critical sounds, /æ/ is the highest because it is perceived to be somehow recognized by the respondents in pronunciation while /v/ is the lowest because it is difficult for them to

pronounce or identify what they hear from the English version of their dialect. This implies that the 2<sup>nd</sup> year students are deeply affected to the mother tongue of the native Filipinos that they mostly mistakenly interchange some similar sounds in words. Furthermore, because of the pupils' accents, which mismatch the new sounds in English spelling, this region of trouble on important sounds is very likely. This could possibly be related to the native Filipinos' mother tongue, which frequently interchanges similar sounds in words.

In support to the findings, Hoiem-Tengesdal & Tonnesen (2011) found that sometimes students meet difficulty in decoding the sounds that they hear based on how it is pronounced. As a result, a number of researchers have proposed their own variants of Standard English Pronunciation. They frequently need students from a variety of mother tongues to learn a variety of sounds that are unfamiliar to them, such as variances in English and American pronunciation, as well as other dialects that make learning much more difficult. This explains why matching that many new sounds to English spelling is considerably more challenging for children.

**Phonetics.** The level of phonological awareness in terms of Phonetics is specified in Table 3.2. Specifically, this table shows the level of awareness of the second year BSED English Students in terms of Phonetics. Using the given results of the conducted Phonetic Transcription test, it can be elucidated that among the critical sounds that have been measured, respondents have the highest-level awareness in /v/ sound with a mean of 4.40 and followed by the /θ/ sound with a mean of 4.35 and /f/ sound with a mean of 4.04. Then, the critical sounds which belong to average description are /ɪə/, /ou/, /eɪ/, /æ/ and /au/ in which students have moderate awareness. Lastly, the remaining critical sound /ʌ/ is considered by the respondents as the least of their awareness with a mean of 2.46. Thus, they have low awareness with that sound. Generally, it signifies those respondents have moderate level of awareness in Phonetics.

Further, it can be interpreted that this awareness is manifested in about 5 to 6 out of 10 occasions. The result implies that the phonological awareness of the 2<sup>nd</sup> year BSED-English students is moderate. The critical sounds with high level of phonological awareness in terms of phonetics are the /θ/, /v/ and /f/ which are found the easiest for the students to depict. Among these critical sounds, the highest is the /v/ sound because it is possibly viewed by the respondents as easier among other critical sounds to recognize as it is aided from their subject and is used in everyday life rather than the lowest among the critical sounds which is the /f/ sound that is viewed by the students to be not so particular with. But still, this would mean that students can highly recognize and transcribe with ease the different critical sounds.

**Table 3. 2.** Level of Phonological Awareness in terms of Phonetics as responded by Second Year BSED-English Students in University of Southeastern Philippines Tagum Campus.

| Phonetics      | N          | SD          | Mean        | Description     |
|----------------|------------|-------------|-------------|-----------------|
| /ʌ/            | 105        | 1.69        | 2.46        | Low             |
| /ɪə/           | 105        | 1.68        | 2.58        | Moderate        |
| /ou/           | 105        | 1.72        | 3.30        | Moderate        |
| /eɪ/           | 105        | 1.66        | 2.56        | Moderate        |
| /æ/            | 105        | 1.76        | 3.13        | Moderate        |
| /au/           | 105        | 1.59        | 2.77        | Moderate        |
| /θ/            | 105        | 1.44        | 4.35        | High            |
| /v/            | 105        | 1.36        | 4.40        | High            |
| /f/            | 105        | 1.60        | 4.04        | High            |
| <b>Overall</b> | <b>105</b> | <b>1.32</b> | <b>3.13</b> | <b>Moderate</b> |

Legend

| Range of Means | Descriptive Equivalent |
|----------------|------------------------|
| 4.5-5.00       | Very High              |
| 3.5-4.49       | High                   |
| 2.5-3.49       | Moderate               |
| 1.5-2.49       | Low                    |
| 1-1.49         | Very Low               |

The findings may be explicated from the knowledge of students in Phonetic Transcription. This can be primarily credited on the way the students learn and are taught from English 3, Speech, and Oral Communication class, since this is part of the topics in this subject. The curriculum has aligned its contents of the subject to its description and essentially to its goal. And implicitly, teacher succeeded to impart the expected content of this subject.

The findings support the statement of the University of Southampton's Center for Languages, Linguistics, and Area Studies (2015) that students from various linguistic backgrounds did enjoy having to learn phonetics about the core assumptions of speech sounds while becoming aware of its many applications in various fields. Weekly ear-training activities and producing training also assisted them in identifying and reproducing the distinctive sounds utilized in other languages.

The lowest among the indicators is the /ʌ/ on the level of phonological awareness. This indicates that the 2<sup>nd</sup> year students have more difficulty in discerning this sound among the other critical sounds. This factor implies that there is the lack of introduction of this particular sound for the students. It can be elucidated also from the given results that there is still sound that seems difficult to identify and transcribe which results to their misinterpretation of this critical sound.

