When It Comes to Explaining
A Preliminary Investigation of the Expository Language Skills of African American School-Age Children

Nicole M. Koonce

This research investigated the expository language of school-age speakers of African American English. Specifically, the study describes the language productivity, syntax, and pragmatic features present in expository language samples produced by African American children and compares their performance with White children in the extant literature. The study also explores relationships between the various language measures. Twenty-one children, aged 8 years 2 months to 9 years 11 months, produced expository language samples using the favorite game or sport elicitation task. The samples were transcribed, coded, and analyzed for the total number of T-units, mean length of T-unit, clausal density, topic maintenance, informativeness, and fluency. The children in the study produced expository discourse that was commensurate with their White peers in the research literature in the areas of language productivity and syntactic complexity. Unique to this study was the analysis of pragmatic aspects of expository discourse. The African American children in the study displayed good ability to produce on-topic and fluent language samples, whereas their explanations revealed emerging skills in the area of informativeness. Syntactic measures were strongly correlated with each other, and the pragmatic measures of topic maintenance and informativeness were correlated with each other, however, no relationship was found between the syntactic and pragmatic measures. The findings suggest that typically developing African American children who are also speakers of African American English perform similarly to their peers on several measures of expository discourse competence and that the evaluation of expository language may serve as a valuable tool in assessing the language skills of this population of children.

Key words: African American children, assessment, expository discourse, language development, language sample analysis, pragmatics, syntax

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effectively to communicate what they know about academic content (Pinnell, 2002; Zwiers, 2008). One way of verbally communicating known or learned academic information is through the use of expository discourse.

The production of expository language requires a child to plan and organize language for the purpose of explaining, analyzing, or conveying information about a factual topic (Berman & Nir-Sagiv, 2007; Mosenthal, 1985; Nippold & Scott, 2010; Schleppegrell, 2004). In the classroom, children might, for example, use expository discourse to participate in group discussions about a reading selection, explain the steps in a scientific procedure, describe the essential features of a class of animals, or deliver an oral report about a historical figure (Kelly, 2007; Zwiers, 2008). In these learning-related tasks, children are required to choose meaningful words, construct those words into sentences, and logically cohere groups of sentences in ways that effectively convey complex thoughts about a topic appropriate to both the situation and the audience. Hence, expository language is characterized not only by word- and sentence-level properties such as specialized vocabulary, morphology, and syntax but also by discourse-level properties such as topic initiation, topic maintenance, and informativeness (Bliss & McCabe, 2006; Norris, 1995). These multilevel properties position expository discourse as a particularly useful tool for evaluating the higher level language abilities of school-aged children.

Given the importance of expository genres in school discourse, it is surprising that there are still relatively few studies that have investigated the spoken expository language skills of school-aged children. Furthermore, a thorough review of the literature revealed few studies of the development of expository language in African American children and none that pertain directly to the spoken language skills of African American children in expository contexts. This is problematic, given that language sampling across multiple spoken language contexts is cited as a nonbiased, culturally sensitive procedure for evaluating the language skills of school-aged children from culturally and linguistically diverse backgrounds (Gillam, Peña, & Miller, 1999; Hadley, 1998; Hyter, 2007; Laing & Kamhi, 2003; Roseberry-McKibbin & O’Hanlon, 2005).

Information on the expository language abilities of African American school-age children can increase the collective knowledge about the range of linguistic skills diverse groups of children may exhibit in a genre of discourse needed to be successful in academic environments. In addition, investigations of expository discourse in this population can provide an opportunity to identify nonbiased indicators of language performance that can guide clinical decision making when researchers or practitioners are working with children from culturally diverse backgrounds. The purpose of this study was to begin to fill this research gap through a preliminary description of the oral expository language skills of African American children at a critical period in language and literacy development—third and fourth grades.

WHAT IS KNOWN ABOUT EXPOSITORY LANGUAGE?

Existing studies of expository language have provided developmental descriptions of the productivity, syntactic complexity, and grammatical accuracy (i.e., microstructure features), as well as pragmatic aspects such as topic initiation, topic maintenance, informativeness, and coherence (i.e., macrostructure features; Gillam et al., 1999; Hadley, 1998; Nippold, 2010). Children producing expository language have been found to produce longer language samples and greater mean length of utterance than in conversational and narrative contexts (Bliss & McCabe, 2008; Nippold, Hesketh, Duthie, & Mansfield, 2005; Scott & Windsor, 2000). Analysis of expository language is also sensitive to developmental changes in complex sentence production and grammatical accuracy in typically developing children (Nippold et al., 2005; Scott &
Windsor, 2000; Westerveld & Moran, 2011, 2013). In addition, it can provide clinical indicators of language impairment (LI) in school-age children (Bliss & McCabe, 2008; Scott & Windsor, 2000).

