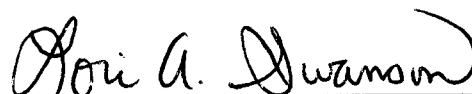


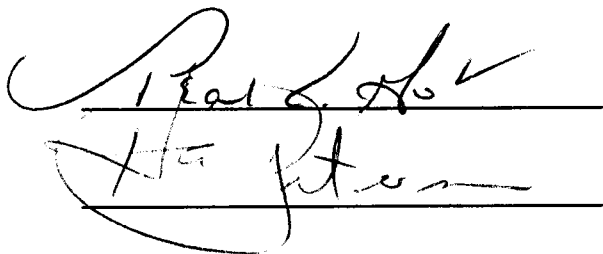
To the Graduate Council:

I am submitting herewith a thesis written by Emily Dianne Davis entitled "An Examination of Appalachian Dialectal Syntactic and Phonological Features Used by School-Age Children in East Tennessee." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the Degree of Master of Arts, with a major in Speech Pathology.



Lori A. Swanson, Major Professor

We have read this thesis
and recommend its acceptance:



Accepted for the Council:



Associate Vice Chancellor and
Dean of The Graduate School

AN EXAMINATION OF APPALACHIAN DIALECTAL
SYNTACTIC AND PHONOLOGICAL FEATURES
USED BY SCHOOL-AGE CHILDREN
IN EAST TENNESSEE

A Thesis
Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Emily Dianne Davis
May 1998

DEDICATION

This work is lovingly dedicated to Bill, Dianne, and Frank Davis. Without the constant encouragement, support, friendship, and love of my family, the completion of this thesis would have never taken place.

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ABSTRACT

It is well known that individuals residing in Eastern Tennessee often speak using an Appalachian dialect. A few studies have documented syntactic and phonological dialectal features typically used by these speakers (Adler, 1976; Wolfram & Christian, 1975; 1980). There has been little recent attention to this area of research. The purpose of this study, therefore, was to examine 42 linguistic samples of five, six, and seven year old subjects from one school in East Tennessee for the presence of eleven syntactic and nine phonological features typically used by speakers of Appalachian English. The Let's Talk Inventory for Children (Bray & Wiig, 1987) was used as a language elicitation instrument by adult speakers of Standard American English (SAE).

Linguistic samples were examined for presence versus absence of 11 specified Appalachian syntactic features. A percentage of use was calculated for each subject and averaged for each age group. Syntactic analyses revealed a general trend of decrease in dialectal features exhibited with age. Significant differences occurred between the five and seven year old groups with no significant differences between the six year old group and the five or seven year old groups. The observed trend of decreased use with age may have been the result of formal and informal academic instruction in the school setting with children using more syntactic forms characteristic of SAE after they entered kindergarten. The absence of significant differences between the six year old group and the five or seven year old groups suggested that this age may be a transitional period in which children begin to improve their ability to code switch or use more SAE forms.

Total percentage of occurrence of the nine examined phonological features was also calculated for each subject and averaged for each age group. Mean percentage of use revealed a decreasing trend with age. Significant differences occurred between the five and seven year old groups with no significant differences between the six year old group and the five or seven year old groups. Although children are not typically directly “taught” code switching skills with regard to phonology, it appeared that children learned to make their speech sound more like that of a speaker of SAE. This may have been a result of acquired experience in listening to speakers of SAE, exposure to sound-symbol relationships introduced through activities associated with phonological awareness and reading, and other indirect learning experiences which facilitated the use of more standard sounding speech and language. Due to the overlap of normal phonological processes with certain phonological dialectal features, speech-language pathologists may misdiagnose children with dialectal, developmental, or disordered language.

Dialectal linguistic data of this type may contribute to improved informal language assessment procedures used by speech-language pathologists working with children who are speakers of nonstandard dialects. Speech-language pathologists should consider whether or not questionable linguistic features exhibited by children are simply part of their nonstandard dialect or are characteristic of disordered language.

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CHAPTER I

INTRODUCTION AND REVIEW OF THE LITERATURE

Dialect may be described as a "language rule system of an identifiable group that varies from the rule system of an ideal standard" (Owens, 1988). Appalachian English or "Mountain English" is an example of a rule-based, nonstandard dialect found to be used by some speakers living in the southeastern area of the United States. The Appalachian dialect is most often associated with those who reside in rural areas and are of the working class found in specific portions of the Appalachian mountain range (Dial, 1978; Wolfram & Christian, 1980; Wood, 1971).

Syntactic and phonological features typically used by speakers of Appalachian English (APPE) have been discussed in the literature (Adler, 1976; Wolfram & Christian, 1975; 1980). A number of these characteristics are used to some extent by speakers of Standard American English (SAE), but are exaggerated in Appalachian dialect (Wolfram & Christian, 1975). Other APPE features are also characteristic of nonstandard dialects such as African-American English (Wolfram & Christian, 1975). Many of the phonological features of Appalachian English are phonological processes used by normally developing children which persist into adulthood. Specific information with regard to use of these features by school-age children may increase the speech-language pathologist's linguistic and cultural awareness of this unique group of speakers.

Speakers of nonstandard dialects, such as Appalachian English, may often code switch between their own English variation and that of SAE. Research suggests that this ability follows a developmental sequence beginning early in life and becomes perfected by the middle-school years (Isaacs, 1996). Social events in which code switching may

occur are highly variable, but appear most often in formal speaking or assessment situations (Agerton & Moran, 1995; Isaacs, 1996; Wolfram, 1983).

Presently, limited research is available in the areas of syntactic and phonological features used by speakers of Appalachian English (Adler, 1976; Wolfram & Christian, 1975, 1980). Wolfram and Christian suggest that Appalachian English is exhibiting a transition towards a more standard form with some features "fading" from the dialect (1975). As a result, it is important to investigate the features used by local speakers of this dialect in order for speech-language pathologists to recognize those which are exhibited most often by speakers of Appalachian English. These data may promote their ability to perform culturally sensitive speech and language assessments with speakers of Appalachian English. At this time, there are restricted means by which nonstandard speakers are assessed. Although informal assessment alternatives have been suggested (Leonard & Weiss, 1983; McGregor, Williams, Hearst, & Johnson, 1997; Vaughn-Cooke, 1986), standardized instruments which are culturally sensitive to nonstandard speakers need to be developed.

There is a steady increase in the number of multicultural clients who must be assessed and treated for language disorders. In addition, there is a lack of research regarding the dialectal features which nonstandard speakers exhibit. Consequently, further research is necessary in order for speech-language pathologists to determine those characteristics which should be regarded as either "dialectal," "developmental," or "disordered." Research which investigates the dialectal characteristics exhibited by speakers of Appalachian English may increase the cultural knowledge of speech-language pathologists and facilitate decision making with regard to language assessment and treatment of speakers of nonstandard dialects. This may be done by providing

developmental normative data related to nonstandard dialects of language (e.g., syntax and phonology).

Development of Dialects

Linguistic diversity is demonstrated throughout the United States as it is in any country of the world. Linguistic variation in American English can be primarily attributed to the various geographical regions of the country (Wolfram & Christian, 1975). According to Wolfram and Christian, these linguistic boundaries are a result of three primary causes. The authors initially suggest that these differences among the English language are a result of early settlements which took place in the United States. Secondly, the general pattern in which populations moved may be a contributing factor. In this country, the trend was a movement from east to west. Lastly, physical geographical boundaries such as mountains, rivers, and other naturally formed barriers tend to isolate dialectal groups.

Wolfram (1986) proposed that dialectal diversity in the United States involves a systematic pattern of formation which is "natural, expected, and predictable" (p. 77). He suggests that at times, the assumption is made that dialects randomly differ from Standard American English (SAE) and from each other with a lack of organization. Wolfram (1986) further suggests that dialects are formed as a result of higher-order language principles which determine the unique features of each dialectal group. Some aspects of language are more likely to be modified. These aspects include subject-verb agreement, plural forms, verb phrase forms, negation, and others. These structured modifications are attributed to the fact that unless a language is "dead," it is progressively changed by those who speak the language (p. 77). A trend of change in a language may be the result of generalization of the language's rule system, the tendency towards the regularization of

language, the reduction of redundancy, and the reorganization of existing linguistic patterns.

Finally, the point must be made that, "Dialects do not stand alone as isolated entities but show systematic relations to other dialects in the continuum of linguistic diversity" (Wolfram & Christian, 1975, p. 39). Stated another way, dialects are the end products of the variations developed from the standard by speakers in a specified community.

Geographical History of Appalachia

The portion of the United States known as "Appalachia" typically refers to the Appalachian Mountain region in the southeastern area of the country. This Appalachian area, although somewhat broadly defined includes portions of the following states: Tennessee, Arkansas, Mississippi, Alabama, Georgia, South Carolina, North Carolina, Virginia, West Virginia, and Kentucky (Wolfram & Christian, 1975; Wood, 1971).

This region developed geographically with the migration of Scotch-Irish settlers from the northeast to the southeastern portion of the country in the early 1820's. This migration transferred south from Pennsylvania along the mountains of Virginia through Kentucky and Tennessee. This migration continued down the Ohio River through parts of South Carolina and Georgia until it was halted by hostile settlements at the mountain barrier. Finally, the establishment of villages, towns, and plantation areas by the frontiersmen took place. This area became somewhat isolated at that point from the rest of the country as a result of the natural geographical boundaries which surrounded the region (Wolfram & Christian, 1975; Wood, 1971).

The Children of Appalachia

Education. The school-age children of Appalachia have been examined regarding their educational performance in several areas (Henry, Hare, Phelps, Raftery, & Franklin, 1992). These children are often from families of lower-socioeconomic status and are inhabitants of rural areas. Public schools of Appalachia typically lack adequate funding, and teachers are more likely to express decreased academic expectations of students when compared with school systems where SAE (Standard American English) is spoken in the United States.

The teacher perceptions and concerns related to children who are speakers of Appalachian dialect have been studied at length. Some issues include the usage of standard as opposed to a nonstandard dialect such as Appalachian English (APPE) in the school setting, trends related to school drop-out rates, and general findings with regard to the academic abilities of children in the Appalachian region.

One of the most prominent findings within school-age speakers of nonstandard dialect is a common assumption made by teachers suggesting that because a child uses characteristics of nonstandard dialect, he or she has "retarded" (Hess, 1974, p. 283) language development. This observation may be the result of public school systems' focus on presenting instruction in a standard dialectal form. This poses a problem to the teacher who may have a combination of both standard and nonstandard dialect speakers in the classroom. The dilemma involves whether or not the teacher requires students to speak the standard dialect in the school setting or allows times for "home talk" (i.e., the nonstandard dialect) with other times for "school talk" (i.e., the standard dialect). Although opinions regarding the resolution of this dilemma differ at extremes, it is generally believed that the latter suggestion may be more culturally sensitive. Limiting

the language of children to that of SAE may potentially result in speakers of nonstandard dialects feeling alienated from their home culture in the school setting (Adler, 1993). In addition, it is agreed that although a child may use his/her nonstandard dialect in a home setting, it is necessary for the child to be able to understand and use the standard dialect to achieve in academic and vocational settings (Cloud, 1994; Hess, 1974; McLaughlin, 1984; Reck, Reck, & Keefe, 1993).

In general, children who are speakers of APPE tend to exhibit poor academic ability when compared with those of a more standard American culture (Henry et al., 1984; Hess, 1974; Isaacs, 1996; McLaughlin, 1984; Reck et al., 1993). According to Reck et al. (1993), "...in Appalachian schools, those students exhibiting mainstream American culture and identity tend to do well in school, take more academic courses, and frequently go on to college, while those students with an Appalachian culture and identity tend to do poorly, take more vocational courses, and frequently drop out before graduating from high school" (p. 117). Teachers may view these students as less motivated, less successful in school, and lacking in writing and language skills. In addition, research suggests that this population of children exhibits a significantly greater high school drop-out rate than the standard population (McLaughlin, 1984). The contribution of language data may aid in the remediation of stereotypical, biased views assumed by teachers and speech-language pathologists when working with groups of school-age speakers of APPE.

Multicultural considerations. The culture that is unique to a specific group of individuals is comprised of, but not limited to, familial heritage, value systems, patterns of belief, environmental experiences, socioeconomic characteristics, and emotional attitudes (Adler, 1979, 1989; Alexander, 1967; Bergin, 1986; Loeff, 1977; Payne, 1986;

Peterson & Peters, 1985). These cultural issues and their effects must be taken into consideration when working with any child.

Adler (1979) discusses the culture of poor children suggesting that there is order, regularity, and predictability in their patterns of behavior which contribute to the degree of success the child experiences academically and socially when compared with others of higher socioeconomic status. He suggests that professionals (e.g., speech-language pathologists) who work with poor children must understand that alteration of these adaptive mechanisms, or forcing the child to adopt a more "standard" culture removes the structure from the child's life. This may ultimately result in failure for the child, educationally as well as socially.

The inhabitants of Appalachia tend to place most value on the force of familism. Loeff (1977) suggests that familism "stabilizes family life, structure, and functioning" for the people of this region (p. 102). Although this characteristic may help to provide emotional security and stability, it oftentimes results in an attitude of self-sufficiency. This may contribute to problems involving socialization, medical care, and involvement in community functions. All of these problems are reduced when a strong emphasis is placed on isolation from professional institutions. Similarly, low-income families often value obedience and conformity, especially in parent-child relationships (Peterson & Peters, 1985).

Finally, when examining the cultural differences influencing the behaviors of people of the Appalachian region, emotional characteristics may be viewed as another realm of difference from the standard, middle-class populations of the United States. Alexander (1967) reported that six-year old children of Appalachia who were characterized as "disadvantaged" were presented with five cards ambiguously depicting

neutral, human figures. Children were then asked to describe what they saw. Results indicated that although the percentage of positive words used to describe the pictures was equal between middle-class and “disadvantaged” children, there was a significant difference between the groups regarding the usage of negative words, with the Appalachian group using twice as many. These results suggest that there are differences in the emotional perceptions and development between advantaged and disadvantaged individuals. The author hypothesizes that findings such as these conclude that this emotional difference may pose problems for these children in relation to their social life. Similarly, Alexander (1967) states:

If a tendency to perceive non-threatening or neutral stimuli as hostile persists into adulthood, problems for the individual in a social order may be increased. And, the social order may indeed be adversely affected as a result of the influence of such individuals. (p. 107)

In summary, there are many cultural differences which the people of Appalachia exhibit in contrast to the standard middle-class population. These observations are helpful when examining other characteristics of this particular population such as those related to language.

Code switching. Code switching is the ability to alternate between two or more languages or dialects of a language. Speakers of nonstandard dialects often have the ability to code switch between a more standard form and the nonstandard form which they normally use. The times at which a speaker chooses to code switch are highly variegated (Isaacs, 1996). Children who are speakers of nonstandard dialects may be more likely to exhibit an increase in the number of standard linguistic features presented during language assessment or more formal situations (Isaacs, 1996; Wolfram, 1983).

Isaacs (1996) suggests that the development of code switching may begin early in the childhood of those speakers of nonstandard dialects. These children reduce their usage of dialectal features as they progress through school. Children may be influenced by academic instruction of SAE in the classroom (Van Keulen, Weddington, & DeBose, 1998). Direct correction of dialectal grammar may be used by teachers, but may prove to be more harmful than helpful (Krashen, 1992). Direct methods of correction may leave a child feeling that his culture or self-worth is being degraded. More appropriate, indirect means of instruction regarding SAE may include modeling, role playing, reading, and writing. Similarly, children may also learn to produce more standard sounding speech after learning sound-letter correspondence with the introduction of phonological awareness instruction and reading (Van Keulen, Weddington, & DeBose, 1998). If the ability to code switch has not occurred by the time the child reaches middle school, then it is most likely that a transition into the usage of a more standard dialect will not take place (Isaacs, 1996).

Assessment. Due to the increasing numbers of children in this country who are speakers of a nonstandard dialect, it has become obvious to speech-language pathologists that there is a need improved informal testing procedures which are appropriate for use with these populations. The current lack of standardized tests may result in two possible dilemmas in the area of language assessment: 1) the conclusion may be drawn from test results that a child has a language disorder rather than a dialectal variation, or 2) the clinician may overcompensate for the child's usage of dialectal features and mistakenly conclude that he or she is using a nonstandard dialect when in fact, his or her language is disordered. Terrell and Terrell (1983) specify language assessment shortcomings including value and linguistic biases. Consequently, it is generally agreed that there is a

need for increased numbers of standardized and/or informal assessments which are appropriate for use with speakers of nonstandard dialects (Adler & Birdsong, 1983; Leonard & Weiss, 1983; McGregor et al., 1997; Taylor & Payne, 1983; Terrell & Terrell, 1983; Vaughn-Cooke, 1986; Wolfram, 1983; Wolfram & Christian, 1980). Several have offered possible solutions to these problems.

Leonard and Weiss (1983) recommend the use of nonstandardized language assessment procedures in order to be culturally unbiased. The authors describe alternatives such as scoring a child's responses to biased items correct if the responses are consistent with the child's dialect, developing non-standard English norms for standardized tests, and finally, refraining from the use of standardized tests which are inappropriate for use with nonstandard speakers. A nonstandard assessment process is described in which the speech-language pathologist might collect a spontaneous speech sample, analyze the sample for nonstandard features, and finally, determine whether the child exhibits a language disorder independent from nonstandard dialectal features. Certain nonstandard dialectal features are often used by language disordered children (i.e., plural -s dropped in words when preceded by a quantifier in Black English: "three pig" for "three pigs"). This could result in an inappropriate diagnosis if the child is in fact language disordered and the speech-language pathologist overcompensates for the use of dialectal features.

McGregor et al. (1997) introduced a theory of nonbiased language assessment termed "contrastive analysis." This procedure is a "method for separating expressive speech-language patterns that are consistent with a client's first dialect or language from patterns that represent true errors" (p. 45). This is attained by the clinician's attempt to determine patterns that are "in error" given his/her personal impressions or model of the

shared dialect. Procedural steps involved in conducting a contrastive analysis include becoming familiar with the linguistic variety of interest, collecting data for the contrastive analysis, identifying true errors, and interpreting results. This analysis may prove beneficial as it provides a profile of speech-language difficulties exhibited by the child in an unbiased method.

Vaughn-Cooke (1986) suggests additional alternatives to the assessment of speech and language of speakers of nonstandard dialects. These include the restandardization of existing tests on speakers of nonstandard dialects, the inclusion of small percentages of minority speakers in the standardization sample when developing tests, and the utilization of criterion-referenced measurements when assessing language.

In summary, accurate language assessment of culturally diverse individuals depends upon the education of speech-language pathologists in all areas of dialectal features (e.g., phonological and syntactic) used by these individuals. In addition, Adler and Birdsong (1983) suggest that professionals become familiar with socioeconomic factors of the dialectal group through careful review of the individual's case history, and become sensitive to the child's paralinguistic patterns and behaviors.

Dialectal Development of Appalachian English

As previously discussed, the early development of what can be described today as APPE most likely began with isolated settlements of the Scotch-Irish in the southeastern area of the United States. This dialect has gone through enormous change since that time and continues to evolve with a trend towards the reduction of typically related APPE dialectal characteristics. This change is most likely the result of an end to the isolation of the Appalachian region and the broader southeastern area of the United States (Christian, Wolfram, & Dube, 1980; Wolfram & Christian, 1975). This transition seems to be

affecting younger speakers more than the elderly speakers of the populations residing in these areas (Wolfram & Christian, 1975).

The Appalachian dialect has been regarded by some Standard American English (SAE) speakers and others as “hillbilly” or uneducated (Adler, 1991). In fact, some of the vocabulary and grammatical forms used by speakers of APPE can be described as a “sort of Scottish flavored Elizabethan English” (Dial, 1978, p. 49). Because the Appalachian region was geographically isolated for an extended period of time, some of these archaic characteristics have been preserved over several decades. For example, the word “reckon” which means *consider* or *suppose* is commonly used by APPE speakers. This form was used by distinguished speakers of Tudor England in the 1400’s (Dial, 1978). This use of double negatives has been observed to be used by speakers of APPE. The use of double negatives was considered to be proper and was demonstrated in the language of distinguished historical playwrights such as Shakespeare for over a century. In summary, APPE has been somewhat limited to a specific geographical area, as a result, has retained many examples of the variations represented by the groups of people who originally settled that area of the country.

Syntactic Features of Appalachian English

The grammar used by speakers of APPE can be described as simplified at times, yet, the simplifications are rule-based. Common features used by the speakers of APPE have been researched in several sociolinguistic studies, although normative data related to grammatical development is not available. New research is necessary in this area in order to contribute to the development of unbiased formal and informal language assessments. It should be noted that many features of APPE may be used by speakers of African-American English as well as other nonstandard forms of English. Additionally,

some features may be characterized as developmental errors as a result of immature language structures. Some of the most commonly observed syntactic features of APPE dialect which differ from SAE will be discussed.

Use of "done". The form of perfective "done" is used by speakers of APPE and other nonstandard dialects to relay a completed action or event or to intensify a situation taking place. This differs from SAE in that a simple past tense verb form would be used in place of the word "done." An example of this feature is "I done told you that...you just asked me!" This form is also found in other nonstandard dialects such as that of African-American English. The use of this feature type may occur alone with the past tense form of a verb (i.e., "I done forgot"). It may also intervene in complex verb phrases consisting of an auxiliary and a main verb, or may include a modal as in "We thought he was done gone" (Adler, 1976; Wolfram, 1986; Wolfram & Christian, 1975, 1980).

"A-prefixing" of verbs. A commonly cited verb form used by speakers of APPE is the dialectal feature of "a-prefixing." This form is used when expressing a progressive verb or in adverbial complements to a verb such as "He was a-goin' to the store" or "She kept a-wantin' to do that." Additionally, this characteristic feature may occur with compound forms as in "I went a-squirrel-huntin'" (Adler, 1976; Christian, Wolfram, & Dube, 1984; Wolfram, 1986; Wolfram & Christian, 1975, 1980). This form does not occur on "-ing" verb forms which function as nouns or adjectives or verbs following prepositions, and occurs only when the following word begins with a consonant (Wolfram & Christian, 1975).

