STUDENT FACILITATION AND PREDICTORS OF ENGAGEMENT IN PEER-LED LITERATURE CIRCLE DISCUSSIONS

Chase Young, B.A., M.S. Ed.

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APPROVED:

Kathleen A. J. Mohr, Major Professor
James Laney, Minor Professor
Connie Briggs, Committee Member
Lisbeth Dixon-Krauss, Committee Member
Nancy Nelson, Chair of the Department of Teacher Education and Administration
Jerry Thomas, Dean of the College of Education
Mark Wardell, Dean of the Toulouse Graduate School
The purpose of this research was to examine the relation between students’ personality traits and the extent of their engagement and facilitation in peer-led literature circle discussions. The research was guided by two questions. To what extent do reading ability, gender, and personality traits predict the quality of verbal engagement in literature circles? and How do highly engaged participants facilitate discussion in the circles?

The researcher video-taped 17 fourth-grade students’ literature circle discussions for a total of 136.7 minutes collected on two separate occasions across two weeks. To answer the first question student contributions in discussions were quantified into a measure of quality of verbal engagement score (cf. Costa & Kallick, 2000). This quality of verbal engagement score served as the dependent variable in a multiple regression. The seven independent variables were (1) extroversion, (2) agreeableness, (3) conscientiousness, (4) emotional stability, (5) openness, (6) reading ability, and (7) gender. The quantitative analysis in this study revealed that emotional stability was the only significant variable that predicted higher quality of verbal engagement. A post hoc analysis that included group size as an additional variable revealed that groups composed of three members correlated with higher overall quality of verbal engagement. The second question was answered through a qualitative analysis of the following: exploratory talk, elaborative feedback, topic management, confessional, and
accountability. Results of this analysis suggest that highly engaged students frequently enhance the group discussions through facilitation.

This study extended the extant research by investigating individual factors that may influence the quality of literature circle discussions as well as suggested a framework for understanding facilitation in peer-led literature circle discussions. Further research is needed to determine the influence of group size and personality on varying grade levels.
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STUDENT FACILITATION AND PREDICTORS OF ENGAGEMENT IN PEER-LED LITERATURE CIRCLE DISCUSSIONS

Research in literature circles has typically focused on implementation and design (Almasi, O'Flahavan, & Arya, 2001; Bond, 2001; Brabham & Villaume, 2000; Burns, 1998; Clark, 2009; Daniels, 2002). Early research by Daniels (1994) suggested roles to initiate conversations, but subsequent research promoted open-discussions through less restrictive preparatory methods and targeted mini-lessons (Evans, 2002). Findings on student perceptions of literature circles usually note that students enjoy literature circles (Daniels, 2002; Flowerday, Schraw, & Stevens, 2004; Peralta-Nash & Dutch, 2000).

While it is helpful to know that students and teachers tend to enjoy literature circles, it is important to determine whether the instructional activity enhances the comprehension of the discussants. A team of teachers and researchers (Paradis, Chatton, Boswell, Smith, & Yovich, 1991) collaborated to devise a rubric that monitored comprehension during discussion. The researchers identified descriptors for five categories of comprehension including main idea, association, elaboration, reaction, and application. The researchers concluded that measuring comprehension in the context of a discussion is difficult. Subsequent research (McElvain, 2010) used a pre/post-test to measure comprehension. McElvain studied the resulting comprehension from literature circle discussions and indicated that students were in fact developing their understanding of the text through dialogue, a finding that aligns with social constructivist theory (Vygotsky, 1978).
According to social constructivist theory, learning occurs through social interaction. Learning in socially interactive contexts can be conceptualized in several ways. Vygotsky (1978) identified four major aspects of learning 1) the zone of proximal development (ZPD), 2) semiotic mediation, 3) concept development, and 4) internalization. The ZPD is the zone in which a child can achieve success in learning when aided by a knowledgeable other. According to this tenant, a knowledgeable other is recommended for maximum learning; therefore, instructional practices need to provide opportunities for students to engage in collaborative interaction. Typically, when initiating literature circles, the teacher assumes the role of the knowledgeable other and models interaction for the students through mini-lessons and other demonstrations (Dixon-Krauss, 1996).

Scaffolding, a construct attributed to Bruner (Wood, Bruner, & Ross, 1976) relates to Vygotsky’s (1978) notion of ZPD, and is a metaphor for providing needed support to students in an effort to maximize their success with challenging tasks. Scaffolding begins with the teacher’s curricular decisions based on students’ needs. For example, if students are proficient in teacher-led classroom literature discussions, then a teacher might decide that literature circles would be an appropriate next step. But, implementing literature circles in elementary classrooms is a difficult task due to complex variables, and in many cases requires a period of trial and error (Clarke & Holwadel, 2007) as a teacher makes a challenging task achievable—an important process in scaffolding (Wood et al., 1976). The use of mini-lessons and student preparatory
methods can help diminish the difficult transition to peer-led discussions (Burns, 1998; Clarke & Holwadel, 2007; Maloch, 2002).

The transition to independence begins with a knowledgeable other supporting a novice on a difficult task. The knowledgeable other has more experience with the task or is more suited for the task than the novice. In addition to having experience, teachers are skilled at guiding the novice to a better understanding of a concept or process (Wood et al., 1976). The knowledgeable other does not necessarily dominate the instructional episode, rather the other facilitates the learning by calibrating the difficulty and guiding a learner through a particular task. Ideally, the teacher then slowly removes scaffolds when appropriate which ultimately leads to student independence.

Researchers have investigated whether students scaffold their peers on instructional tasks. Gnadinger (2008) used the six means of assisted performance developed by Tharp and Gallimore (1998) to analyze students’ discourses. According to these researchers, adults used modeling, contingency managing, feedback, questioning, cognitive structuring, and instructing to aid students in performance. Gnadinger (2008) used the framework to determine whether students were similarly capable of scaffolding one another. Gnadinger observed students using the six means of assisted performance; therefore, the researcher concluded that students were, indeed, capable of scaffolding their peers. However, a teacher eventually removes scaffolds, and encourages students to become independent. Students may be less able to modify scaffolds, thus counterproductively recreating dependence for their peers, rather than moving toward independence. Perhaps then, teachers would not want students scaffolding one another.
Teachers scaffold students based on assessments, a function that students are not required to fulfill. Indeed, researchers (Li et al., 2007) examined different supportive roles in peer-led groups that were defined as leadership, rather than scaffolding.

Li et al. (2007) investigated individual functions in small group tasks. The researchers used the five functions of leadership that included turn management, argument development, planning and organizing, topic control, and acknowledgement, to determine whether leaders emerged in peer-led groups. Of the 12 groups studied, at least one leader emerged in all but one group. In the discussion, Li et al. contend that leaders could not be intentionally placed in groups because leaders could not be identified by fixed personality traits. They maintained that the dynamics of the group had a larger impact on student leadership. However, no research has clearly indicated that literature circle groups benefit from leaders or peer-scaffolding, so if students still require scaffolding, they may require teacher intervention (Maloch, 2002) rather than students reapplying scaffolds.

This study analyzed students’ discourse for facilitative function rather than scaffolding or leadership. In related research, Clifton (2006) studied group facilitation and found some common themes. For example according to Clifton, facilitators asked referential questions, asked for instruction, and shared responsibility. The goal of the facilitation was not to dominate the group, or to support other students with teacher-like instruction through scaffolding. Facilitation served to enhance and perpetuate discussions. While Li et al. (2007) assert that personality inventories cannot identify
leaders, perhaps an inventory could identify personalities types that help facilitate discussion rather than lead it.

The five factor model is measured by the “Big Five” and is a common measure of personality (Anusic, Shimmack, Pinkus, & Lockwood, 2009). The five factor model was originally established in the late 1940s (Fiske, 1949). The Big Five personality traits are extroversion, agreeableness, conscientiousness, emotional stability (also referred to as neuroticism), and openness. According to this model, extroverted students are enthusiastic and energetic. Agreeableness is understood as compassion and the ability to cooperate. When a student is efficient and organized, he/she is described as conscientious; therefore, a lack of conscientiousness would be characterized by disorganization, carelessness, and spontaneity. Emotionally stable students are secure and confident. Openness measures a student’s propensity to enjoy new experiences or the level of curiosity a student exhibits (Anusic et al., 2009; Barbaranelli, Caprara, Rabasca, & Pastorelli, 2003). These classifications have been used to rate personality in a variety of fields, such as sociology, psychology, marketing, entrepreneurship, and education (GoslingLab, 2012). The model is also a reliable means for measuring personality traits in adults and children (Digman & Inouye, 1986).

The problem with unproductive literature circles is that the activity requires time amount during the instructional day, and teachers need to efficiently and effectively implement instructional activities to achieve their goals for student learning. It would be beneficial to determine which students contribute the most to quality literature discussions and whether their personalities predict the higher quality of verbal
engagement in order to group students accordingly. In a pilot study conducted with third-graders, a regression correlated higher reading ability, increased extroversion, and lack of conscientiousness with increased quality of verbal engagement; therefore this expanded study sought to corroborate findings and discern a more efficient group configuration method. Moreover, the current study considered group size in a post hoc analysis as an additional configuration factor. Prior to this study, researchers had not empirically studied literature circle group size.

This research should serve to expand the extant literature circle research by investigating students as facilitators and their personalities. The functions of a student facilitator have not been clearly defined in extant research beyond an intuitive inference that facilitators enhance discussions. Facilitation enhances, deepens, and perpetuates discussion. The current study identified personality traits that predict higher quality of engagement and examined the functions of students’ discourse to better understand how students facilitate peer-led literature discussions.

Method

In the first part of this study, the researcher used correlational statistics to determine the predictors of engagement in peer-led literature circles. The researcher conducted a discourse analysis in the second part of the study to investigate student facilitation in peer-led discussions. The study expanded on the pilot project by researching a higher grade-level, and limiting the subjects to qualitatively analyze the discussions in more depth.
The Pilot Study

To explore the influence of student personality on literature circles discussions, a pilot study investigated how reading ability and personality traits predicted the quality of verbal discussions of 29 third-graders in small group, peer-led literature circles. Before the peer-led discussions, the researcher administered a personality inventory. Twenty-seven minutes of seven third-grade literature circle discussions were recorded, transcribed, and coded. Coded statements and questions were quantified as individual student quality of engagement scores. Through multiple linear regression, the analysis was conducted to determine the best predictors of quality verbal engagement in literature circle discussions. Results indicated that higher reading ability and extroversion, along with lack of conscientiousness, were significant predictors of quality verbal engagement in literature circle discussions. However, findings were unclear on how personality factors influenced the quality of interaction outside the context of third-grade.

The current study was conducted to provide a more in-depth analysis of the facilitative behaviors exhibited by fourth-grade students demonstrating higher-quality verbal engagement. This study is similar to the pilot study in design, but gender provided an additional independent variable. This study focused on the following two questions: (a) to what extent did personality factors, reading proficiency, and gender explain the quality of verbal engagement in literature circle discussions?, and (b) how did students facilitate peer-led literature circle discussions?
Context and Participants

The study was conducted in a suburban school district in the Southwest. The elementary school was located in a middle-class neighborhood serving 18% economically disadvantaged students. Student ethnicity in the school were 58% white (non-Hispanic), 19% Hispanic, 14% black (non-Hispanic), 8% Asian/Pacific Islander, and <1% Native American.

The research participants were students at the school where the author worked as a second-grade teacher. Maverick Elementary (a pseudonym) used the district-adopted language arts textbook, *Texas Treasures* (Macmillan/McGraw-Hill, 2011), and teachers were encouraged to use best practices, which include innovative teaching strategies created at the school and classroom level. The district language arts coordinator strongly recommended the implementation of literature circles. Literature circle information, videos, and lesson plans were available on the district language arts web site. In addition to the web resources, professional development in literature circles has been available to teachers and was provided during the summer prior to the research.

*The Classroom*

Mrs. Mack was a fourth grade language arts teacher with 14 years of experience. Her grade level was departmentalized, so she was responsible for teaching language arts to two separate homerooms. Both of her classes participated in literature circles. Mrs. Mack’s goal for literature circles was “to create and support the environment for analytical (higher-level) thinking and reading skills through a community of readers,
affording the unique opportunity for sharing and learning with peers, and thus creating the optimal self-directed, student-choice learning situation.” She did not use assigned student roles and encouraged open discussion. She typically required students to write down any “burning questions,” interesting quotes, or unknown vocabulary words prior to literature circle discussions. The students were grouped based on book choice and reading level. Before the students made their choices, the teacher assembled texts that she thought were high-quality, relatively new, and were of appropriate readability. She allowed students to choose their books, but limited the number of choices based on individual students’ reading abilities, and thus the teacher’s assessment of students’ reading ability indicated that students would be able comprehend the text.

At the time of the study, the students had been using literature circles for seven months, and many of the students had participated in literature circles the prior year while in third grade. The fourth-grade teacher and the researcher considered the students to be well-practiced discussants. The students were familiar with the routines and the expectations from the teacher. All of the students knew the researcher because he taught a second grade class. That class and the participating teacher’s fourth-grade class met each Friday for Readers Theater (Young & Rasinski, 2009) performances. The teachers often filmed the performances; therefore, the students also had experience being video-taped.

On literature circle discussion days, the students sat in their self-selected groups in isolated parts of the room and began their discussions. Although the teacher was present in the room, she did not intervene. There was no rule about who went first, or any prescribed order to turn taking. However, the school used Ron Clark’s (2003) Essential
55 for behavior management. Essentially, Clark identified 55 rules as necessary for respectful behavior. Some of the relevant rules for literature circles included making eye contact with the speaker, respecting and responding to other students’ comments, and learning from your mistakes. The researcher observed adherence to these rules during discussions. Mrs. Mack also expected students to be prepared for the discussions by reading the assigned chapters, and writing down required statements and questions for the discussions. The discussions ended when students had nothing left to discuss. Students would ask the groups whether they had any other responses or questions. Once all comments or questions were verbalized, the students considered the discussion complete. After the students completed their discussions, they dispersed and knew to do their independent reading.

Instrumentation

*Ten Item Personality Inventory*

Prior to videotaping the literature circles, the researcher measured the Big-Five personality traits with the Ten Item Personality Inventory (TIPI; Gosling et al., 2003). The inventory was administered to all students who consented and participated in the study. The resulting profiles indicated levels of extroversion, agreeableness, conscientiousness, emotional stability, and openness. Because the language used on the survey was potentially difficult to comprehend for an intermediate grade student, synonyms and the example sentences from the *American Heritage Children’s Thesaurus* (Houghton-Mifflin, 2007) were read in conjunction with each of the 10 items (Figure 1).
The example sentences aided students in understanding the meanings of the items. The inventory is a self-reported measure and was also used in the author’s pilot study with the teachers agreeing to 100% of the self-reported responses. Due to the reliability of the self-reported responses in the pilot project, so the researcher did not require teachers to confirm the student responses.