Research that addresses the analysis of the pragmatic aspects of expository discourse, such as topic initiation, topic maintenance, informativeness, and coherence of expository language, is sorely lacking. Existing research on expository discourse that investigated pragmatic competence has uncovered language elements associated with informativeness and organizational structure as features that may be used to detect developmental changes and ability differences (Bliss & McCabe, 2008; Evans & Rubin, 1983; Moran & Gillon, 2010). Overall, children experiencing typical language development improve with age in their ability to produce informative, relevant content in their expository discourse. For example, Evans and Rubin (1983) conducted a cross-sectional study of expository language in children in Kindergarten and Grades 1, 4, and 8. Children in Kindergarten and Grade 1 were found to produce game explanations with fewer information units associated with game initiation, continuation, and termination than children in Grades 4 and 8.

Expository discourse also has been found to differentiate the pragmatic language skills of typically developing children from their peers with LI, traumatic brain injury (TBI), and language-based learning disability (LLD; Bliss & McCabe, 2008; Moran & Gillon, 2010; Ward-Lonergan, 2010). In contrast to the research on typically developing children, these comparative studies have investigated a wider range of language performance measures that include both pragmatic and syntactic aspects of expository discourse. When producing expository discourse, children with TBI and LLD recall and produce fewer units of key information, include irrelevant and repeated information, provide poor organizational structure, and fail to relate the main idea as compared with their typically developing peers (Moran & Gillon, 2010; Ward-Lonergan, 2010).

Using expository retells of the procedure for a game, Hay and Moran (2005) found that children and adolescents with TBI produced discourse containing fewer information units and with less intact episodic structure. In addition, their discourse samples were shorter and contained less syntactic complexity than the age-matched controls in the study.

Ward-Lonergan, Liles, and Anderson (1999) found that adolescents with LLD produced expository retells with fewer informational components and took longer to generate their retells than typically developing peers. Similar to the children and adolescents with TBI in the aforementioned study of Hay and Moran (2005), adolescents with LLD produced shorter, less syntactically complex discourse.

Bliss and McCabe (2008) used a favorite game or sport (FGS) expository generation task to analyze the language of children with LI. They compared the expository task with both narrative scripts and personal narratives. The investigators used a discourse coherence framework that identified topic maintenance, informativeness, and verbal fluency as universal measures of global discourse quality. They also analyzed the total number of communication units, total number of clauses, and syntactic complexity (as measured by the subordination index). The children with LI produced more communication units containing greater syntactic complexity in the expository condition. They also achieved higher average scores in topic maintenance in their expository discourse than their narratives. The students’ narrative and expository discourse, however, were not differentiated on the basis of informativeness. The results of this study, although limited by the absence of a typically developing comparison group and by the wide age range of the children, documented changes in language performance related to discourse context.

Syntactic elements of expository discourse, measured as sentence length or with the subordination index, have been shown to be sensitive to performance changes associated with age level and ability status (Hay &
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Moran, 2005; Nippold et al., 2005; Scott & Windsor, 2000; Ward-Lonergan et al., 1999). Analysis of pragmatic elements of expository discourse, such as topic initiation, topic maintenance, and informativeness, can reveal ability differences between typically developing children and children with LI. Although few studies have explored pragmatic aspects of expository language in typically developing children, some evidence supports the expectation that older children are able to produce more informative and coherent discourse than their younger peers (Evans & Rubin, 1983).

Some studies of expository discourse of children with LI also have investigated performance indicators that span syntactic and pragmatic aspects of language in these populations. As noted previously, children with LLD and TBI have been found to perform poorly on measures of both syntactic complexity and pragmatics when compared with typically developing peers (Hay & Moran, 2005; Ward-Lonergan et al., 1999). This research also has suggested an association between syntax and pragmatics, although this relationship has not been directly explored. Research has suggested that some children with general LI produce language that is more syntactically complex in expository discourse than in other genres, while having equal performance on pragmatic measures for expository and other genres, but this result is unconfirmed without typical controls (Bliss & McCabe, 2008).