Small (2005) validates the findings of this study by stating that phonetic transcription is difficult, time-consuming, and intricate. This is because various letters make different sounds when they are produced in sounds, and as part of the topic English, the entire course is not intended for that specific critical sound. In order to solve these issues, some guidelines must be properly followed. As a result, any prospective transcriber must first realize that the human ear is not a microphone, which might lead to misinterpretation. That is, people should always receive rather than immediately analyze and interpret incoming auditory signals based on their prior experience with them.

**Summary.** Table 3.3 shows the overall data from the variable, Phonological Awareness. Particularly, the result on the summary in the level of Phonological awareness is presented on this table. From the given data, the indicator Critical Sounds has the highest mean compared to Phonetic Structure. It has a mean of 3.51 which signifies those students have greater level of awareness on this area than the indicator, Phonetics. Mainly, the overall result on this variable attained a mean of 3.18 which means that respondents in general and as regards to their Phonological awareness have moderate level of awareness. Further, respondents manifested this awareness in about 5 to 6 out of 10 occasions.

The finding may be attributed to the expected phonological awareness of the second year BSED English students. The school and teachers have done their best to provide worthwhile experiences for students, which eventually developed the students' competence especially as English majors. It is of great discernment that critical sounds are somehow of the knowledge of these inspiring English majors.

**Table 3.** 3. Summary on the Level of Phonological Awareness as responded by Second Year BSED-English Students in USeP Tagum Campus.

| Phonological Awareness | N   | SD   | Mean | Description |
|------------------------|-----|------|------|-------------|
| Critical Sound         | 105 | 0.81 | 3.51 | High        |
| Phonetics              | 105 | 1.32 | 3.13 | Moderate    |
| Overall                | 105 | 1.02 | 3.18 | Moderate    |

Legend

| Range of Means | Descriptive Equivalent |
|----------------|------------------------|
| 4.5-5.00       | Very High              |
| 3.5-4.49       | High                   |
| 2.5-3.49       | Moderate               |
| 1.5-2.49       | Low                    |
| 1-1.49         | Very Low               |

Indeed, critical sounds were determined high and coincided with and supported by the results of the research done in the University of Southeastern Philippines (2013). It was identified that these BSED English students have high awareness on critical sounds in English as they attained a mean of 3.84.

Though second language learners have experienced difficulty in some critical sounds in English especially when they are non- native speakers of English language as cited by Ballesteros (2002), it can be aided through constant and formal instruction. The school can teach students to assist this particular dilemma in discourse.

The alphabetic principle and phonics expertise, on the other hand, are required for kids to understand phonological awareness. It can be accomplished through exposure to language and text, as well as time to investigate and explore with language use. Children should employ curiosity, intellectual curiosity, and spontaneity to help them learn, according to constructivist theory and best practices for teaching phonemic awareness (Morrow, 2009).

Word Decoding Ability of Second Year BSEd –

English Students in USeP Tagum Campus

**Spelling.** The level of word decoding ability in terms of spelling through the employment of spelling test among Second Year BSED-English students is specified in Table 3.4. The table displays the level of awareness of the second year BSED English students in terms of spelling. Based on the results of the conducted Spelling Test, it is found that the respondents’ most correctly spelled sound is /aʊ/ with the mean of 4.70 and followed by /æ/ with the mean of 4.49. Next, is /θ/ sound with the mean of 3.93. Then, the sound /oʊ/ with the mean of 3.73. After that, are the sounds /eɪ/ with the mean of 3.70, /f/ with the mean of 3.68, and /ɪə/ with the mean of 3.66. On the other hand, /v/ is considered as the most misspelled sound of respondents with a mean of /v/. In general, it signifies that the respondents have high level of awareness in Spelling.

**Table 3.** 4. Level of Word Decoding Ability in terms of Spelling as responded by Second Year BSED – English Students in USeP Tagum Campus.

| Spelling | N   | SD   | Mean | Description |
|----------|-----|------|------|-------------|
| /ʌ/      | 105 | 1.39 | 3.49 | Moderate    |
| /ɪə/     | 105 | 1.44 | 3.66 | High        |
| /oʊ/     | 105 | 1.18 | 3.73 | High        |
| /eɪ/     | 105 | 1.42 | 3.70 | High        |
| /æ/      | 105 | 0.88 | 4.49 | High        |
| /aʊ/     | 105 | 0.67 | 4.67 | Very High   |
| /θ/      | 105 | 1.51 | 3.93 | High        |
| /v/      | 105 | 1.23 | 2.49 | Low         |
| /f/      | 105 | 1.39 | 3.68 | High        |
| Overall  | 105 | 0.98 | 3.91 | High        |