<table>
<thead>
<tr>
<th>Trait</th>
<th>Synonyms</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverted, enthusiastic</td>
<td>Passionate, excited</td>
<td>My dog always gives me an enthusiastic welcome when I get home.</td>
</tr>
<tr>
<td>Critical, quarrelsome</td>
<td>Judgmental, disapproving</td>
<td>The librarian was critical of the plan to save money by ordering fewer books.</td>
</tr>
<tr>
<td>Dependable, self-disciplined</td>
<td>Trustworthy</td>
<td>A dependable friend will always be there in a time of need.</td>
</tr>
<tr>
<td>Anxious, easily upset</td>
<td>Worried</td>
<td>Ross was anxious about his visit to the doctor.</td>
</tr>
<tr>
<td>Reserved, quiet</td>
<td>Shy</td>
<td>He did not act out much, he was quiet and reserved.</td>
</tr>
<tr>
<td>Sympathetic, warm</td>
<td>Concern for others, understanding</td>
<td>My friends were very sympathetic when I had my tonsils removed.</td>
</tr>
<tr>
<td>Disorganized, careless</td>
<td>Unorganized, forgetful</td>
<td>It was careless of the circus performer to leave the tiger’s cage unlocked.</td>
</tr>
<tr>
<td>Calm, emotionally stable</td>
<td>Unworried</td>
<td>Danielle was the only one who remained calm when the fire alarm went off.</td>
</tr>
<tr>
<td>Conventional, uncreative</td>
<td>Standard, normal, regular</td>
<td>My parents thought about getting married in a hot air balloon, but they settled on a more conventional wedding in a church.</td>
</tr>
<tr>
<td>Open to new experiences,</td>
<td>No synonym</td>
<td>We went skydiving because we liked new experiences.</td>
</tr>
</tbody>
</table>

*Figure 1.* Prompt key for the Ten Item Personality Inventory.
**Measure of Academic Progress**

This project used the spring 2012 administration of the Measure of Academic Progress (MAP; Northwest Evaluation Association, 2011) to determine students’ reading achievement. The Reading MAP test is a computer assessment that assesses student reading achievement and progress based on grade-level norms. The MAP provides a percentile score based on the normed performance of students at the same grade level. The test is an adaptive test using item-response theory where the test reacts to student responses, thus becoming more difficult or easier depending on prior student performance. The assessment produces a variety of reading measures including the percentile score used in this study. The MAP test-retest reliability ranges from .76-.93. Ideally, reliability should not fall below .80, but the authors explain that the reported range is due to the test question sets being different at each administration. The reported average Pearson correlation coefficient is .85, with a range of .69-.80, statistically demonstrating the test’s acceptable reliability and validity (Northwest Evaluation Association, 2011).

**Video Recording Literature Circle Discussions**

Having obtained the Big Five and MAP scores for student participants, the researcher followed a filming schedule created with the participating classroom teacher. The goal was to film discussions that occurred during the beginning and the end of the selected texts because the content of discussions vary at different times in the book. For example, a discussion at the beginning of the book might focus on character analysis as
readers get to know the characters. However, a discussion at the end of the book may focus more on the evolving plot. A total of 17 students in five groups were filmed in their assigned classroom during regular school days. Each scheduled group of students engaged in a discussion about the respective texts listed in Table 1. The teacher filmed the students’ discussion in their entirety on two separate occasions. The teacher did not require students to follow any order during their discussions and students engaged in topics of their own choosing. The length of each discussion was determined by how much the students needed or wanted to talk about. The discussions ranged from approximately 5 to 30 minutes.

Table 1

*Description of Literature*

<table>
<thead>
<tr>
<th>Title</th>
<th>Grade Level Equivalent</th>
<th>Pages</th>
<th>Genre</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Joey Pigza Loses Control</em> (Gantos, 2000)</td>
<td>5.2</td>
<td>224</td>
<td>Realistic Fiction</td>
</tr>
<tr>
<td><em>Ghost’s Grave</em> (Kehret, 2007)</td>
<td>6.1</td>
<td>224</td>
<td>Fantasy</td>
</tr>
<tr>
<td><em>Closed for the Season</em> (Hahn, 2009)</td>
<td>4.2</td>
<td>192</td>
<td>Fantasy</td>
</tr>
<tr>
<td><em>Operation Yes</em> (Holmes, 2009)</td>
<td>4.5</td>
<td>256</td>
<td>Realistic Fiction</td>
</tr>
<tr>
<td><em>Toys Go Out</em> (Jenkins &amp; Zelinsky, 2006)</td>
<td>4.0</td>
<td>144</td>
<td>Adventure Fiction</td>
</tr>
</tbody>
</table>

Analyses

*Correlation between Factors and Quality of Verbal Engagement*

In order to render a quality of engagement score, the discussions were coded
based on the quality of student contributions (see Table 2). The quality engagement scores were based on the three-story intellect (Costa & Kallick, 2000). Statements and questions were awarded one, two, or three points (Figure 2) based on characteristics of students’ contributions. According to Costa and Kallick, the first story or level is an input level that focuses on recall of text information. Some examples of level-one contributions include: recall, describe, name, or identify. The next level, processing, requires higher-level thought from the reader. In this case, the reader was required to summarize, compare, sequence, infer, or analyze. The third level requires output. Some examples of this level include: evaluating, speculating, predicting, generalizing, or judging. Students’ questions were coded according to the elicited cognitive processes. For example, if a student asked, “Do you think Joey (character) will ever calm down?” then a score of 3 was assigned because the question expected a text-based prediction. Although the student was not making a prediction himself, he was using higher-level questioning to extend the discussion (Figure 2). All discrepancies were scored in favor of the student. For example, a level 3 prediction might also be considered a level 2 inference; however, a score of 3 was assigned. The prediction required students to think hypothetically into the future, and thus extended a basic text inference. The scores for each student across both discussions were totaled into a Quality of Verbal Engagement (QVE) score.
Table 2

*Discourse Coding Scheme*

<table>
<thead>
<tr>
<th>Score</th>
<th>Level</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Input</td>
<td>Name, Recall, Restate, Reread, Locate, Describe, State, Inform, Define,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identify, List</td>
</tr>
<tr>
<td>2</td>
<td>Process</td>
<td>Compare, Contrast, Classify, Distinguish, Explain (Why), Infer, Sequence,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyze, Synthesize, Make Analogies, Reason</td>
</tr>
<tr>
<td>3</td>
<td>Output</td>
<td>Evaluate, Generalize, Imagine, Judge, Predict, Speculate, If/Then, Apply a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Principle, Hypothesize, Forecast, Idealize</td>
</tr>
</tbody>
</table>

Matt: What is A.G.? [Infer = 2] This solicits an inference.
Julie: Well, it didn’t really say that—it just said it was on the suitcase. [Recall = 1]
Jeremy: Well, first, Stanley just thought it was probably a word. [Recall = 1]
Julie: Maybe it’s like initials. [Infer = 2]
Jeremy: He thought it was Adgy. [Recall = 1]
Matt: It’s probably initials. [Infer = 2]

*Figure 2.* Coded example from *Holes* (Sachar, 2001; 1998) transcription.

The data, including reading percentiles, gender, and personality inventories, were analyzed through multiple linear regression in R (R Development Core Team, 2010). The QVE score served as the dependent variable, and the independent variables were 1) MAP percentile score, 2) extroversion, 3) agreeableness, 4) conscientiousness, 5) emotional stability, 6) openness and, 7) gender.

*Discourse Analysis of Contributions in Peer-Led Discussions*

The purpose of the second analysis was to explore the functions of highly engaged discussants in peer-led literature circles. The researcher’s original intent was to use a priori coding frameworks. First, the researcher coded the data based on the six means of assisted performance (Table 3; Tharp & Gallimore, 1988). However, the framework by Tharp and Gallimore was inadequate, and the researcher felt the
framework was being forced on the data. First, it was difficult to determine what
statements/questions could be considered modeling. Because thinking aloud is sometimes
considered modeling, every statement would have been coded as modeling. Conversely,
if modeling were considered intentional, then none of the contributions would have been
coded (Kucan, 1997). This conflict led the researcher to question the usability of the
framework (Tharp & Gallimore, 1988). Additionally, the feedback category was too
general, and simple responses such as, “I agree” were not deemed facilitative. “Cognitive
structuring” was defined as chunking tasks, a function rarely observed in the data.
Furthermore, the notion of “cognitive structuring” seemed more like group management,
and focused less on the restructuring of cognition. While considered a viable framework
at the outset, it became less because the researcher’s understanding of scaffolding
evolved throughout the course of this study. Originally, the researcher believed that
scaffolding was providing support for students, but realized that scaffolding is providing
support for students and then skillfully removing the supports to foster independence. In
the end, the researcher contended that the sophisticated process of scaffolding might
function better as the responsibility of the teacher.

Table 3

*Six Means of Assisted Performance*

<table>
<thead>
<tr>
<th></th>
<th>Tharp &amp; Gallimore (1988)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling</td>
<td></td>
</tr>
<tr>
<td>Contingency Managing</td>
<td></td>
</tr>
<tr>
<td>Feedback</td>
<td></td>
</tr>
<tr>
<td>Questioning</td>
<td></td>
</tr>
<tr>
<td>Cognitive Structuring</td>
<td></td>
</tr>
<tr>
<td>Instructing</td>
<td></td>
</tr>
</tbody>
</table>
The researcher then used Li et al.’s (Table 4; 2007) leadership qualities to code the data, but again, the framework was insufficient, as it did not capture the functions observed in the videos. Acknowledgement as a category seemed too general, and could encompass simple nods, a function that this researcher did not correlate with higher QVE. In the case of literature circles, planning and organizing was more the teacher’s responsibility, and therefore not useful for coding student behaviors. In the end, the researcher found that forcing existing frameworks on the data was inadequate, and sought to establish a new framework based on emergent themes. He then used the constant comparative method (Lincoln & Guba, 1985; Strauss & Corbin, 1994) that served to compare the data to existing frameworks (Costa & Kallick, 2000; Li et al., 2007; Tharp & Gallimore, 1988) and previous research (Maloch, 2002).

Table 4

<table>
<thead>
<tr>
<th>Leadership Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Li et al. (2007)</td>
</tr>
<tr>
<td>Planning and Organizing</td>
</tr>
<tr>
<td>Topic Control</td>
</tr>
<tr>
<td>Acknowledgement</td>
</tr>
<tr>
<td>Argument Development</td>
</tr>
<tr>
<td>Turn Management</td>
</tr>
</tbody>
</table>

In the revised coding process, the researcher first looked for themes by examining the contributions of the top five students (29% of the total number of students) who scored high in QVE. By looking at these particular students, the researcher was able to focus on the functions that were demonstrated by proficient contributors. One category answered the researchers initial concerns. How were topics being started? How and when
did topics change? The researcher realized that introducing and changing topics were necessary for a functional group, and thus the topic management category was added to the new facilitative framework. Topic management was similar to Li et al.’s function of topic control. However, topic management differed because the students used facilitative functions (exploratory talk and confessionals) as a means for topic change.

Another category that emerged was directly related to level 2 and 3 statements/questions (Costa & Kallick, 2000). The researcher originally named this category “high-level”. However, a distinction was made between self-initiated contributions, and those based on the contributions of others. High-level contributions that were self-initiated were unprovoked by others, and reflected the exploratory thoughts of the speaker. However, students that contributed high-level responses to these exploratory thoughts were building the conversation through feedback. Therefore, the “high-level” category was separated into exploratory talk and elaborative feedback. In related research, Maloch’s (2002) goal for literature circle discussions was to increase exploratory talk, and the exploratory talk function as determined in this research appeared to make the notion more explicit. Feedback was one of the six means of assisted performance presented by Tharp and Gallimore (1988), but this research viewed the elaborative dimension as integral for facilitation.

The researcher also observed an interesting phenomenon in some of the discussions, and instigated additional open coding. Students openly admitted to not comprehending aspects of the text. At first, this phenomenon was added to exploratory talk, but later separated and given a category of its own—confessionals. Lastly, the
researcher observed students managing the group. The talk could not be coded as exploratory talk, elaborative feedback, or confessionals, yet the talk appeared to facilitate the discussion. Therefore, the researcher coded accountability as category of its own. Although this category related to management, students who held other students accountable seemingly facilitated the discussion. For example, a non-participating student was asked what he thought about the relationship between two characters. He responded with an example of exploratory talk, which perpetuated the discussion.

While examining the top five students’ contributions, six categories emerged (Table 5). Via video-tape, the researcher observed students using exploratory talk, elaborative feedback, topic management, confessionals, and holding other group members accountable as well as non-facilitative talk. After the framework was established, the researcher recoded all the data (N=17) to confirm the usability of the facilitative functions framework.

Because students often used topic management in tandem with other facilitative functions, such as exploratory talk or confessionals, some statements/questions were coded twice. For example, a student may have changed the topic by admitting a misunderstanding, and thus the statement was coded as topic management and as a confessional. Consider the example from the data: Robert changed the topic in a discussion by asking, “Is his dad crazy or something?” The question was exploratory (speculative), but it also changed the subject.

The researcher did not include two coded categories as facilitative: simple feedback and unrelated. Statements that were considered feedback, but not elaborative
were not considered facilitative. For example, a student may have agreed or disagreed with another student, but did not elaborate on his/her reasoning. The two categories were collapsed and coded as non-facilitative.

Table 5

*Facilitative Functions*

<table>
<thead>
<tr>
<th>Facilitative Functions</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory Talk</td>
<td>Asking questions that are open ended that expect high-level responses and statements that are allow for debate</td>
</tr>
<tr>
<td>Elaborative Feedback</td>
<td>Agreeing or disagreeing and providing reasoning or text evidence</td>
</tr>
<tr>
<td>Topic Management</td>
<td>Introducing important topics and big ideas as well as changing topic when necessary</td>
</tr>
<tr>
<td>Confessionals</td>
<td>Admitting when meaning breaks down and asking for help from group members</td>
</tr>
<tr>
<td>Accountability</td>
<td>Making sure all group members participate and back up their contributions and questions with text-evidence</td>
</tr>
<tr>
<td>Non-Facilitative</td>
<td>Feedback that is not elaborative, and unrelated talk.</td>
</tr>
</tbody>
</table>

*Summary of Facilitative Codes*

*Exploratory talk* was observed when students asked high-level questions and contributed open-ended responses. The questions were considered high-level based on the three-story intellect (Costa & Kallick, 2000). Students asked questions that required processing from other group members. For example, students asked questions about the characters, “Why do you think Joey put his dog in the glove box?” This type of question required other students to infer, speculate, or make judgments. The statements in this category were open-ended. They were not definitive in nature, but prompted other students to debate or provide feedback. For example, instead of saying, “Joey was a boy,”
exploratory talk, “I kind of think Joey was crazy,” was more speculative.Exploratory statements were not derived directly from the text, but were the result of processing information from the text. Some of the processes included inferring, comparing, analyzing, or predicting. Statements and questions on the second and third level of the three-story intellect (Costa & Kallick, 2000) typically illustrated exploratory talk.