Double modals. The usage of "double modals" is another feature found to be exhibited by speakers of APPE. This occurs when two modals are used together in a phrase or sentence such as "I might could do that for you." This feature is primarily used

by speakers of Southern dialects, but is also found to be used in Northern dialects only when clustered with “useta” as in “He didn’t useta do that” (Adler, 1976; Wolfram, 1986; Wolfram & Christian, 1975, 1980).

Absence of “be”. Another syntactic characteristic found to be used by APPE speakers involves the absence of “be” forms. “She stupid” for “She is stupid” is an example of this feature. This form is used only with contractible forms and is usually not used with forms of “am” (Adler, 1976; Wolfram, 1986). This feature is also observed to be used by speakers of African-American English and in varieties which evolve from the processes of second-language learning such as Vietnamese and Chicano English (Wolfram, 1986).

Use of incorrect subject-verb agreement. Another feature involves the incorrect subject-verb agreement forms used by speakers of APPE. These include forms involving agreement with “have” and agreement with specific kinds of plural subjects. Typically, in the first mentioned condition, the form “has” is used with a plural subject such as “My children hasn’t been there much.” An example of the second condition is “Me and my brother gets in a fight” (Wolfram, 1986; Wolfram & Christian, 1975).

Wolfram and Christian (1975) note four general categories which most commonly influence subject-verb agreement patterns in APPE. These include conjoined noun phrases (i.e., “Me and my sister ‘gets’ in a fight sometimes”), collective noun phrases (i.e., “Some people ‘makes’ it from fat off a pig”), other plural noun phrases (i.e., “The cars ‘was’ all tore up”), and expletive “there” (i.e., “There ‘was’ five in our family”).

Use of incorrect forms of irregular verbs. Although speakers of APPE tend to use several variations of irregular verb forms, only the most commonly occurring examples will be discussed. Wolfram and Christian (1975, 1980) present five general alterations of

irregular verb productions which follow a systematic pattern in APPE. First, some verbs with irregular past tense forms may be altered in production to utilize an -ed ending (i.e., "knowed" for "knew/known" or "heared" for "heard"). Secondly, some verbs may be represented by their uninflected forms as past-tense (i.e., "come" for "came" or "begin" for "began"). Thirdly, a limited number of verbs have irregular past forms which differ from standard forms (i.e., "brung" for "brought" or "hearn" for "heard"). At times, when two past forms in the standard pattern of a verb differ, the simple past form may be extended to function as a past participle (i.e., "have went" for "have gone" or "have took" for "have taken"). Lastly, the past participle form may be substituted for the simple past tense for some verbs having two different past forms (i.e., "seen" for "saw" or "done" for "did").

Absence of "-ly". Another dialectal feature utilized by speakers of APPE is that of omission of the -ly suffix used with some adverbial forms. In these cases, the -ly ending may be optional in production. Illustrative examples include the use of "original" for "originally" or "terrible" for "terribly" (Adler, 1976; Wolfram & Christian, 1975, 1980).

Intensifying adverbs. In APPE, there are adverbs which may be used to intensify a particular feature or event (Adler, 1976; Wolfram & Christian, 1975, 1980). This may be recognized as one of the more stereotypical features of APPE as viewed by speakers of SAE. Two commonly occurring examples include the use of "right" and "plumb" as intensifying adverbs. This usage of "right" may occur in three contexts: before adjectives (i.e., "right" large), with expanded groups of adverbs (i.e., "right" quick), and in conjunction with "smart" (i.e., a "right smart" while). The use of "plumb" as an

intensifier may occur with adverbs, verbs, and some adjectives. This usage refers to completeness of an activity or an event as in “burn plumb down.”

Multiple negation. The use of multiple negation (or double negation) is characteristic of many nonstandard dialects such as APPE and Black English (Adler, 1976; Wolfram & Christian, 1975, 1980). Wolfram and Christian (1975, 1980) describe four contexts in which this feature is most often observed. The first context involves the negative concord. In this case, the negative form may be attached to the main verb and all indefinites which follow (i.e., “They don’t have no work”). The negative in an indefinite before a main verb may also be attached to the main verb and all indefinites which follow (i.e., “Nobody didn’t see him”). Secondly, multiple negation may occur with the use of negative adverbs. A negative adverb such as “hardly” or “never” and another negative component such as a second negative adverb, an auxiliary, or an indefinite with a negative attached may be produced (i.e., “They can’t hardly see”). This feature may also be used when a negative auxiliary in a main verb which follows an indefinite is placed immediately preceding the indefinite (i.e., “Nobody didn’t get hurt” becomes “Didn’t nobody get hurt”). Finally, multiple negation may occur across clauses resulting in a negative attached to the auxiliary in the second clause (i.e., “I wasn’t sure that nothing wasn’t gonna come up”).

Prepositions. A few dialectal features related to the use of prepositions have been reported (Wolfram & Christian, 1975, 1980). The preposition “of” may be used with seasons of the year or with time of day. In SAE, a corresponding “in” or “at” would typically be used. Illustrative examples include “get up of the morning” and “if you plant of the winter.” At times, some prepositions may be omitted altogether where they would be in a corresponding standard structure such as in “I lived _____ Knoxville.”

A limited number of general lexical differences include the use of "at" with movement verbs (i.e., "I just go at my uncle's"), the use of "agin" for "against" (i.e., "I got up agin it"), the use of "beside of" for "beside" (i.e., "The river was right beside of the railroad"), and finally the use of "upside" (i.e., "hit him upside the head").

Use of "ain't". Wolfram and Christian (1975) report the use of "ain't" as a popular form used by many of those who speak nonstandard English. The authors report that there were originally two sources from which the form "ain't" was derived. First, it developed from a contraction form of "have" + "not" where "have" or "has" + "not" became "han't" and transitioning to "hain't" progressing to the final form of "ain't." Both of the latter forms were reported to occur fairly extensively in APPE at the time of publication. The second origin developed from the contraction of "am" + "not." This contraction eventually progressed from "amn't" to "aan't," and finally the "ain't" form. This form became generalized to include the contractions "isn't" and "aren't." A third derivation occurred in Black English characterized by a use of "ain't" for "didn't," but was not observed by the authors to be presented by speakers of APPE. Examples of the use of this feature include: "I ain't been there" for "I haven't been there" and "Well, ain't that awful" for "Isn't that awful."

Phonological Features of Appalachian English

Although little research has been conducted in the area of phonological features used by speakers of APPE, Wolfram and Christian (1975) presented extensive information with regard to those features most commonly observed. Some dialectal features which will be discussed include those related to usage of consonant cluster reduction, /r/ and /l/ deletion, substitution of /ɔ/ for final unstressed /ow/, deletion of

initial /w/, unstressed syllable deletion, substitution of /In/ for unstressed /Iŋ/, substituted productions for /ʒ/ and /θ/, and deletion of initial /ʒ/.

Consonant cluster reduction. Speakers of APPE frequently simplify or reduce consonant clusters (Adler, 1976; Wolfram & Christian, 1975). Stoel-Gammon and Dunn (1985) and Bernthal and Bankson (1993) describe unstressed syllable deletion and consonant cluster reduction as two normal phonological processes which typically have disappeared from children's speech by the time they enter school. In these situations, stop consonants including /t, d, p, k/ are dropped when preceded by another consonant at the end of words. This feature may occur in two differing cluster contexts.

In the first context, consonants which are affected are intrinsic parts of the same word. For example, words such as "test," "hand," and "desk" may be pronounced as "tes'," "han'," and "des'" respectively. The second context includes clusters which have a final /t/ or /d/ as a result of an -ed ending. In these cases, the /d/ or /t/ ending may be omitted by the speaker as in "rub" for "rubbed" or "miss" for "missed." Exceptions to this simplification process include the productions of words containing final clusters including lateral /l/ or nasals /m, n, ŋ/. Although linguists have varied opinions explaining reasons these particular consonants are affected, it is generally agreed that these clusters cannot be simplified further due to their lack of classification as being "true consonants" when preceding some voiceless sounds. Another exception includes the use of this feature when the following word begins with a vowel.

Deletion of /r/ and /l/. Wolfram and Christian (1975) and Adler (1974) report that speakers of APPE often delete /r/ and /l/ in certain situations of word productions (also referred to as /r/ or /l/ "lessness"). Deletion of /r/ often occurs in the post-vocalic and intervocalic position of words. This may occur when the /r/ is followed by a consonant

(i.e., "stat" for "start"), when /r/ occurs intervocalically (i.e. "du'ing" for "during"), when /r/ is preceded by a consonant (i.e. "th'ough" for "through"), or when /r/ is found in an unstressed syllable (i.e., "p'otect" for "protect"). Although this feature is characteristic of speakers of APPE, it is considered to be a less common feature of the dialect.

In a limited number of contexts, /l/ "lessness" may occur. Wolfram and Christian (1975) cite these omissions which are primarily observable in various post-vocalic positions when the following segment is a labial sound such as /p, b, f, l/. Examples of this omission include "woof" for "wolf," "hep" for "help," and "shef" for "shelf."

Substitution of /ɔ/ for final unstressed /ow/. One of the most recognizable phonological features used by speakers of APPE is the produced substitution of /ɔ/ for /ow/ in the final position of words (Adler, 1974; Wolfram & Christian, 1975). Some common examples include: "holler" for "hollow," "tomaters" for "tomatoes," and "piller" for "pillow." Because a word has the potential of being pronounced this way does not mean that it will always occur. For example, a word like "potato" may also be pronounced as "potatuh" or with an /ow/ sound as "potatow," or as in the previously mentioned pronunciation. Another condition of this pronunciation involves the syllable in which the substitution takes place. With this feature, a substitution of /ɔ/ may not take place in a stressed syllable such as in "below" or "bestow," or consequently, in one-syllable words such as "flow" or "low." It is noted that this feature is applicable in certain situations, with the addition of suffixes such as plural /s/ and the progressive -ing form of verbs as in "winders" for "windows" and in "swallering" for "swallowing." This feature tends to occur most often when the /ow/ sound is preceded by an /l/ in the word.

Deletion of initial /w/. Oftentimes in APPE and SAE, the initial consonant /w/ may be deleted in words (Adler, 1974; Wolfram & Christian, 1975). In SAE, this is most

apparent in the usage of modals such as “will” and “would.” Once the initial /w/ sound is deleted, the following vowel may also be deleted (i.e., “we’d” for “we would” or “he’ll” for “he will”). In APPE, extensions of this rule increase the usage of this feature in some cases. The first extension involves the past form of the copula or auxiliary “be” form, mostly with “was” or “were” (i.e., “he ‘uz runnin’” for “he was running”). The other extension involves the pronoun form “one” when it is in an unstressed position of a sentence (i.e., “She came up here and whopped me a good ‘un”). Additionally, the /w/ may be omitted if the following nasal sound becomes the “syllable peak” (Wolfram & Christian, 1975, p. 79) of the sentence. For example, “I got this one” becomes “I got this ‘un.”

Unstressed syllable deletion. Incidence of unstressed syllable deletion may be noted in APPE (Adler, 1974; Wolfram & Christian, 1975). Oftentimes in both SAE and APPE, speakers omit the initial vowel in prepositions or adverbs. For example, “around” becomes “‘round” and “about” becomes “‘bout.” This feature is also found to be used in vowel-consonant and consonant-vowel syllables. For example, “because” becomes “‘cause” and “until” becomes “‘til.” Extended versions of these features occur in APPE.

Speakers of APPE tend to delete the initial syllable of words which would normally be retained by speakers of SAE (Wolfram & Christian, 1975). Some examples include: “before” becomes “‘fore” and “electrician” becomes “‘lectrician.” This rule may also be expanded to include the sequences re-, su-, po-, to-, and con-. In addition to affecting initial syllables, omissions may occur on unstressed schwa segments in words (i.e., “s’posta” for “supposed to” and “prob’ly” for “probably”).

Substitution of /In/ for unstressed /ɪŋ/. The dialectal feature of dropping an -ing ending in words, or “g-dropping,” occurs in many varieties of American English, but

occurs more often in APPE (Wolfram & Christian, 1975). It is noted that although the feature is referred to as “g-dropping,” this feature occurs most commonly as a substitution of /n/ for /ŋ/. This feature is heavily influenced by the stress of the syllable in which the -ing ending occurs. In the cases of monosyllabic words which automatically receive primary stress such as “sing,” the -ing ending will always be pronounced. This is also the case in polysyllabic words in which -ing is intermediately stressed (i.e., “anything” and “everything”). As in many varieties of English, APPE speakers may also pronounce words such as “trying,” “fixing,” “nothing,” and “something” as “tryin’,” “fixin’,” “nothin’,” and “somethin’,” respectively.

In some cases, the -ing ending of a word is deleted altogether. This typically occurs when the speaker is talking quickly, and appears to result only when the base form is a nasal sound. Examples include: “...and he’s shine that flashlight” and “...what wasn’t fishing, you know, was swim.” Additionally, the elimination of the vowel sound may take place in the production of some words such as in, “He was gettŋ sick,” and “She was settŋ there.” In these cases, the nasal sound takes the place of the entire final syllable of the word.

Substituted productions for /ð/ and /θ/. In some dialectal varieties of English, a stop may be substituted for the voiced “th” sound (/ð/) in words (i.e., “modder” for “mother”). Adler (1974) notes this as a common feature used in APPE, although Wolfram and Christian (1975) did not observe this feature to be used by their subjects, and further note that the majority of /ð/ variations occurring intervocally or at the end of words were pronounced as they would be in SAE. Bernthal and Bankson (1993) suggest that “stopping” (i.e. /d/ substituted for /ð/) may persist after age five. Therefore,

it is difficult to determine if this observed feature type is “dialectal” or a persisting normal phonological process.

Another variation of “th” sounds found in APPE is that of a substitution of /f/ for /θ/ in words (i.e., “mouth” becomes “mouf” and “birthday” becomes “birfday”). This feature commonly occurs in both the medial and final positions of words (Adler, 1974; Wolfram & Christian, 1975). This particular feature is also frequently observed in the nonstandard dialect of Vernacular Black English. In addition, this feature is found to be used less frequently by young speakers of APPE (Wolfram & Christian, 1975).

Deletion of initial /ð/. The deletion of the voiced “th” (/ð/) is a common characteristic of many varieties of English (Wolfram & Christian, 1975). Typically, this deletion occurs in unstressed words beginning with /ð/ (i.e., “He’ll stop ‘em”). This characteristic is observed to occur most often with more frequently used words in English such as “them” as opposed to “that.” For example, one would typically use, “Will you kick ‘em for me?” but rarely use, “Will you kick ‘at for me?” This feature is also more likely to be used when the “th” word is preceded by a final consonant (i.e., “I thought he would pick ‘at up” would occur more often than, “I thought he would do ‘at for me”). This feature also tends to occur on words in the middle of sentences.

The rules governing this feature when used by speakers of APPE are generally similar, yet extended. Although most varieties adhere to the previously mentioned rule regarding word stress, speakers of APPE may exhibit exceptions (i.e., “You wanna use ‘is, or you wanna use ‘at”). Wolfram and Christian (1975) identify this feature as one which is commonly stereotyped as being used primarily by speakers of APPE stating, “Literary representations often use it prominently in their portrayal of Appalachian English, and teachers concerned about mainstream norms often cite it as one of the

crucial differences between the Appalachian English sound system and that of mainstream varieties" (p. 77).

Summary of the Review of the Literature

There are many variations, or dialects, of the English language spoken within the United States. These language variations may be related to early American settlements, a general trend of migration from east to west, and geographical boundaries isolating dialectal groups (Wolfram & Christian, 1975). Wolfram (1986) proposed that dialectal diversity within the United States follows a systematic pattern.

Appalachian English (APPE) is an example of a nonstandard dialectal form spoken by people residing in the southeastern portion of the United States along the Appalachian Mountain chain (Wolfram & Christian, 1975). APPE has often been referred to as "hillbilly" or "lazy" by some speakers of Standard American English (Adler, 1991). Most vocabulary and grammatical characteristics of APPE which differ from SAE evolved from a mixture of Scottish and Elizabethan English influences (Dial, 1978; Wolfram & Christian, 1975).

The children of Appalachia have been studied with regard to educational performance and other multicultural issues including family heritage, moral and familial beliefs, socioeconomic status, and emotional attitudes (Adler, 1979, 1989; Alexander, 1967; Bergin, 1986; Looft, 1977; Payne, 1986; Peterson & Peters, 1985). These children typically reside in rural areas with families of lower socioeconomic status (Henry et al., 1992). Problems arise academically for these children when teachers' expectations result in the false assumption that the child's language development is "retarded" (Hess, 1974). Additionally, there is an existing stereotypic idea that speakers of Appalachian dialect are less motivated, less successful academically, and deficient in their writing skills

(McLaughlin, 1984). These ideas must be taken into consideration when working with any speaker of a nonstandard dialect or one whose culture may differ from what is considered to be that of the typical, middle-class SAE speaker (Adler, 1979). To become more aware of cultural differences, research should be presented related to language characteristics exhibited by the Appalachian people.

Some speakers of nonstandard dialects develop an ability to code switch, or alternate between two or more dialects. Children who are speakers of nonstandard dialects may be more likely to code switch during language assessment or more formal speaking situations encountered in a school setting, although code switching events are highly variable (Isaacs, 1996; Wolfram, 1983). The ability to use a more formal register may begin in early childhood and develop throughout the first few years of school. Most children have learned how to adequately code switch by the time they reach middle school (Isaacs, 1996).

Teachers and speech-language pathologists encounter problems related to assessment of children who are speakers of nonstandard dialects. Due to the lack of unbiased standardized assessment materials available for use with nonstandard speakers, it is concluded that the most appropriate way to evaluate these students is through informal assessment techniques (Leonard & Weiss, 1983; McGregor et al., 1997; Vaughn-Cooke, 1986). Research which characterizes dialectal features of APPE used by school-age children (e.g., phonological and syntactic) may contribute, in part, to the establishment of developmental normative data to be used in the formulation of more appropriate informal language assessment tools.

The syntactic and phonological patterns which may typically be found in the speech and language of users of APPE can be described as simplified, yet rule-based.

Wolfram and Christian (1975) identified several of these nonstandard syntactic and phonological characteristics in their research based on an empirical study of speakers in West Virginia. Syntactic variations included: use of “done,” “a-prefixing” of verbs, double modal usage, absence of “be,” incorrect subject-verb agreement, alterations of irregular verbs, absence of -ly, use of intensifying adverbs, multiple negation, prepositions, and use of “ain’t.” Phonological characteristics included: consonant cluster reduction, deletion of /r/ and /l/, substitution of /ð/ for final unstressed /ow/, deletion of initial /w/, unstressed syllable deletion, substitution of /In/ for unstressed /Iŋ/, substituted productions for /ð/ and /θ/, and deletion of initial /ð/. Research examining the use of these features among speakers of APPE may provide more information related to the development of code switching, educate speech-language pathologists and teachers in the area of APPE dialectal development, and contribute to the improvement of presently utilized methods of language assessment.

Purpose and Research Questions

The purpose of this study will be to examine some linguistic features commonly used by school-aged children who are speakers of APPE through an examination of their responses on the Let’s Talk Inventory for Children (LTI-C; Bray & Wiig, 1987).

Research questions are as follows:

1. Is there a significant difference in the frequency (as measured by percentage) of 11 Appalachian syntactic features (as identified by Adler, 1976; Wolfram & Christian, 1975) used by 5-, 6-, and 7-year-old children in East Tennessee as measured by a syntactic analysis of responses to the Let’s Talk Inventory for Children ?
2. Is there a significant difference in the frequency (as measured by percentage) of nine Appalachian phonological features (as identified by Adler, 1976;

Wolfram & Christian, 1975) used by 5-, 6-, and 7-year old children in East Tennessee as measured by a phonological analysis of responses to the Let's Talk Inventory for Children ?

CHAPTER II

METHOD

Subjects

Assessment site identification. A proposal for a larger previous study was approved by the Coordinator of Research and Development for Knox County Schools, Dr. Samuel E. Bratton (Cady, 1997). All data utilized for the analyses in this project were previously collected as a portion of the larger investigation (Cady, 1997). Dr. Bratton identified an elementary school which would be suitable to meet the objectives of this project. The enrollment of the designated school consisted predominantly of European-American students (95.9%).¹ The majority of these students were from lower middle class backgrounds as indicated by the National Free Lunch Standards (Child Nutrition Programs, 1994) with 95% of the school population receiving free lunches. This school was designated as a school-wide Chapter One school as a result of the high number of students receiving free lunches. This specification permitted this school to receive superfluous funding for subsidiary personnel and literature. Not all students enrolled in the school were receiving pull-out Chapter One services. The school had one African-American teacher and the remainder European-Americans in the grades of kindergarten, first, and second grade. The school cooperated favorably with regard to the procedures involved in this project (Cady, 1997).

¹ As of January 1995, the designated school had a total enrollment of 248 students with 10 of those students being African-American and 238 of those students being European-American.

Subject identification. Teachers of the school distributed fact sheets describing the project and parental consents in the classes of kindergarten through the second grade (see Appendices A and B, respectively). These forms provided information with regard to the purposes of the project and described procedures which parents might follow to obtain results from the investigation following its completion. Forms were returned by parents or guardians who were agreeable to allowing their child to participate in the study (Cady, 1997).

Subject description. Forty-five children from the designated school residing in Knox County were recruited for the purpose of participation in this project. The speech and language of the majority of subjects from the school appeared to be characterized by the usage of dialectal features of Appalachian English. Fifteen children from the school in each of the following age ranges were included in the data collection process: 5 years, 0 months to 5 years, 11 months; 6 years, 0 months to 6 years, 11 months; and 7 years, 0 months to 7 years, 11 months. Subjects at each of the previously mentioned age ranges were counterbalanced for gender. Groups of subjects were designated with regard to chronological age rather than grade in school. A total of 23 males and 22 females from the school participated in the study. Identification numbers, chronological ages, and sex of the subjects are contained in Appendices C and D.