Legend

| Range of Means | Descriptive Equivalent |
|----------------|------------------------|
| 4.5-5.00       | Very High              |
| 3.5-4.49       | High                   |
| 2.5-3.49       | Moderate               |
| 1.5-2.49       | Low                    |
| 1-1.49         | Very Low               |

Furthermore, it can be interpreted that this awareness is manifested in about 7-8 out of 10 occasions. This result implies that Second Year BSED=English students are considered to have high level of word decoding ability in terms of spelling with a total calculated mean of 3.91. The critical sounds with high level of phonological awareness in terms of spelling are the /aʊ/, /æ/, /θ/, /oʊ/, /eɪ/, /f/ and /ɪə/ which the students found the easiest to recognize. Among these critical sounds, the highest is the /aʊ/ sound because it is possibly the most clearly recognized sound to spell by the respondents rather than the lowest sound which is the /ɪə/ sound that is viewed to be not so common. But still, this would mean that students can highly spell these sounds.

The elicited results can be featured to the knowledge of the students in the relation with sounds-words. The students can easily relate the combinations of sounds down to words. Primarily, they have reached and maintained the expected level for them to be aware of the representation of sounds. With that, they are good spellers which have been affected by their writing activities that enhanced their knowledge about it.

Hempenstall (2011) summarized the previous remark by stating that the written word is merely a technique of codifying the sound qualities of spoken symbols or sounds. The latter highlighted how a youngster must understand the logic of the writing system and, as a prerequisite, the logic of oral creation in order to decipher written words. Students must first generate the sound before recognizing its written sign.

Moreover, the mentioned indicator of a good speller approximately happens in the age of 10 yrs. old and above. It suggests that, in relation to spelling, a student in a good level is working with the years 6 and more in school, and more in school, (the State of South Australia, 2013). Thus, as implied in the results and findings of the study, the respondents maintained that quality as they are expected to have this ability in spelling.

In addition, same result was identified as proficient to be spelled sound which is the /aʊ/ sound. The ability to spell this sound can be manifested in about 9-10 out of 10 occasions. This is in consonance to the research entitled Critical Sounds in English and Decoding Skills of Second Year BSED-English Students in the University of Southeastern Philippines Tagum Campus conducted by Durango, Egina and Falcon (2013).



The lowest among the indicators is the /ʌ/ which is a moderate level of phonological awareness in terms of spelling. This indicates that the second year BSED students have more difficulty in identifying this sound among the other critical sounds. This factor implies that there was a lack of strategy or techniques used to enhance students' awareness on this particular sound. It can be interpreted further that this sound needed to be discussed thoroughly to enhance the average achievement on the perception of this critical sound.

The result is supported by the State of South Australia (2013) which suggested on how to spell sound moderately. It states that sophomore students should be engaged in learning vocabularies strategy among their lesson instructions. In any unit of work, it is essential that almost all instructors define the appropriate terminology that students must know and utilize. Furthermore, teachers should urge pupils to keep a list of current words and a vocabulary dictionary.

*Significant Relationship between Phonological*

*Awareness and Word Decoding Ability*

The table 3.5 shows the relationship between the variables, Phonological Awareness and Word Decoding Ability of Second Year BSED-English students in University of Southeastern Philippines. Based on the given data, it has the relationship value of 0.53 while its significance has a value of 0.0000000863 which is interpreted that Phonological Awareness has significant relationship to Word Decoding Ability. With that, the null hypothesis that claims, that there is no significant relationship between the said variables is rejected. Results can be simplified that the Phonological Awareness doesn't count as a major contributing factor to the Word Decoding Ability of the students

**Table 3. 5.** Test on the Significant Relationship between Phonological Awareness and Word Decoding Ability of Second Year BSED-English Students in USeP Tagum Campus.

|                        | SD   | Mean | r-value | p-value             | Description<br>$\alpha = 0.05$ |
|------------------------|------|------|---------|---------------------|--------------------------------|
| Phonological Awareness | 1.02 | 3.18 |         |                     |                                |
| Word Decoding Ability  | 0.98 | 3.91 | 0.53    | 8.63 <sup>-09</sup> | Ho is rejected                 |

The r- value of 0.53 implicates a positive correlation between Phonological Awareness and Word Decoding Ability. This further explains that 53% of the Phonological Awareness affects Word Decoding Ability of the respondents. The remaining 47% can be explained by other factors not covered explicitly in the study.

With the instructions integrated on most of the English subjects particularly the English 3, it can be inferred that that information have lead them to the betterment of their performance in decoding words. Indeed, in one way or two, the learning they have gained from English classes developed their knowledge in Spelling. Moreover, this is an important skill as a communicator, as an individual.

Cornwall and MacDonald went on to confirm this result (2014). In addition, phonological awareness was found to be a significant effect in kids' word identification and spelling abilities. To help students recognize the word and spell it correctly, they must first understand what phonology is and how it plays a part in the implementation.