The researcher also observed elaborative feedback. This type was feedback was often observed when students agreed or disagreed with another group member’s contribution. However, students not only expressed their dis/agreement, but also followed up with reasoning or text evidence. Essentially, the student agreed or disagreed, and built a case based on his/her own logic or directed the other group members to the text for evidence to support thinking. The elaborative feedback went beyond a reply of, “yeah” or “I think that, too” by providing reasoning. The elaborative feedback sometimes resulted in debate, conflict resolution, or the reconciliation of misconceptions.

The researcher also observed topic management by students during the literature circle discussions. Topic management seemingly served two functions. Firstly, students introduced topics in an exploratory style. Topic changes that were introduced at a high level provided a foundation for debate or further exploration of a topic. The second most common function of topic management was focusing the discussion on main ideas. (The researcher had read the texts used by the groups, and observed the students discussing what the researcher believed to be the main points.)

When students verbalized their misconceptions or misunderstandings, the researched coded the contributions as confessionals. Students admitted to some sort of
misunderstanding regarding text, character motivations, or plot, and this typically
instigated other group members to offer feedback to enhance the student’s
comprehension of the text.

Finally, the researcher observed evidence of accountability. Accountability
manifested through students’ comments in two different ways. First, students verbally
required other group members to provide evidence or reasoning behind exploratory talk.
Moreover, students who shirked responsibility were given directives to contribute.

Results

Correlation between Factors and Quality of Verbal Engagement

The quantitative portion of this research was guided by the question: to what
extent do personality traits, reading ability, and gender predict the quality of verbal
engagement (QVE) in fourth-grade literature circles? The research conducted a linear
multiple regression (Crawley, 2007) analysis on data from 17 student’s (a) quality of
verbal engagement score, (b) reading percentile score, (d) gender code (1 for male, 2 for
female), and (d) ratings for each of the Big Five personality traits (Gosling et al., 2003).
See Table 6 for descriptive statistics. The QVE score was calculated by coding and
totaling students’ contributions. The high QVE standard deviation ($SD = 63.94$) led to a
question of normal distribution of the data. Therefore, the researcher tested for outliers.
Although the QVE scores ranged from a minimum of 4 to a maximum of 200, no outliers
were detected by the Bonferonni ($p < .05$). The data suggest that these fourth graders
varied considerably in the quality of their contributions in literature circle discussions.
Table 6

**Descriptive Statistics**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Median</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Verbal Engagement</td>
<td>77.00</td>
<td>80.59</td>
<td>63.94</td>
<td>Max=200 Min=4</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>88.00</td>
<td>80.18</td>
<td>18.12</td>
<td>Max=97 Min=40</td>
</tr>
<tr>
<td>Extroversion</td>
<td>5.50</td>
<td>5.21</td>
<td>1.34</td>
<td>Max=7 Min=2.5</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>5.50</td>
<td>5.38</td>
<td>1.05</td>
<td>Max=7 Min=4</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>6.00</td>
<td>5.71</td>
<td>0.87</td>
<td>Max=7 Min=4</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>5.00</td>
<td>4.82</td>
<td>1.78</td>
<td>Max=7 Min=2</td>
</tr>
<tr>
<td>Openness</td>
<td>6.00</td>
<td>5.53</td>
<td>1.37</td>
<td>Max=7 Min=1.5</td>
</tr>
</tbody>
</table>

The mean reading percentile score was 80.18 with a standard deviation of 18.12 (Table 6). On average, students were reading above the expectation for typical fourth-graders. As noted earlier, the QVE score had a substantial standard deviation, thus indicating that students’ contributions varied greatly in quality. The reported mean extroversion score of 5.21 indicates that the members were more extroverted than not, therefore many of the students may have been comfortable sharing in groups. Student mean scores in agreeableness, conscientiousness, and openness were also in the medium to high range. The descriptive statistics reveal that emotional stability had the largest standard deviation and lowest mean of the personality factors. Therefore, these students were generally more similar in the other personality factors than emotional stability.
The researcher collected a total of 136.7 minutes of footage from 10 sessions. The groups averaged 27.34 minutes of discussion. The discussions ranged from 5 minutes and 14 seconds to 28 minutes and 27 seconds. The groups ranged from three to six students. (Some individual student data were not included due to lack of consent.) The researcher coded the data using the three-story framework (Costa & Kallick, 2000) to quantify the QVE score for each student. A graduate student independently coded 10% of the data to establish inter-rater reliability. She used the three-story framework to code each student’s QVE in order to determine the reliability of the coding system. The coders were in 79% agreement, and discussed all discrepancies until agreeing on 100% of the items. The most common discrepancy was when the graduate student coded statements, such as “yeah” as a level 1, when the researcher had coded the statement a zero because the contribution was merely a confirmation. The other discrepancies were between level 2 inferences that could also be described as level 3 predictions. According to the three-story intellect (Costa & Kallick, 2000), however, predictions are different in this study. When the student’s verbalized output was hypothetical, it was coded as a prediction. For example, if the story says it is snowing, the reader can infer that it is winter. However, if student predicts that crops may later freeze due to a harsh winter, the reader has to think beyond the text and predict a future event.

Before continuing the quantitative analysis, the linear model assumptions were also tested to ensure the model was not misleading, biased, or inefficient (Crawley, 2007). Global tests of model assumptions (global statistic, skewness, kurtosis, heteroscedasticity, and link function) were all met. The variance inflation factor was
examined to test for multicollinearity and returned false. Models that have
multicollinearity, two or more highly correlated predictors, are not necessarily
problematic when examining the model as a whole (O’Brien, 2007), but the highly
correlated predictor variables cannot be analyzed individually because of the
multicollinearity. In this model, the variables were not highly correlated, so the analysis of
individual predictors was reliable.

The results of the quantitative analysis suggest that the regression model was not
significant, $p < .22$ (Table 7). However, there was one significant factor, emotional
stability, $p < .05$. Students with higher emotional stability, described as secure and
confident, provided more quality contributions.

Table 7

*Summary of Regression Model for Predictors of Quality Verbal Engagement (N = 17)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE(B)</th>
<th>$t$</th>
<th>Sig. ($p$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>-225.506</td>
<td>176.1773</td>
<td>-1.280</td>
<td>0.2326</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>0.3553</td>
<td>1.2357</td>
<td>0.288</td>
<td>0.7802</td>
</tr>
<tr>
<td>Gender</td>
<td>65.2633</td>
<td>40.0453</td>
<td>1.630</td>
<td>0.1376</td>
</tr>
<tr>
<td>Extroversion</td>
<td>-1.5330</td>
<td>14.1057</td>
<td>-0.109</td>
<td>0.9158</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>13.6397</td>
<td>15.0085</td>
<td>0.909</td>
<td>0.3871</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-13.1725</td>
<td>17.3985</td>
<td>-0.757</td>
<td>0.4683</td>
</tr>
<tr>
<td>Emotional stability</td>
<td>24.5089</td>
<td>10.3218</td>
<td>2.374</td>
<td>0.0416 *</td>
</tr>
<tr>
<td>Openness</td>
<td>13.9213</td>
<td>13.6722</td>
<td>1.018</td>
<td>0.3352</td>
</tr>
</tbody>
</table>

*Note. Significance code: ‘*’ 0.05, Multiple $R^2$: 0.5642, Adjusted $R^2$: 0.2252*
The model was circumspect because of the low degrees of freedom due to the limited number of participants in the study ($N = 17$). Even if the critical $p$-value were less than .05, the results cannot be generalized to larger populations because of the low power (.11).

Although only emotional stability was the statistically significant prediction within the model, there was a positive trend toward gender. Its positive correlation suggested that the fourth-grade girls were more likely to provide quality contributions in literature circle discussions, but further research is needed.

Another interesting factor was extroversion. The original pilot study (Young, 2010) revealed that increased extroversion predicted higher quality of verbal engagement ($p < .05$). Yet in the current study, as a student’s extroversion decreased, the quality of verbal engagement increased, but not at a significant level. In fact, the extroversion factor was insignificant when predicting variance ($p = .91$) in this case.

The model did not corroborate the pilot study results, nor was the model significant, thus no accurate inferences or correlations were revealed. A post hoc analysis was conducted to investigate whether size of the group would help explain the variance in quality of verbal engagement (Table 8). All the previous factors were included with group size as an additional factor. The global test of assumptions was accepted, and no outliers were detected.
Table 8

Summary of Post Hoc Regression Model (N = 17)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE(B)</th>
<th>t</th>
<th>Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>71.09155</td>
<td>143.78853</td>
<td>0.494</td>
<td>0.63430</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>-0.05581</td>
<td>0.82713</td>
<td>-0.067</td>
<td>0.94786</td>
</tr>
<tr>
<td>Group Size</td>
<td>-30.60642</td>
<td>8.65988</td>
<td>-3.534</td>
<td>0.00768 **</td>
</tr>
<tr>
<td>Gender</td>
<td>43.72194</td>
<td>27.23026</td>
<td>1.606</td>
<td>0.14702</td>
</tr>
<tr>
<td>Extroversion</td>
<td>4.47393</td>
<td>9.50153</td>
<td>0.471</td>
<td>0.65031</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>3.14734</td>
<td>10.38021</td>
<td>0.303</td>
<td>0.76947</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-9.09292</td>
<td>11.58818</td>
<td>-0.785</td>
<td>0.45525</td>
</tr>
<tr>
<td>Emotional stability</td>
<td>17.08167</td>
<td>7.15613</td>
<td>2.387</td>
<td>0.04406 *</td>
</tr>
<tr>
<td>Openness</td>
<td>2.33881</td>
<td>9.63545</td>
<td>0.243</td>
<td>0.81432</td>
</tr>
</tbody>
</table>

*Note. Significance codes: ** 0.01  * 0.05, Multiple $R^2$: 0.8299, Adjusted $R^2$: 0.6597*

The post hoc regression model revealed a significant $p$-value of .019. The multiple $R$-squared was .83 with an adjusted $R$-squared of .66. The model results showed that 66% of the variance was captured by the eight factors, two of which were significant. Emotional stability was still significant ($p < .05$). The additional factor, size, was significant at the $p < .01$ level indicating that the smaller the group size, the higher the quality of engagement. Although the smaller groups allowed for more turn taking by each individual, the QVE was not based on frequency, but on a total quality score.

The model showed that students in groups of three were correlated with higher verbal engagement in literature circle discussions. Also, students who were more
emotional stable tended to engage in discussions with a higher total QVE despite group size. Students in this study who were secure and confident contributed more to the discussions.

Discourse Analysis Using the Facilitative Functions

The researcher used the facilitative functions that emerged from the data to code the students’ discussions. The researcher was able to code 643 out of 704 contributions using the five facilitative functions (see Table 9).

Table 9

Frequency Count of Utterances Coded as Facilitative Talk

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory Talk</td>
<td>69</td>
<td>99</td>
<td>56</td>
<td>49</td>
<td>37</td>
<td>310</td>
</tr>
<tr>
<td>Elaborative Feedback</td>
<td>31</td>
<td>53</td>
<td>112</td>
<td>36</td>
<td>2</td>
<td>234</td>
</tr>
<tr>
<td>Topic Management</td>
<td>12</td>
<td>26</td>
<td>15</td>
<td>17</td>
<td>7</td>
<td>77</td>
</tr>
<tr>
<td>Confessionals</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Accountability</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Non-Facilitative</td>
<td>17</td>
<td>17</td>
<td>8</td>
<td>0</td>
<td>19</td>
<td>61</td>
</tr>
</tbody>
</table>

Some contributions were not coded because they were considered non-facilitative. The total scores in Table 9 indicate the how frequently each of the facilitative functions were used by the students. The totals reveal that the two most frequently used functions were exploratory talk and elaborative feedback. Students in the Ghost Grave (186) group used the facilitative functions 186 times, and students in the Closed for the Season group used
the facilitative functions 184 times, indicating that these groups used the functions more frequently than the other groups. The *Toys Go Out* group used the facilitative functions the least (47).

Total mean reading percentile scores were computed in Table 10, and were relatively close across the groups, except for the *Toys Go Out* (Jenkins & Zelinsky, 2006).

Table 10

**Group Data**

<table>
<thead>
<tr>
<th>Title</th>
<th>Gender</th>
<th>Duration (MM:SS)</th>
<th>Student Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Joey Pigza Loses Control</strong> (Gantos, 2000)</td>
<td>4 Males 1 Female</td>
<td>19:02</td>
<td>Robert 86 115</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mike 75 72</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Carol 86 34</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>David 97 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kevin 89 19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean 86.6 52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>%ile</th>
<th>QVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert</td>
<td>86</td>
<td>115</td>
</tr>
<tr>
<td>Mike</td>
<td>75</td>
<td>72</td>
</tr>
<tr>
<td>Carol</td>
<td>86</td>
<td>34</td>
</tr>
<tr>
<td>David</td>
<td>97</td>
<td>20</td>
</tr>
<tr>
<td>Kevin</td>
<td>89</td>
<td>19</td>
</tr>
<tr>
<td>Mean</td>
<td>86.6</td>
<td>52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>%ile</th>
<th>QVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephanie</td>
<td>48</td>
<td>200</td>
</tr>
<tr>
<td>Kacy</td>
<td>93</td>
<td>143</td>
</tr>
<tr>
<td>Hillary</td>
<td>60</td>
<td>52</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>77</td>
<td>117.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>%ile</th>
<th>QVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cassandra</td>
<td>81</td>
<td>191</td>
</tr>
<tr>
<td>Ryan</td>
<td>89</td>
<td>168</td>
</tr>
<tr>
<td>Excluded</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>85</td>
<td>179.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>%ile</th>
<th>QVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian</td>
<td>77</td>
<td>90</td>
</tr>
<tr>
<td>Carter</td>
<td>91</td>
<td>88</td>
</tr>
<tr>
<td>Randy</td>
<td>95</td>
<td>60</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>87.7</td>
<td>79.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>%ile</th>
<th>QVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andy</td>
<td>93</td>
<td>32</td>
</tr>
<tr>
<td>Billy</td>
<td>88</td>
<td>37</td>
</tr>
<tr>
<td>April</td>
<td>45</td>
<td>5</td>
</tr>
<tr>
<td>Molly</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>Excluded</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Excluded</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>66.5</td>
<td>19.5</td>
</tr>
</tbody>
</table>
However, two of the participants were excluded making it difficult to conclude whether the calculated mean represented the entire group. Nevertheless, the quantitative analysis revealed that reading ability was an insignificant independent variable in this fourth-grade class, and thus reading ability was not correlated with higher QVE. However, the researcher did not include time in the quantitative analysis, and it appeared to be a factor that could be related to the quality of verbal engagement score. Some groups talked for much longer than others, and thus students had a greater opportunity to contribute to the discussions; consequently, the following table controls for time and shows the QVE per minute as compared to the total recorded QVE (Table 11).