These sparse and sometimes conflicting results highlight the need to gain a better understanding of typical and atypical acquisitions of particular aspects of pragmatic complexity in expository discourse. New research should include the ways in which syntactic features of language interact with discourse coherence.

EXPOSITORY LANGUAGE AND AFRICAN AMERICAN CHILDREN

The lack of studies regarding the spoken expository language skills of African American children represents a significant void in the literature. It leaves an incomplete picture of the linguistic and sociocultural variables that define language competence in this population of children. Language is culturally determined, and the sociocultural experiences of racial and linguistic minority subgroups may vary widely enough to yield significant intergroup differences in language use (Craig & Washington, 2006, p. 11; van Kleeck, Lange, & Schwarz, 2011).

Investigations of conversation and narratives of African American children have uncovered rich data about the sociocultural, dialectal, and developmental variables at play in the language of children with this cultural-linguistic heritage. For example, African American school-age speakers of African American English (AAE) produce both topic-centered and topic-associating narratives (Champion, 1998; Champion, Seymour, & Camarata, 1995; Hyon & Sulzby, 1994). They also cluster their use of AAE around distinctive phonological, morphological, and syntactic forms (Craig & Washington, 1994; Horton-Ikard & Miller, 2004; Oetting & Pruitt, 2005; Washington & Craig, 1994). Other evidence shows that they vary the amount of AAE used in a particular linguistic context (Thompson, Craig, & Washington, 2004; Washington, Craig, & Kushmaul, 1998). Finally, these students have been found to change the amount of AAE used as they progress through the elementary school years (Craig & Washington, 2004; Jackson & Pearson, 2010; Thompson et al., 2004).

Research also has highlighted the ways in which African American children, regardless of dialect use, are like their White, general American English (GAE)-speaking peers with respect to the production of conversation and narratives. African American school-age children, for example, construct texts of appropriate length (Smith, Lee, & McDade, 2001) and produce complex syntax in their language samples (Craig, Washington, & Thompson, 2005; Oetting & Newkirk, 2011; Smith et al., 2001). Research also shows that African American children use local cohesive devices to tie utterances together at levels commensurate with their White, GAE-speaking peers (Burns, de Villiers, Pearson, & Champion, 2012; Horton-Ikard, 2009).
PURPOSE OF THIS STUDY

Given the importance of expository language in the academic curriculum, study of the features of expository language in this population of children is timely. The curriculum of middle elementary school and beyond concentrates on expanding children’s ability to interpret, integrate, explain, and synthesize knowledge gained from a variety of complex, content-heavy expository texts (see National Governors Association Center for ..., 2010, p. 5). Examination of the language features associated with expository discourse may have important implications for clinicians and researchers. The goals of this investigation were to:

1. Describe the microstructure (productivity and syntax) and macrostructure (pragmatics and discourse quality) features present in the expository language of African American children and compare findings with the performance of children in the extant literature on the same task.

2. Explore the relationship among the various language measures produced by the children in the study.

METHODS

Participants

Twenty-one African American school-aged children who ranged in age from 8 years 2 months to 9 years 11 months, with an average age of 9 years 4 months ($SD = 0.1$ year 6 months), served as participants. These were the same children who participated in an earlier study in which the author investigated oral narrative and expository language skills of African American children (Koonce, 2012). In that study, third- and fourth-grade students were recruited from a single public elementary school in a small, suburban community near a major metropolitan area. The schoolwide student demographics for race and ethnicity were 96.6% African American, 0.3% Hispanic, 3% American Indian, and approximately 0.1% other, with 95% of the total student population eligible for free and reduced lunch. At the time of the study, the participants’ school was described as a high-performing, low-income learning environment according to state criteria (Smith, 2011). Parental consent adhering to a protocol approved by a university’s Human Subjects Institutional Review Board policies was obtained for all participants prior to their participation in the study.

All of the children were identified as typically developing according to parent and teacher reports and a review of school records. All of them were African American, monolingual speakers of English who were progressing at an appropriate rate in their respective grade curricula per teacher report. None of them had a history of hearing, visual, developmental, or acquired neurological impairments (e.g., such as cognitive disability, autism spectrum disorders, TBI, or progressive neurological disease), and none had a history of having received special education services or Response-to-Intervention services. Although it was not a focus of this investigation, all children in this study were also speakers of AAE as evidenced by the presence of at least four separate phonological or morphosyntactic AAE features in their conversational language samples. All of them were administered the *Peabody Picture Vocabulary Test–Fourth Edition* (PPVT-4; Dunn & Dunn, 2007) to ascertain information about their single-word, receptive vocabulary skills. Only children whose standard score on the PPVT-4 was 85 or more were included in the study. This group’s mean PPVT-4 score was 93.9 ($SD = 9.98$; range = 85–114).