In light of the findings, Apel and Masterson (2001) stated that evaluating a student's phonological awareness and reading abilities is critical in determining their spelling ability. The findings of this study show that in order to help students enhance their spelling skills, certain metrics of phonemic awareness (sound-to-letter problems) and reading ability should be detected in their academic experiences.

Phonological awareness has been shown to be a correlate of literacy progress in early elementary school. Because spelling errors are often phonetically accurate, there is a significant link between phonological awareness and spelling ability (Kamhi & Hinton, 2000).

Spelling, on the other hand, is a linguistic skill that is the visual representation of spoken language and relies on one's knowledge of the phonological, morphological, and orthographic structure of the English language, as Arndt (2010) discovered in her study of factors affecting the development of spelling at the teacher, student, and word level. As a result, it isn't only dependent on phonological awareness.

#### 4. Summary, Conclusion, and Recommendation

This chapter summarizes the results of the study, draws conclusions from the implications of the findings and offers recommendations innovated by the researchers.

##### *Summary*

Fundamentally, the following answers to the research problems were sought:

1. The level of awareness of the second year BSED English Students in terms of Critical Sounds is 3.51 which generally mean that respondents have high awareness on critical sounds using the Listening test. To be particular, none of the results in critical sounds belong to low level of awareness. Moreover, the level of awareness of the second year BSED English Students in terms of Phonetics is 3.13 which mean that the respondents have moderate awareness when it comes to Phonetics using the administered Phonetic Transcription Test. Moreover, to be specific, some of the critical sounds were classified in average level but none was lower than being fair.

2. The level of decoding ability of Second Year BSED-English students on spelling is 3.91 which mean that generally, the respondents have high ability in decoding transcribed words using the conducted Spelling test. For specific purposes, words which have /ao/ sounds came out to be proficiently spelled by the respondents which would mean they have very high awareness on the said sound.

3. The relationship between Phonological Awareness and Word Decoding Ability of Second Year BSED-English students in University of Southeastern Philippines has  $r(103) = 0.50$ ,  $p(0.0000000863) < 0.05$ . This means the given variables have significant relationship and hence, the null hypothesis that claims there is no significant relationship between them was rejected.

##### *Conclusion*

1. Critical Sounds seemed to be not that critical for the respondents since they attained an overall high awareness in Listening test. This means that out of 10 occasions, this awareness is manifested in about 7-8 times. However, using the data gathered, it can be inferred that they have low results in /v/ sound compared with the rest of the critical sounds.

2. Students on Critical Sounds, through the conduct of Listening test, seemed to have higher awareness compared to Phonetics which utilized Phonetic Transcription test. However, despite this, the awareness of respondents on Phonetics is still acceptable as they attained moderate awareness on this indicator. Conversely, as compared to the Word Decoding ability, the respondents appeared to be of high level. Hence, respondents have average ability to translate transcribed words into its Standard English spelling.

3. The null hypothesis is rejected. It is indeed of high potentials to claim that they have very high significance with each other. This would generally mean that indeed Phonological Awareness of students affect their Word Decoding Ability.

##### *Recommendations*

As per result of the study and based on the conclusions drawn, the researchers submit specific and general recommendations.

**Administration of USEP.** The school should provide an audio dictionary specifically the latest version of the Concise Oxford Dictionary Version 5.2.34 to be set up in the library or simply, have students to download it with their android phones to improve their correct pronunciation and spelling of words particularly with those critical sounds that were low for students to identify as resulted by this result. Furthermore, the school should also provide trainings on speech and oral communication particularly Phonological Awareness and Teaching English as Second Language Seminar. And establishing the first Speech club integrated with spelling and speech enhancement with the realization of a yearly Pronunciation and Spelling bee.

**Teachers.** Language teachers should utilize well the use of Speech Laboratory where students can enhance their phonological awareness particularly on those critical sounds that they least recognized. Moreover, they are encouraged to attend Phonological Awareness and Teaching English as Second Language Seminar and refer to book reference entitled Teaching Word Identification and Spelling Word Identification by Felton, PhD. as they can learn more speech and oral strategies in their lessons to sustain and develop the students' high awareness on critical sounds in English.

**Students.** With the results given, they must enjoy the student-active Learning Approach to Spelling Instruction as they can utilize web-based games such as of <http://www.spellingtime.com/> and Corpus-based Pronunciation Learning Website ([http://corpus.ied.edu.hk/phonetics\\_andphonology/wordpress/](http://corpus.ied.edu.hk/phonetics_andphonology/wordpress/)). And fundamentally, to actively involve themselves in the speech club or organization that will augment their knowledge about this matter.