Table 11

<table>
<thead>
<tr>
<th>Title</th>
<th>QVE Per Minute ($m=10.52$)</th>
<th>Total QVE ($m=234$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joey Pigza Loses Control (Gantos, 2000)</td>
<td>13.66</td>
<td>260</td>
</tr>
<tr>
<td>Ghost’s Grave (Kehret, 2007)</td>
<td>10.34</td>
<td>435</td>
</tr>
<tr>
<td>Closed for the Season (Hahn, 2009)</td>
<td>9.51</td>
<td>359</td>
</tr>
<tr>
<td>Operation Yes (Holmes, 2009)</td>
<td>13.22</td>
<td>238</td>
</tr>
<tr>
<td>Toys Go Out (Jenkins &amp; Zelinsky, 2006)</td>
<td>5.90</td>
<td>78</td>
</tr>
</tbody>
</table>

The comparison reveals that the Toys Go Out (Jenkins & Zelinsky, 2006) group was lowest in QVE per minute and total QVE. Perhaps the lowered prevalence of facilitative functions was correlated with shorter discussion. Therefore, the researcher compared the Toys Go Out group and the Joey Pigza Loses Control (Gantos, 2000) group (Table 11) to better understand and compare the discourse in high-quality and lower quality discussions. The researcher observed that exploratory talk, topic management,
confessionals, and accountability were relatively similar. However, the researcher noticed that the amount of elaborative feedback and the contributions that were not considered facilitative were quite different.

The *Toys Go Out* (Jenkins & Zelinsky, 2006) group engaged in elaborative feedback 3.03% of the time indicating that the group did not offer elaborative feedback very often. In order to offer elaborative feedback, students must listen to other group members’ ideas and perpetuate the discussion with agreement or disagreement followed by reasoning or text evidence. After the researcher reviewed the data, he observed students in the group that often ignored exploratory talk by others in favor of their own. The discussion lacked cohesiveness and connectivity. It seemed to be chaos that did not organize into something other than its constituent parts. In other words, the students had a lot to say, but the talk was not directly related to the previous student’s contribution. Although the group’s discussion may not have been completely dysfunctional, it lacked the connectedness and depth of other observed literature circle discussions.

The *Toys Go Out* (Jenkins & Zelinsky, 2006) group also had a more non-facilitative contributions than the other four groups, indicating that the students were either having unrelated discussions or providing basic contributions, such as restating the text or offering simple confirmations. After reviewing the footage, the researcher noticed that students were talking about the text, and spent time recalling or restating the text. The statements were not provided as text evidence typical in elaborative feedback, so the researcher inferred that the group was disadvantaged by low-level contributions and lack of elaborative feedback. Perhaps the larger group size of six resulted in a more pedantic
and contrived discussion. The students were prepared for the discussion, but spent more time reading their journal entries than building conversations based on the insights of others. Perhaps students were trying only to comply with the teacher’s expectation that members share their journal entries. The resulting conversation was disconnected, and the researcher did not observe students exploring and expanding on other members’ contributions.

Subsequent analyses compared the percentages of elaborative feedback and coded contributions of all groups. The percentages reveal that the *Toys Go Out* (Jenkins & Zilensky, 2006) group spent the least amount of time providing elaborative feedback (Table 14), and thus supported the inference that more productive groups utilized elaborative feedback. In addition, the researcher observed more productive groups engaging in higher-level conversations that were coded as exploratory talk. The percentage comparison of coded vs. not coded revealed that the *Toys Go Out* group was also disadvantaged by the lower percentage of facilitative functions in general. According to the posited functions, 29% of the groups’ data was not classified as facilitative. While the facilitative functions developed in the method sections are certainly not all-inclusive, the functions appear to help explain why some groups outperformed others in peer-led literature circle discussions.

Exploratory talk was the most prominent function in every group except for *Closed for the Season* (Hahn, 2009). The data suggest that the students spent more time engaging in elaborative feedback than any other facilitative function. There were not enough data to correlate increased elaborative feedback with increased QVE, but it is
interesting to note, and worthy of further research. Perhaps another regression using the facilitative functions as predictor variables of QVE would provide insight into the possible correlation of elaborative feedback and increased QVE. If so, the teacher could emphasize one of the functions as the most effective facilitative function in fourth-grade literature circles.

Another interesting finding was that all of the utterances were coded as facilitative in the *Operation Yes* (Holmes, 2009) group coupled with the nonexistence of accountability functions. One might assume that these students who were consistently on task did not require the facilitative function of accountability. In summary, due to the lower prevalence of facilitative functions in lower performing groups, and the increased prevalence of facilitative functions in high performing groups, one might infer that the facilitative functions enhanced the peer-led literature circle discussions. The students used the facilitative functions to increase the depth and level of the literature circle discussions. Student facilitation appeared to be important function in productive discussions.

*Examples of Facilitative Functions*

*Topic management.* The following analysis focuses on Robert from the *Joey Pigza Loses Control* (Gantos, 2000) group. The analysis uses the first discussion in its entirety, highlighting recurring functions exhibited by Robert. The group was engaged in its first discussion about the first few chapters. The discussion lasted for 7 minutes and 1 second. The discussion began somewhat unfocused, but Robert began facilitating the
discussion after 1 minute and 15 seconds. These examples demonstrate how students used topic management during peer-led literature circle discussions.

“Is his dad crazy or something?” After Robert asked this question, the group speculated on whether Joey Pigza’s dad was, indeed, crazy. The group carried on this conversation for the next 44 seconds. The subsequent conversation included four turns by Robert, four turns by Mike, and one turn by Kevin. The other two group members did not participate.

The topic of Joey’s dad ended when Robert changed the subject. He stated, “I was kind of surprised when he shot his Chihuahua with an arrow in the ear and now he has his ears pierced.” This topic lasted for 42 seconds. After 16 seconds Robert perpetuated the conversation by asking, “Why wouldn’t they take him to the vet?” This time Robert took five turns, Mike took three turns, and Kevin took one again. The students discussed the “insanity” of shooting a dog with an arrow, and the conversation ended again when Robert changed the subject. He asked, “Why would they put him (the Chihuahua) in the glove-box?” This question engaged the group for 2 minutes and 12 seconds. On this occasion, Robert talked on nine occasions; Kevin spoke three times; Mike took four turns; David took one. This question, clearly solicited others to analyze the character, and lasted longer than the previous two topics. However, the topic changed, once again, with Robert’s initiative.

Robert started the last topic when he commented on the author’s style, “It’s a different kind of author. He wrote other books about Joey. He’s a good author. I like his style. It’s kind of weird how he writes. It’s kind of different.” This evaluation of the
author incited others to share their opinions of Jack Gantos. This conversation included everyone and lasted for 2 minutes and 31 seconds, the most popular topic in this group’s first literature circle discussion.

During this session, the students discussed the major events that had happened in assigned chapters of *Joey Pigza Loses Control* (Gantos, 2000). Robert introduced the topics in a variety of ways. First, he asked open-ended questions. The open-ended questions were high-level and required other students to process the information from the text, interpret it, and share their hypotheses. The resulting conversations were highly speculative, but tied directly to the text content. The second topic change occurred when Robert shared a feeling he had while reading. He shared that he was surprised when the Chihuahua was shot with an arrow. Not only was this an important and humorous event in the story, but Robert’s statement of surprise also invited others to share their feelings about the incident. When the conversation lulled, Robert asked a question that required other group members to speculate. This perpetuated the topic and allowed students to make judgments based on the Pigza family not bringing the dog to the vet. These judgments were important when grasping the dysfunctional nature of the family.

Finally, Robert steered the topic into a sophisticated discussion of the author’s style. The group members compared Gantos’s writing style to other authors as well as discussed whether Gantos deserved the Newbery Medal rather than the Newbery Honor award. One student, Mike, mentioned that he was not an avid reader, but the author’s style was a good fit for him and he was looking forward to reading the rest of the book.
It seemed the most significant functions that Robert demonstrated were topic selection and control. He was able to bring up important topics in the reading, perpetuate the discussion, and change the topic. Although Robert took more turns than any other group member, he also facilitated the high-level discussion by introducing topics in three ways—asking for speculation, verbalizing his feelings while reading, and evaluating the author’s style. In conclusion, it seemed Robert presented important topics in an exploratory fashion.

*Exploratory talk and elaborative feedback.* This example comes from the group that read *Ghost’s Grave* (Kehret, 2007). The example illustrates exploratory talk and elaborative feedback. Stephanie started the topic with exploratory talk and Kacy provided elaborative feedback.

Stephanie: Don’t you think Aunt Ethel was kind of crazy? [exploratory talk]
Kacy: In some ways, yes. [feedback—not elaborative]
Stephanie: I mean, why would you scream if you saw your sister? [exploratory talk]
Kacy: No, she was not screaming. It was the peacock. [elaborative feedback]

The example demonstrates how Kacy listened to Stephanie’s exploratory talk and offered elaborative feedback using text evidence to clear up a misconception. The example also illustrates the difference between feedback and elaborative feedback. When Kacy initially agreed with Stephanie, the researcher coded her statement as feedback. She did provide feedback, “In some ways, yes.”, but it was not elaborative as she did not provide her reasoning or text evidence. In another excerpt, Stephanie made a judgment
and Kacy offered feedback in the form of her opinion to help Stephanie understand the complexity of the character motives.

   Stephanie: I have something against Steven. [exploratory talk]

   Kacy: You can’t blame Steven because he had to move for a job. [elaborative feedback]

   Kacy explained her opinion and noted that sometimes people have to move for jobs. Two minutes and four seconds after Kacy offered her opinion on Steven, Stephanie stated, “I think Steven is a good person.” Thus, Kacy not only provided feedback that explained the character’s motives, but Stephanie listened and changed her opinion about the character.

   The next selection from the Closed for the Season (Hahn, 2009) group shows students trying to reach some sort of resolution through exploratory talk and elaborative feedback. They also speculate regardless of the risk that others might disagree. After the students read the a letter out loud, they noticed that some of it was missing, and they speculated about whom the letter was about hoping it would lead to the identification of the killer. Cassandra began with explaining that the letter was incomplete. Ryan expressed his curiosity regarding the intentions of the letter, and they continued to debate who the letter was about.

   Cassandra: I think they are missing a piece. It ends with “she’s just.” [exploratory talk]

   Ryan: She’s just what? And who is scared of you-know-who? [exploratory talk]

   Cassandra: Silas? [exploratory talk]

   Ryan: No it’s a girl. It says she. [elaborative feedback]

   Cassandra: Well now I think it is Nina because it can’t be a boy. [exploratory talk]
Ryan: She just showed up. [elaborative feedback]

Cassandra: She was taking pictures and went into that dark hole for a long time. [elaborative feedback]

Ryan: Yeah, maybe she was memorizing it for later on. Yeah, I’m starting to think she might be the killer. [elaborative feedback]

It appeared that exploratory talk and elaborative feedback were used by discussants to reach a coherent understanding of the text. The exploratory talk created a speculative context in which students could verbalize their thinking. The elaborative feedback helped students understand other points of view, clear up misconceptions, and move towards a better understanding of events in the story.

Confessionals. Students also facilitated discussions by confessing when they did not understand. Stephanie was often observed making confessionals. She began topics with phrases like, “I didn’t get it when…” She confessed when she did not understand parts of the text. At which time, her other group members explained their interpretations of the text. For example, she confessed, “I don’t get it. Why would you not just spend the money?” This question referenced the fact that someone had buried money in a grave. The confessional led the students into a generalization that sometimes people are buried with jewelry and other valuable objects. The group also speculated on the ethics of stealing the money. Stephanie incited an ethical debate with another confessional, “I don’t get it. If you know you will feel guilty about stealing, why would you do it?” The resulting debate relied on relevant connections. Consider the following discourse.

Stephanie: It’s like if you steal someone’s reading journal. You will feel bad.

Kacy: Yeah, they have all of their notes that they worked hard on.

Stephanie: You would feel guilty.
Kacy: I have seen trials before. It’s like sometimes they just say you are guilty. But, if you say you are innocent and they find out you did it, then you get a worse punishment.

Stephanie: Yeah, it’s like if you stole the journal, but then you tell the truth to the teacher your grade might only go down by 20% instead of all the way.

The connections helped the students understand a larger ethical debate about grave robbing. Although the students had no experience with grave robbing, they were able to make the personal connection that helped them understand it on their level.

Stephanie, who later commented that you should “treat others the way you want to be treated”, could not understand how a person could rob a grave. However, the “stolen reading journal” analogy apparently helped her sort through some of ethical implications.

Following is an example of a student admitting she was unsure of who was screaming in the chapter. Kacy used elaborative feedback with text evidence to help Stephanie better understand the event in *Ghost’s Grave* (Kehret, 2007).

Stephanie: Oh, I thought it said the Aunt was screaming. [confessional]

Kacy: No, she wasn’t screaming.

Stephanie: But, I think it is crazy that she left the bag in the cup holder until it smelled, and then asked him (the son) if he wanted a snack.

Ana: Yes, that was disgusting.

Stephanie changed the topic by confessing to a misconception. However, confessinals did not always result from textual misunderstanding, but also misunderstandings of why events occurred in the text. Following is an example of a student who did not understand the character’s motives. In this example, Ryan attempted to help Cassandra understand an event from *Closed for the Season* (Hahn, 2009).
Cassandra: I don’t get it. Why did they (previous owners) leave stuff in the (Mrs. Donaldson’s) attic? [confessional]

Ryan: Maybe because they thought it had no value.

Cassandra: But still, usually they take everything.

Ryan: Maybe the owners bought it (the house), they simply bought the stuff with it.

Cassandra: What do you mean? Mrs. Donaldson didn’t buy it all?

Ryan: Yeah, maybe some came with it and the police did not know what part came with it.

Cassandra: But why would Mrs. Donaldson keep it?

Ryan: If you have something from the other owners, you are lucky. Some people might just think, “let’s sell it”, but Mrs. Donaldson thinks it holds value.

The confessionals served as a metacognitive function allowing students to orally express their misunderstandings of text. Because students verbalized their misunderstandings, other discussants could engage in dialogue to enhance the comprehension of the text. Overall, confessionals were less salient in these discussions, but the researcher observed the function extending the discussions.