Data were included from subjects enrolled in a regular classroom setting only. All subjects receiving services for special education, learning disabilities, and/or speech-language were not included in the data collection. Although four subjects (8.9% of the total group) were receiving pull-out Chapter One reading services, these services were not considered to be special services due to the school's labeling of a Chapter One

school. The data collected from 13 subjects² were excluded for the following reasons: inappropriate race (4 children),³ noncompliance during testing (3), recipient of special services (3), and inability to formulate appropriate test responses (3).

Stimuli

All subjects were administered the Let's Talk Inventory for Children (LTI-C; Bray & Wiig, 1987), a standardized test of pragmatic skills. This instrument was chosen for the previous study because it does not require set SAE responses and has the potential for modification to be made appropriate for children who are speakers of nonstandard dialects (Cady, 1997). This instrument was designed primarily to help professionals identify children ranging in age from four to eight years with inadequate or delayed social communication skills. Probes of the LTI-C include the following areas: 1) the child's ability to produce various communicative functions or intents, 2) the child's ability to shift to a formal register when addressing adults rather than peers, and 3) the child's ability to receptively identify a pictured interaction which corresponds to an expressed intent. A checklist is included with which the examiner may note nonverbal behaviors exhibited by the child during testing. The LTI-C was standardized on a population of 214 children comprised of 68.9% European-American, 17.3% African-American, and 12.9% Other (Bray & Wiig, 1987). All children utilized in the standardization sample represented lower to upper middle class socioeconomic backgrounds, with the majority of the sample being speakers of SAE. This test is not currently representative of

² These 13 children were in addition to the 45 subjects whose data were included in this project. Thus, data were collected from a total of 58 subjects.

³ Only the data collected from European-American subjects in the school were used. However, if an African-American student from the school returned a permission form and his/her name was selected, data were still collected from that student although the data were not included in the study.

nonstandard dialects such as that of Appalachian English with the authors stating that, "While attempts were made to avoid atypical or unusual groups of children in the field test, the sample is not necessarily representative of the nation's population" (p. 43).

The LTI-C is comprised of 36 Speech Act Formulation items including two practice items, 24 items representative of child-peer interactions, and 10 items which depict child-adult interactions. Each formulation item is comprised of a stimulus picture and a corresponding narrative. The narrative describes the event represented by the stimulus picture and the examinee is asked to assume the role of one of the participants in the picture, e.g., "Jane and Mike were playing a game. Mike said something to Jane. Jane did not hear what Mike said. What did Jane say to Mike?" (Bray & Wiig, 1987). Two demonstration items are presented prior to the formulation items. These demonstration items are presented in the same format as the formulation items, but in order to present a model answer to the child, the examiner provides an appropriate response. The LTI-C also contains a five-item Behavioral Checklist. This instrument was used strictly as a language elicitation instrument for the purposes of this study, therefore, the LTI-C scores achieved by each subject were not included in the presentation of data.

Procedures

A language sample consisting of responses to the LTI-C was obtained for each subject for the purposes of data analyses. A total of seven graduate research assistants (GRAs) participated in the data collection process. Four GRAs were primarily responsible for data collection (75.6% of data collected or 34 of 45 subjects). All GRAs who participated as examiners were female, European-American, speech-language pathology graduate students in their early twenties who had prior experience working with children. During each testing session, one of the GRAs administered the LTI-C,

following the scripted guidelines (see Appendix E). All GRAs used SAE during the testing sessions. Prior to testing subjects, all GRAs were trained in the administration procedures of the LTI-C and in the use of the scripted guidelines. A portion of this training included each GRA's administration of the test to three different normally-developing children who were all approximately the same age as the subjects in the project. In addition, each GRA received training in the use and placement of an audiocassette deck (Sony model RX606ES), tie-pin microphones (Sony model ECM-T150), and a video camera and recorder (Panasonic model AG-195MUP), which were utilized to audio and videorecord each testing session. The examiners were instructed to present themselves in a neutral but friendly manner to ensure that examiners would not express exaggerated enthusiasm with some subjects and indifference with others.

The names of participating children were selected from the returned consent forms at the school. The participating subjects and teachers mutually agreed on the times at which testing would take place. An examiner met each child at his or her classroom and escorted him or her to the room which had been designated by the school for testing subjects. The examiner then followed the scripted guidelines (Appendix E) and introduced herself to each subject, explaining testing procedures and obtaining verbal assent from the child to participate in testing.

Prior to the administration of the test, each child was asked if he or she could pretend. If the subject responded "Yes," then the GRA proceeded with the LTI-C. If the child responded negatively, then the examiner led the child in examples of pretending (e.g., "What does Santa Claus say?"). If the child was still unable to pretend, he or she was thanked and escorted back to the classroom.

Each subject who was able to pretend was administered the LTI-C during a 30 to 45 minute session. During each testing session, the child was seated across from the examiner at a table so that the subject could easily view the stimulus items. The video camera was positioned behind the examiner at an angle in order to obtain the best possible view of the subject's face and upper body during the administration of the test. The audio-recorder was placed on the table near the subject. In each session, the administration of the test began with the two demonstration items, followed by the Speech Act Formulation Items. If a subject experienced difficulty in formulating an appropriate response (e.g., the subject frequently responded "He would say he....") the examiner again provided appropriate response examples during test administration. The Speech Act Association Items were administered only if the subject responded to five consecutive items in third person despite prompting. As a result, the association items were used as additional training items during administration if necessary. Subjects were given the option of ending testing and returning to their classrooms if they wished to stop at any point during the testing session. Reinforcement was randomly given to the children once during each set of seven test items. Reinforcing statements were positive, but neutral with regard to the child's responses, e.g., "You're working hard," or "I can see that you are looking at the pictures carefully." All subjects received a sticker following the completion of the test for their participation. Behavioral observations which may have influenced each subject's performance during testing were recorded by the GRAs immediately following each session. Verbal responses were recorded onto test forms using the audio tapes from each session. Examiners noted the items for which individual subjects required repeated demonstrations or if it was necessary to administer the association items.

Data Analysis

Language sample. Each child's language sample was phonetically transcribed by the Primary Investigator (PI). The samples consisted of each child's responses to the items contained on the LTI-C (Bray & Wiig, 1987) as well as any spontaneous conversation that occurred during the session. Each sample was transcribed using the audio and videotaped recordings of the experimental test sessions. Responses which were unintelligible due to failure of recording equipment and/or extreme mispronunciation were not included in the data collection.

Coding procedure. All language samples were first coded for the presence of the 11 syntactic features chosen for analysis (see Appendix F). These syntactic features included: use of "done," "a-prefixing" of verbs, usage of double modals, absence of "be," incorrect subject-verb agreement, incorrect forms of irregular verbs, absence of "-ly," intensifying adverbs, multiple negation, prepositions, and use of "ain't" (Adler, 1976; Wolfram, 1986; Wolfram & Christian, 1975, 1980). The samples were then coded for the appearance of the nine phonological features (see Appendix G). Features which were examined included: consonant cluster reduction, deletion of /r/ and /l/, substitution of /ʒ/ for final unstressed /ow/, deletion of initial /w/, unstressed syllable deletion, substitution of /In/ for unstressed /Iɪ/, substitutions for /ʒ/ and /θ/, and deletion of initial /ʒ/ (Adler, 1976; Wolfram, 1986; Wolfram & Christian, 1975, 1980). As previously mentioned, these features are all characteristic of APPE. The PI examined each utterance and noted each occurrence of any of the designated syntactic and phonological features present in the sample.

Upon completion of coding, the PI determined the number of "tokens" of the features present as well as the number of "types." The analysis procedures used for

determining “tokens” and “types” are similar to those used by Washington and Craig (1994). An analysis of tokens was completed by determining the percentage of utterances in each subject’s sample that contain one or more of the examined APPE syntactic features. A similar analysis was completed by determining the percentage of words in each sample that contain one or more APPE phonological features. The number of types per sample was determined by simply indicating the number of features (syntactic and/or phonological) that were present versus absent in the sample. This data was also used to determine the total frequency of use by feature type for each age group.

Training. Prior to transcribing and coding the subjects’ samples, the PI became familiar with the Let’s Talk Inventory for Children (Bray & Wiig, 1987) by reading the manual and examining the stimuli and test form. She observed and listened to two subjects’ audio and videotapes in order to become comfortable with testing procedures and review tape qualities for the purposes of linguistic and phonetic transcription. Eight subjects were randomly chosen for the purposes of practicing transcription and scoring. The PI transcribed the eight subjects’ responses both linguistically and phonetically. Each transcription was reviewed by the PI for the presence versus absence of APPE features by type for both syntax and phonology. Percentage of occurrence for syntax was calculated by dividing the total number of utterances per linguistic sample by the number of utterances containing at least one of the examined APPE syntactic features. Percentages with regard to phonology were calculated by dividing the total number of words in each sample by the total number of APPE phonological features observed to be used by each subject.

Procedure for determination of significance. To determine if there were significant differences among the three age groups’ use of APPE syntactic and

phonological features, a histogram was plotted in order to examine whether or not the data were normally distributed. All data collected for the three age groups met requirements for normal distribution following the elimination of three subjects (one five year old and two six year olds).⁴ Closer examination of these subjects' responses revealed that one five year old was lacking phonological data due to audio equipment failure. One six year old's linguistic sample was comprised of one utterance. The remaining six year old's sample was not phonetically transcribed as a result of severe unintelligibility.⁵ In order to present parallel subject data for both syntax and phonology, the data obtained from these three subjects were omitted for the purposes of statistical analyses.

Parametric statistical analyses were performed since the data for both syntax and phonology were normally distributed for all age groups. A multiple analysis of variance (MANOVA) was performed in order to test for age differences in phonology and/or syntax. A type of F -test, the Wilks' Lambda was used in order to make this determination using an alpha level of 0.05.

Two ANOVA measures were calculated to test for between-subjects effects for age group and syntax as well as for age group and phonology. Exact differences between age groups for both syntax and phonology were calculated using a post hoc Tukey's HSD procedure.

⁴ The scores of these subjects are reported and their exclusion from the statistical analysis is indicated in Appendices C and D.

⁵ It was discovered at a later date that the child began receiving speech-language services through the school shortly after the testing session had been completed.

Determination of Reliability

Intra- and intertranscriber reliability. To determine intratranscriber reliability for the linguistic and phonetic transcription of responses, the examiner randomly drew 6 subject files from the pool of 45 subjects (two from each age group). Without access to the examiner's original linguistic or phonological transcriptions, she recorded linguistic and phonological productions using the previously described method a second time. Intratranscriber reliability was calculated by the examiner by comparing the two sets of transcriptions for each of the six subjects. Linguistic transcriptions were examined utilizing methods similar to those used by Washington and Craig (1994). Transcriptions were considered as reliable if word order, form, and utterance segmentation boundaries of subject responses remained unchanged. Phonetic transcriptions were considered as reliable if consonant and vowel transcriptions were identical. This was determined by using a point-by-point comparison method. Transcription agreement for consonants and vowels was considered separately.

A second-year GRA student in speech-language pathology who had been trained in the linguistic and phonetic transcription procedures randomly drew 6 subject files from the pool of 45 (two from each age group) for the purposes of calculating intertranscriber reliability. The transcriptions completed by the GRA were compared to the PI's original transcriptions for each subject. Linguistic transcriptions were considered as reliable if word order and form were preserved. Similarly, the PI compared her phonetic transcriptions to those of the GRA. Transcription of consonants and vowels were examined separately for the determination of reliability.

Intra- and interexaminer reliability. After the subjects' responses had been examined for frequency of occurrence for both syntactic and phonological features, the PI

randomly drew six files from the pool of subjects (two from each age group). The PI recalculated the frequency of the previously specified features used by each subject without access to the results of the original analyses after a time period of two weeks following the performance of the original calculations.

The PI examined each subject's productions by utterance and determined the frequency with which the subject exhibited use of each of the eleven syntactic features. Upon completion, the PI compared the two sets of results obtained for each subject for frequency of use by type for the purposes of the syntactic analyses. The PI calculated intraexaminer reliability for the determination of syntactic feature usage for the six subjects.

To determine intraexaminer reliability for frequency of phonological feature usage, the PI checked each word produced by each subject for use of any of the nine specified characteristics. The PI compared the two sets of frequency results for each subject for the purposes of the phonological analyses and calculated intraexaminer reliability for the measurement of phonological features exhibited by each subject.

A second-year GRA in speech-language pathology who was experienced in linguistic and phonological analysis was trained for the purpose of calculating interexaminer reliability. The PI trained the GRA in the specific procedures to be followed in order to determine frequency of syntactic and phonological feature usage for each subject. The GRA randomly drew six files from the pool of 45 subjects. The responses for each of the six subjects were examined by the GRA for evidence of syntactic and phonological feature use as described in the method. The PI calculated the interexaminer reliability for frequency and type of features reported to be used by each subject.

CHAPTER III

RESULTS

Each of the 45 subjects who qualified for the study was asked to complete the Let's Talk Inventory for Children (Bray & Wiig, 1987). For the present study, these responses were used as the language samples analyzed for each subject. The total number of utterances analyzed for use of APPE syntactic features was 1,946 for the 42 subjects whose data were included in the study. Of these 1,946 utterances, 2.7% (53/1,946) contained one or more of the 11 APPE syntactic features examined. The total number of words analyzed for all subjects was 9,436. Of these 9,436 words, 10.9% (1,031/9,436) contained one or more of the nine target APPE phonological features. Eleven APPE syntactic features were analyzed including: the use of "done," "a-prefixing" of verbs, use of double modals, absence of "be," incorrect subject-verb agreement, altered irregular verb forms, absence of "-ly," intensifying adverbs, multiple negation, prepositions, and the use of "ain't." Nine APPE phonological features examined included: consonant cluster reduction, deletion of /r/ and /l/, substitution of /ð/ for unstressed final /ow/, deletion of initial /w/, unstressed syllable deletion, substitution of /In/ for unstressed /Iŋ/, substituted productions for /ð/ and /θ/, and deletion of initial /ð/.

For each of the 42 subjects, the percentage of utterances containing one or more syntactic APPE features ranged from 0 to 11% ($\underline{M} = 3.7\%$, $\underline{SD} = 3.2$), and the percentage of words containing one or more phonological APPE features ranged from 2 to 25% ($\underline{M} = 11.0\%$, $\underline{SD} = 6.0$). The summary statistics of APPE syntactic and phonological feature usage obtained for each age group are presented in Tables 1 and 2, respectively. These

Table 1

Mean Percentage of Use of Eleven APPE Syntactic Features by 5-, 6-, and 7-Year-Olds

Age Group	<u>n</u>	<u>M</u>	<u>SD</u>
5	14	5.1	3.2
6	13	2.5	2.2
7	15	2.2	3.2

Note. All percentages were calculated by dividing the number of sample utterances containing at least one APPE syntactic feature by the total number of utterances in each subject's sample.

Table 2

Mean Percentage of Use of Nine APPE Phonological Features by 5-, 6-, and 7-Year-Olds

Age Group	<u>n</u>	<u>M</u>	<u>SD</u>
5	14	15.9	4.8
6	13	10.6	5.9
7	15	6.6	2.8

Note. All percentages were calculated by dividing the number of sample words containing at least one APPE phonological feature by the total number of words in each subject's sample.

reveal a gradual decrease in the overall use of dialectal features with age for both syntax and phonology. Total frequency counts for each syntactic and phonological APPE feature used by individual subjects are contained in Appendices F and G, respectively.

Reliability

To determine the reliability of linguistic and phonetic transcriptions, intra- and intertranscriber reliability were calculated. In order to determine the reliability of the syntactic and phonological scoring procedures, intra- and interexaminer reliability were calculated.

Intra- and intertranscriber reliability. Intratranscriber reliability was calculated for both linguistic and phonetic transcriptions for six subjects. Two subjects were randomly selected from each of the three experimental age groups. Linguistic transcriptions were examined by the PI for agreement of utterance segmentation boundaries and preservation of word order and form using methods described by Washington and Craig (1994). Using a point-by-point method, the PI examined each word of each utterance to determine transcription agreement. For the six subjects whose responses were retranscribed, PI intratranscriber reliability was calculated as .97 for utterance segmentation and .99 for preservation of word order and form. Intertranscriber reliability was calculated as .98 for both utterance segmentation and preservation of word order and form.

Phonetic transcriptions were also examined for transcriber reliabilities. Intra- and intertranscriber reliability was determined by examining the agreement (exact match) of consonants and vowels by each phoneme recorded as produced for each subject. Intratranscriber reliability was calculated as .92 for consonant agreement and .91 for vowel agreement. Intertranscriber reliability percentages were calculated as .91 for consonant agreement and .84 for vowel agreement.

Intra- and interexaminer reliability. Intra- and interexaminer reliability was calculated by the PI for six randomly selected subjects. Two subjects were selected from each of the three experimental age groups. The PI rescored the linguistic and phonetic transcriptions for each of the six subjects for the presence of syntactic and phonological features in order to calculate intraexaminer reliability. A trained GRA rescored the PI's original linguistic and phonetic transcriptions of six randomly selected subjects for the presence of APPE syntactic features by utterance, as well as APPE phonological features by word for the purposes of determining interexaminer reliability. Intra- and interexaminer reliability was determined by using a point-by-point comparison method examining each utterance (syntax) or word (phonology) scored. Intraexaminer reliability for the syntactic analyses was calculated as 100% for agreement of presence versus absence of a APPE syntactic feature as well as for agreement of the specific feature exhibited. Interexaminer reliability was calculated as .99 for agreement of presence versus absence of a feature and .92 for agreement of specific feature exhibited. Similarly, intraexaminer reliability was calculated as .99 for the agreement of presence versus absence of an APPE phonological feature and .92 for specific feature used. Interexaminer reliability was calculated as .97 for the agreement of presence versus absence of a feature and .92 for agreement of specific feature.

Type Data

Syntactic feature types. The language sample for each subject was examined for the presence versus absence of each feature. As shown in Table 3, the five year old group used an mean of 1.8 syntactic types with a range of 0 to 6, while the 6 and 7 year-old groups used about one type of syntactic feature in their samples with a range of 0 to 2 and 0

Table 3

Mean Number of Specific APPE Syntactic Types Used by 5-, 6-, and 7-Year Olds

Age Group	<u>n</u>	<u>M</u>	Range
5	14	1.8	0-6
6	13	0.9	0-2
7	15	0.9	0-4

Note. Calculations were computed by averaging the number of eleven examined feature types exhibited across each subject's sample.

to 4 for each group, respectively. As shown in Table 4, no single APPE syntactic feature was used by all 42 subjects. Across age groups, incorrect subject-verb agreement was exhibited most often with 57% of five year olds, 23% of six year olds, and 27% of seven year olds using the feature at least once in his/her language sample. Progressive increase of use with age was found to be exhibited with the intensifying adverbs and absence of “-ly” features. The use of multiple negation in sentences was used at least once by 29% of the five year old group, but by none of the six or seven year old groups. Use of the word “ain’t” was found in 8% of the six year old samples, in 7% of the seven year old samples, but was not used at all by any of the five year old subjects. The APPE syntactic features which were not exhibited by any of the three age groups included “a-prefixing” of verbs and the use of double modals. Specific syntactic feature use which decreased with age was observed for use of “done,” absence of “be,” alterations of irregular verbs, and prepositions.

Phonological feature types. A wide variety of types used in each sample with regard to APPE phonological features was found to be exhibited by all age groups. As shown in Table 5, the five year old group used a mean of 6.8 phonological types per sample with a range of 5 to 8. The six year old group used a mean of 5.5 types with a range of 4 to 8. The 7 year-old group used the fewest types per sample with an mean of 4.7 and a range of 2 to 7.

As shown in Table 6, all three age groups demonstrated high usage of the following APPE phonological features: consonant cluster reduction, deletion of /r/, deletion of /l/, unstressed syllable deletion, substituted productions for /ʃ/ and /θ/, and deletion of initial /ʃ/. Consonant cluster reduction was demonstrated at least once by 100% of the three experimental groups.

Table 4

Mean Percentage of 5-, 6-, and 7-Year-Olds Using Eleven Examined APPE Syntactic Features at Least Once

Feature	Age Group	<u>n</u>	<u>M</u>	<u>SD</u>
Use of "Done"	5	14	14.29	36.31
	6	13	0	0
	7	15	6.67	25.82
A-Prefixing	5	14	0	0
	6	13	0	0
	7	15	0	0
Double Modals	5	14	0	0
	6	13	0	0
	7	15	0	0
Abs. of "Be"	5	14	21.43	42.58
	6	13	7.69	27.74
	7	15	0	0
S-V Agreement	5	14	57.14	51.36
	6	13	23.08	43.85
	7	15	26.67	45.77

Table 4 continued

Feature	Age Group	<u>n</u>	<u>M</u>	<u>SD</u>
Irreg. Verbs	5	14	21.43	42.58
	6	13	15.38	37.55
	7	15	0	0
Absence of -ly	5	14	14.29	36.31
	6	13	23.08	43.85
	7	15	26.67	45.77
Intens. Adverbs	5	14	7.14	26.73
	6	13	7.69	27.74
	7	15	20.00	41.40
Mult. Negation	5	14	28.57	46.88
	6	13	0	0
	7	15	0	0
Prepositions	5	14	21.43	42.58
	6	13	7.69	27.74
	7	15	6.67	25.82
Use of "Ain't"	5	14	0	0
	6	13	7.69	27.74
	7	15	6.67	25.82

Note. Abs. of "Be" = Absence of "be;" S-V Agreement = Failure to use correct subject-verb agreement; Irreg. Verbs = Incorrect use of irregular verbs; Intens. Adverbs = Use of intensifying adverbs; Mult. Negation = Use of multiple negative verb forms in an utterance.