**Future Researchers.** They are encouraged to search other indicators that might affect word decoding ability of the BSED English Students. Critical sounds in English in terms of consonants and diphthongs are the suggested topics for further studies. In addition, other tests may be employed to further determine the variables in this study such as Syllable Segmentation Test; Onsets and Rimes Blending and Segmenting Test; and Phonemic Test.

## References

- All Kinds of Minds, (2015). Sounding out and reading words/impact of attention, language, memory, and higher order cognition. Retrieved September 1, 2015, from [www.Allkindsofminds.org/word-decoding-sounding-out-and-reading-words-impact-of-attention-language-memory-and-higher-order-cognition](http://www.Allkindsofminds.org/word-decoding-sounding-out-and-reading-words-impact-of-attention-language-memory-and-higher-order-cognition)
- Allaith, Z. (2009). Analysis of spelling performance in English among students whose first language is arabic. Texas A&M University. Retrieved September 1, 2015, from <http://spellingperformance-texas-file.com/about.html>
- American Speech-Language-Hearing Association (2013). Speech sound disorders-articulation and phonology. Retrieved September 26, 2013, from <http://www.asha.org/PRPSpecificTopic.aspx?folderid=8589935321&section=Assessment>
- Antunez, B. (2013). English language learners and the five essentials of components of reading instruction. Retrieved August 4, 2015, from <http://www.readingrockets.org/article/341/>
- Apel, K., & Masterson, J.J. (2001). Theory-guided spelling assessment and intervention: A case study. *Language, Speech, and Hearing Services in the Schools*, 32, 182-195.
- Archer, A. (2011). Decoding and fluency instruction: Ensuring accurate and fluent reading. Retrieved October 4, 2015, from <http://miblsi.cenmi.org/LinkClick.aspx?fileticket=MHqTYRqv-E%3D&tabid=1408>
- Arndt, E.J. (2010). Factors affecting the development of second grade spelling at the teacher, student, and word level (Unpublished doctoral dissertation). Florida State University, Tallahassee, FL.
- Bailey, E. (2015). Decoding Skills: Decoding skills are important in learning to read and developing reading fluency. Retrieved September 1, 2015, from <http://specialied.about.com/od/reading101/a/decodingskills.htm>
- Ballesteros, C. (2002). *English Language Learning is like riding a bike*. College of Foreign Languages and Literatures, Da-Yeh University Cashew Nuts. Retrieved October 3, 2015, from <http://www.eslminiconf.net/september/ballesteros.html>
- BBC Learning English. (2015). Pronunciation tips. Retrieved September 1, 2015, from <http://www.bbc.co.uk/worldservice/learningenglish/grammar/pron/feature/spelling/>
- British Association of academic Phoneticians, (2015). What is phonetics? Retrieved October 6, 2015, from [www.Baap.ac.uk/phonetics.html/](http://www.Baap.ac.uk/phonetics.html/)