Accountability. In some groups accountability was used to keep the discussion on track and to ensure that all group members participated in the discussion. Accountability was also used to make sure students’ contributions were backed up by text evidence or sound reasoning. The following example from the Toys Go Out (Jenkins & Zelinsky, 2006) shows a student asking for text evidence to support another group member’s claim.

Kevin: Why was the buffalo licking things?

Randy: Buffalo like to lick things.

Andy: Where does it say that? [accountability]
Andy was not satisfied with Randy’s response. It appeared to be a wild speculation that Andy thought needed elaboration in the form of text evidence. Following is an example where a student also asked for elaboration. In this case, however, she was asking for the group member’s logic behind a speculation.

Hillary: They gave a lot of suspense, so I think it was good.

Stephanie: Yeah, but don’t you think they should have given more details about how she thought it was haunted.

Kacy: About how she thought it was haunted? Well, they said that Aunt Ethel was the kind of person that when she thought something was true, she stuck to that. She didn’t go change her thought.

Stephanie: Yeah, but what makes you know that she’s true about it? [accountability]

Kacy: Well, I think it said she was hearing voices and it was just really creepy.

Not all accountability moves were directed at eliciting elaboration. The researcher also observed students making sure all students participated in the discussion. Consider the following example from the *Joey Pigza Loses Control* (Gantos, 2000) group.

Robert: Yeah, that would be funny, because when he (Joey) takes off all the patches he will go crazy. Okay, David? [accountability]

David: The relationship between Joey and his father is interesting because in the book it says that his dad is crazy, too.

Up to that point, David was the only one in the group that had not contributed to the discussion. Robert apparently noticed this, and asked him to participate. Robert looked towards David, and said, “Okay, David?” Robert did it again less than a minute later.

Mike: Maybe his dad might be like mentally ill or something.

Robert: Yeah, it kind of seems like it. Okay, Kevin?
Kevin: Honestly, I think Joey is a mini-version of his dad.

In the end, perhaps accountability is also a leadership function, but as the example shows, it also served to facilitate and perpetuate the discussions.

Facilitative Functions Summary

Students in these literature circles facilitated discussions in several different ways. Most prominently, students used exploratory talk to extend the discussion of text. Secondly, students offered elaborative feedback to other group members, usually in response to the exploratory talk. Topic management was another function that kept discussions focused and moving forward. Student confessionals also facilitated discussions because students attempted to correct misconceptions and enhance the confused student’s comprehension of the text. Finally, some groups utilized the accountability function to include every student and to ensure students’ contributions were based on text evidence or sound reasoning.

This study afforded a close look at these fourth-grade literature circle discussions and revealed the role of facilitative functions related to the quality of verbal engagement. Fortunately, unlike fixed personality traits, these functions can be developed in students. Teachers could model and teach these functions through minilessons. Each facilitative function could be taught explicitly, and also observed in exemplar discussions. It appears that exploratory talk and elaborate feedback are most critical, however, topic management may be necessary. In addition, confessionals were particularly helpful in discussing misconceptions or misunderstandings through dialogue—a key issue for text
comprehension. Finally, group members held others accountable. In summary, exploratory talk, elaborative feedback, and topic management could be taught as primary facilitative functions. The remaining two, confessionals and accountability, could be taught as as-needed functions.

A Deeper Look at Select Individuals’ Contributions

The researcher was concerned about the students who contributed less than others, and noticed that the lower contributing students had relatively high or relatively low reading abilities. This next analysis compared data between the two highest readers and the two lowest readers (Table 12). The intent of this analysis was to determine whether these met the teacher’s goal for literature circle discussions. It is important to note, however, that the goal for these literature circles was to create an environment for higher-level interaction.

Table 12

High vs. Low Readers’ Data Comparison

<table>
<thead>
<tr>
<th>Student</th>
<th>QVE</th>
<th>Reading %ile</th>
<th>Extroversion</th>
<th>Agreeableness</th>
<th>Conscientiousness</th>
<th>Emotional Stability</th>
<th>Openness</th>
</tr>
</thead>
<tbody>
<tr>
<td>David</td>
<td>20</td>
<td>97</td>
<td>3</td>
<td>4</td>
<td>6.5</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td>Andy</td>
<td>32</td>
<td>93</td>
<td>6.5</td>
<td>5</td>
<td>5.5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>April</td>
<td>5</td>
<td>45</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>Molly</td>
<td>4</td>
<td>40</td>
<td>6.5</td>
<td>4</td>
<td>5.5</td>
<td>3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

David scored the highest in reading achievement, but scored relatively low in extraversion. The researcher observed the footage of David, and agreed with his low extraversion score. According to the quantitative analysis, his high emotional stability
should have predicted a higher QVE. The first of two questions arose. Did David enhance
the discussion? The researcher examined his contributions to his group’s discussion
(Table 13).

Table 13

David’s Facilitative Contributions across Two Discussions

<table>
<thead>
<tr>
<th>Exploratory Talk</th>
<th>Elaborative Feedback</th>
<th>Topic Management</th>
<th>Confessionals</th>
<th>Accountability</th>
<th>Facilitative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>8.33%</td>
</tr>
</tbody>
</table>

David was responsible for 8.33% of the facilitation in the group. While he
engaged mostly in exploratory talk, he rarely offered elaborative feedback. David also
changed the topic three times. When he first used topic management, the topic only lasted
for 10 seconds; the second time did not instigate any further discussion, as the next
student changed the topic on the next turn. The final topic change lasted for one minute
and 13 seconds. It is difficult to say whether his topic management was integral in the
discussions, but the discussion was most likely enhanced because he brought up an
important topic that focused on the complicated relationship between two main
characters. The second research concern focused on what David gained from the
discussion. Does a highly proficient reader gain understanding from others during a peer-
led discussion? Due to his high reading ability, one might infer that David already had a
proficient understanding of the text. His role in the discussion may have been more
passive because he may have had sufficient comprehension on his own. Regardless, he
may have met the teacher’s goal of participation, though his role was limited.
Andy scored the second highest in reading percentile (93). According to Andy’s QVE score, his contributions were of higher quality and more frequent than David’s, but his facilitative functions were similar to David’s (Table 14). Andy spent more time utilizing exploratory talk, and little time providing elaborative feedback. Andy facilitated the discussion for 7.57% of the turns. Between David and Andy’s data, it appeared that these students had little interest in enhancing the discussion. One can only speculate on the cause(s) of the low prevalence of facilitative functions. In addition, the causes could be unique to each of the students. The data show, however, that contributions of these two highly proficient readers were relatively low.

Table 14

*Andy’s Facilitative Contributions across Two Discussions*

<table>
<thead>
<tr>
<th>Exploratory Talk</th>
<th>Elaborative Feedback</th>
<th>Topic Management</th>
<th>Confessionals</th>
<th>Accountability</th>
<th>Facilitative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7.57%</td>
</tr>
</tbody>
</table>

Molly read at the lowest reading percentile (40) for these subjects, and scored the lowest in QVE. According to the quantitative data, Molly’s low emotional stability predicted her lower QVE. Molly only spoke twice. Qualitatively speaking, Molly changed the topic twice, and she used exploratory talk to do so in both instances (Table 15). The researcher reviewed the footage, and inferred there was no way to determine whether Molly had actually comprehended the text. However, did listening to the discussion enhance Molly’s comprehension? That is also difficult to conclude as comprehension enhancement as a result of literature circles was beyond the scope of this
study. Elaborative feedback appeared to be the best way to determine whether students were listening to other group members. The data indicated that Molly did not contribute any elaborative feedback, and thus made it difficult to determine how engaged Molly was during the discussions. Molly may have benefited more support from the teacher, rather than her peers, but further research is necessary to know how facilitated discussions benefit high versus low readers.

Table 15

*Molly’s Facilitative Contributions across Two Discussions*

<table>
<thead>
<tr>
<th>Exploratory Talk</th>
<th>Elaborative Feedback</th>
<th>Topic Management</th>
<th>Confessionals</th>
<th>Accountability</th>
<th>Facilitative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3.03%</td>
</tr>
</tbody>
</table>

April scored the second lowest in reading percentile (45). Her low emotional stability was correlated with her lower QVE score (5). Like Molly, April did not offer any elaborative feedback, making it difficult to determine whether she was truly engaged in the discussion (Table 16). However, she did admit to not comprehending a particular paragraph in the text. Therefore, April’s limited data indicated that her only facilitative function was changing the topic with a confessional. April, a weaker reader, was less engaged in the discussions and may not have benefitted from them. She is an example of the variance among students and their behaviors in literature circles.
Table 16

*April’s Facilitative Contributions across Two Discussions*

<table>
<thead>
<tr>
<th>Exploratory Talk</th>
<th>Elaborative Feedback</th>
<th>Topic Management</th>
<th>Confessionals</th>
<th>Accountability</th>
<th>Facilitative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1.52%</td>
</tr>
</tbody>
</table>

Perhaps the peer-led, literature circle discussions did not benefit every student in the class equally. The top two readers may have benefitted from a more challenging activity, or allowed more time to read in lieu of discussions. The teacher may have best served the lowest two readers in a small teacher-led group, especially because the teacher acted as an observer, and had the ability to meet with the students who were not highly engaged in literature circle discussions. However, the researcher believes that literature circles were appropriate for the majority of the students in the study because many of the students contributed to the quality of the discussions, especially when considering Mrs. Mack’s goal for literature circles in creating a community of high-level discussants. In the end, it is possible that all students, given this context, met her expectation, regardless of their quality of verbal engagement.

Discussion

This study aimed to determine whether reading ability, gender, and personality traits influenced the quality of verbal engagement in fourth-grade literature circle discussions. This research also investigated the discourse of students in literature circle discussions. The limited number of subjects in this study makes it difficult to generalize...
the results, but they warrant a discussion about the findings because the quantitative and qualitative analyses revealed interesting phenomena that are worthy of further research.

First, the researcher noted a theoretical conflict when considering scaffolding in peer-led literature circles. Although Gnadinger (2008) found that students were able to scaffold one another, this researcher’s review of literature revealed that perhaps the teacher should carry out the sophisticated process of scaffolding students’ in literature circles. In order to properly scaffold a student on a task, the knowledgeable other needs to calibrate the instruction to meet the needs of individual students based on assessment (Wood et al., 1976). In literature circles, students are not required or expected to skillfully scaffold students the way a teacher would. This theoretical conflict led the researcher to adjust the original coding framework, and search for facilitative behaviors, rather than assisted performance (Tharp & Gallimore, 1988). The researcher was more able to observe the discussions through a facilitative lens. According to the results, increased use of facilitative functions led to increased quality of verbal engagement. Teachers could also use the facilitative functions to observe students’ discussions, and thus indicated the facilitative functions are a worthwhile lens to be used by researchers and teachers.

Another important finding was the variation in student contributions. The high standard deviation of QVE scores indicated that not all students participated in peer-led discussions at the same level. Literature circle research had not investigated individual factors that influence the discussion, and this study set out to explore that gap in the research. A previous study by this researcher (Young, 2010) revealed that third-grade students with increased extroversion and lack of conscientiousness combined with a
higher reading ability predicted higher quality of verbal engagement in literature circles discussions. However, the current study of fourth-graders failed to corroborate those findings, but results indicated that one personality trait, emotional stability, was significant in predicting the quality of engagement. Both findings suggested there might be some correlation between personality and discussion engagement, but the personality influences differ with group dynamics. Because the pilot study included third-grade students, it is possible that reading ability wanes as a predictor as grade-level increases because students may be more proficient readers. Further research in varying grade levels is needed to determine the changing predictors.

The post hoc results suggested, within the context of Mrs. Mack’s classroom, that smaller groups had significantly higher QVE. Previous research on group size and productivity suggested that smaller groups are typically more productive than larger groups (Bass & Norton, 1951; Wheelan, 2009). Although the related research was conducted with adults, it was corroborated by this research in a fourth-grade classroom and warrants further investigation in classroom discussions.

It could be argued that smaller groups placed more responsibility to participate on each member. It was more difficult to shirk out of the discussion with fewer group members. Research (Hare, 1981) on group size indicated that larger groups often formed sub-groups, each with varying productivity. According to Hare, groups of two and three were more unified in task completion. This phenomenon was also present in this fourth-grade classroom. Conversely, larger groups may have made it easier for some students to sit back quietly while others worked towards the achievement of the task. According to
the quantitative data in this study, groups of three were correlated with a higher QVE. The smaller groups might have allowed for more risk-taking and greater opportunity to hold each other accountable. Research articles (Almasi, 1995), books (Daniels, 2002), and literature circle websites (Noe, 2011) typically suggest four to six students, however no refereed research was found on determining optimal literature circle group size, and it is possible that the significance of group size may vary by grade level. Although further research is needed, teachers that observe unproductive peer-led discussions may try limiting the groups to three students.

In the classroom studied, reading ability was the most insignificant factor in the post hoc regression ($p = .95$). This suggests that within the context of Mrs. Mack’s classroom, reading ability had very little influence on the quality of verbal engagement. But, it may have influenced comprehension. The quantitative analysis revealed that higher emotional stability predicted higher QVE, but a comprehension measure may help to understand the variability in QVE. The researcher did not employ an additional comprehension measure because of the purpose of the three-story intellect (Costa & Kallick, 2000). The three-story intellect was created to teach educators how to help their students think (Fogarty & McTighe, 1993). When the researcher observed students contributing at the varying levels, it was considered evidence that the students were thinking at differing levels. It is possible that students demonstrated comprehension on one of the three levels through their dialogue, but further research is needed to confirm this assumption.
The coding scheme in the quantitative analysis also added to the extant research by Paradis et al. (1991). Paradis et al. sought to develop a comprehension-coding matrix that could measure comprehension during discussions. The researcher found it relatively easy to code the quality of contributions with the three-story intellect (Costa & Kallick, 2000), and thus could be used by teachers to assess quality. Furthermore, teachers could use the descriptors to teach students to contribute at higher levels. At times, the inter-raters in this study found Levels 2 and 3 somewhat troublesome to distinguish, so Levels 2 and 3 could be collapsed to eliminate confusion. For example, surface level contributions (Level 1) are made based on the text, while deeper level contributions (Levels 2 and 3) require some sort of processing by the reader. While the three-story intellect may not have measured comprehension, it was helpful when discerning facilitative behaviors.