Table 5

Mean Number of Specific APPE Phonological Types Used by 5-, 6-, and 7-Year-Olds

Age Group	<u>n</u>	<u>M</u>	Range
5	14	6.8	5-8
6	13	5.5	4-8
7	15	4.7	2-7

Note. Calculations were computed by averaging the number of nine examined feature types exhibited in each subject sample.

Table 6

Mean Percentage of 5-, 6-, and 7-Year-Olds Using Nine Examined APPE Phonological Features at Least Once

Feature	Age Group	<u>n</u>	<u>M</u>	<u>SD</u>
Cons. Clusters	5.00	14	100	0
	6.00	13	100	0
	7.00	15	100	0
Deletion of /r/	5.00	14	85.71	36.31
	6.00	13	53.85	51.89
	7.00	15	33.33	48.80
Deletion of /l/	5.00	14	92.86	26.73
	6.00	13	84.62	37.55
	7.00	15	93.33	25.82
Final Unst. /ow/	5.00	14	0	0
	6.00	13	0	0
	7.00	15	0	0
Del. of Init. /w/	5.00	14	57.14	51.36
	6.00	13	15.38	37.55
	7.00	15	0	0

Table 6 continued

Feature	Age Group	n	<u>M</u>	<u>SD</u>
Unst. Syll. Del.	5.00	14	85.71	36.31
	6.00	13	69.23	48.04
	7.00	15	66.67	48.80
Unst. -ing	5.00	14	92.86	26.73
	6.00	13	46.15	51.89
	7.00	15	26.67	45.77
Prod of /ð,θ/	5.00	14	71.43	46.88
	6.00	13	79.62	43.85
	7.00	15	60.00	50.71
Del. of Initial /ð/	5.00	14	92.86	26.73
	6.00	13	100	0
	7.00	15	93.33	25.82

Note. Cons. Clusters = Use of consonant cluster reduction; Final Unst. /ow/ = Substitution of /ɜ/ for /ow/; Del. of Init. /w/ = Deletion of /w/ in the initial position; Unst. Syll. Del. = Unstressed syllable deletion; Unst. -ing = Substitution of /In/ for /Iŋ/ in the final position; Prod. of /ð,θ/ = Substitution of /d/ for /ð/ or substitution of /f/ for /θ/; Del. of Initial /ð/ = Deletion of /ð/ in the initial position of words.

Deletion of initial /b/, was used by 100% of the 6-year-old experimental group and by 93% of both the five and seven year old groups. Substitution of /ð/ for final unstressed /ow/ was used by none of the subjects in the three experimental age groups.

A progressive decrease in the use of some specific features by age groups was revealed. These features included: deletion of /r/, deletion of /w/ in the initial position of words, unstressed syllable deletion, and substitution of /In/ for unstressed /Iŋ/.

Statistical Analyses

All statistical analyses were calculated utilizing SPSS Version 7.5 for Windows (1997) computer software program. All data were normally distributed with an alpha level set at .05 for all calculations performed.

Age group differences related to syntax and/or phonology. A MANOVA was performed in order to test for age differences in syntax and/or phonology. A type of F test, the Wilks' Lambda, was specifically performed as a multivariate analysis for this purpose. This test revealed that there were significant differences for use of the 11 syntactic and nine APPE phonological features among the five, six, and seven year old groups as shown in Table 7.

Age group differences related to syntax. An ANOVA measure was performed in order to test for between-subjects effects for age and syntax. Results revealed that there were significant differences for age group and syntax as shown in Table 8. In order to determine the exact differences between age groups, an ANOVA examining multiple-comparison differences was performed using a post hoc Tukey's HSD (Honest Significant Difference) procedure. This procedure compared all age groups to each other while controlling for Type 1 error. This ANOVA measure revealed a significant difference for

Table 7

Wilks' Lambda Multivariate Test for Significant Differences Between Age Groups for APPE Syntax and/or Phonology

Effect	<u>F</u>	Hypothesis <u>df</u>	Error <u>df</u>	<u>p</u>
Intercept	*117.530	2.000	38.000	**.001
Age Group	*6.661	4.000	76.000	**.001

Note. * = Exact statistic; ** = Significant difference; Results of Wilks' Lambda test to determine presence of significant differences regarding use of eleven syntactic and nine phonological APPE features between 5, 6, and 7 year-old experimental groups.

Table 8

Tests of Between-Subjects Effects for APPE Syntactic Feature Use by Age Groups

Source	Type III Sum of Squares	df	Mean Square	F	p
Intercept	.04497	1	.04497	52.122	*.001
Age Group	.00734	2	.00367	4.251	.021
Error	.03365	39	.00086		
Total	.08597	42			
Corrected Total	.04098	41			

Note. * = Significant difference found for between-subjects effects for the use of eleven examined syntactic feature types.

syntax between the five and seven year old experimental groups as shown in Table 9. The difference between the five and six year old groups was approaching significance ($p = .058$).

Age group differences related to phonology. An additional ANOVA was performed to test for between-subjects effects for age group and use of phonological features. Significant differences for age group and use of phonological features were found as shown in Table 10. A post hoc Tukey's HSD procedure was performed with the resulting ANOVA revealing significant differences between age groups as shown in Table 11. A significant difference for use of APPE phonological features was found to occur between the five and seven year old groups with no significant differences found between the six year old group and the five or seven year old groups.

Table 9

Post Hoc Tukey's HSD Multiple Comparison Procedure for Total APPE Syntactic Feature Use by Age Group

Age Group Comparison	Mean Difference	Standard Error	p
5 vs. 6	.02679	.011	.058
6 vs. 7	.00220	.011	.979
5 vs. 7	.02899	.011	*.030

Note. * = Significant difference occurred between the 5-year-old group and the 7-year-old group for syntactic feature use.

Table 10

Tests of Between-Subjects Effects for APPE Phonological Feature Use by Age Groups

Source	Type III Sum of Squares	<u>df</u>	Mean Square	<u>F</u>	<u>p</u>
Intercept	.511	1	.511	241.080	*.001
Age Group	.06279	2	.03139	14.822	*.001
Error	.08260	39	.00212		
Total	.649	42			
Corrected Total	.145	41			

Note. * = Significant difference found for between-subjects effects for the use of nine examined phonological feature types.

Table 11

Post Hoc Tukey's HSD Multiple Comparison Procedure for Total APPE Phonological Feature Use by Age Group

Age Group Comparison	Mean Difference	Standard Error	p
5 vs. 6	.05313	.018	.013
6 vs. 7	.03982	.017	.070
5 vs. 7	.09295	.017	*.001

Note. * = Significant difference occurred between the 5-year-old group and 7-year-old group for phonological feature use.

CHAPTER IV

DISCUSSION

The purpose of this study was to examine the frequency of use of selected APPE dialectal syntactic and phonological features used by five, six, and seven year old children in East Tennessee using the Let's Talk Inventory for Children (Bray & Wiig, 1987) as a language elicitation instrument. Eleven syntactic feature types and nine phonological feature types were chosen for analysis. There was a significant difference between the five and seven year old groups in the use of APPE syntactic and phonological features with a decrease in use of dialectal features with an increase in age. There were no significant differences in the use of either APPE syntactic nor phonological features between the six year old group and either of the other two groups.

The 42 subjects exhibited a mean of 6.7 (range of 2 to 13) dialectal syntactic and/or phonological feature types within their language samples. The wide range of variability may have been the result of the age of the subjects and/or length of the sample obtained from each child. Linguistic samples for the subjects ranged from 32 to 96 utterances in length with a mean of 46.3 utterances for each subject. The mean number of words per sample was 224.7 words (range of 106-438). The total number of utterances and words analyzed for each subject are presented in Appendices F and G, respectively. Shorter linguistic samples represented children who typically only answered the questions asked by the examiner, while longer samples reflected more spontaneous conversation events between the examiner and child.

Total Appalachian Syntax Percentages

As stated previously, a significant difference occurred between the five and seven year old groups for total percentage of utterances examined for the use of APPE syntactic features. As shown in Figure 1, a gradual decrease in the total use of features with age occurred among the three experimental groups. Although the overall syntactic percentages calculated for each age group were low when compared to phonological percentages, these results suggest that children become better code switchers after beginning kindergarten. The discussion will explore this observed decrease in the use of particular dialectal features from several different theoretical perspectives.

Isaacs (1996) reported that school-age children become better code switchers as a result of learning SAE in the school. It may be assumed that this learning may be done both directly and indirectly. Teachers not only teach SAE grammar directly via coursework, but ideally provide good models of SAE throughout the school day providing indirect opportunities for instruction and learning. Children begin to be immersed in language in differing forms when beginning school. Reading and writing instruction contribute to the language learning process, as well as other classroom activities including role playing and comparison of dialectal literature to stories written in SAE (Van Keulen, Weddington, & DeBose, 1998). Teachers may correct grammatical errors made by children during oral communication, although this strategy may be harmful as it attacks the child's personal language and culture (Fasold, 1990). For these reasons, formal language instruction in school may be the most viable explanation for the seven year old speakers exhibiting so few syntactic dialectal differences when compared to the less academically experienced five year olds. It should be noted, however, that many of the seven year olds were only in the first grade.

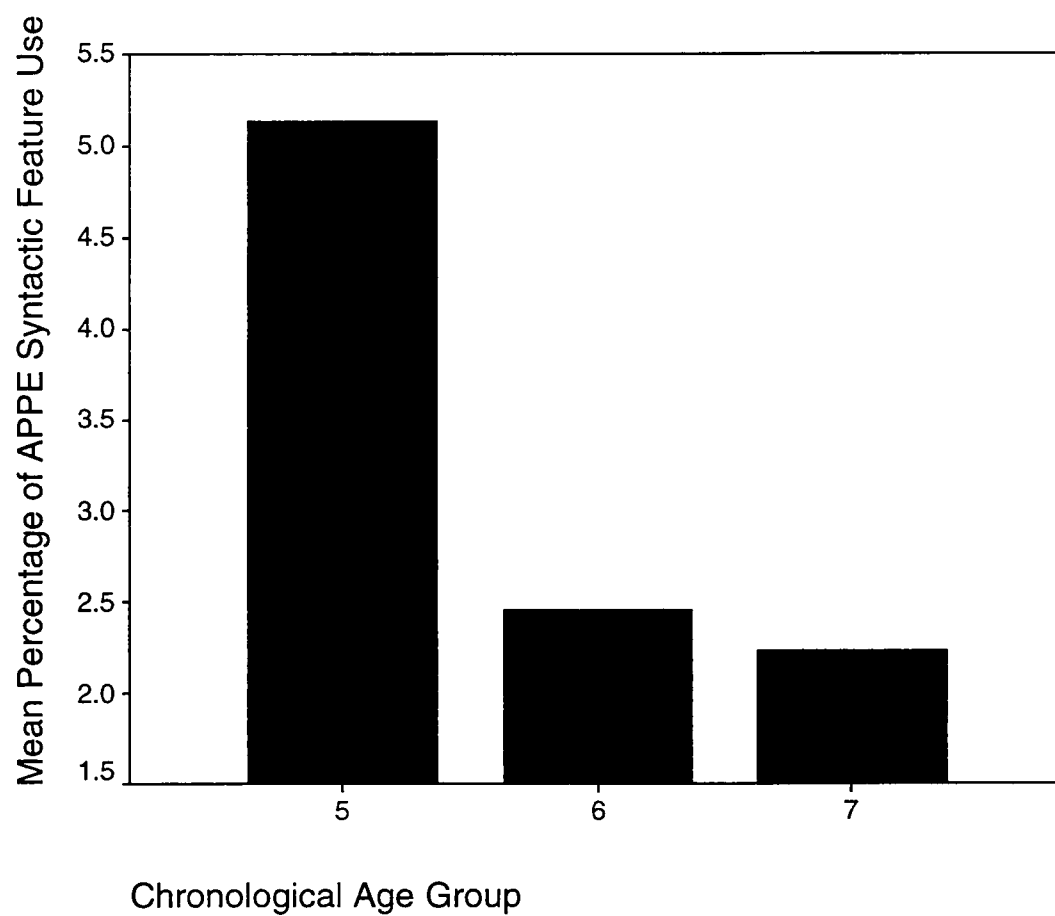


Figure 1. Mean percentage of utterances containing at least one examined APPE syntactic feature by age group.

Another explanation for the decrease in the use of nonstandard APPE features may be that seven year olds have acquired more extensive experience with formal learning and testing situations when compared with five year olds. Experimental tasks for this study were presented to the subjects formally. An adult administered the test items, the subject sat across from a table facing the adult and completed the task as explained by the adult. As discussed previously, Isaacs (1996) suggested that children tend to code switch more often in formal testing situations and speaking with "teachers." The subjects who felt as though they were being "tested" may have tried to present themselves in a way that was academically acceptable. The examiners instructed all subjects that they were going to "play a pretend game." The five year old group could have taken this explanation of the task literally and therefore, approached the experimental session as play rather than a formal test.

Why were there no significant differences found between the six year old group and the five or seven year old groups? These data suggest that this age may be a transitional time for children in which they begin to use a more formal oral language style. As most six year olds are in the first grade, they have adjusted to the routine and purpose of school attendance, are familiar with structure, and encounter a more academically challenging curriculum. The importance of language skills related to reading and writing may also become more apparent to children at this age. They are learning to spell and read, thus contributing to academic success. The immature speech and language that is often used by kindergartners has most likely disappeared by the time children begin the first grade. Children of this age group may begin to purposefully incorporate skills learned in the classroom in their own language repertoire. Finally, this may be the critical period in which children are learning the difference between "school talk" and "home talk" as

suggested by Adler (1993) and Wolfram (1983). As suggested in previous research, it is important for children to understand and use SAE dialect in order to succeed academically and vocationally (Cloud, 1994; Hess, 1974; McLaughlin, 1984; Reck, Reck, & Keefe, 1993). Children may recognize the advantages in using SAE in these situations at an early age, and therefore, make a conscious effort to improve their formal speech and language with regard to SAE syntax.

Specific Use of Appalachian Syntactic Feature Types

Eleven syntactic feature types which have been observed to be used by speakers of Appalachian English (Adler, 1976; Christian, Wolfram, & Dube, 1984; Wolfram & Christian, 1975, 1980) were examined in this study. Although none of the feature types were found to be used at least once by the majority (at least 50%) of the subjects, some other specific feature type trends were noted including the omission or rare use of a feature by all subjects, gradual decrease of use with age, and increase of use with age. It should be noted that some features were included in more than one category. Each of these cases will be discussed, in turn.

Omitted or rare syntactic features. Two APPE syntactic types examined in this study were omitted entirely by all subjects. These included the use of “a-prefixing” of verbs and use of double modals. As a result of the limited size of the linguistic samples, frequent opportunities for these two feature types to be used may not have been presented. In contrast, these results may suggest that these specific feature types represent the gradual change taking place in Appalachian dialect hypothesized by Wolfram and Christian (1975) as well as by Christian, Wolfram, and Dube (1984). These authors suggested that the traditional APPE dialect is progressing towards a more standard form of English. Specifically, one study suggests that “a-prefixing” of verbs is not typically observed to be

used by young children who are speakers of APPE which suggests that this feature may be “fading” from the dialect (Christian, Wolfram, & Dube, 1984). Similarly, children may recognize how to code switch these features at an earlier age, or decide not to use these features when made aware that these examples are considered to be incorrect forms of SAE grammar. Other feature types which rarely appeared to be used by all age groups included the use of “done,” use of intensifying adverbs, and the use of “ain’t.”

Features that decreased with age. Six of the eleven syntactic feature types examined decreased in use with an increase in age. These included use of “done,” absence of “be,” incorrect subject-verb agreement, incorrect irregular verb forms, multiple negation, and “prepositions.” Three out of the four features involved dialectal verb forms. These findings support the idea that proper grammar usage pertaining to verbs is taught directly as well as indirectly (i.e., modeling, reading, and writing SAE) early in the academic setting. By the time children reached seven years of age, no children exhibited use of multiple negation, nor incorrect structures of irregular verb forms.

Although the use of “done” was exhibited by only a small percentage of subjects in each age group, a decrease with age occurred between the five and seven year old groups with 14% and 7% of utterances containing this feature, respectively (see Figure 2). Examples included: “I already done this ‘un,” and “You done good.”

Absence of “be” was demonstrated by the 21% of the five year old group at least once in his/her linguistic sample (see Figure 3). This percentage decreased to 8% with the six year old group, and further decreased to 0% use by the seven year old group. Examples of this feature type usage by the subjects included: “You fixin’ to step in the

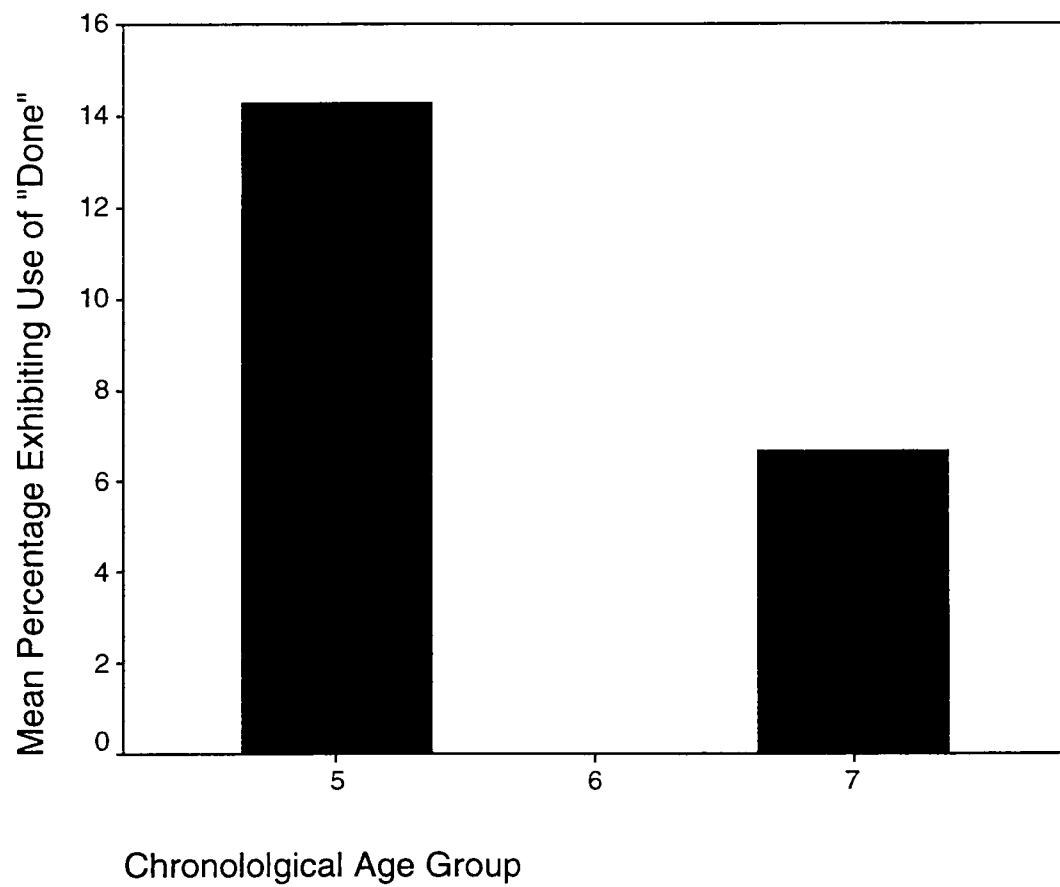


Figure 2. Mean percentage of five, six, and seven year olds exhibiting use of “done” at least once in their language sample.

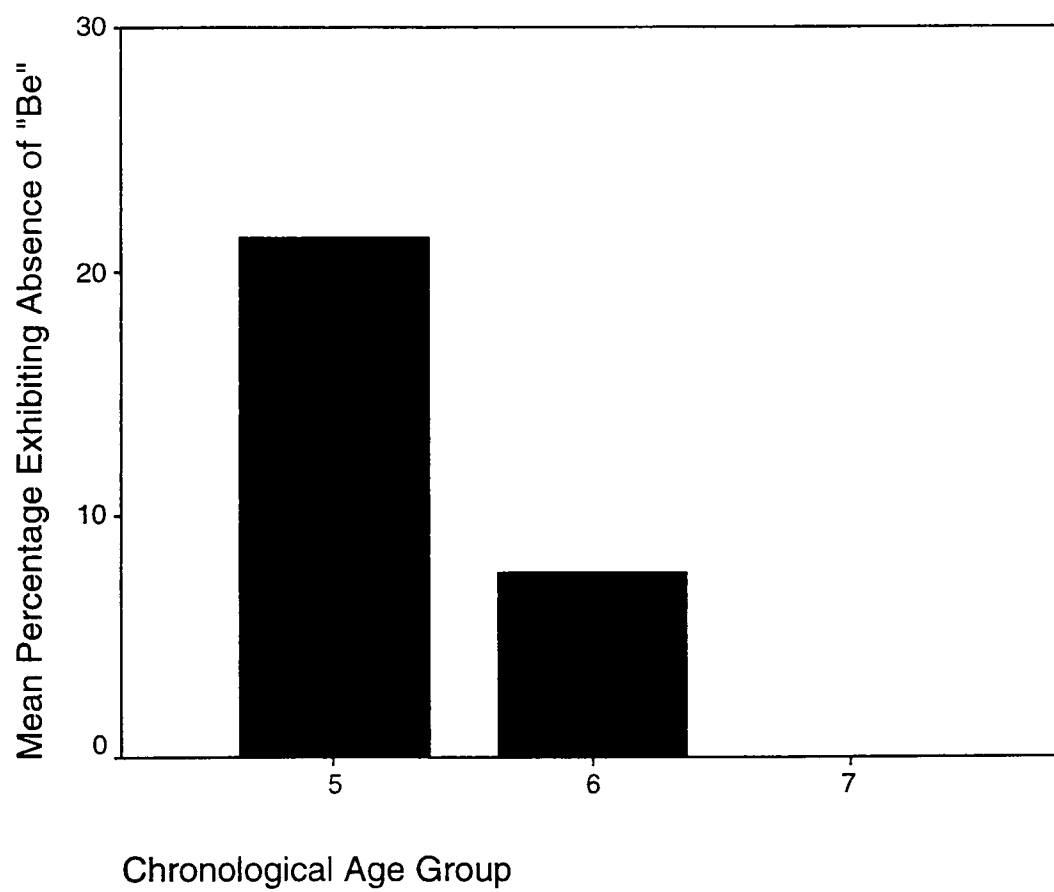


Figure 3. Mean percentage of five, six, and seven year olds exhibiting absence of "be" at least once in their language sample.

puddle,” “Where the gym,” “Why you sad,” and “You supposed to do your part.”