- Brummitt-Yale, J. (2008) Phonemic awareness versus Phonological awareness. Retrieved August 1, 2015, from <http://www.k12reader.com/phonemic-awareness-vs-phonological-awareness/>
- Building Literacy Knowledge for Education Professionals (2014). Decoding. Retrieved October 26, 2015, from <http://www.emstac.org/registered/topics/literacy/overview/decoding.htm>
- Cardoso-Martins C, Mesquita TCL, Ehri L. Letter names and phonological awareness help children to learn letter-sound relations. *Journal of Experimental Child Psychology*. 2011;109(1):25–38. [PubMed]
- Carreker, S. (2010). Memorization wrong path to proficiency in spelling. Retrieved from <http://www.chron.com/opinion/outlook/article/Memorization-wrong-path-to-proficiency-in-spelling-1707582.ph>
- Cassar M, Treiman R, Moats L, Pollo TC, Kessler B. (2005). How do the spellings of children with dyslexia compare with those of nondyslexic children? *Reading and Writing*. 2005; 18:27–49.
- Case, A. (2008). Why does my teacher make me learn the phonemic script? Retrieved October 6, 2015, from <http://www.usingenglish.com/articles/why-does-my-teacher-make-me-learn-phonemic-script.html>
- Celce-Murcia et al., (2000). *Journal of language teaching of research* ISSN 1798-4769 vol. 1. Retrieved October 6, 2015, from <http://www.academypublisher.com/jltr/vol01/no06/jltr0106.pdf>
- Chabot, J. (2010). Phonological awareness intervening for students at-risk in China. Retrieved August 19, 2015, from <http://www.ccsenet.org/journal/index.php/ass/article/viewFile/2490/2336>
- College of the Redwoods. (2006). Word decoding – root words, prefixes, suffixes, and phonics: Ways to understand and simply language. Retrieved August 26, 2015, from [www.redwoods.edu/Eureka/ASC/Handouts/Word%20Decoding.pdf](http://www.redwoods.edu/Eureka/ASC/Handouts/Word%20Decoding.pdf)
- Colloms, M. (2015). Recognising sound quality, presentation, and performance. Retrieved August 7, 2015, from [www.criticalsound.co.nz/about/](http://www.criticalsound.co.nz/about/)
- Cornwell & MacDonald, G.W. (2014). The relationship between phonological awareness and reading and spelling achievement eleven years later. doi: 10.1177/002221949502800807
- Durango, M., Egina, E.M. and Falcon A. (2013). Critical sounds in English and decoding skills of Second year BSED-English students in University of Southeastern Philippines Tagum Campus
- Gagen, M. (2013). Effective spelling instruction. right track reading. (pp. 4-6.). Retrieved September 2, 2015.
- Gillon, G. (2004). Phonological awareness and its assessments: A brief literature review. Retrieved October 3, 2015, from [http://www.academia.edu/6739406/Phonological\\_Awareness\\_and\\_Its\\_Assessments\\_A\\_Brief\\_Literature\\_Review](http://www.academia.edu/6739406/Phonological_Awareness_and_Its_Assessments_A_Brief_Literature_Review)
- Good, Simmons, & Torgesen (2001). Phoneme awareness predicts later outcomes in reading and spelling. Retrieved October 3, 2015, from <http://www.readingrockets.org/article/why-phonological-awareness-important-reading-and-spelling>
- Hamann (2009). Phonology in Perception. Retrieved October 3, 2015, from <http://linguistlist.org/issues/21/21-3465.html>
- Hempenstall, K. (2011). Education Oasis: Phonemic Awareness: What does it mean? Retrieved August 6, 2015, from [http://www.educationoasis.com/resources/Articles/phonemic\\_awareness.html](http://www.educationoasis.com/resources/Articles/phonemic_awareness.html)
- Hoiem-Tengesdal, I. & Tonnessen, F.-E. (2011). The relationship between phonological skills and word decoding. *Scandinavian journal of psychology*. pp. 2-3. Retrieved July 27, 2015, from <http://www.ncbi.nlm.nih.gov/pubmed/21077906>
- Hub Pages. (2011). Action research in English spelling: an overview of English spelling related problems. Retrieved from <http://ankandhk.hubpages.com/hub/English-spelling>
- Jayda, H. (2006). Cognitive neuroscience of language. Retrieved October 3, 2015, from <http://slideplayer.com/slide/4189417/>
- Johnson, J. and Kozikowska, M. (2009). Why study phonetics? Retrieved October 3, 2015, from <https://www.llas.ac.uk/resources/guidebytheme/keyword/543>
- Johnston, F. R. (2001). Spelling exceptions: Problems or possibilities. *The Reading Teacher*. 54, 372-378. Retrieved from [https://libres.uncg.edu/ir/uncg/f/F\\_Johnston\\_Spelling\\_2001.pdf](https://libres.uncg.edu/ir/uncg/f/F_Johnston_Spelling_2001.pdf)
- Jones S. (2009). The importance of spelling. Retrieved October 6, 2015, from <http://www.spellingcity.com/importance-of-spelling.html>
- Kamhi, A., and Hinton, L.N. (2000). Explaining individual differences in spelling ability. *Topics in Language Disorders*, 20(3), 37-49.
- Konza, D. (2011). Phonological awareness. Retrieved October 6, 2015, from [http://www.decd.sa.gov.au/literacy/files/links/UtRP\\_1\\_2\\_v2.pdf](http://www.decd.sa.gov.au/literacy/files/links/UtRP_1_2_v2.pdf)
- K12 Reader, (2015). What is phonics? Retrieved October 6, 2015, from <http://www.k12reader.com/what-is-phonics/>
- Lambacher, S. G. (2006). The effects of identification training on the identification and production of American English vowels of native speakers of Japanese. Retrieved October 6, 2015, from [https://books.google.com.ph/books?id=B\\_gZBwAAQBAJ&pg=PA171&lpg=PA171&dq=lambacher+\(2006\)+phonology&source=bl&ots=bZRTbi0G0h&sig=NIWQeMuQLn7eAOjUmQvUt2Qw-vs&hl=en&sa=X&ved=0CCUQ6AEwAmoVChMIz6mh9afMyAIVBgeOCh3TkQFB#v=onepage&q=lambacher%20\(2006\)%20phonology&f=false](https://books.google.com.ph/books?id=B_gZBwAAQBAJ&pg=PA171&lpg=PA171&dq=lambacher+(2006)+phonology&source=bl&ots=bZRTbi0G0h&sig=NIWQeMuQLn7eAOjUmQvUt2Qw-vs&hl=en&sa=X&ved=0CCUQ6AEwAmoVChMIz6mh9afMyAIVBgeOCh3TkQFB#v=onepage&q=lambacher%20(2006)%20phonology&f=false)
- Lethbridge, A. (2002). Phonological awareness interventions to promote reading success in kindergarten. Retrieved October 6, 2015, from [https://www.uleth.ca/dspace/bitstream/handle/10133/964/Irvine\\_Apps\\_Leslie.pdf?sequence=1](https://www.uleth.ca/dspace/bitstream/handle/10133/964/Irvine_Apps_Leslie.pdf?sequence=1)
- Lonigan, C.J. et al. (2002). Test of preschool early literacy. Retrieved September 1, 2015, from [www.ncbi.nlm.nih.gov/pmc/articles/PMC3880683/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3880683/)
- Lonigan, C.J. (2006). Development, assessment, and promotion of pre-literacy skills: Early childhood development. Retrieved August 30, 2015, from [www.ncbi.nlm.nih.gov/pmc/articles/PMC3880683/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3880683/)
- MacDonald, G.W. (2014). The relationship between phonological awareness and reading and spelling achievement eleven years later. doi: 10.1177/002221949502800807