Research conducted by Clifton (2006) examined facilitative talk in a natural classroom of English language learners. He identified three ways in which facilitation occurred in discussions: asking referential questions, asking for instruction when needed, and sharing responsibility. The current study corroborates all three of Clifton’s (2006) postulations. However, the current study encourages the expansion of Clifton’s facilitative notions into a more descriptive and practical medium. Rather than descriptions, the current study suggests teachable functions that facilitate peer-led literature circle discussions: exploratory talk, elaborative feedback, topic management, confessionals, and accountability.
Elaborative feedback was the second most prominent facilitative function. In order to provide elaborative feedback, students had to listen to one another and form opinions based on their reasoning or text evidence. The results indicated that the least productive group, (QVE of 78), engaged in the smallest percentage of elaborative feedback. The group was scattered, disconnected, and participants did not offer elaborative feedback often. Therefore, perhaps elaborative feedback is more facilitative than the exploratory talk, a speculation that only further research can confirm.

Clarke and Holwadel (2007) concluded that the literature circles in their study required further nurturing and growth, and that mini-lessons improved the literature circles. This study suggests that introducing facilitative functions in mini-lessons may improve the quality of literature circles and increase productive talk. In addition, Maloch (2002) expressed her desire for more exploratory talk in students’ discussions. It may be possible for teachers to explicitly teach the exploratory talk function (see Figure 3 for suggested language stems). Perhaps the exploratory discourse could serve to enhance superficial discussions, and the discourse could be used in further investigation into this critical aspect of classroom discourse.

The suggested facilitative functions are not particular jobs for each student like traditional roles in literature circles. The aim of this research is not to restrict literature circle participants, but provide discussants with strategies to facilitate deeper and more thorough discussions about text. These suggested functions could be taught to all students through modeling and practice. For example, students can write down main ideas about the text prior to discussion, and check them off during the discussion to ensure that the
main topics are discussed. Students can also practice exploratory talk using language stems such as, “I dis/agree with you because…” Teachers could train students to pay attention to other group members’ contributions and ask for explanation and text evidence to hold them accountable. In addition, students could hold themselves accountable for knowing when meaning breaks down, and tabbing the text where it occurred to be confessed in the discussion later.

| I wonder | There is one thing I do not like, and it is | I liked…because… |
| I realized | The author should have | I think the author’s purpose is |
| I can connect with | I think _____ is like _____ because | I was surprised |
| This is giving me the idea that | This connects with (Name) helped me understand | I was confused |
| I think | I partly agree with | I used context clues |
| I disagree with…because… | At first I thought…now I think…because… | I do not get… |
| I wish | I agree with (Name) | What if… |
| I hope | My favorite part was…because… | Why… |
| I know | I don’t know why | How do you know? |
| I predict | | What do you mean? |
| I think the main idea is | | Can you repeat that? |
| the chapter is | | How did…? |

*Figure 3.* Suggested exploratory talk language stems.

The quantitative portion of this research brings up several questions for further research. Do significant predictors vary among grade levels? Do smaller groups provide more opportunity for high-level discussions? In addition, the study questions whether
choice should be a major factor when considering group configuration. If literature circles are lacking quality, then teachers could try to place students in smaller groups with the facilitative tools necessary for a quality discussion, or perhaps, given further research of personality factors and student contributions, that students could be intentionally placed in groups where personalities predict higher-level discussions. The discourse analysis in this research suggests that facilitative functions may serve to enhance unproductive literature circles, a contention that warrants further research. This study may also provide a lens for teachers to listen to groups. Teachers could monitor groups using the five facilitative functions. The mixed methods design and analyses bring up interesting questions that are worthy of further research.

References


Clarke, L. W., & Holwadel, J. (2007). Help! What is wrong with these literature circles and how can we fix them? *Reading Teacher, 61*(1), 20-29.


APPENDIX A

EXTENDED LITERATURE REVIEW
This literature review explores extant research targeting theoretical and practical aspects of literature circles. The related research was located using Education Research Complete, Educational Research and Information Center, and PsyINFO databases using the descriptors literature circles, book clubs, peer-led groups, small groups AND reading, personality AND discussion, personality AND groups, Big Five AND education, 10 item personality inventory, and five factor model. Literature circles are an instructional activity that involves small groups of students reading the same text independently with an opportunity for discussion. This analysis of literature circles is situated in social constructivism and explores Vygotskian perspectives on interaction in relation to literature circles as a collaborative task. Following the theoretical framework, the research review discusses practical ways of implementing literature circles. Engagement is reviewed from several perspectives in literature circle research; an argument is subsequently established for a different orientation. Finally, the review explores the measurement of and the relationship between personality and quality of engagement in literature circle discussions.

Generally, literature circles have been studied qualitatively. The major focus of literature circle research has been implementation (Bond, 2001; Burns, 1998; Clarke & Holwadel, 2007; Dail, McGee, & Edwards, 2009; Martinez-Roldan & Lopez-Robertson, 1999; Pearson, 2010; Peralta-Nash & Dutch, 2000; Raphael & McMahon, 1994; Spiegel, 1998; Wiencek & O'Flahavan, 1994), as well as student and teacher perceptions of literature circles (Alvermann & Young, 1996; Brabham & Villaume, 2000; Daniels, 2002; Day & Ainley, 2008; Evans, 2002; King, 2001). These perceptions mainly relate to
whether students and teachers enjoy literature circles as an instructional activity. In addition, some research exists that focuses on comprehension of the texts read (McElvain, 2010; Paradis, Chatton, Boswell, Smith, & Yovich, 1991). McElvain (2010) found that students participating in literature circles outperformed control groups on standardized tests, and Paradis et al. (1991) sought to create a comprehension matrix that would measure comprehension during discussions.

Literature Circles

Literature circles are generally understood as peer-led, student groups reading the same text with an opportunity to discuss content (Daniels, 1994). The goal of literature circles is to enhance the comprehension of text in a motivating and authentic manner (Almasi, 1996). Research also contends that literature circles help students view reading as a social process (King, 2001).

Although there are many forms of literature circles (Almasi, O'Flahavan, & Arya, 2001; Bond, 2001; Brabham & Villaume, 2000; Burns, 1998; Clark, 2009; Daniels, 2002), most versions share some common features. In many cases, the groups are formed based on individual reading preferences. This initial choice of text is a key feature of literature circles that presumably promotes reader engagement (Daniels, 2002; Flowerday, Schraw, & Stevens, 2004; Peralta-Nash & Dutch, 2000). The opportunity to discuss the text is another integral element when implementing literature circles. The discussions provide an avenue for learning through social interaction (Vygotsky, 1978).
Beyond these key features of choice and discussion, the forms of literature circles bifurcate and manifest themselves in many different forms.

Daniels (1994) introduced a version of literature circles that possesses the key features described above, as well as structural roles for discussion. Roles, such as discussion director, word wizard, connector, summarizer, or illustrator are given to students in preparation for the literature discussion. In fact, many interpretations of literature circles, or book clubs, assign roles to participants (Pearson, 2010; Sandmann & Gruhler, 2007; Tompkins & Tompkins, 2001). In support of this perspective, research indicates that students prefer some sort of preparatory work prior to discussion (Evans, 2002). However, preparatory methods vary in implementation. The structures range from rigid roles (Miller, 2002; Tompkins & Tompkins, 2001) to completely open discussion (Li et al., 2007). The differing structures might be attributed to varying teacher philosophies, grade level, student population, goals for literature circles, or a teacher’s past experience with literature circles.

Pearson (2010) argues that designating students to roles in literature circles potentially inhibits the discussion. Assigning roles can limit the free-flowing aspect of the discussion. Pearson’s class of 28 students served as the subjects in a study that used roles for discussion. The teacher implemented literature circles with mini-lessons and assigned roles including discussion director, summarizer, connector, and word wizard. Pearson was hoping to see more exploratory talk (Mercer & Wegerif, 1999). The goal was to have children elaborate reasoning, use personal anecdotes, and back up their claims with text evidence. However, discourse analysis revealed that students only
exhibited these desired behaviors when conversation switched from school discourse to an informal discourse. In other words, when students abided by the structured roles, the discussions were less likely to go beyond the minimum expectation. However, when students abdicated the roles, they were able to discuss freely. Pearson found that the less-structured instances produced more exploratory talk and thinking together. Pearson desired exploratory talk characterized by speculation and conversational tangents over the contrived discussions produced by limiting students to roles. The conversations permeating from restricted discussions were pedantic, contrived, and lacked the motivation originally sought by literature circles. A new direction of literature circles emerged with the aim to deviate from traditional discursive patterns in classrooms between teachers and students (e.g., initiate, respond, evaluate), to preserve the motivational aspect of the activity, and move towards more authentic conversations (Goatley, Brock, & Raphael, 1995).

Newer forms of literature circles (Day & Ainley, 2008; Eriksson & Aronsson, 2004; Hulan, 2010) have eliminated the use of roles, and changed the preparatory process for discussion. Roles can be discarded for more authentic preparatory methods, such as generating questions, identifying interesting text, and encouraging all students to participate in discussions without restriction. It was evident that literature circles had become a means for practicing a limited number of comprehension strategies such as making connections, creating mental images, or defining words. However, after Daniels’ (1994) highly influential book, teachers embraced the role sheets that were appealing for their easy management. However, Daniels’ asserted that roles served as a scaffold and
should be dropped when they were no longer necessary. Additionally, earlier literature circle designs tended to promote the use of one skill per discussion; for example, the student in the connector role is only asked to make connections and the illustrator is only asked to create mental images (Miller, 2002). Each student has a different role, and provides insight to the discussion. The roles offer support for students in discussion groups, but more recently, researchers have advised promoting multiple comprehension strategies simultaneously over isolated use because strategic readers use multiple strategies when reading for more authentic purposes (Brabham & Villaume, 2000).

A more authentic approach to literature circles employs strategies that tap students’ experiences and encourage personal insights can actually encourage exploratory talk. In a study conducted by Stien and Beed (2004), 22 third-grade students indicated whether they liked marking interesting sections of text while reading independently or the use of roles to prepare for literature circles. After using each of the methods, the students were interviewed to determine which method they preferred. One student liked the roles, 3 liked both roles and marking, and 18 students preferred marking. In this study, teachers, researchers, and students agreed that other preparatory methods, such as marking interesting sections of text (tabbing) are preferred over the use of roles, and foster more personal contributions to literature circle discussions. In this study, the discussions were audiotaped and analyzed. The transcripts revealed that the students helped each other understand the texts, and often connected their personal experiences to the story’s characters.
One study (Clarke & Holwadel, 2007) focused on the context of the literature circles. The researchers describe a class of sixth-grade students in an urban, low-SES school in Academic Emergency—the lowest of the state’s rating system for public schools based on standardized test results. Despite the inherent academic crisis, the teacher refrained from “teaching to the test”, and implemented literature circles. The teacher, however, was unhappy with literature circles in her classroom. She determined them to be unproductive and riddled with negativity. As a part of the study, Clarke and Holwadel responded to the negativity in student discussion groups by using mini-lessons that promoted respect. In an effort to create cohesion, the teacher utilized mini-lessons that reminded group members that they were involved in something special, thus adding value and instilling a sense of responsibility in the participants. Next, the students were taught to take turns and share the floor because some students had often dominated and others had shirked responsibility during discussions. The teacher realized that students who were not interested in the textual content were less likely to engage positively in discussions; therefore, the teacher chose high-quality books that fit the interests of the students. Finally, the authors describe the need for coaching students in desired discursive patterns that will help drive the discussion. The decision in this case, was to reinsert the teacher into the literature circles to serve as a model for positive and productive talk. Although, at the conclusion of the research, the teacher felt that literature circles still required further nurturing and growth, the qualitative data suggest that the mini-lessons improved the quality of literature circles and increased positive interaction. The positive
context was deemed more conducive for productive talk based on the decreased negativity and increased focus on the text.

In response to the need for exploratory talk, teachers using literature circles have encouraged students to generate questions. In one case study (Long & Gove, 2003), students were encouraged to generate questions to ask within their literature circles that would elicit multiple types of responses instead of restricting contributions, such as assigning only one student to make connections. Other preparatory methods have been used to tap underlying comprehension strategies as a foundation for discussion (Clark, 2009; Lloyd, 2004) and adhering to the recommendations of the Report of the National Reading Panel (NCIHD, 2000) to encourage students to use summarizing, word study, and generating questions only when necessary while preparing for literature circle discussions. The encouragement to use multiple strategies gave students the power and versatility to utilize multiple reading strategies and did not restrict future contributions during discussions. However, in order to achieve the goal of unrestricted contributions, students need to be taught how to generate questions and/or verbalize various comprehension strategies (NCHID, 2000); therefore, it is important that teachers prepare students through explicit instruction and modeling prior to engaging in literature circles. This necessitates that teachers be knowledgeable and skilled in supporting productive group discourse.

As noted in this review, mini-lessons are often used to prepare students for literature circles. For example, in a third-grade case study involving five third-grade students, researchers (Sandmann & Gruhler, 2007) emphasized mini-lessons as a
necessary component of literature circles. The teacher modeled strategy use in literature circles to promote literate and functional discussions. The group met twice a week for four months. The students were instructed in functional and reflective talk prior to the meetings. Functional talk explored the text, while the reflective talk examined the functionality of the group itself. The researchers coded the discussions based on functional and literate talk. The researchers found that reflective talk decreased over time, and functional talk increased. This indicates that, initially, structure and management of the group may predominate—reflective talk (as defined in this study), but as students become practiced conversationalists, the focus shifts towards literature content and the students engaged in functional talk.

However, some teachers may want literature groups to be more than merely functional. When groups are functional, they talk about the text, but talk may seem superficial if students do not process and interpret the text based on their own experiences. In addition to mini-lessons, teachers can provide interventions as needed to foster the kind of collaborative dialogue desired (Maloch, 2002). In Maloch’s five-month qualitative study in a third-grade classroom, the transition to peer-led discussions was difficult for students. Therefore, the teacher carefully monitored the transition period, and intervened when necessary. Per Maloch, the interventions focused on the teacher’s goal for exploratory talk in literate discussions. Essentially, the reflective talk is necessary to structure the group, and the functional talk keeps the focus on the text. In the end, however, it was Maloch’s goal to go beyond these basic features of discussion, and have students engage in exploratory talk that deepened their understandings of the text. In
summary, reflective talk was more about the management of the group; functional talk was evident when students talked about the text; finally, exploratory talk was Maloch’s goal for students—a type of talk that went beyond the text to make meaning connections within the reader’s schema.

One way to promote discussions is to increase student engagement. Certo, Moxley, Reffitt, and Miller (2010) report a study of a random sample of students, consisting of 24 first, third, fourth, and fifth graders who had participated in literature circles. The students were interviewed regarding their literature circle experiences. Based on the data, the researchers concluded that literature circles promoted active engagement among participants. However, the researchers admitted to a limitation that younger students might have a high reading self-concept; therefore, students may have falsely reported successful engagement in literature circles. Monitoring students during their discussions could have strengthened the study. Regardless, the researchers analyzed the interview responses and found that 92% of the students described literature circles as the “best part of language arts” (p.251). In fact, a third grader actually compared literature circle discussions to lunchtime and physical education because of the inherent freedom during the instructional activity. Such a positive perception among these students demonstrates the potential power of literature circles as an in-class activity. However, one cannot assume that because students enjoy an activity that they are cognitively engaged in or benefit from it. In addition, one cannot assume that mere participation represents engagement. Other studies and commentaries (McElvain, 2010; Tracey & Morrow, 2006)
have taken a closer look at student participation and students’ construction of meaning as a result of literature circles participation.