The use of incorrect subject-verb agreement was exhibited by 57% of the five year old group decreasing to use by 27% of the seven year old group (see Figure 4). This feature type is another example of one which is most likely addressed early in school by formal instruction. Examples included: “I pretend like I was Tommy the White Ranger,” “They was going to go shopping,” and “You is readin’ it too fast.”

As displayed in Figure 5, the use of incorrect irregular verb forms was exhibited by the 21% of the five year old group, decreasing to 15% by the six year old group, and 0% by the seven year old group. The use of this feature supports the theory that children code switch verbs to more standard forms as a result of early formal academic instruction in the classroom. Specific examples of this feature included: “She don’t let me,” “I’m glad that you wonned,” and “You forget your lunchbox.”

Multiple negation was exhibited by 29% of the five year old group with none of the subjects in the remaining experimental groups demonstrating use of this feature (see Figure 6). Some examples used by five year olds included: “She didn’t have nobody to push her,” “He couldn’t find nothing,” and “She don’t want to play the game no more.” Due to the fact that this particular dialectal form appeared to stand out as a more severe deviation from SAE, it may be the case that children are more often corrected by their teachers or parents when exhibiting this feature type. It should be noted, however, that indirect methods of correction such as modeling of appropriate verb forms may be more productive means of instruction (Fasold, 1990). Certainly by the time a child reaches seven years old, it may be assumed that the child realizes that this usage is not characteristic of correct SAE,

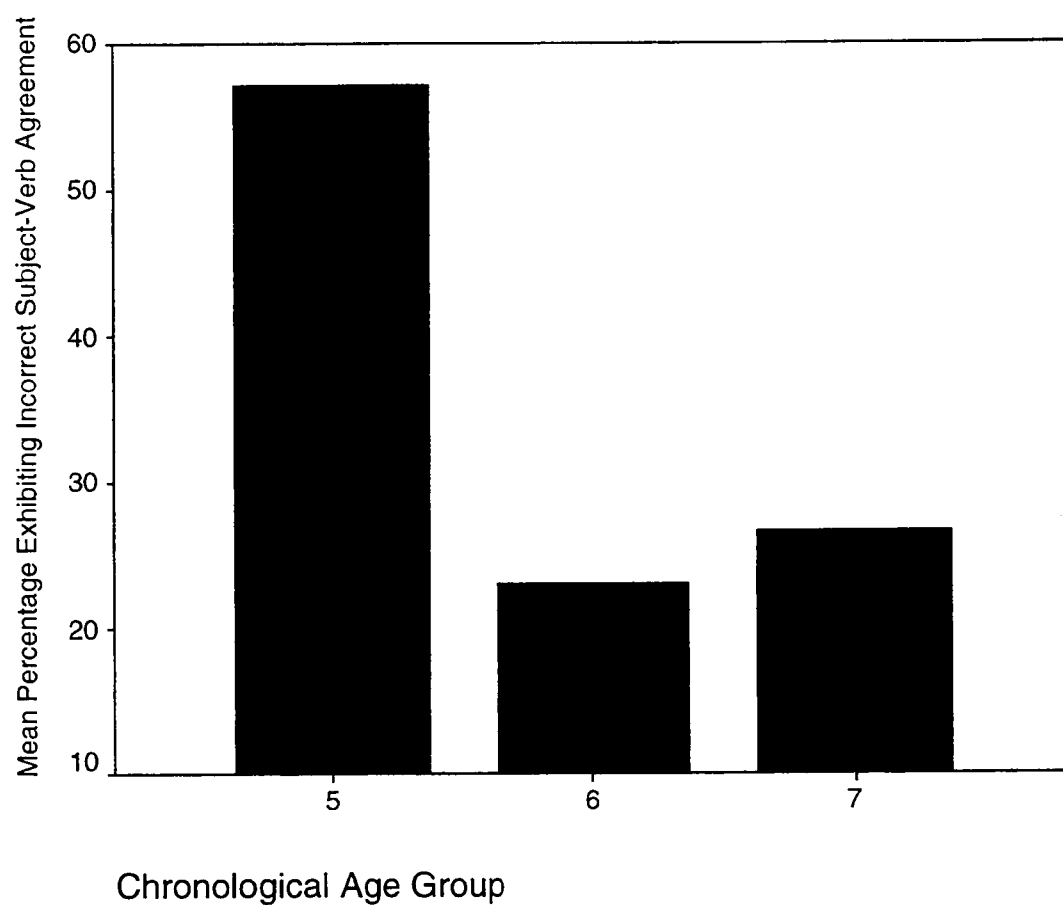


Figure 4. Mean percentage of five, six, and seven year olds exhibiting incorrect subject-verb agreement at least once in their language samples.

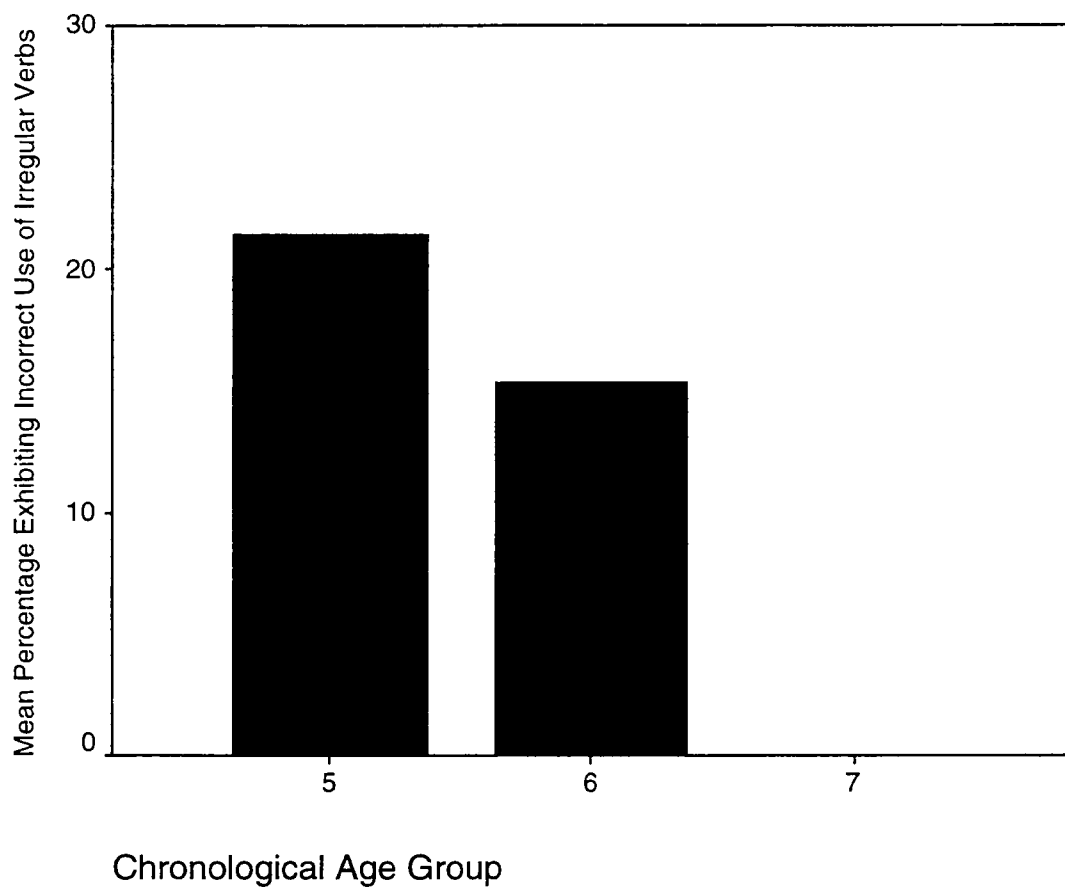


Figure 5. Mean percentage of five, six, and seven year olds exhibiting incorrect use of irregular verb forms at least once in their language sample.

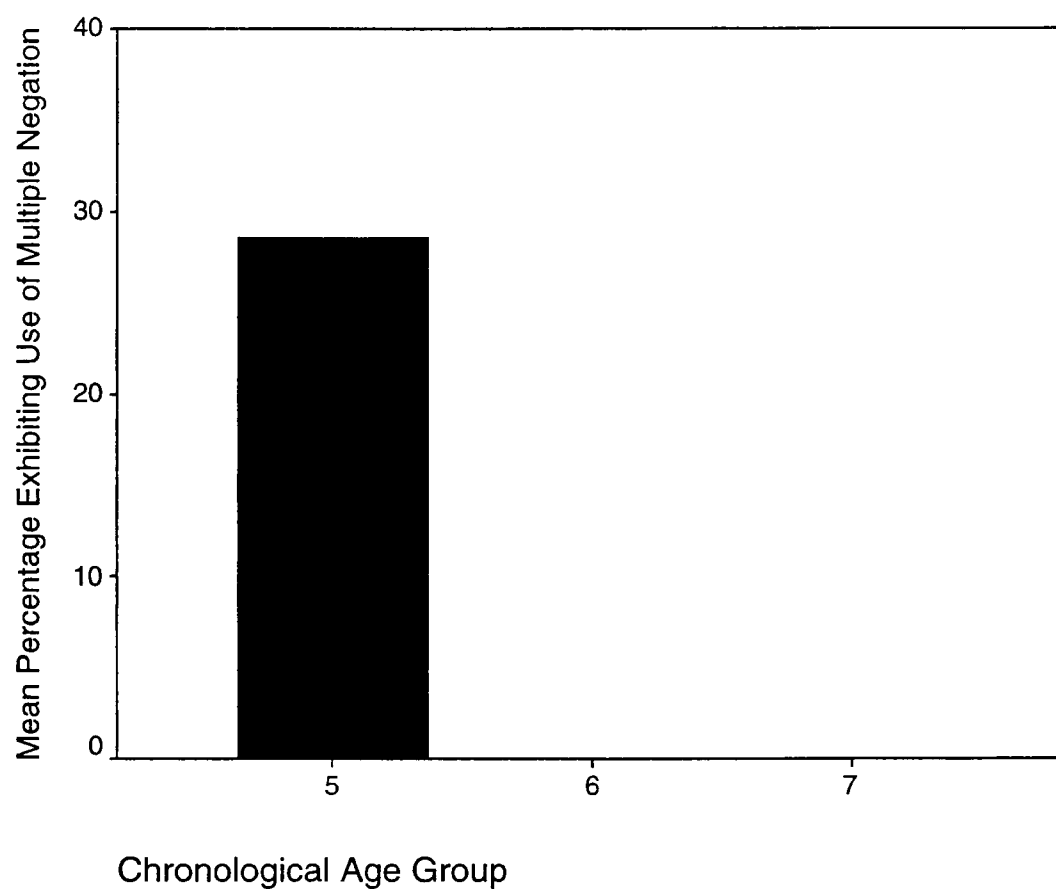


Figure 6. Mean percentage of five, six, and seven year olds exhibiting use of multiple negation at least once in their language sample.

and he/she has learned to adjust his/her language accordingly at least in more formal speaking situations.

Finally, the use of prepositions in ways which are different from SAE decreased with age in this particular subject pool. As presented in Figure 7, a total of 21% of the five year old group exhibited this feature, with a decrease to 8% use by the six year olds, and another slight decrease to 7% use by seven years. Examples included: "Can I please play your new ball," and "Where's the glue at." Most children who exhibited this feature type used forms similar to the second example with the placement of "at" as the last word in a sentence. Examples such as those presented in the research conducted by Wolfram and Christian (1975) were used minimally or not at all by the subjects. This may have been the result of a lack of opportunity to do so.

Features that increased with age. Three APPE syntactic feature types increased in use with age including absence of "-ly," use of intensifying adverbs, and use of "ain't." The reasons for this increase in use are unknown as the general trend of six of the feature types was a decrease of use with age. The absence of "-ly" feature type as well as use of intensifying adverbs may be two feature types that teachers do not teach directly or that children do not indirectly learn to correct themselves.

A gradual increase in the demonstration of the absence of "-ly" feature was revealed with 14% of the five year old group, 23% of the six year old group, and 27% of the seven year-old group using the feature type at least once (see Figure 8). Interestingly, all children who used the absence of "-ly" feature exhibited it with a form of the word "slow" (i.e., "Can you read it slow," or "Read slow") in response to one specific question presented in the testing session to all subjects. This may be a result of increased use of language with

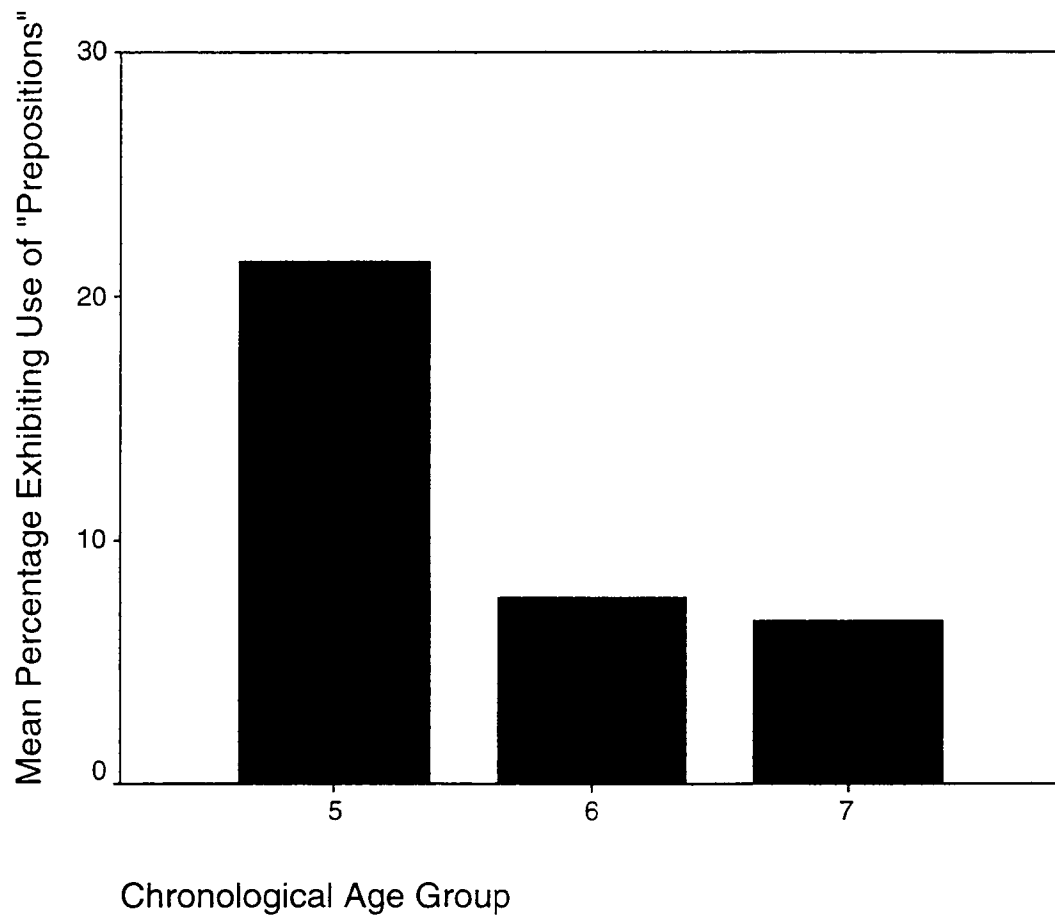


Figure 7. Mean percentage of five, six, and seven year olds exhibiting use of "prepositions" at least once in their language sample.

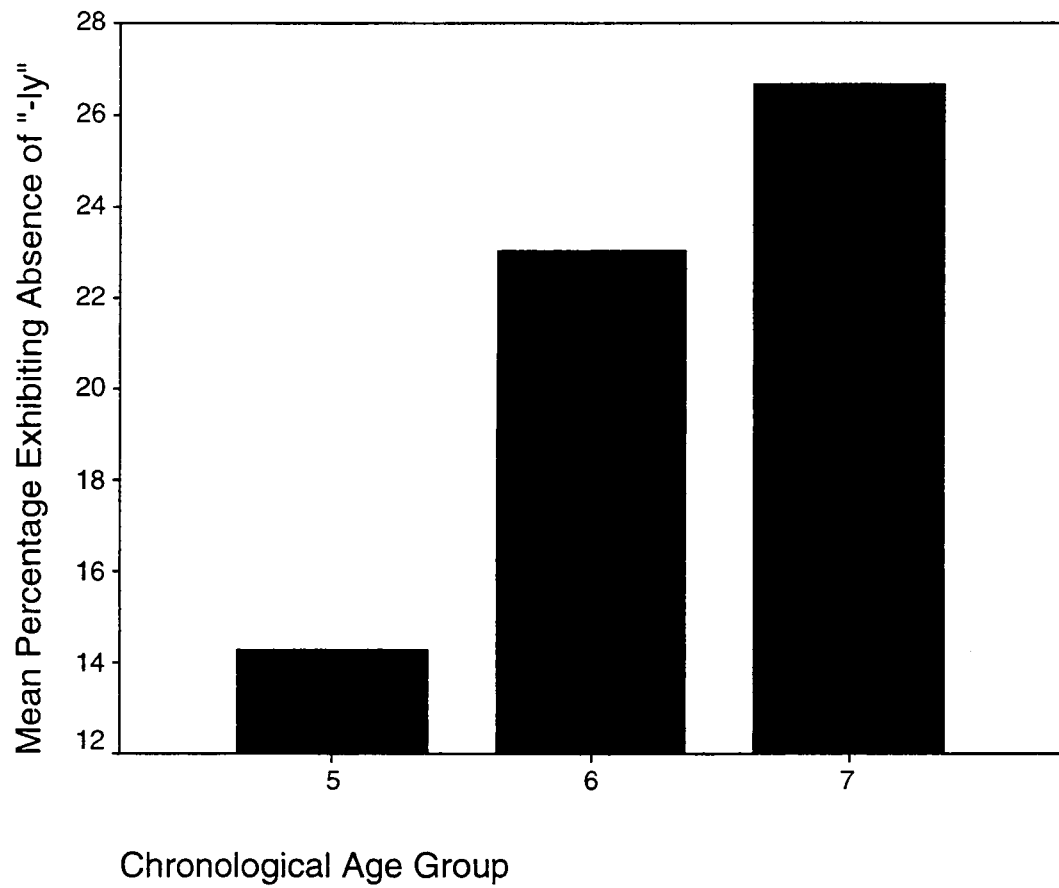


Figure 8. Mean percentage of five, six, and seven year olds exhibiting absence of “-ly” at least once in their language sample.

regard to temporal relationships by older children following instruction in the academic setting.

The overall percentage of the three groups which used the feature of intensifying adverbs was low with only 20% of the seven year old group exhibiting this particular type. Less than 8% of both the five and six year old groups used this feature in their samples (see Figure 9). Examples of intensifying adverb usage included: "It just now been painted," and "You have mighty pretty flowers." The majority of subjects who exhibited this feature used the "just now" form in response to the same question.

Although use of "ain't" is typically actively discouraged by teachers and other adults, a pattern of increased use was revealed with none of the five year old group using this form, but slightly increasing to 7% usage by the seven year old group as presented in Figure 10. Examples of use included: "Your flowers ain't growin'," and "You ain't doin' your part right." Overall, these findings suggest that in certain speaking situations, even older children may be more likely to use these three APPE dialectal feature types (e.g., absence of "-ly," use of intensifying adverbs, and use of "ain't").

In summary, the decrease of use with age of six particular APPE syntactic feature types supports the theories regarding academic instruction and increase of code switching skills with age. Additionally, the low use or omission of the feature types of "a-prefixing" of verbs, double modals, use of "done," use of "ain't," and use of intensifying adverbs suggests that these forms are more likely to be affected by code switching or that they are dialectal forms which are fading out of the Appalachian dialect in this particular geographical area as suggested by existing literature (Christian, Wolfram, & Dube, 1984; Wolfram & Christian, 1975).