- Malicsi, J. (2010). Philippine English: A case of language drift. Retrieved August 17, 2015, from [http://www.ritsumei.ac.jp/acd/re/k-rsc/lcs/kiyou/pdf\\_22-](http://www.ritsumei.ac.jp/acd/re/k-rsc/lcs/kiyou/pdf_22-)
- Mcgee, L. M., & Richgels, D. J. (2003). *Designing early literacy programs: Strategies for at-risk preschool and kindergarten children*. New York: Guilford Press.
- Morin, A. (2015). What are decoding skills? Retrieved October 01, 2015, from <http://childparenting.about.com/od/schoollearning/a/decoding-skills-def.htm>
- Morrow, L. (2009). *Literacy Development in the Early Years Helping Children Read and Write* (6th Edition). Boston, MA: Pearson.
- Munro, J. (2000). Phoneme Awareness: A neglected dimension of phonemic awareness Australian developmental and educational psychologist. University of Melbourne. Retrieved August 1, 2015, from <http://phonemeawareness->
- National Centre of Literacy and Numeracy for Adults. (2012). Decoding for reading; Spelling (encoding) for writing. Retrieved September 26, 2015, from <http://www.literacyandnumeracyforadults.com/resources/354995>
- National Institute for Literacy. (2007). Adapted from What Content-Area Teachers Should Know About Adolescent Literacy. Retrieved from [http://www.nifl.gov/nifl/publications/adolescent\\_literacy07.pdf](http://www.nifl.gov/nifl/publications/adolescent_literacy07.pdf)
- Nerrière, J. and Hon, D. (2009). Globish the World Over: Critical sounds for global understanding. International Globish Institute. (pp. 1&7). Retrieved August 15, 2015, from [http://www.academia.edu/7953871/Teaching\\_Global\\_English\\_with\\_NNSNNS\\_online\\_communication.\\_The\\_Journal\\_of\\_Asia\\_TEFLL\\_8\\_2\\_109-130](http://www.academia.edu/7953871/Teaching_Global_English_with_NNSNNS_online_communication._The_Journal_of_Asia_TEFLL_8_2_109-130)
- Norquist, G. (2010). Spelling in written language. Retrieved August 12, 2015, from <https://spelling-in-written-language.html>
- Nunes (2006). On literacy of reading failure. Concordia University Portland. (pp. 10-11.25) Retrieved September 2, 2015, from <http://www.word-phonics.com/about.html>
- Oliver, D. (2007). English Sounds and Spelling. Retrieved from [http://www.eslcafe.com/grammar/english\\_sounds\\_and\\_spelling01.html](http://www.eslcafe.com/grammar/english_sounds_and_spelling01.html)
- Penner-Wilger, (2008). Reading fluency: A bridge from decoding to comprehension. Retrieved August 30, 2015, from [216.150.17.172/uploads/aor-fluency\\_research.pdf](http://216.150.17.172/uploads/aor-fluency_research.pdf)
- Phillips, B. M. (2008). Phonological awareness and alphabet knowledge: key precursors and instructional targets to promote reading success. Retrieved October 3, 2015, from <http://kskits.org/ta/virtualKits/phonologicalAwareness.shtml>
- Reading Seed, (2011). Working on sound-symbol relationships. Retrieved October 6, 2015, from <http://literacyconnects.org/img/2011/10/Working-on-Sound-Symbol-Relationships-Final.pdf>
- Reading Horizons. (2014). Reading Strategies: Decoding. Retrieved September 26, 2015, from <http://www.readinghorizons.com/reading-strategies/decoding/>
- Roberts, V. (2009). Ideal Curriculum. Retrieved September 4, 2015, from <http://www.idealcurriculum.com/about-us.html>
- Sadoski, M., & Paivio, A. (2000). A dual coding theoretical model of reading. In R. R. Ruddell & N. J. Unrau, (Eds.), *Theoretical models and processes of reading* (5th ed.), pp. 1329–1362. Newark, DE: International Reading Association.
- Shankweiler & Troia (2004). Phoneme Awareness. Retrieved October 3, 2015, from <https://phoneme-awareness.html>