In an experimental study (McElvain, 2010) conducted with 75 fourth through sixth-grade students, the students in the literature circle treatment group outperformed the control group in standardized reading comprehension testing. The researcher also observed the students qualitatively and noticed that students were eager to participate in literature circles. McElvain’s other qualitative observations were similar to other literature circle research (Carrison & Ernst-Slavit, 2005) in that students participating in literature circles were excited about reading, confident, and more likely to participate in class discussions. Both studies (Carrison & Ernst-Slavit, 2005; McElvain, 2010) interviewed students about their literature circle experiences. The results were similar in that students genuinely enjoyed the instructional activity, but also included pre- and post-test scores of a standardized comprehension measure that confirmed that learning occurred as a result of discussion. Thus, not only do students enjoy literature circles, but they can also increase individual comprehension. The pre/post-test design, however, failed to capture students’ comprehension during the discussion—a phenomenon worth further research because it is not possible to attribute the resulting comprehension solely on the discussion. Students may have already had a strong understanding of the text prior to the discussion.

In a descriptive study (Paradis, Chatton, Boswell, Smith, & Yovich, 1991), two university professors and three elementary school teachers sought to find an informal method of assessing comprehension during discussions. All three teachers had expressed
their concern for accountability in literature-based classrooms. In an effort to hold students more accountable in literature discussions, the researchers created a comprehension matrix. Unfortunately, the teachers found the matrix difficult to use and a hindrance during discussions. So, each teacher revised the comprehension matrix for easier implementation. In the end, the teachers came up with descriptors for five categories of comprehension that included main idea, association, elaboration, reaction, and application. The first three are particularly helpful when analyzing discussion transcripts. (The reaction component does not apply if the transcripts do not include gestures because the reaction element looks at facial expressions and body language only. The application element determines whether students utilize learning in other contexts not within the discussion.) Researchers who want to analyze the verbal discourse in context can use the first three components: main idea, association, and elaboration. This study furthered the research of McElvain (2010) by analyzing student comprehension during the literature circle discussion.

Main idea, association, and elaboration can be observed during literature discussions, and the discourse can be analyzed. When the researchers (Paradis et al., 1991) looked for main idea, they looked for evidence that students summarized main points, understood the author’s purpose, and were able to link the title of the story to the main idea, arguably a rather basic delineation of main idea. The association component applied to when students made comparisons in the book and made connections with the text, book, and world. When elaborating, students made predictions, inferences, and asked questions. Nevertheless, the resulting comprehension assessment is somewhat
exclusive as it ignores other types of productive talk, such as making judgments, imagining, and speculating during literature discussions, so other methods of in-context comprehension assessment need to be explored to include more observable descriptors.

Monitoring Literature Circle Discussions

In a sense, in literature circles, students model their comprehension through speech. Through oral expressions, students verbalize their comprehension and interpretations of texts. Pre- and post-tests of comprehension typically measure the individual understandings after the fact (Carrison & Ernst-Slavit, 2005; McElvain, 2010; Murphy, Wilkinson, Soter, Hennessey, & Alexander, 2009). Research in literature circles should also focus on what is happening during the discussion to ensure that students are interacting at high-levels and comprehend the text. However, measuring contributions in an open discussion is difficult and uncommon.

Costa and Kallick’s (2000) description of the three-story intellect (Fogarty & McTighe, 1993) can also be used to construct an appropriate measure of expressed comprehension during literature discussions (Table A.1). This framework captures all of the elements in the Paradis et al. (1991) study, as well as categorizes other kinds of talk that are not considered in that assessment. The three-story intellect is based on three cognitive processes as evidence of thinking (McTigue, Washburn, & Liew, 2009) which are input, process, and output. The input level entails basic recall of information and is demonstrated by reiterating the text. For example, a student may retell an event that happened in the reading. Essentially, the reader is restating content that is explicitly input
from the text. The next level builds on the input level, but requires processing from the reader. The surface level knowledge from the text is processed in different ways. For example, the student might compare a character to his own experiences, or a student might explain reasoning behind a hypothesis. Finally, the output level requires students to think beyond the text, and make generalizations or predictions (Costa & Kallick, 2000). For example, a student might judge a character based on his or her own values and beliefs, or evaluate an author’s writing style.

Table A.1

*The Three-Story Intellect (Costa & Kallick, 2000)*

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>Name, Recall, Restate, Reread, Locate, Describe, State, Inform, Define, Identify, List</td>
</tr>
<tr>
<td>Process</td>
<td>Compare, Contrast, Classify, Distinguish, Explain (Why), Infer, Sequence, Analyze, Synthesize, Make Analogies, Reason</td>
</tr>
<tr>
<td>Output</td>
<td>Evaluate, Generalize, Imagine, Judge, Predict, Speculate, If/Then, Apply a Principle, Hypothesize, Forecast, Idealize</td>
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</table>

There may be a correlation between the three-story intellect and reading comprehension. Blair and Raths (1978) qualitatively analyzed reading comprehension test questions on standardized reading assessments. They argued that test items could be grouped into three categories: recall, low inference, and high inference. Recall questions are similar to the input level—such items ask students to remember explicit content from the text. The low-level inference questions ask students to make reasonable inferences in the text, similar to the process level. For example, if the text states a child made a snowman, one could infer it was winter. According to Blair and Raths (1978), the high-
level inference questions usually require a judgment, of “what is the best answer?” Students are then required to select the “best answer” from multiple choices. Speculation is also prominent in the output level of the three-story intellect model (Costa & Kallick, 2000). Standardized reading comprehension assessment questions (Blair & Raths, 1978) and the three-story intellect framework (Costa & Kallick, 2000) are based on similar constructs. A standardized test measures comprehension through paper and pencil, but the three-story intellect framework can be used to measure comprehension orally by coding questions and statements during discussions.

The original intent of the three-story intellect was to teach educators how to help their students think (Fogarty & McTighe, 1993). Students who demonstrate these levels in literature circle discussions are thinking at these differing levels. Thus, it might be assumed that students demonstrate comprehension through dialogue on one of the three levels of as students create a collective understanding of the text.

Researchers, Fawcett and Garton, (2005) investigated how students arrived at a common understanding of text. The researchers studied the effects of peer collaboration on problem solving. They stress that problem solving through collaboration is important because the skill is widely used in society. Teaching students to problem solve in groups is applicable outside of school walls. Fawcett and Garton state that collaboration should be centered on a unified task--an issue that will be discussed later. Their study included 125, year 2, (6-7 years-old) students in an affluent Australian city. There were 10 pairs of high/high students, low/low, and high/low students completing a card sorting activity. The one-way ANOVA revealed a significant main effect among groups that sorted the
cards correctly. The low-students performed significantly higher on the sort when paired with a higher-level student. The other pairings made no significant gains. It is important to mention that the overall performance of collaborative groups was significantly higher than the individuals in the control group. Though results of the study differ on the individual post-tests, the overall group performances were better than when individuals sorted alone. Thus, during this task, two heads were indeed better than one. Fawcett and Garton draw on Vygotskian and Piagetian beliefs stating that both differing ability and cognitive conflict benefit cognitive change in collaborative tasks.

The Complexity of Literature Circles

In some ways, literature discussions are complex adaptive systems (Holland, 1992) in that the teacher creates a “container” (Eoyang, 1997) in which students are encouraged to discuss the text. Within a container however, chaos can ensue because of the discussion’s open format (Trygestad, 1997). Chaos is actually desired in discussions because chaos is evident when the unexpected is birthed from an occurrence, much like a fractal (Caine & Caine, 1997). The fractal is constant iterations of itself, but never the same. It starts with a basic configuration, but changes based on the situation. It will never be the same again. A conversation can be understood similarly, in that once it begins, the process is indeterminate, and the paths are endless. (Boal & Schultz, 2007). Productive conversations are often nonlinear, so teachers and literature circle design should not try to fit a dynamic process into a linear structure (Cziko, 1989) such as providing an order for speaking, or assigned jobs in discussions. In the beginning, conversations may seem
disorganized. However, as the discussion moves toward the edge of chaos (Caine & Caine, 1997), it begins to self-organize (Boal & Schultz, 2007). Discussants build off each other’s knowledge and contributions to work towards coherence or a better understanding. The experience and interpretations of others can greatly enhance private understandings (Rumelhart, 1994). Conversational variables, such as a simple utterance of a personal connection to text are often unpredictable, but are necessary when engaging in a productive conversation. The product might be intangible; discussants not sure of where they are headed, because their destination is unseen in the beginnings of conversation. The destination might be thought of as resolution. This arrival, in chaos theory, is called emergence—the moment when all of the variables impact each other in a way that something new emerges. It can also be thought of as the “Ah-hah” moment, when disorganization suddenly completes reorganization. Eoyang (1997) argues the nonlinearity and constant bifurcations are additional variables in conversations that serve as the means for a new understanding.

Because literature circles are complex, there is a possibility for off-track discussions. Structure, modeling, scaffolding, and the transfer of learning help keep students focused and provide boundaries for discussion; otherwise, talks of birthday parties, video games, and recess can prevail (Dixon-Krauss, 1996). There is also potential for negative and interactions unrelated to the text (Clarke & Holwadel, 2007). Discussions are social processes, and it is important for literature circle discussions to have social norms, mutual respect, and students should be well versed in collaborative skills (Wiencek & O’Flahavan, 1994). Conversations inevitably go somewhere according
to chaos theory, however if conversational skills are instilled prior to discussion, the likelihood of the discussion being more productive and positive may increase.

Different academic subjects have varying complexity, and research indicates that language arts’ complexity might be due to the ill-structured domain in which it resides. Cognitive flexibility theory (Spiro, Coulson, Feltovich, & Anderson, 1988) argues that in order to understand ill-structured domains such as free-flowing discussions, one cannot simply rely on intact schemata to demonstrate advanced knowledge; the learner or discussant must apply various schemata from the self and others, so discussions are inherently complex. Krol’s study (2004) measured the effects of a national cooperative learning initiative in the Netherlands. Up to this point, collaboration was rarely observed in the Dutch classrooms because whole-group teaching dominated. The Krol study measured cognitive development during a math and language arts task. In a pre/post-test design the treatment groups collaborated on a task, and the control completed the task alone. The group that collaborated in math did not perform significantly differently from the independent group according to the post-test. However, there was a high effect size (.70) in the language arts group. The researchers recognize the possibility that more than one interpretation of the selected passage can account for the cognitive restructuring. In such a context, private knowledge is made public, discussed, and internalized again in a different way. The discussion of the reading falls into an ill-structured domain, or instructional activity that lacks structure; therefore, cognitive flexibility is needed (Spiro, Coulson, Feltovich, & Anderson, 1988).
In addition to members’ schemata, Tudge and Hogan (1997) suggest that gender changes the dynamics of a group when engaged in a collaborative task. Another study (Webb & Farrivar, 1994) investigated gender, comparing differently structured mix-gender groups completing a collaborative task. The researchers studied seventh and eighth graders in equal-gender (2 boys and 2 girls), majority-boy (3 boys and 1 girl), and majority-girl groups. The analysis revealed a small effect, indicating that gender can affect the small-group discourse and task completion. However, when gender’s saliency was minimized by equally distributing males and females, the effect decreased. Interestingly, in both majority conditions, the girls were at a disadvantage. In majority-girl groups, the girls were observed seeking leadership from the boy. In the majority-boy groups, the girl was simply ignored altogether.

Other research on gender’s effect in small groups is often unclear because findings were less definitive (Lockheed, 1983; 1977). It seems that the effect gender has on small-group interaction might change as children enter adolescence. In one study (Lockheed, 1977) on mixed-gender small groups, the 15- and 16-year-old boys were perceived as more adept leaders than girls. In a later study (Lockheed, 1983) with primary school students, the boys were also perceived as leaders, but the analysis revealed the perceptions did not transfer into the actual collaborative task as the boys and girls did not treat each other differently. In other words, the two studies suggest that males are perceived as leaders, but only older students’ perceptions match the observations by Lockheed during small group tasks. The researchers infer that young students are aware of gender-status differences, but the perceptions are not evident in
actions until later in life. For example, younger students know that boys and girls are different, but they did not act out the belief during discussions. However, the older students were observed treating boys and girls differently in groups, acting on their beliefs that boys were leaders.

The factors that influence group dynamics manifest physically (Tudge & Hogan, 1997) and mentally (Vygostky, 1978, Li; 2008). These two broad factors, mentally based (i.e., personality) and physically based (i.e., gender), along with the context and implementation of the instructional activity, can influence the dynamics of literature circle discussions. Literature circles are complex, and thus, they must be implemented carefully (Chan, 2010; Clarke & Holwadel, 2007; Day & Ainley, 2008). The instructional design of literature circles has been researched extensively (Day & Ainley, 2008), but, beyond consideration of gender, there is a gap in the research when considering group configuration. Researchers (Clarke & Holwadel, 2007) report that changing pre-teaching methods, instilling positive conversational discourse, and providing a less structured preparation process to create a context for discussion enhanced literature circles, but little research exists that considers the intentional placement of students in the groups.

Although most research agrees on some common tenants of literature circles, such as small groups reading the same text independently with an opportunity to discuss, providing choice, and preparing students for discussions, teachers and researchers are still seeking better ways to implement literature circles. Teachers have varied literature circle designs by delivering mini-lessons, changing preparatory methods, and offering support with conversational discourse. Researchers in turn measure the effectiveness of the new
designs, and make practical suggestions to maximize the positive effects of literature circles on student learning. The related research, (Wood et al., 1976) however, indicates that as instructional scaffolding is removed from literature circle discussions, the complexity of the task increases.

Theoretical Framework

Because discussion during literature circles can parallel the process of learning described in social constructivism (Dixon-Krauss, 1996) it makes sense to view the instructional activity through a social constructivist lens. Some argue, however, that literature circles are better understood from a socio-cultural perspective (Tracey & Morrow, 2006). According to socio-cultural theory, students bring their unique experiences to the discussion; therefore, different cultural perspectives represented by the respective students undoubtedly influence the conversation. Still, in a broader understanding of literature circles, the influence of a student’s culture is seen as semiotic mediation, concept development, and internalization (McMahon, 1996). Many of the participants’ previous experiences, including cultural scripts, influence the understanding of a text. These idiosyncratic, prior experienced-based understandings are known as schemata (Anderson & Pearson, 1984). According to schema theory, the prior knowledge of an individual directly affects the comprehension of text. Purportedly, the students verbalize their various schemata that lead to coherent interpretations of text (Spiro, Coulson, Feltovich, & Anderson, 1988). Similarly, the social constructivist process appears to capture how unique interpretations of text are reorganized and internalized.
through social interaction (Dixon-Krauss, 1996; Guthrie & Schafer, Wang, & Afflerbach, 1995) because students’ engagement in literature circles can be understood through four aspects of social constructivist theory.