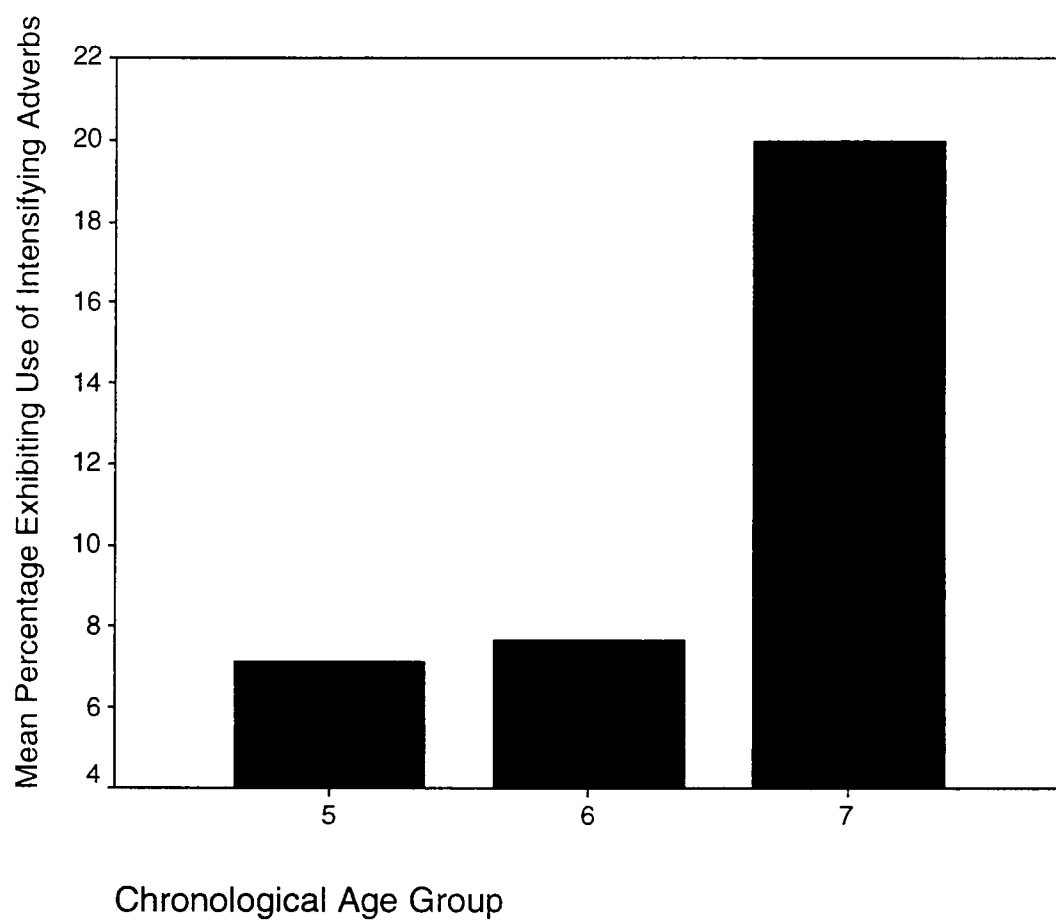


Figure 9. Mean percentage of five, six, and seven year olds exhibiting use of intensifying adverbs at least once in their language sample.

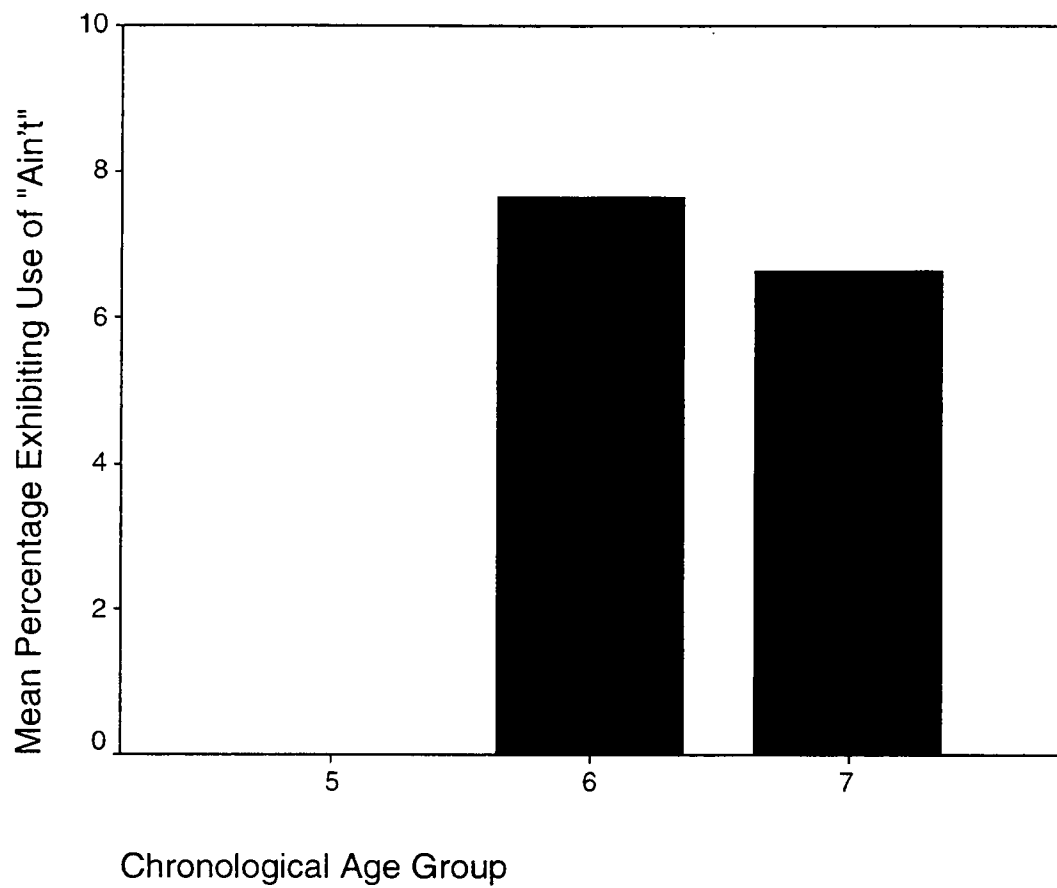


Figure 10. Mean percentage of five, six, and seven year olds exhibiting use of “ain’t” at least once in their language sample.

Total Appalachian Phonological Percentages

The frequency with which five, six, and seven year olds used eleven APPE phonological features in their language samples was examined. As shown in Figure 11, a significant difference was revealed for use between the five and seven year old groups with no significant differences between the six year old group and the other two age groups. The total phonological percentages obtained for each age group, however, were considerably higher than those for syntax. As with syntax, a general decrease of use of phonological features with age was exhibited. These results revealed that although APPE phonological feature use decreased with age, the frequency with which they were exhibited remained fairly high at seven years old. Therefore, it appears that the subjects code switched their phonological productions, but with less success than their syntactic constructions.

How did the children learn to code switch their phonological productions? Most likely, children were not "taught" how to make their language sound more standard or code switch as these subjects were not being serviced by a speech-language pathologist at that time. Instead, it may be the case that children phonologically code switch by simply listening to speakers of SAE. For example, children who are speakers of APPE may indirectly learn that the careful articulation of consonants in words results in speech that receives more positive feedback from teachers who reward use of SAE. Furthermore, although it is more difficult to alter phonological productions when compared with syntax, these children demonstrated an overall decrease in dialectal feature use with age.

Normal phonological development may contribute to the pattern of use regarding certain specific features examined in this study. At times, it may be difficult to distinguish between dialectal feature use and normal phonological process usage. For example,

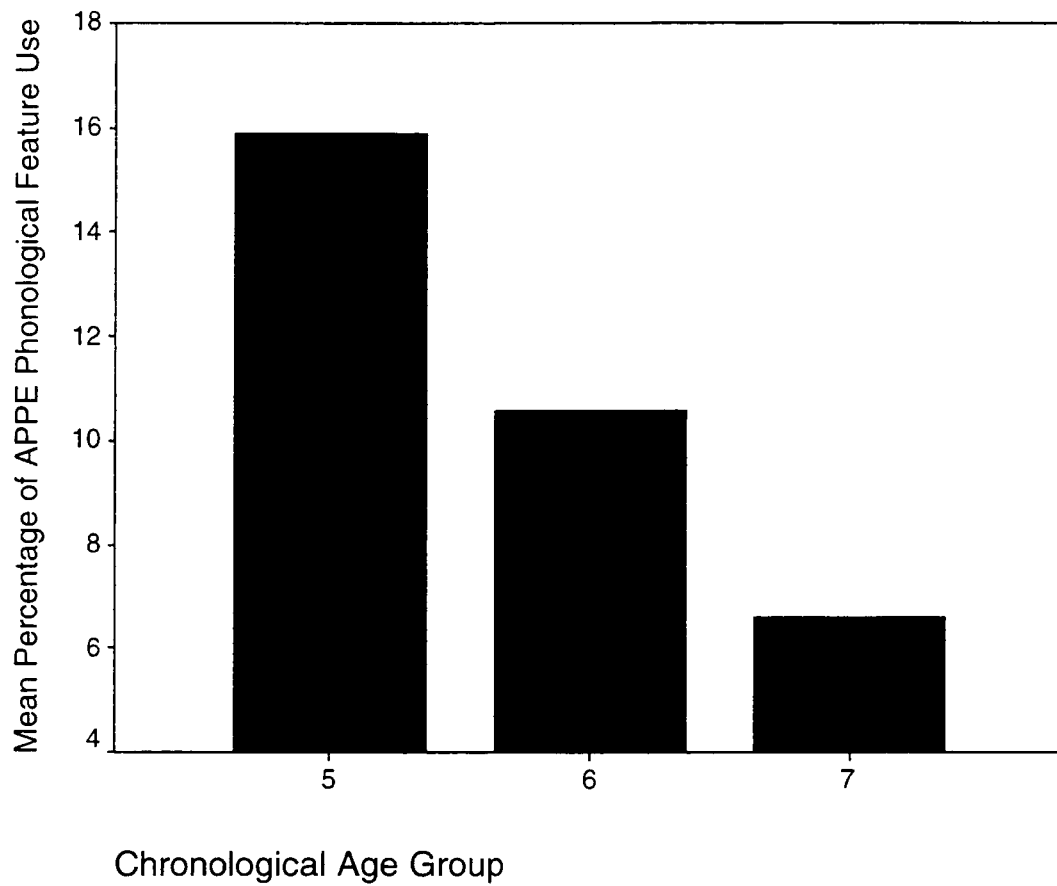


Figure 11. Mean percentage of words containing at least one examined APPE phonological feature by age group.

consonant cluster reduction was exhibited at least once by all 42 subjects in this study. According to Stoel-Gammon and Dunn (1985), this is a phonological process that normally developing children use beyond a chronological age of 3;0. Similarly, other normal phonological processes used by young children include unstressed syllable deletion and “stopping” (similar to the production of /d/ for /t/). Bernthal and Bankson (1993) propose that unstressed syllable deletion may normally persist up to age four, and stopping may continue to be used past age five. In the APPE dialect, these forms may persist into adulthood.

Without knowledge of dialectal feature use, it may be difficult to determine whether the demonstrations of these phonological feature types by children are developmental, dialectal, or disordered. The speech-language pathologist should thoroughly examine whether or not the use of these processes by speakers of APPE warrants therapeutic language treatment. Dialectal feature use is structured and patterned (Wolfram & Christian, 1986). That is, children who are speakers of APPE may exhibit these “processes” intermittently or only when producing words with certain phonetic structures. This particular information may be useful to speech-language pathologists when assessing young speakers of APPE.

Specific Use of Appalachian Phonological Feature Types

Decreasing trends of use which were similar to the syntactic analyses regarding use of specific phonological feature types occurred. Five of the nine examined phonological feature types were used by at least 50% of each age group, five decreased in use with age, and two increased in use with age. Two of the five features which were exhibited by the majority of all three age groups also revealed a decreasing trend of use with age. One feature type was not used by any of the three examined age groups.

Features used by majority of subjects. Five examined APPE phonological features were used by the majority of subjects in each of the three age groups. These phonological feature types included: consonant cluster reduction, deletion of /l/, unstressed syllable deletion, substituted productions for /ʒ/ and /θ/, and deletion of initial /ʒ/. The number of subjects exhibiting dialectal features across age groups remained high for the features of consonant cluster reduction, deletion of /l/, and deletion of initial /ʒ/. The remaining two showed a gradual decrease.

Consonant cluster reduction was the only phonological APPE feature type used by all 42 subjects at least one time. Although the feature may be used to some degree by speakers of SAE, Wolfram and Christian (1975) reported, "...differences between varieties of English with respect to final consonant cluster simplification turn out to be quantitative rather than qualitative" (p. 47). In other words, APPE speakers typically use this feature much more often than speakers of SAE. The results of this study support Wolfram and Christian's (1975) claim in that all subjects used this feature in their sample more than any other feature examined with a mean of 7.6 times per sample. The most common examples used by these subjects included: /kaɪn/ for "kind," /dɒn/ for "don't," /dʒʌs/ for "just." Most of the other words affected by use of this feature were similar in phonetic construction to those illustrated in the examples. That is, words ending with /nd/, /st/, or a contraction were most often altered with omission of the final consonant sound. These results coincided with those described by Wolfram and Christian (1975). The researchers stated that this feature occurs most often in words containing stop consonants in the final position.

Another commonly exhibited APPE phonological feature was the deletion of /l/. As shown in Figure 12, over 90% of the five and seven year old groups and almost 85% of

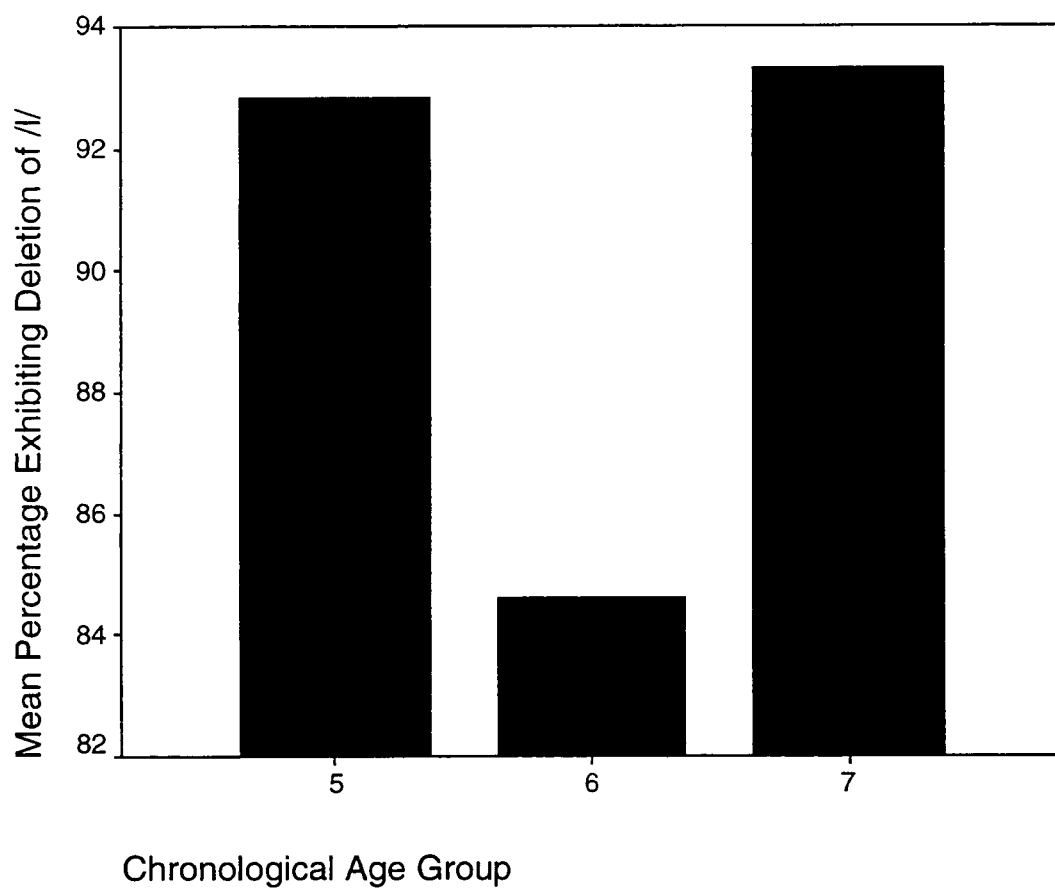


Figure 12. Mean percentage of five, six, and seven year olds exhibiting deletion of /l/ at least once in their language sample.

the six year old group used this feature type at least once in their samples. This feature was highly variable in the extent of its usage across subjects with some using it only a few times in their samples and others using it extensively. Some examples demonstrated by subjects included: /hEp/ for "help," /pʌdv/ for "puddle," /tE/ for "tell," and /wIju/ for "will you."

Unstressed syllable deletion was exhibited at least once by 86% of the five year olds, 69% of the six year olds, and continued to be used by 67% of the seven year olds included in this study, representing a slight decrease of use with age (see Figure 13). Common examples included production of /prɔbli/ for "probably," /sEpt/ for "except," and /InθIɪ/ for "anything."

Substitution of /d/ for /ð/ and/or /f/ for /θ/ was used by at least 60% of all three age groups with more children using the former example (see Figure 14). Most commonly, the children exhibited use of this dialectal feature with words such as "that," "the," and "this" (pronounced as /dæt/, /dʌ/, and /dIs/, respectively), although these particular words were affected in other ways. Specifically, in more instances, the child would drop the /ð/ sound altogether pronouncing these words as /æt/, /ʌ/, and /Is/, respectively, which represents the deletion of /ð/ in the initial position of words, another APPE dialectal feature type. The only substitution of /f/ for /θ/ noted was the production of /wIf/ for "with."

As displayed in Figure 15, deletion of initial /ð/ was used often by most subjects with over 90% of the five and seven year olds using this feature at least one time. This feature was used by all of the six year olds included in the study. The extensive use of the feature types involving the substitution or complete omission of /ð/ or /θ/ suggests that these particular features remain dominant characteristics used by speakers of APPE dialect. This feature, as well as consonant cluster reduction and deletion of /l/ was exhibited by well over half of all age groups studied, whereas most features which were used at least

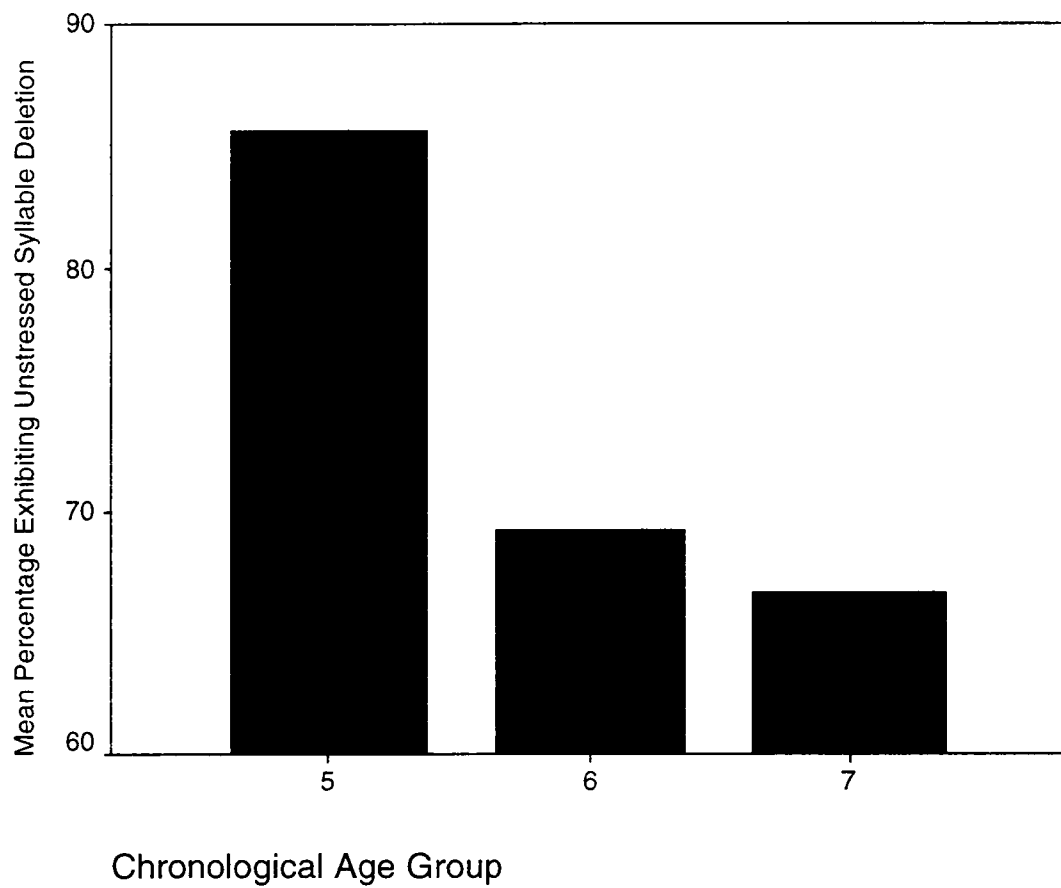


Figure 13. Mean percentage of five, six, and seven year olds exhibiting unstressed syllable deletion at least once in their language sample.

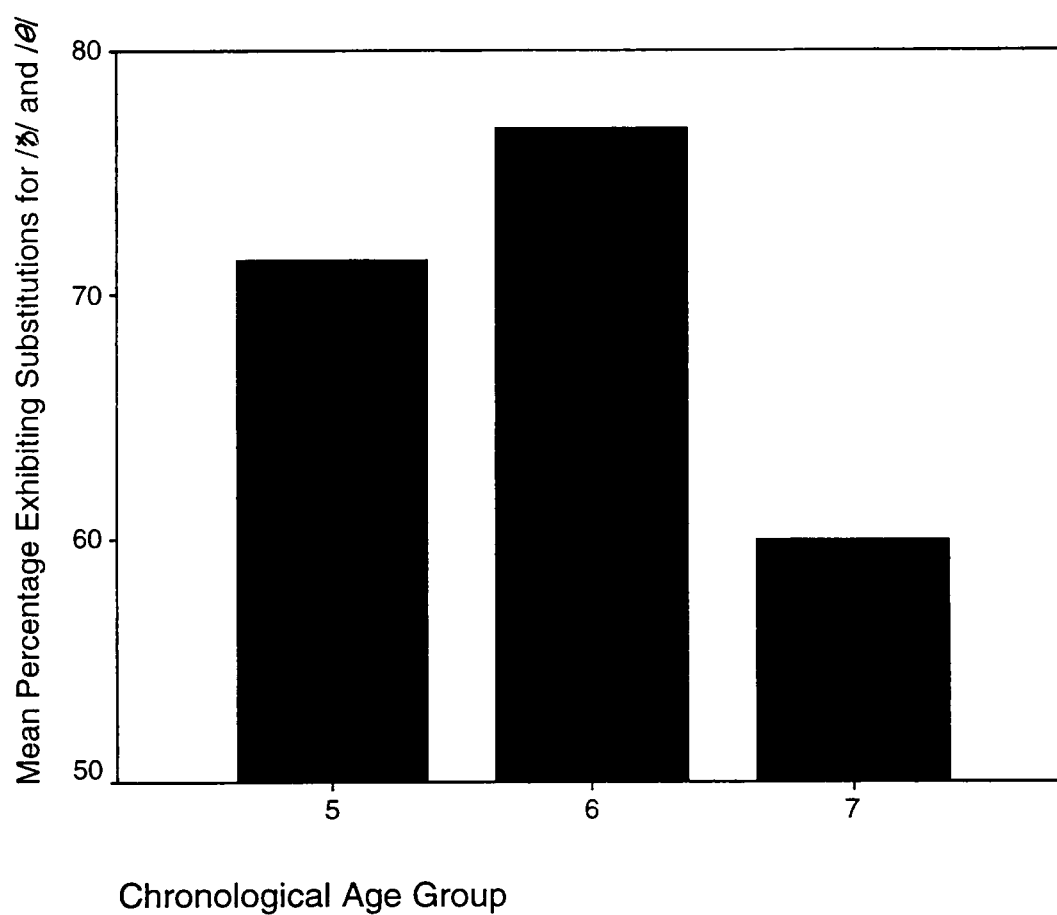


Figure 14. Mean percentage of five, six, and seven year olds exhibiting the substitution of /d/ for /θ/ or /f/ for /θ/ at least once in their language sample.