- Small (2005). Assessment of articulation and phonological disorder. Retrieved August 2015, from [https://books.google.com.ph/books?id=azb0CAAAQBAJ&pg=PA141&lpq=PA141&dq=small+\(2005\)+phonetic+transcription&source=bl&ots=Lto4XUUL7Z&sig=NtZdXSIw8oLJsjAHKwneQ3TkGzk&hl=en&sa=X&ved=0CEQQQ6AEwCGoVChMIgcbz5rbM yAIVIAOOCh25HQgF#v=onepage&q=small%20\(2005\)%20phonetic%20transcription&f=false](https://books.google.com.ph/books?id=azb0CAAAQBAJ&pg=PA141&lpq=PA141&dq=small+(2005)+phonetic+transcription&source=bl&ots=Lto4XUUL7Z&sig=NtZdXSIw8oLJsjAHKwneQ3TkGzk&hl=en&sa=X&ved=0CEQQQ6AEwCGoVChMIgcbz5rbM yAIVIAOOCh25HQgF#v=onepage&q=small%20(2005)%20phonetic%20transcription&f=false)
- Smith, E. (2007) Phonological Reconstruction of a Dead Language Using the Gradual Learning Algorithm. In *Proceedings of Ninth Meeting of the ACL Special Interest Group in Computational Morphology and Phonology*. Prague, Czech Republic.
- Stetson, R. (2015). All about linguistics to discover and understanding. Retrieved October 6, 2015, from <https://sites.google.com/a/sheffield.ac.uk/all-about-linguistics/branches/phonetics/how-is-phonetics-studied>
- Schwarz, R. (2012). National Adult Literacy and Learning Disabilities Center, Washington D.C. Retrieved from October 10, 2015, from <http://www.readinghorizons.com/research/teaching-esl-students-reading-phonemic-awareness>
- The State of South Australia (2013). Spelling: From beginnings to proficiency. Retrieved August 4, 2015, from [http://www.decd.sa.gov.au/literacy/files/pages/Programs%20and%20Resources/Spelling\\_resource\\_FINAL.pdf](http://www.decd.sa.gov.au/literacy/files/pages/Programs%20and%20Resources/Spelling_resource_FINAL.pdf)
- Templeton, S. (2002). Spelling: Logical, learnable-and critical. Available from the website of the American Speech-Language-Hearing Association: <http://www.asha.org/about/publications/leader-online/archives/2002/q1/020219d.htm>. All rights reserved.
- University of Oulu (2002). The Phonological Mean Length of Utterance: methodological challenges from a crosslinguistic perspective. Retrieved October 3, 2015, from <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=408664>
- Vaughn S. and Linan-Thompson, S. (2004). Research-Based methods of reading instruction, Grades K–3. Retrieved October 27, 2015, from <http://www.ascd.org/publications/books/104134/chapters/Phonics-and-Word-Study.aspx>
- Wagner, R. (2008). Learning to Read: The importance of assessing phonological decoding skills and sight word knowledge. Scholastic phonics inventory. (pp. 3– 4). Retrieved August 16, 2015, from [teacher.scholastic.com/products/readingassessment\\_spi/pdfs/SPI\\_Learning\\_to\\_Read\\_Wagner.pdf](http://teacher.scholastic.com/products/readingassessment_spi/pdfs/SPI_Learning_to_Read_Wagner.pdf)
- Wells, J.C. (2003). Phonetics transcription and analysis. Retrieved October 6, 2015, from <https://www.phon.ucl.ac.uk/home/wells/transcription-ELL.pdf>
- Wells, J. (2014). Resources in speech, hearing, and phonetics. Retrieved October 7, 2015, from <http://www.phon.ucl.ac.uk/home/wells/>
- Warda, R. (2005). Research based tutoring of English spelling. White paper. Retrieved August 26, 2015, from <http://eric.ed.gov/?id=ED492137>



- WETA Washington, (2013). Phonics and decoding. Retrieved September 5, 2015, from [www.readingrockets.org/reading-topics/phonics-and-decoding](http://www.readingrockets.org/reading-topics/phonics-and-decoding)
- Yoop & Yoop (2000). Emergent Literacy: Definition, Theories & Characteristics. Retrieved August 14, 2015, from <http://study.com/academy/lesson/emergent-literacy-definition-theories-characteristics.html>
- Zhang, F and Yin P. (2009). A study of pronunciation problems of English learner in China. Retrieved August 19, 2015, from <http://www.ccsenet.org/journal/index.php/ass/article/viewFile/2490/2336>