Procedures

All samples were collected over a 4-week period during the first 9 weeks of the school year. Each child met individually with the author, a certified speech-language pathologist, in a quiet classroom at the school. The single session lasted between 30 and 45 min. During the session, written assent was obtained from each child. Rapport was established through
a short conversation with the child about a favorite movie, school field trip, or favorite family activity. After completion of the conversation, each participant produced one spoken expository language sample and one spoken narrative language sample. The session concluded with the administration of the PPVT-4 (Dunn & Dunn, 2007).

The procedure for eliciting the explanation of a “favorite game or sport” expository language sample followed the protocol developed by Nippold et al. (2005). The child was asked to name his or her FGS and then to tell why it was his or her favorite. After an examiner claim of unfamiliarity with the particulars of the game or sport, the child was asked to explain how to play it. Finally, the child was asked to tell the examiner everything that a good player would need to know to win the game or sport. Other than scripted prompts, the examiner only acted as an interested listener, making neutral comments as necessary to encourage the child to continue talking. Completion of the explanation was determined by a concluding statement made by the child (e.g., “And that’s all.”) or by adult verification (e.g., “Is that everything?”). The child was given as much time as needed to complete the explanation. All language samples were audio-recorded using an Olympus VN-6200PC digital voice recorder for later transcription and coding.

Data analysis

spoken expository language samples were orthographically transcribed verbatim, including maze words (e.g., um, er, uh, repeated words), by a graduate student in communication sciences and disorders who had been trained by the author in language sample transcription procedures used in the Systematic Analysis of Language Transcripts (SALT; Miller & Iglesias, 2010). Transcribed samples were separated into minimal terminable units (T-units) consisting of one main clause plus any subordinate clauses or nonclausal structures attached to or embedded within the main clause (Hunt, 1970). Only complete and intelligible T-units were used for analysis of productivity, syntactic, and pragmatic measures. The author hand-coded the clausal density (CD) of each utterance by identifying the main clause and any subordinating adverbia, relative, or object complement clauses present using SALT subordination index conventions. Then the transcripts were transferred into the SALT database (Miller & Iglesias, 2010) for analysis.

Language productivity

In this study, the total number of T-units (TNT) was used to measure language productivity. This particular measure for productivity was used to quantify how much an individual talked during a language sample. The TNT consists of the number of utterances produced in that same sample and is calculated automatically in SALT. This measure is used widely in the extant literature and can provide information regarding developmental and ability differences in children (Berman & Verhoeven, 2002; Nippold, 2009; Scott & Windsor, 2000).

Syntactic complexity

Research on the syntactic features present in the language samples of African American children has focused largely on identifying syntax at the word level (i.e., morphosyntactic features) associated with AAE. All participants in this study produced some features of AAE in their oral discourse samples; however, the presence of AAE linguistic features was not a focus of this investigation. Noncontrastive features of dialect are those language features that are shared by a standard language and a dialect of that language (Jackson & Pearson, 2010). Syntactic measures that represented noncontrastive features of language ability at the sentence level, mean length of T-unit (MLTU) and CD, were chosen for this study. Both MLTU and CD are believed to provide strong indicators of language ability compared with contrived tasks on standardized language tests for African American children (Craig & Washington, 1994; Smith et al., 2001). Mean length of T-unit in words (MLTU) was calculated by dividing the total number
of words produced in a language sample by the TNT. Clausal density was calculated by dividing the total number of main, adverbial, relative, and verb complement subordinate clauses by TNT, as in Berman and Nir-Sagiv (2007) and Scott and Windsor (2000). Both the MLTU and CD figures were calculated directly by the SALT program after hand-coding was completed for each language sample separately. Coded SALT samples for 2 students are shown in Appendix.