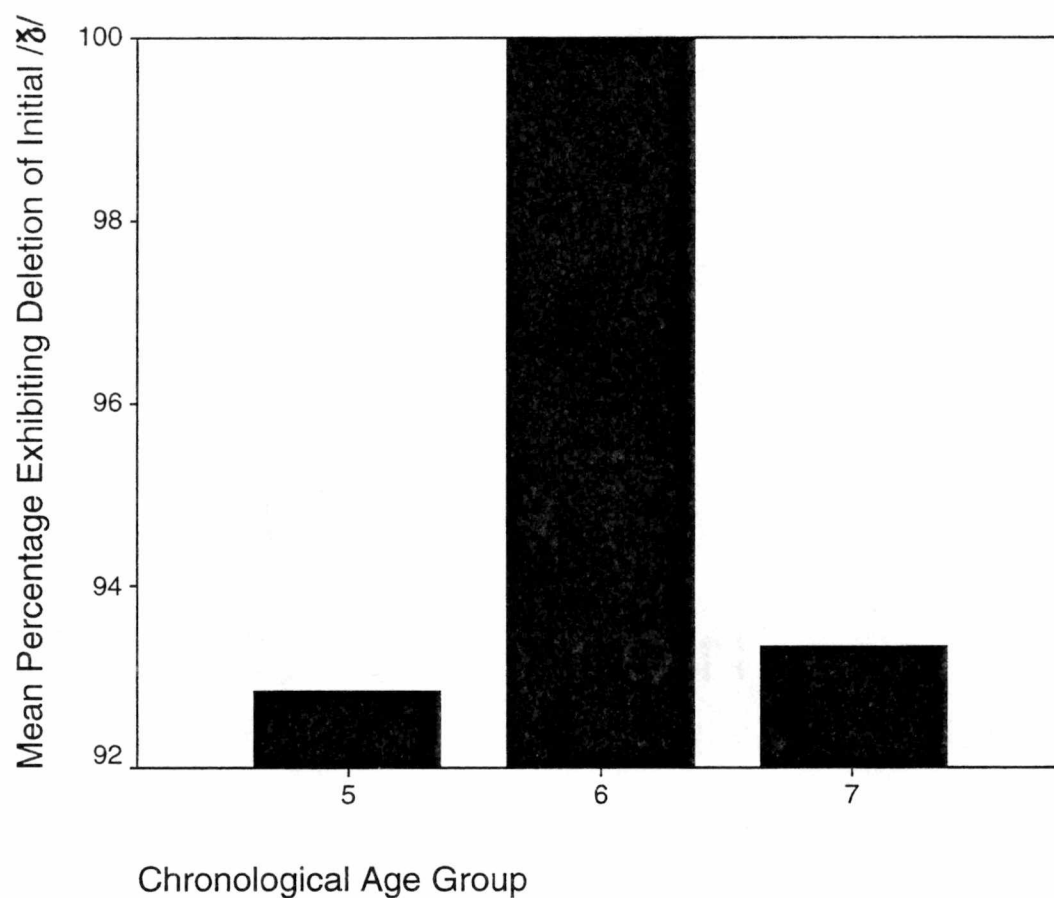


Figure 15. Mean percentage of five, six, and seven year olds exhibiting deletion of / r / in the initial position of words at least once in their language sample.

once by most of the five year olds had a tendency to become used less frequently by the seven year old group.

Other features that decreased with age. Three additional features which were exhibited less often by subjects followed a reducing trend including deletion of /r/, deletion of /w/ in the initial position of words, and the substitution of /In/ for unstressed /Iŋ/. The decrease in use of these features with age supports the overall trend of reduction in the total phonological percentages exhibited by the three experimental age groups.

As shown in Figure 16, deletion of /r/ in words was exhibited by 86% of the five year old group but by only 33% of the seven year olds. This may be a result of increased phonological awareness or better understanding of sound-letter relationships revealed with reading instruction (Fasold, 1990). However, children normally may have difficulty with the production of /r/ past age 5;0 (Bernthal & Bankson, 1993). The reason for the observed trend with this group of speakers may be the result of a different pattern of phonological development. Typical examples included: /pʌsən/ for “person,” /fʌgət/ for “forgot,” and /wEs/ for “where’s.”

The deletion of /w/ in the initial position was found to be another feature type which decreased with age (see Figure 17). Percentages of group use for five, six, and seven year olds were 57%, 15%, and 0%, respectively. Examples of use included: /juont/ for “you want,” /ʌt/ for “what,” and /ʌz/ for “was.”

Percentages of substitution of /In/ for unstressed /Iŋ/ in the word-final position for five, six, and seven year olds were 93%, 46%, and 27%, respectively, representing another decreasing trend of use (see Figure 18). Examples included: /fIkIn/ for “fixing,” /duIn/ for “doing,” and /rIdIn/ for “reading.”

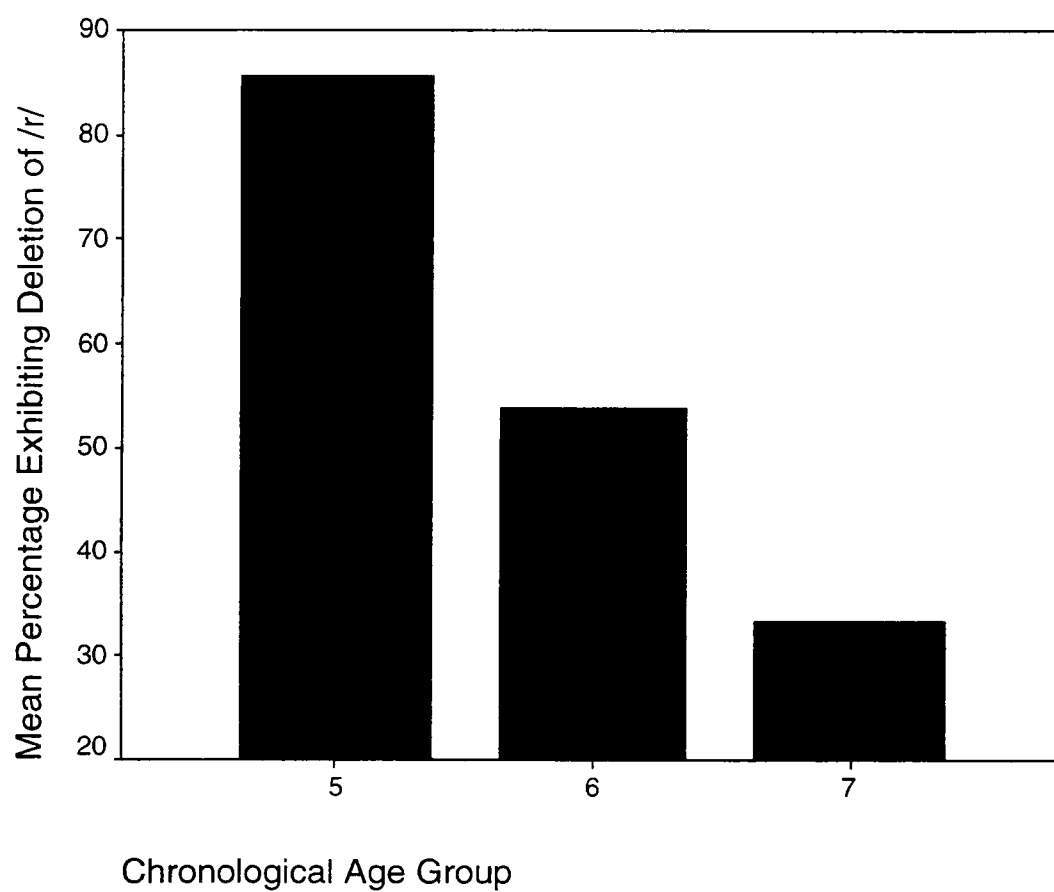


Figure 16. Mean percentage of five, six, and seven year olds exhibiting deletion of /r/ at least once in their language sample.

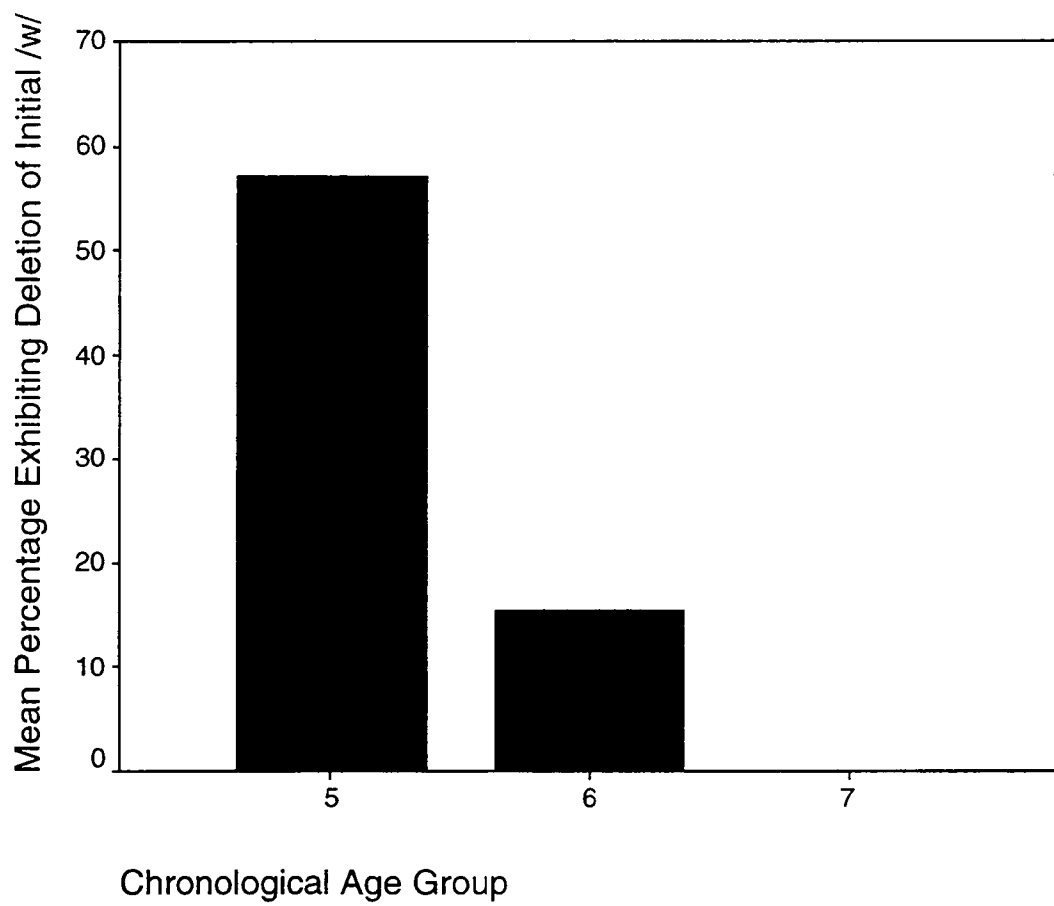


Figure 17. Mean percentage of five, six, and seven year olds exhibiting deletion of /w/ in the initial position of words at least once in their language sample.

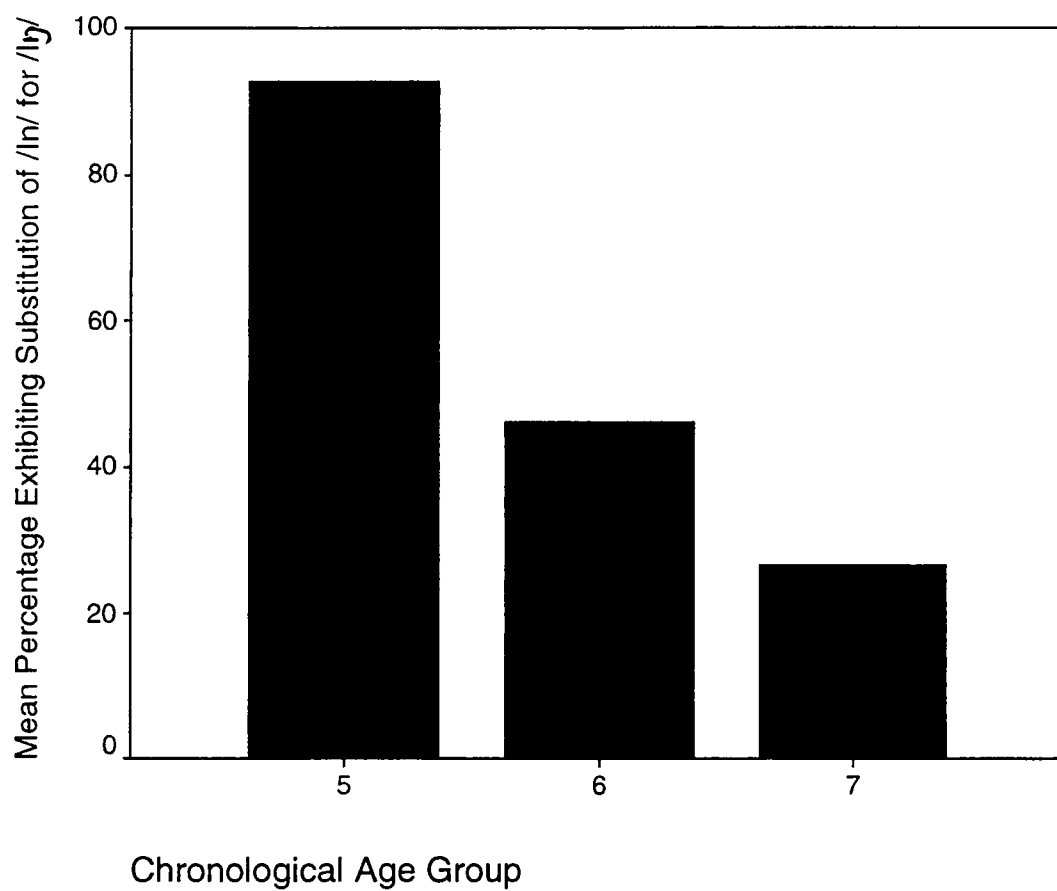


Figure 18. Mean percentage of five, six, and seven year olds exhibiting substitution of /ln/ for unstressed /lŋ/ at least once in their language sample.

Exclusion of the “final unstressed /ow/” feature type. The only examined APPE phonological feature type which was not used by any subject was the substitution of /ɔ/ for /ow/ in the final position of words. Results suggest that this may be a feature “fading” from the dialect as suggested by Wolfram and Christian (1975).

In summary, the general reduction in the use of APPE phonological features with age suggests that children learn to use more mature phonological patterns to some degree without formal training by a speech-language pathologist, although the percentage of words containing phonological features remained substantial across age groups. Teachers may be more tolerant of phonological APPE feature use. That is, teachers do not typically teach and/or correct phonological productions, although they may model more standard phonological productions in the classroom setting. Additionally, the introduction of spelling instruction may increase the child’s awareness of sound-symbol relationships and result in the use of more standard speech (Fasold, 1990).

Dialectal phonological patterns exhibited by these children may have persisted as a result of the lack of exposure to phonology characteristic of SAE. Perhaps teachers and parents in this geographical area provide this model inconsistently. Most likely, children are capable of producing and imitating “consonant clusters” characteristic of SAE but choose not to do so. These results may prove helpful in determining whether or not a school-age speaker of Appalachian English has a true phonological disorder or is simply producing words in a way that should be considered acceptable with regard to the dialect.

Advantages of Local Norms

This study utilized data from subjects who attended a primary school in Knox County, Tennessee. Because the subjects were from a single school in a specific part of Appalachia, generalization of conclusions to all school-age speakers of APPE is limited. It

must be considered, however, that this type of data may lend itself to the improvement of presently used language assessment procedures employed with school-age speakers of APPE in other areas. Although both the syntactic and phonological features examined in these analyses were chosen from those presented in the literature of Wolfram and Christian (1975), most appear to continue to characterize the APPE dialect observed today.

Limitations of Current Study

As discussed previously, one limitation of this study may be the stimuli used to elicit the language sample. The experimental sessions utilized the Let's Talk Inventory for Children (Bray & Wiig, 1987), a formal testing instrument with test administration by an adult speaking SAE. As a result, the older children with more educational experience probably used more standard speech in this situation (Isaacs, 1996). Additionally, the testing session was structured, as was the script followed by the test administrators, limiting the use of spontaneous conversational speech.

Another limitation of this study pertains to the selection process utilized when choosing the method of dialectal feature examination. All features were chosen by examining the existing literature with regard to characteristics exhibited by speakers of APPE. The research which explored any aspect of APPE was confined to three classic pieces presented by Adler (1974) and Wolfram and Christian (1975, 1980). Consequently, this research could be judged as fairly outdated. Additionally, Wolfram and Christian (1975) examined their subjects' linguistic samples with regard to new syntactic and phonological features used by speakers of APPE at that time. This investigation only examined those features previously described in the literature and did not determine whether subjects used new dialectal features.

The data collected in this study were limited to one school in Knox County, Tennessee. Thus, generalizations of the results must be made with caution. As a result of the confined geographical region targeted by the investigation, variation within the state of Tennessee could not be determined. Furthermore, Appalachia stretches to portions of nine other states (Wolfram & Christian, 1975; Wood, 1971) in which speakers might exhibit very different characteristics than those found in East Tennessee.

Suggestions for Future Research

This project utilized a structured, formal method of language elicitation in the form of the administration of a standardized language assessment. A study similar to this one which focuses on an informal, naturalistic language sampling technique could lead to conclusions different from those obtained in this work. In particular, an investigation which examines the frequency and use of the identical features employed in this study may result in an overall increase in features exhibited by school age children. An informal, unstructured play situation among peers, another adult, or the subject's parents, could result in the children feeling less pressured than in a structured setting where SAE is primarily used. In this case, it could be theorized that children would not code switch as much or at all when playing with other children of the same age. Similarly, another alternative for language sampling might involve an investigator examining the speech and language used by children at home with their parents who are speakers of APPE.

Another option for future research might involve expanding the number of children who are included in this type of investigation. Because the data collected in this particular study were limited to one school in one specific area, generalizations to all speakers of APPE should be made with caution. A comparison of these children with children residing in other Appalachian states might reveal other variations of the dialect that were not

presented by these 42 subjects. These data might also contribute findings related to those features which are fading from use in APPE dialect. This investigation suggested that young speakers of APPE are no longer using syntactic characteristics such as "a-prefixing" of verbs, nor the phonological characteristic of the substitution of /ʌ/ for unstressed /ow/. Future research with a wider variety of subjects may confirm or disprove these possible changes in the dialect. Additionally, no control group of SAE speakers was included in this project. A project which compares the speech and language of two groups of children from different geographical areas or socioeconomic groups may clarify the use of the examined features as characteristic of APPE.

Additional projects could investigate the types of vowel variations exhibited by speakers of APPE. An acoustic analysis of a closed set of words could provide new normative information and has been investigated minimally at present (Wolfram & Christian, 1975). The APPE dialect has been characterized as "slower" and a lengthening of some short vowels to diphthong forms was noticed by this investigator when completing phonological transcriptions.

Finally, a comparison of speech and language production of APPE children and adults might contribute information relating to specific changes taking place within the dialect. Some characteristic features of APPE described by Wolfram and Christian (1975) which were not observed to be used by these particular school-age subjects may continue to be retained in the speech of adult speakers. With this type of data, it may be possible to pinpoint those specific features which are fading from use within APPE dialect.

Summary

This study examined the language samples of 42 subjects ranging in chronological age from five to seven years for the presence of eleven APPE syntactic feature types and nine APPE phonological feature types. The Let's Talk Inventory for Children (Bray & Wiig, 1987) was used as a formal method of language elicitation between an adult speaker of SAE and each subject. The percentage of each subject's language sample containing the examined APPE syntactic and/or phonological feature types was calculated and averaged for each age group. Results revealed that there were significant differences in the frequency of use of the examined APPE syntactic and phonological features between the five year old group and the seven year old group only.

The total percentage of utterances containing at least one of the eleven examined APPE syntactic features was calculated for each subject's linguistic sample. Mean percentages were calculated for each of the three age groups. A significant difference occurred between the five year old group and the seven year old group. The five year old group exhibited syntactic features in 5.1% of their utterances, while the seven year old group used features in 2.2% of their utterances. The six year old group exhibited syntactic features in 2.5% of their utterances. Results revealed that the use of APPE syntactic features generally decreased with age. It appeared that the children became better code switchers after beginning kindergarten. This may have been the result of direct and indirect instruction by teachers in the academic setting coupled with more standard language usage in formal speaking situations. No significant differences were found between the six year old group and the five or seven year old groups. This finding suggests that this age may be a transitional period in which children begin to improve their code switching skills or use more SAE forms.