Pragmatic analysis

Three categories of discourse structure and manner of production were chosen for scoring the FGS task based on major components of expository discourse identified by Bliss and McCabe (2008): (1) topic maintenance, (2) informativeness, and (3) fluency. Topic maintenance was defined as the ability to maintain the topic introduced by the participant for the duration of the explanation. Informativeness was defined as the ability to relate relevant and accurate knowledge about topics introduced. The category of informativeness was further defined using essential components of games or sports used in discourse analyses undertaken in the research of Evans and Rubin (1983) and the Expository Scoring Scheme developed by Miller and Iglesias (2010). Fluency referred to the ability to produce a language sample that was relatively free of pauses, hesitations, or revisions. Each of the major categories received a scaled score of 0–4. A maximum of 4 points was possible in each category (see Supplemental Digital Content A, available at: http://links.lww.com/TLD/A42, for detailed scoring procedures).

Reliability

A random selection of 7 of the 21 expository language samples and their corresponding audio files were submitted to a second examiner to ensure accuracy of coding. The second examiner, a speech–language pathologist trained in the coding procedures for the study, listened to each of the expository audio files and independently coded the transcribed language samples for T-unit segmentation, CD, topic maintenance, informativeness, and fluency. Initial agreement for T-unit segmentation was 97%; however, because the T-unit provided the basis upon which the MLTU and CD measures were analyzed, discussion took place between the second examiner and the author until agreement reached 100%. Percent agreement was 92% for the number of clauses per T-unit, 90% for topic maintenance, 80% for informativeness, and 90% for fluency.

RESULTS

The aims of this study were two-fold: (1) to describe the microstructure (productivity and syntax) and macrostructure (pragmatics and discourse quality) features present in the expository language of African American children (with reference to the existing literature); and (2) to explore the relationship between the various language measures produced.

To pursue these aims, six variables were analyzed in a manner consistent with existing literature on language development in children. The TNT served as the dependent measure of productivity. Both mean length of T-unit in words (MLTU) and CD served as the measures of syntax. Topic maintenance (TOPIC) and informativeness (INFORM) served as the measures of discourse coherence, and fluency (FL) served as the measure of manner of production. The means, standard deviations, and ranges are displayed in Table 1.

Description of microstructure and macrostructure features

As an initial step to addressing the first aim, linear regression analyses were conducted for each language measure as the outcome variable, with age (in months) as the independent variable to ascertain whether the 8- and 9-year-old participants performed similarly enough on the expository language task to be treated as a single group. Simple linear regression revealed no significant age effects for the following: TNT, $r^2 = .067$, $F(1, 19) = 1.375$, $p = .255$; MLTU, $r^2 = .046$, $F(1, 19) = 0.911$, $p = .352$; CD, $r^2 = .034$, $F(1, 19) = 0.672$, $p = .422$.
Table 1. Means, standard deviations, and ranges for language measures produced by African American students in expository “Favorite Game or Sport” language samples

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
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<tbody>
<tr>
<td>TNT</td>
<td>38.95</td>
<td>14.76</td>
<td>21–68</td>
</tr>
<tr>
<td>MLTU</td>
<td>8.41</td>
<td>1.52</td>
<td>5.61–11.19</td>
</tr>
<tr>
<td>CD</td>
<td>1.75</td>
<td>0.28</td>
<td>1.21–2.25</td>
</tr>
<tr>
<td>TOPIC</td>
<td>3.24</td>
<td>0.94</td>
<td>1.0–4.0</td>
</tr>
<tr>
<td>INFORM</td>
<td>1.95</td>
<td>0.86</td>
<td>0.0–3.0</td>
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<tr>
<td>FL</td>
<td>2.76</td>
<td>0.77</td>
<td>1.0–4.0</td>
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Note: TNT = total number of T-units; MLTU = mean length of T-unit; CD = clausal density; TOPIC = topic maintenance; INFORM = informativeness; FL = fluency.

$p = .423$; TOPIC, $r^2 = .006$, $F(1, 19) = 0.121$, $p = .732$; INFORM, $r^2 = .023$, $F(1, 19) = 0.455$, $p = .508$; or FL, $r^2 = .001$, $F(1, 19) = 0.010$, $p = .921$. The nonsignificant results validated treating the children as one group for analysis.

On this expository discourse task, the average number of utterances produced was 38.95 ($SD = 14.76$; range = 21–68), and few verbal prompts were required to elicit the language samples. The majority of the children (16 of 21; 76%) produced discourse that was judged informational in structure. Of the remaining five children, four inserted minor narrative elements that appeared to draw on specific personal experiences playing the particular game or sport and one child produced a sample that consisted primarily of a personal experience narrative.

With regard to the aim to describe microstructure features, children in the study produced similar rates of syntactic complexity as measured by MLTU and CD as have been reported for children who identify as White or Caucasian. The 8- and 9-year-olds in this study produced an average MLTU of 8.41 ($SD = 1.52$), Nippold et al. (2005) found that children of similar age (7 years 8 months to 8 years 7 months) produced an average MLTU of 8.59. Younger children in Westerveld and Moran’s (2011) study produced CD of 1.82 and 11-year-olds produced CD of 1.66 in their FGS expository language samples. Heilmann and Malone (2014) reported CD of 1.7 in the expository language of a group of fifth-grade children using the FGS elicitation protocol.

With regard to the aim to describe macrostructure features, the students’ pragmatic skills, as measured in the study, earned a mean score of 3.24 ($SD = 0.94$) out of 4 points in topic maintenance and 2.75 ($SD = 0.77$) in fluency, also out of 4 points. Scores of informativeness were slightly lower, with children scoring, on average, 1.95 ($SD = 0.86$) out of 4 total points available. It was not possible to compare these findings with existing research on other populations because no studies were found that were similar enough in elicitation procedures or analysis methods to permit comparison.

Relationship among language measures

To address the second aim, Pearson product–moment correlations were computed to determine the strength and direction of associations among the language measures. These analyses revealed a range of strength in the relationships between pairs of variables. As anticipated, the two measures of syntactic ability were highly correlated. MLTU appeared to be a strong positive indicator of CD ($r = .84$). The correlation between TOPIC and INFORM ($r = .69$) indicated a strong positive relationship between the two measures. INFORM also showed a moderate positive correlation with the FL measure ($r = .51$). The measures of syntactic ability, MLTU and CD, did not correlate significantly with any of the measures of pragmatic ability (i.e., TOPIC, INFORM, or FL). The correlation coefficients are
Table 2. Correlations between language measures in expository “Favorite Game or Sport” language samples produced by 8- to 9-year-old African American students in expository “Favorite Game or Sport” language samples

<table>
<thead>
<tr>
<th></th>
<th>TNT</th>
<th>MLTU</th>
<th>CD</th>
<th>TOPIC</th>
<th>INFORM</th>
<th>FL</th>
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<tbody>
<tr>
<td>TNT</td>
<td>-</td>
<td>-.35</td>
<td>-.37</td>
<td>-.34</td>
<td>-.15</td>
<td>.24</td>
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<tr>
<td>MLTU</td>
<td>-</td>
<td></td>
<td>-.84**</td>
<td>.28</td>
<td>.36</td>
<td>.02</td>
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<tr>
<td>CD</td>
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<td>-.23</td>
<td>-.25</td>
<td>-.25</td>
<td>.06</td>
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<tr>
<td>TOPIC</td>
<td></td>
<td></td>
<td></td>
<td>-.69**</td>
<td>.36</td>
<td></td>
</tr>
<tr>
<td>INFORM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.51*</td>
<td></td>
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<tr>
<td>FL</td>
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Note. TNT = total number of T-units; MLTU = mean length of T-unit; CD = clausal density; TOPIC = topic maintenance; INFORM = informativeness; FL = fluency.

*p < .05. **p < .001.

displayed in Table 2. Partial correlations, controlling for sample length in TNT, did not alter the results. Collectively, these results indicate relative independence of syntactic and pragmatics elements within expository discourse.

DISCUSSION

The purpose of this investigation was to describe the productivity, syntactic, and pragmatic skills present in the expository language of African American school-age children. The children in the sample were enrolled in third or fourth grade and were also speakers of AAE. The results revealed that these children’s productivity, syntactic, and pragmatic language skills were comparable with children in the general population.

All children in the sample were able to produce extended discourse in response to the elicitation procedures. In the majority of language samples produced, the children provided rules, details, and strategies related to playing and winning their chosen game or sport with minimal verbal prompting. Some children produced relatively short samples, and others produced samples that were considerably longer (27 vs. 68 utterances). However, this variability in sample length is consistent with previous studies of expository language in younger and older school-age children (Heilmann & Malone, 2014; Nippold et al., 2005; Westerveld & Moran, 2011).