Total percentage of occurrence of the nine examined APPE phonological features was calculated for each subject and averaged for each age group. Mean percentage of use with regard to APPE phonological features revealed another decreasing trend with age with significant differences between the five and seven year old groups. Again, no significant differences occurred between the six year old group and the five or seven year old groups. The five year old group and seven year old group exhibited use of phonological features in 15.9% and 6.6% of their words, respectively. The six year old group used dialectal phonological features in 10.6% of their words. Although children are not formally “taught” how to code switch phonologically in the school setting, children may learn to use more standard speech by listening to models provided by speakers of SAE, learning sound-letter relationships in reading, or role playing. Due to the overlap of some APPE phonological features with normal phonological processes, it is difficult to determine whether persisting processes are dialectal, developmental, or disordered.

The syntactic and phonological features examined in this study may provide useful information to the speech-language pathologist working with children who are speakers of Appalachian English. Speech-language pathologists should carefully consider whether features exhibited by children are part of their nonstandard dialect or are in fact, expressive language or phonological disorders.

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APPENDICES

APPENDIX A

FACT SHEET

Dear Parents:

Please consider allowing your child to participate in this research project. Your child's help would be appreciated.

Dr. Lori A. Swanson

Fact Sheet About the School-Age Child Language Study
Conducted by Lori A. Swanson
Department of Audiology and Speech Pathology
The University of Tennessee

Site of Testing:	Child's school
Time of Testing:	Spring of 1996
Task:	Child takes two tests that involve looking at pictures
Length of Testing:	Two forty-five minute sessions
Test Administrators:	Trained research assistants
Number of Questions on Each Test:	Test 1 - 36 questions Test 2 - 32 questions
Test Format:	Drawings of children talking to adults or other children. Each picture has a corresponding "story."
Number of students being tested:	150 normally developing children
Test results:	Overall results of the study will be made available to the parents upon request. The collapsed results will also be shared with local speech-language pathologists in the schools.

Approval for the Study
Has Been Obtained From:

The University of Tennessee
School Superintendent
School Principals

Benefit of Project:

Information obtained from this study
will be used to assist Speech-
Language Pathologists in the
Knoxville area.

For Additional
Information Call:

(423) 974-1794
Hearing and Speech Center
The University of Tennessee

**PLEASE SIGN AND RETURN THE ATTACHED CONSENT FORM.
THANK YOU!**

APPENDIX B

PARENTAL INFORMED CONSENT FOR LANGUAGE RESEARCH PROJECT

Lori A. Swanson, Ph.D.
Department of Audiology & Speech Pathology
The University of Tennessee

We have received permission from your school system to conduct a study of normal child language development. We are interested in determining the typical performance of local children (African American and Caucasian) on a standard test that measures social communication skills. Each child will be tested in two sessions lasting approximately 45 minutes by a research assistant. All children will be asked to speak for one character in a total of 68 pictured situations. All of the testing will be completed at the child's school at times agreed upon by the child and the child's teacher.

The testing will be audiotaped and videotaped in order to assure accurate record keeping. Information collected during this study will be completely confidential. All audio- and videotapes will be kept in a locked cabinet in the professor's office. These tapes will be erased at the end of the project. Neither the parents' names nor the child's name will be used at any time.

The information obtained from this project will be given to the speech-language pathologists in the schools in the Knoxville area so that testing social communication will be improved. A summary of the general findings of the study will be made available to parents upon request.

Permission Form

Name of Parent or Legal Guardian _____

Name of Child _____

Child's Date of Birth _____

Child's Teacher _____

I have read this informed consent and have agreed to allow my child to participate in this study. *I understand that my child's participation in this project is completely voluntary. I am also aware that I may withdraw my child from this study at any time without penalty to me or my child.* I may also request a general summary of the findings of the study (phone 974-1794).

 Signature of Parent or Legal Guardian

APPENDIX C

RAW SYNTAX DATA AND
PERCENTAGE OF USE FOR ALL SUBJECTS

<u>ID</u>	<u>CA</u>	<u>S</u>	<u>U</u>	<u>S1</u>	<u>S2</u>	<u>S3</u>	<u>S4</u>	<u>S5</u>	<u>S6</u>	<u>S7</u>	<u>S8</u>	<u>S9</u>	<u>S10</u>	<u>S11</u>	<u>%AGE</u>
1	5;8	M	84	0	0	0	0	2	0	1	0	0	0	0	3.6
2	5;3	F	38	0	0	0	0	0	0	0	0	1	0	0	2.6
3	5;2	M	55	0	0	0	0	5	0	0	0	0	1	0	10.9
4	5;9	M	53	1	0	0	0	0	1	0	0	0	0	0	1.9
5	5;2	M	36	0	0	0	0	0	0	0	0	0	0	0	0
6	5;10	F	40	0	0	0	0	1	0	0	0	1	0	0	5.0
7	5;5	F	42	0	0	0	0	1	0	0	0	0	0	0	2.4
8	5;9	F	40	0	0	0	0	1	0	0	2	0	0	0	7.5
9	5;9	F	43	0	0	0	2	0	0	0	0	0	0	0	4.7
10	5;8	F	50	0	0	0	0	0	0	0	1	1	0	0	4.0
11	5;8	F	40	0	0	0	0	1	1	0	0	0	0	0	3.0
12	5;6	M	55	0	0	0	1	1	0	0	0	1	0	0	5.5
13	5;7	M	64	1	0	0	2	1	1	1	0	0	1	0	10.9
14*	5;11	M	1	-	-	-	-	-	-	-	-	-	-	-	-
15	5;7	F	36	1	0	0	0	1	0	0	0	0	0	0	8.3
16**	6;10	F	42	-	-	-	-	-	-	-	-	-	-	-	-
17	6;10	M	50	0	0	0	0	0	0	0	0	0	1	0	2.0
18	6;9	F	62	0	0	0	0	0	1	0	0	0	0	0	1.6
19	6;7	F	38	0	0	0	0	0	0	0	0	0	0	0	0
20	6;1	M	46	0	0	0	0	3	0	0	0	0	0	0	6.5
21***	6;9	M	135	-	-	-	-	-	-	-	-	-	-	-	-
22	6;7	F	96	0	0	0	0	0	0	0	1	0	0	0	1.0
23	6;9	M	41	0	0	0	0	0	0	1	0	0	0	0	2.4
24	6;1	F	37	0	0	0	0	0	0	1	0	0	0	0	2.7
25	6;2	F	41	0	0	0	0	0	0	0	0	0	0	0	0
26	6;5	M	45	0	0	0	1	0	0	1	0	0	0	0	4.4
27	6;4	F	38	0	0	0	0	0	0	0	0	0	0	0	0
28	6;10	M	42	0	0	0	0	1	0	0	0	0	0	0	2.4
29	6;10	F	39	0	0	0	0	0	1	0	0	0	0	0	2.6
30	6;4	F	32	0	0	0	0	1	0	0	0	0	0	1	6.3
31	7;7	F	36	0	0	0	0	0	0	0	0	0	0	0	0
32	7;8	M	47	0	0	0	0	0	0	0	0	0	0	0	0
33	7;7	M	56	0	0	0	0	0	0	0	0	0	0	0	0
34	7;1	F	49	0	0	0	0	0	0	1	0	0	0	0	2.0
35	7;8	M	42	0	0	0	0	1	0	0	1	0	0	0	4.8
36	7;0	F	39	0	0	0	0	0	0	0	0	0	0	0	0
37	7;7	F	40	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C continued

<u>ID</u>	<u>CA</u>	<u>S</u>	<u>U</u>	<u>S1</u>	<u>S2</u>	<u>S3</u>	<u>S4</u>	<u>S5</u>	<u>S6</u>	<u>S7</u>	<u>S8</u>	<u>S9</u>	<u>S10</u>	<u>S11</u>	<u>%AGE</u>
38	7;0	F	41	0	0	0	0	0	0	1	0	0	0	0	2.4
39	7;3	F	41	0	0	0	0	0	0	0	1	0	0	0	2.4
40	7;8	M	45	0	0	0	0	0	0	1	0	0	0	0	2.2
41	7;7	M	41	0	0	0	0	1	0	0	0	0	0	0	7.3
42	7;1	F	41	0	0	0	0	0	0	0	0	0	0	0	0
43	7;11	M	73	1	0	0	0	5	0	0	0	0	1	0	9.6
44	7;10	F	37	0	0	0	0	1	0	0	0	0	0	0	2.7
45	7;3	F	39	0	0	0	0	0	0	0	0	0	0	0	0

ABBREVIATIONS

ID = Subject Identification Number

CA = Chronological Age (Years;Months)

S = Sex (M=male; F=female)

U = Number of utterances in linguistic sample

S1 = Use of "done"

S2 = A-prefixing

S3 = Double modals

S4 = Absence of "be"

S5 = Subject-verb agreement

S6 = Irregular verbs

S7 = Absence of -ly

S8 = Intensifying adverbs

S9 = Multiple negation

S10 = Prepositions

S11 = Use of "ain't"

%AGE = Percentage of utterances containing at least one examined syntactic feature

* = Subject data not included due to sample consisting of a single utterance

** = Subject data not included as a result of audio equipment failure

*** = Subject data not included due to subject unintelligibility

APPENDIX D

RAW PHONOLOGICAL DATA AND
PERCENTAGE OF USE FOR ALL SUBJECTS

<u>ID</u>	<u>CA</u>	<u>SEX</u>	<u>WORDS</u>	<u>P1</u>	<u>P2</u>	<u>P3</u>	<u>P4</u>	<u>P5</u>	<u>P6</u>	<u>P7</u>	<u>P8</u>	<u>P9</u>	<u>%AGE</u>
1	5;8	M	438	15	2	34	0	6	4	5	5	4	17.1
2	5;3	F	231	11	1	3	0	0	0	3	2	1	9.0
3	5;2	M	251	17	6	2	0	1	9	7	13	7	24.7
4	5;9	M	243	14	1	5	0	1	2	0	0	3	10.7
5	5;2	M	161	5	0	5	0	2	6	2	3	2	15.5
6	5;10	F	164	8	12	4	0	0	0	1	2	6	20.1
7	5;5	F	250	10	2	7	0	0	4	2	0	4	11.6
8	5;9	F	229	10	16	4	0	1	4	1	9	2	20.5
9	5;9	F	251	8	4	2	0	1	3	2	0	10	11.9
10	5;8	F	158	10	12	7	0	0	1	1	4	1	22.8
11	5;8	F	176	4	4	0	0	2	3	2	5	3	13.1
12	5;6	M	279	14	7	3	0	0	7	3	6	4	15.8
13	5;7	M	355	19	1	8	0	0	5	1	4	4	11.8
14*	5;11	M	-	-	-	-	-	-	-	-	-	-	-
15	5;7	F	200	14	0	7	0	3	2	10	0	0	18.0
16**	6;10	F	-	-	-	-	-	-	-	-	-	-	-
17	6;10	M	247	11	22	1	0	2	0	3	13	5	23.1
18	6;9	F	347	9	0	1	0	0	3	1	1	1	4.6
19	6;7	F	181	9	0	2	0	0	2	1	1	3	10.0
20	6;1	M	204	13	2	0	0	0	0	0	3	2	9.8
21***	6;9	M	-	-	-	-	-	-	-	-	-	-	-
22	6;7	F	371	8	0	3	0	0	1	0	0	2	3.8
23	6;9	M	149	5	0	4	0	0	0	0	2	1	8.1
24	6;1	F	126	4	1	5	0	1	3	1	2	1	14.3
25	6;2	F	235	11	3	3	0	0	0	0	2	2	8.9
26	6;5	M	177	7	5	4	0	0	1	2	4	12	19.8
27	6;4	F	151	1	0	1	0	0	1	0	0	4	4.6
28	6;10	M	142	4	1	0	0	0	1	0	2	2	7.0
29	6;10	F	199	7	1	5	0	0	2	0	0	3	9.0
30	6;4	F	182	12	0	6	0	0	1	3	1	4	14.8
31	7;7	F	166	2	0	7	0	0	0	0	0	1	6.0
32	7;8	M	195	3	0	4	0	0	1	0	1	2	5.6
33	7;7	M	338	3	1	0	0	0	3	1	7	2	5.0
34	7;1	F	214	2	0	2	0	0	1	2	1	6	6.5
35	7;8	M	265	9	0	2	0	0	3	0	0	2	6.0
36	7;0	F	197	4	0	2	0	0	4	0	0	2	6.1
37	7;7	F	212	2	0	6	0	0	0	0	1	4	6.1
38	7;0	F	106	2	0	2	0	0	0	0	1	3	7.5

Appendix D continued

<u>ID</u>	<u>CA</u>	<u>SEX</u>	<u>WORDS</u>	<u>P1</u>	<u>P2</u>	<u>P3</u>	<u>P4</u>	<u>P5</u>	<u>P6</u>	<u>P7</u>	<u>P8</u>	<u>P9</u>	<u>%AGE</u>
39	7;3	F	218	2	1	7	0	0	1	0	0	1	5.5
40	7;8	M	160	7	1	3	0	0	0	0	3	3	10.6
41	7;7	M	233	4	0	7	0	0	7	4	1	5	12.0
42	7;1	F	202	5	1	2	0	0	2	0	1	2	6.4
43	7;11	M	443	12	17	6	0	0	4	1	4	5	11.1
44	7;10	F	181	1	0	1	0	0	1	0	0	1	2.2
45	7;3	F	209	1	0	4	0	0	0	0	0	0	2.4

ABBREVIATIONS

ID = Subject Identification Number

CA = Chronological Age (Years;Months)

S = Sex (M=male; F=female)

WORDS = Number of words in subject sample

P1 = Consonant cluster reduction

P2 = Deletion of /r/

P3 = Deletion of /l/

P4 = Substitution of /ʌ/ for /ow/ in the final position of words

P5 = Deletion of /w/ in the initial position of words

P6 = Unstressed syllable deletion

P7 = Substitution of /In/ for unstressed /Iŋ/

P8 = Substitution of /d/ for /ʒ/ or /f/ for /θ/

P9 = Deletion of /ʒ/ in the initial position of words

%AGE = Percentage of words containing one or more examined phonological feature types

* = Subject data not included due to sample consisting of a single utterance

** = Subject data not included as a result of audio equipment failure

*** = Subject data not included due to subject unintelligibility

APPENDIX E

ADMINISTRATION PROTOCOL FOR SESSION 1
Let's Talk Inventory for Children

I. An informed consent form will be completed for all children participating in the research study. The classroom teacher and the child will decide upon a mutually agreeable time for the first session. At this time, the examiner, who will be a research assistant, will follow this script and these guidelines when administering the test to the child:

E: Hello, (child's name), my name is (name of the graduate research assistant). Your parents and your teacher say that you are willing to help me with my special project. Did they tell you what we are going to do? (Child answers yes or no.) All you have to do is look at some pictures and pretend you are one of the children in each picture. Today you will look at this book, then on _____ you will look at that book. Some of the pictures in these books will be easy, some others might be a bit hard. All you have to do is your best. I think what we learn from your work may help other school children. Are you willing to help me with this project? (Child's response.) Great! I think you will like this game, but if you want to stop at any time just let me know. You can just say, "I don't want to play this anymore." Okay?

(Child's response)

I appreciate your help! This is our special room where we're going to play this pretend game. You will sit on this chair across the table from me, so you can see the big book of pictures we'll be using. This is our big book of pictures. (Child's name), this book has many pictures of people. All the people in the pictures are friends. I want you to pretend you are one of the people in each of the pictures. I will ask you to talk for that person. So, for each page, you will do three things: look at the picture, listen to me, and then talk. What three things are you going to do for each picture?

C: Response should be look, listen, and then talk. Remind or correct the child if his/her answer is "I don't know" or incorrect.

E: Since this is a pretend game, do you know how to pretend/play like you are someone else?

C: Response.

If no, one or more of the following models will be presented. Ask the child to pretend he/she is a monster. Ask the child what kind of noise he/she would make. Other models include asking the child what Santa Claus says or what the child would say to the examiner if she had a piece of candy he/she wanted. If the child is unable to pretend, the session will be discontinued. The child will be thanked and returned to the classroom.

E: I'm glad you know how to pretend so you can play this game. Remember, no one will grade you, and we won't tell your family or teacher anything about what you say or do during this exercise. Just do your best. Let's get started! Remember to turn on your eyes and ears, so you can look at each of the pictures carefully and listen to me closely.

Let's practice!

(Open the Picture Manual)

E: (Demo A) Here is a picture of two boys playing. They are good friends. They do a lot of things together. they like to talk to each other. This is Mike. (Point to dark-haired boy). This is Ben. (Point to the other boy). Mike was playing at Ben's house. It was time for dinner. Mike had to go home. This is what I think Mike said to Ben, "Bye, Ben. See you tomorrow."

Turn to Demo B.

E: This is Debbie. (Point). This is Mrs. Brown (point), the next door neighbor. Debbie was visiting Mrs. Brown. It was time for lunch. Debbie has to go home. This is what I think Debbie said to Mrs. Brown. "Goodbye, Mrs. Brown. I'll see you soon."

Turn to Trial A.

E: Here are some more pictures of people doing things. They talk to each other. They ask questions. They tell others how they feel. They tell others what they want. Remember that for each picture you are going to look, listen, and then talk.

Begin with Trial A.

E: This is the first picture. This is Debbie. (Point). This is Mike. (Point). Debbie and Mike were playing at Mike's house. Debbie saw that Mike had a new toy. She didn't know what it was called. Debbie wanted to ask Mike. What did Debbie say to Mike?

C: Response. If response is incorrect, repeat the item. If the answer is incorrect after the repetition, the examiner formulates the response.

E: This is Ben. This is Mrs. Brown. (Point to the characters). Ben and Mrs. Brown were shopping. Ben saw a new game. He didn't know what it was called. He wanted to ask Mrs. Brown. What did Ben say to Mrs. Brown?

C: Response. Repeat procedures used for Trial A. Modeling or prompting of speech acts is not continued after these trials.

E: Here are some more pictures of people. Look at each one and listen carefully (point to ears) to what I say about each picture. Then I will ask you to talk for one of the people in the picture. You will tell me what the person said.

II. The examiner will use the following procedures during the course of test administration:

- Maintain a pleasant facial expression.
- Give general reinforcement by means of these example comments:

"You're working hard."

"Good work!"

"I can see that you're looking at the pictures carefully."

"You're listening well!"

"[Child's name], I'm proud of the hard work you're doing!"

"You did turn on your eyes and ears, didn't you!"

- Each item will be read at a normal rate with normal intonation.

III. The examiner will use the following procedures at the end of test administration.

- If the child wishes to stop during the testing, the examiner will maintain a neutral expression, close the booklet, and say, "All right, thank you for helping me. Let's go back to your classroom."

- When the testing is completed, the examiner will say, "You've done a terrific job! Thank you for helping me. Let's go back to your classroom."

IV. These behavior management guidelines will be followed during test administration:

- Prompts will include phrases such as:

"Remember to stay in your seat so that you can do a good job."

"Keep listening carefully!"

"Please wait until I ask the question before you give an answer."

"Please keep your eyes and ears turned on!"

"Please don't touch the tape recorder."

- If the child is unable to be conditioned to take the test, administration will be discontinued.

V. Errors noted on the 1987 test version were as follows:

- C-5B contains a typographic error. The character is Mr. Brown, not Mrs. Brown as is written on the Record Form.

- In the Picture Manual narrative stimuli, Ms. King is the name of the pictured character. On the Record Form, she is referred to as Mrs. King. During testing, she will be called Mrs. King.

VI. Further test administration guidelines will be followed as stated in the Let's Talk Inventory for Children Manual. Narratives for pictured items are included in the manual.

APPENDIX F

SYNTACTIC FEATURES OF APPALACHIAN ENGLISH

FEATURES	EXAMPLES
Use of "done"	"I done told you that!"
"A-prefixing" of verbs	"He was a-goin to the store."
Double modals	"I might could do that for you."
Absence of "be"	"She stupid."
Incorrect subject-verb agreement	"My children hasn't been there much."
Incorrect irregular verbs	"knowed," "heared"
Absence of "-ly"	"I am terrible tired today."
Intensifying adverbs	"That's a right large house you've got."
Multiple negation	"Nobody didn't see him."
Prepositions	"get up of the morning"
Use of "ain't"	"I ain't been here."

Note. All features and examples are obtained from Adler's (1976) Checklist of Appalachian Dialect user's phonological, grammatical, lexical, and body language as compared to Standard English user's and from Wolfram and Christian's (1975) Sociolinguistic variables in Appalachian Dialects.

APPENDIX G

PHONOLOGICAL FEATURES OF APPALACHIAN ENGLISH

FEATURES	EXAMPLES
Consonant cluster reduction	"tes" for "test," "des" for "desk"
Deletion of /r/ and /l/	"stat" for "start," "hep" for "help"
Substitution of /ɔ/ for final unstressed /ow/	"holler" for "hollow," "piller" for "pillow"
Deletion of initial /w/	"He 'uz running."
Unstressed syllable deletion	"round" for "around," "bout" for "about"
Substitution of /ɪn/ for unstressed /ɪŋ/	"tryin'," "fixin'" "somethin'"
Substituted productions for /ɜ/ and /θ/	"modder" for "mother," "mouf" for "mouth"
Deletion of initial /ɜ/	"He'll stop 'em."

Note. All features and examples are obtained from Adler's (1976) Checklist of Appalachian Dialect user's phonological, grammatical, lexical, and body language as compared to Standard English user's and from Wolfram and Christian's (1975) Sociolinguistic variables in Appalachian Dialects.

VITA

Emily D. Davis was born in Nashville, Tennessee on June 4, 1974. In her freshman year of high school, she moved with her parents and brother to Chattanooga, Tennessee where she graduated from Hixson High in 1992.

Miss Davis attended the University of Tennessee in Chattanooga from 1992-1994 where she was a recipient of an athletic scholarship as well as the UTC Guaranteed Tuition Academic Scholarship. In 1994, she transferred to East Tennessee State University in Johnson City where she was awarded the ETSU Academic Performance Scholarship. While attending ETSU, she received the Faculty Award in the Department of Communicative Disorders and graduated Magna Cum Laude with her Bachelor of Science degree in Speech and Hearing in May, 1996.

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