Children in the study produced MLTU at levels similar to those reported for children who identify as White or Caucasian from previous research on expository language. These findings, although not surprising, are encouraging and point to the stability of the MLTU measure produced during the FGS task across age and sociocultural variables. MLTU is often reported to be higher when produced in expository discourse than in conversation and narration in White children (Nippold et al., 2005; Scott & Windsor, 2000); no such firm conclusion can be drawn from this study with respect to MLTU in African American children because narrative discourse was not analyzed in this investigation. In a related study of oral language and reading comprehension in African American children (Koonce, 2012), however, I found similar levels of MLTU produced in narrative and expository discourse samples. Additionally, the tasks used in that investigation differed from those in comparative studies of White school-age children, so the results are not directly comparable (see Nippold et al., 2005; Scott & Windsor, 2000). Further research is needed to illuminate the level and nature of syntactic complexity in expository and narrative genres for African American children.
The results for CD in this group of children showed rates of CD commensurate with those produced by White children in other studies. This performance lends preliminary support to robust levels of complex sentence production in the expository language of African American children and echoes results of investigations of sentence complexity in preschool and school-age African American children (Craig & Washington, 1994; Craig et al., 2005). Complex sentence production produced in spoken language has been identified as related to literacy outcomes of White children (see Scott & Koonce, 2013 for a review) and African American children (Craig, Connor, & Washington, 2003; Gardner-Neblett, Pungello, & Iruka, 2011; Hester, 2010; Koonce, 2012). Continued research on complex sentence production as revealed by CD measures is an important contribution to the research on the language and literacy skills of school-age children, particularly those who are African American. In light of national reports that African American children underperform on high-stakes standardized reading and other academic skills, it is important to present areas of strength in linguistic skill that can be used to inform educational practices.

Measures of productivity and syntax are frequently found in the literature; however, this study was particularly aimed at documenting pragmatic skills in the expository language of a group of African American school-age children. These pragmatic skills were investigated using the framework of discourse coherence developed by Bliss and McCabe (2008) and focused specifically on topic maintenance, informativeness, and fluency. In this study, participants demonstrated the ability to stay on topic throughout their explanations and to produce extended language that was free of excessive revisions, fillers, or pauses. Scores of informativeness were lower than scores of topic maintenance and fluency produced in the participants’ expository explanations. This result is not entirely surprising, given that informativeness, as measured in the study, required a relatively high level of pragmatic skill. To score points in informativeness, children had to provide specific verbal information that would adequately instruct a naive player in initiating, sustaining, winning, and terminating play of the game or sport introduced. It is unclear, at this point, whether the more modest informativeness scores in this sample are characteristic of typical performance for 8- and 9-year-olds in the broader population of African American children.

There is some evidence from the extant literature that informativeness may still be a developing skill in the middle elementary years, regardless of cultural linguistic group. In their spontaneous explanations of the relatively simple childhood games of Simon Says and Musical Chairs, fourth graders in Evans and Rubin’s (1983) study provided significantly more required game components than kindergarten and first graders; yet, they were still outperformed by eighth graders. This suggests that typically developing children in the latter stages of elementary school continue to exhibit some performance growth when asked to include necessary details of game play.

Children with LI in Bliss and McCabe’s (2008) study earned a mean score on the informativeness measure of 2.31 compared with the mean score of 1.95 for children in this study. Because this study used an adaptation of Bliss and McCabe’s discourse coherence rating rubric to analyze the expository language samples, these results were measured on a similar scale. However, there were some differences in the measures. This study integrated the concept of essential components of a game derived from the research of Evans and Rubin (1983) and Miller and Iglesias’ (2010) Expository Scoring Scheme into each point value (0–4) on the scoring rubric. These essential components were defined as information that related to the objective of game, equipment/materials required, game initiation, players, rules, violations, strategies to win, and end of play. No such required components were specifically outlined in Bliss and McCabe’s study. These definitional differences in informativeness may have depressed the scores for participants in this study by placing a higher threshold on ratings of informativeness than was present in Bliss and McCabe’s (2008)
study. Further research that explores age and ability variables as well as pragmatic analysis methods will help clarify these findings.

The second aim of this study focused on exploring whether a relationship existed between syntactic and pragmatic features of expository discourse produced by African American school-age children. To date, studies of typically developing children have focused largely on features of language such as productivity and syntax. Although these studies have contributed normative information on the nature of these language features and have documented developmental changes, the question remains whether longer samples with longer utterances and more complex syntax are associated with higher scores on quality indicators for pragmatic aspects of discourse use.

The results of this study indicated that syntax and pragmatics were quite separate processes. The syntactic measures of MLTU and CD were predictably strongly correlated. This was consistent with studies of complex syntax (Heilmann, Miller, & Nockerts, 2010). The pragmatic measures of topic maintenance and informativeness demonstrated a strong relationship with each other, as did informativeness and fluency. Overall, on-topic explanations tended to be rated as informative, and vice versa. Informativeness also tended to be rated as fluent, that is, they were rated as having fewer hesitations, pauses, and revisions. None of the syntactic measures was correlated with the pragmatic measures in this study.

Although far from conclusive, these results point to the relative independence between pragmatic and syntactic components of language. Well-developed syntactic skills did not appear to relate directly to the measures of pragmatic effectiveness of the communication interaction in this study. Another interpretation is that pragmatic effectiveness was not associated with more complex syntactic skills. An individual may well be able to meaningfully and effectively communicate without using increasingly complex syntactic devices in his or her discourse. Research that compares different pragmatic analyses and their relationship to syntactic features of language for culturally diverse populations would be an important addition to the research literature on the form-function relationship in expository language.

Limitations

The results of this study are limited by at least four factors. First, the sample size for the study was small. Second, the participants were all speakers of AAE and from low socioeconomic background, limiting the generalizability of results to the greater population of African American children from varying social classes and dialect communities. Third, the discourse coherence framework used to analyze the pragmatic aspects of language had not been previously applied to expository language in typically developing children, prohibiting direct comparisons. Fourth, the rating rubric developed for this study more extensively defined aspects of pragmatics, particularly informativeness, than the original scoring system described and developed by Bliss and McCabe (2008), limiting comparison of results across studies. This study, however, revealed another rich landscape for the examination of language development in African American children and provides a springboard for future research on linguistic skills in this population.

CONCLUSION

The results of this investigation have provided new information on the expository language skills of African American school-age children. Data in this study provided evidence that African American children produce expository language in the form of explanations that is similar in productivity and syntactic complexity to their White peers in the research literature. This study also examined pragmatic aspects of expository language. The African American children in the study displayed good ability to produce on-topic and fluent language samples; although their explanations revealed emerging skills in the
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area of informativeness. The research undertaken also explored a potential relationship between syntactic and pragmatic aspects of language and found evidence of dissociation of the two components.

Data on the expository language skills of African American children are a new and much needed addition to research on this diverse group of speakers. The results of this study provide evidence of the usefulness of the FGS task for eliciting expository language and evaluating syntactic and pragmatic elements in the discourse of African American children.

REFERENCES


**Appendix**

Female, 9:6
C My favorite game is a board game like the game Life because it’s almost like your real life [S1–2].
C But it’s just on a board [S0–1].
C Life is a game that you play [S0–2].
C (like) it could be two or more players [S0–1].
E mm
C It depends on how many you have [S0–2].
C And you could have kids [S0–1].
C You could have a wife [S0–1].
C You could be a boy or a girl [S0–1].
C You could go to college [S0–1].
C (Um) you could be a doctor [S0–1].
C You could be a preacher [S0–1].
C You could go to church [S0–1].
E mm
C The only cars that you have to pick is (like) pink or blue [S0–2].
C A girl is the pink [S0–1].
C And a boy is the blue [S0–1].
E Ok.
C And then you have to (like) pull a card [S0–1].
C And if it say go back one step that you have to go back one step [S0–2].
C And (it’ll say) it’ll be colorful little bridges and (like) a number-spinner that you have to spin [S0–2].
E Ok.
= C starts to laugh
E You’re doing a good job.
E So tell me what else because I’m, I’m kind of getting it.
C And the rules are that you can’t move (without spinning) without spinning the wheel or pulling a card [S0–2].
Male, 9:4
C (Um) I like Uno because it’s like color cards [S0–1].
C And (when you play it) when you throw out a card and if the card is blue then the other person gotta (um) throws out card that’s blue [S0–3].
E Ok.
C And (if) their card is not blue then they got to pick up a card [S0–2].
C ‘And’ [S1–5].
= C pauses
C Six people could play [S0–1].
E Ok.
C And (um) it’s like (a) in this (um) card game [S0–1].
E mm
C (And you) and it’s (like) it’s a bunch of colors and stuff [S0–1].
E Ok.
C And (what you need is like) it’s a hand game [S0–1].
E Ok.
C And (um) and you could (um) and you could (um) you could (um) pick up cards that you want to.
C And (you) then if you throw out (like a) two and it got a plus on it, somebody gotta (um) pick up two cards [S0–2].

**Appendix.** Expository language sample excerpts.