Learning in social interactive contexts can be observed in several ways. Vygotsky’s work (1978) identifies four major aspects of learning: 1) the zone of proximal development (ZPD), 2) semiotic mediation, 3) concept development, and 4) internalization. The ZPD is the zone in which a child can achieve success in learning when aided by a knowledgeable other. According to this tenant, a knowledgeable other is required in order for learning to occur; therefore, instructional practices need to provide opportunities for students to engage in collaborative interaction. Typically, when initiating literature circles, the teacher assumes the role of the knowledgeable other and models interaction for the students through mini-lessons and other demonstrations. Later, these modeled interactions influence the discussion produced by the students (Dixon-Krauss, 1996). The modeled interactions learned from teacher may then be applied in other contexts such as literature circles, though this research argues that certain people are predisposed to facilitative behaviors due to particular personality traits, thus the knowledgeable other is not necessarily always the teacher.

Vygotsky’s second tenant, semiotic mediation, relates to using signs and symbols in a social context to create meaning. Essentially, semiotic mediation is the process in which humans internalize the world around them through discourse. As noted earlier, in most literature circle designs students engage in some sort of preparation activity prior to discussion in the form of writing questions, making connections, or other comprehension.
strategies. For example, during the discussion, their notes serve as signs and symbols that represent their understandings of the text. Ideally, the participants’ initial understandings act a springboard into semiotic mediation of meaning. It is argued that these signs and symbols initiate cognitive restructuring (Shotter, 1993). A student’s understanding of text can change as he/she engages in dialogue as Lindfors (1987) posits “Verbal interaction serves as an important function by getting us to new ideas or observations, taking us beyond the limits of our experience” (p. 273). Language can be a powerful sign that aids students in developing their understanding of a concept; therefore, students should be given ample opportunity to use language as a learning tool.

As an example of students engaging in semiotic mediation in a literature discussion, McMahon (1996) describes two boys as they negotiate their understandings of war. At the beginning of their literature circle discussions, their symbols represent a more humorous perception of war, drawing pictures of war consisting of little stick figures being bombarded with heavy artillery. After engaging in literature circles for four weeks, the students evidence a more serious stance, discussing consequences of war. The more sophisticated understanding might be the result of semiotic mediation; in the case of literature circles in which language serves as the signs and symbols. This semiotic mediation leads to the third aspect of the social constructivist perspective—concept development. Consider the previous example: the students did not initially have an accurate concept of war. This was demonstrated in their humorous drawings and laughter during discussion. After the concept of war was developed through reading and subsequent dialogue, their discussions became serious, and the conversations turned from
joint laughter to heated debate. Through the process of reading, discussing, and journaling, their concepts of war became more sophisticated. Therefore, the first three components of social constructivist theory help serve to explain the complex path from a novice understanding to a more complex and sophisticated one.

The last component relates to the internalization of socially constructed knowledge. According to Vygotsky, there are two ways to internalize concepts. He describes two planes of mental function: interpsychological and intrapsychological. Essentially, individuals in a group connect the social interaction to their prior experiences. Students do not internalize the social constructed reality verbatim, but create a coherent understanding that can exist within their individual realities. While the internalization may not resemble the individual understandings of other group members, the social interaction plays a major role in the construction of private knowledge. In other words, the group conversation helps participants internalize information related to the text (McMahon, 1996). Thus, the interpsychological plane exists during the discussion, and the meaning is internalized on the intrapsychological plane.

Removing Scaffolds and Fostering Independence in Literature Circles

Many studies report a higher level of engagement and positive student perceptions of literature circles (Alvermann & Young, 1996; Bond, 2001; Burns, 1998; Dail et al., 2009; Day & Ainley, 2008; King, 2001; Long & Gove, 2003; Pearson, 2010). But, Spiegel (1998) cautioned that literature circles should not be considered a “silver bullet”. There is more to literature circles than students talking about a book. Long and Gove
(2003) promote literature circles because they provide students with equal opportunity to respond. Because of the complexity of literature circles, however, it may not be accurate to assume equality. Although student groups might appear equitable, some groups are more successful than others, and exhibit a higher level of quality interaction (Li et al., 2007). There must be some explanation for varying instances of success and level of quality of student participation. One explanation might be found in characteristics of students and their unique contributions to discussions. For example, groups with leaders might be more successful than those without.

Although the enjoyment of literature circles is well established in research (Certo, Moxley, Reffitt, & Miller, 2010), researchers began focusing on the academic engagement such as observable behaviors that promote learning or students who use leadership qualities to facilitate discussion (Li et al., 2007; Tharp & Gallimore, 1988).

Scaffolding, a construct attributed to Bruner (Wood, Bruner, & Ross, 1976) relates to Vygotsky’s (1978) notion of ZPD, and is a metaphor for providing needed support to students in an effort to maximize their success with challenging tasks.

Scaffolded instruction begins with the teacher’s curricular decisions based on students’ needs. For example, if students are proficient in teacher-led classroom literature discussions, then a teacher may decide that literature circles may be an appropriate next step. But, implementing literature circles in elementary classrooms is a difficult task, and in many cases requires a period of trial and error (Clarke & Holwadel, 2007). This period of facilitation might also be explained as making a difficult task achievable—an important process in scaffolding (Wood et al., 1976). The restructuring of literature
circles through mini-lessons and student preparatory methods can help diminish the difficult transition to peer-led discussions (Burns, 1998; Clarke & Holwadel, 2007; Maloch, 2002).

The transition to independence begins with a knowledgeable other supporting a novice on a difficult task. The knowledgeable other is not necessarily smarter than the novice, but is more knowledgeable about the topic. In addition to the experience, the knowledgeable other is skilled at guiding the notice to a better understanding of a concept. They do not necessarily dominate the instructional episode; rather the knowledgeable other facilitates the learning by calibrating the difficulty and guiding a learner through a particular task. The teacher then slowly removes assistance when appropriate which ultimately leads to student independence.

In then novice state, tasks are directed by inner-speech (Berk, 1985). Tudge and Hogan (1997) suggested that students need a knowledgeable other to serve as an external mediator to help students internalize inner speech. In other words, novices need access to the internal dialogue of an expert to master a given task. The inner speech during academic conversations is complicated, as discussants are constantly synthesizing what others are saying, and determining appropriate responses. This inner-speech may benefit students in literature circles. Students are required to engage in a literature-based discourse to explore the meaning of a text. This particular discourse may not be automatic. The discourse must be made transparent in teacher talk, so students can rehearse until the discourse structure becomes internalized. Before the speech is internalized and accessed with automaticity, students have to make conscious decisions.
while engaging in literate discussions. Teachers’ who help students develop inner speech enable students to meet the demands of literate discussions (Smolucha & Smolucha, 1989).

From a practical standpoint, the teachers verbalize their thinking, so that students can learn the internal processes necessary for participating in literature circle discussions. Once those processes are internalized from student practice and observing the teacher, it is hypothesized that the tasks become automatic and the need for inner-speech dissipates until the complexity of the task increases (Tudge & Hogan, 1997). In the case of literature circles, the structure of the activity rarely changes, but the content discussed is always shifting because of the text. Students who are well rehearsed in the process of literate discussions are able to focus more on the content of the text, so discussions are more characterized by functional and exploratory talk rather than reflective—a type of talk that focuses on group management (Maloch, 2002). Theoretically, then, the inner-speech and self-regulation required in literature circle discussions, as well as other collaborative tasks, are internalized (Smolucha & Smolucha, 1989). Though the internalization may not result in complete automaticity, the tasks may require less attention.

It may be difficult for teachers to step back after the completion of their role in literature circles. One study (Short, Kaufman, Kaser, Kahn, & Crawford, 1999) juxtaposed the inclusion and exclusion of teachers in literature circle discussions. Teachers were included in four different groups with four different roles: teacher as facilitator, participant, mediator, and active listener. In another classroom, 9-11-year-olds
engaged in peer-led discussions without the teacher. While each teacher role had a differing effect on the groups’ discussions, discourse analysis of the discourse data suggests that there were only minor qualitative differences between teacher-led and peer-led groups. For example, student groups spent more time on each topic and talked about a smaller range of topics. Teachers encouraged discussion of a wider range of topics and deepened the discussion of relevant topics. Overall, both types of groups stayed on topic, and discussed relevant issues regarding the text. Though teacher support is sometimes needed, the absence of the teacher does not indicate unproductive discussions necessarily.

Short et al.’s study (1999) indicates that students are capable of engaging in literate discussions that are focused and relevant to the text. These findings were corroborated in another study involving 22 sixth-grade students (Wiencek & O’Flahavan, 1994). The teacher minimized her control of the discussions and observed students engaged in literature circle discussions. The groups actively constructed meaning of text and were generally excited about the discussions. The differing opinions and interpretation of meaning in the text created a context for social interaction, a key component of learning from social learning perspectives (Vygotsky, 1978).

The issue remains whether the productivity of the peer-led groups is somehow the result of students facilitating discussions similarly to the teacher-led conditions or if different configurations yield more productive dynamics. Related research evidences that during peer-led discussions, students sometimes emerge as leaders to help facilitate meaningful conversations (Li et al., 2007).
While the teacher’s role has been a focus in literature circle research (Evans, 2001; King, 2001; Maloch, 2002), not much has been done to investigate the students’ role. Although it may be difficult for the teacher to step back, it is accomplished by applying proper scaffolding and releasing when students achieve the desired level of participation. Long and Gove (2003) conducted a study with 27 fourth-grade students. They observed the implementation of literature circles and analyzed transcripts qualitatively. The study (Long & Gove, 2003) described promoted three strategies for successful literature circles. The first was an expectation of respect in that students were expected to ask questions, listen to responses, honor perspectives, and encourage one another. The next strategy was largely characterized by inquiry. Essentially, students were asked to use questions to construct deeper meaning of text. The last strategy asked students to pose and solve problems. They practiced each of these strategies in a variety of different ways before applying them in literature circles. As prescribed in this study, the role of the teacher was minimized, and students were observed participating successfully, independent of the teacher.

Teacher and student dialogue was analyzed in an ethnographic study (Palincsar, 1986) involving 10 teachers with six students each. The students and teachers were randomly assigned to either a treatment or comparison group. For the treatment, the teachers learned a scaffolding method to teach comprehension strategies through dialogue. The sessions lasted 30 minutes for 20 days. In the sessions, the teachers read expository passages aloud and aided the students in understanding through dialogue. The teacher facilitated the group by connecting the text to the experiences of the students
through discussion and questioning. The researcher called this dialogic scaffolding, however the teacher also served as a model for literate discussions. The conservations of the groups helped students connect new ideas to existing ones such as understanding a new concept through the introduction of analogy. According to the researcher, the conversations were dynamic, and affected by the discussion topic. The researcher ethnographically analyzed the transcripts on day four and 19. The results indicated that students receiving dialogic scaffolding were able to perform more independently than students in the comparison group. For example, students assumed the role of dialogic scaffolding, and demonstrated behaviors of the teacher. The teacher’s role shifted to that of a facilitator or as the researchers labeled, the coach. The researcher concluded that facilitative modeling can be internalized by the students, and is used during peer-led discussions, and thus the students appeared to have internalized the dialogic patterns modeled by the teacher.

The previous study (Palinscar, 1989) describes how students can scaffold dialogically, and the following study (Tharp & Gallimore, 1988) attempted to break down the dialogue into categories. The reasercchers described six ways in which adults scaffold children: modeling, contingency managing, feedback, questioning, cognitive structuring, and instructing. The next study examined if students were capable of using the six means of assisted performance. Using this framework, Gnadinger (2008) conducted a study to determine whether peers scaffold each other similarly. The study involved 23 second- and third-grade students. The students engaged in various activities across the curriculum, such as science experiments, reading response, and writing conferences; thus,
many different collaborative, small-group tasks were analyzed. The researcher coded the transcripts based on the six means of assisted performance (Tharp & Gallimore, 1988). Students were observed predominantly using questioning, providing feedback, and instructing. Modeling and contingency managing were also observed, though they were less salient. Finally, there were no occurrences of cognitive structuring observed during the study (Gnadinger, 2008). The researchers conclude that students are capable of assisting one another. One might be concerned with the lack of cognitive structuring, but according to Tharp and Gallimore’s definition, cognitive structuring is the chunking of tasks and turn taking which was defined as group management not as the restructuring of a student’s cognitive process. Group management may be more directly related to leadership rather than scaffolding.

According to Hollander (1978), a leader is someone whose actions help a group achieve a goal. Emergent leadership was empirically studied in a fourth-grade classroom (Li et al., 2007). They define a leader by identifying students whose actions help groups achieve goals. In the study, the researchers analyzed 12 open-discussion groups for five functions of leadership: turn management, argument development, planning and organizing, topic control, and acknowledgement. Student groups were heterogeneous and composed of five to eight students. The group members read the same narrative text individually and met in their groups to discuss the story. Teachers were asked to allow students to talk without interfering. The students met twice per week for five weeks. The researchers found that half of the groups had at least one leader emerge and five groups had more than one student exhibiting leadership functions, which makes sense because
leadership functions were shared amongst group members. There was one group without a dominant leader. This study failed to compare the equity between leader-dominated and leaderless groups. Focused solely on leadership functions, the study unfortunately did not compare the groups’ mastery of the academic content (i.e., comprehension of text).

Li et al.’s (2007) functions of leadership (turn management, argument development, planning and organizing, topic control, and acknowledgement) are arguably similar to Tharp and Gallimore’s (1988) six means of assisted performance (modeling, contingency managing, feedback, questioning, cognitive structuring, and instructing).

Table A.2

Comparison of Six Means of Assisted Performance and Leadership Functions

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Modeling</td>
<td>Planning and Organizing</td>
<td>“Try this…” “I think the teacher means…” “Think about it this way…” “It’s like…”</td>
</tr>
<tr>
<td>Contingency Managing</td>
<td>Planning and Organizing Topic Control</td>
<td>“I’m going to tell.” “The teacher will love this.” “You need to stay on task”</td>
</tr>
<tr>
<td>Feedback</td>
<td>Acknowledgement Argument Development</td>
<td>“I don’t think so.” “Good job.” “That’s right.”</td>
</tr>
<tr>
<td>Questioning</td>
<td>Argument Development Topic Control</td>
<td>“Who was the main character?” “What do you mean?”</td>
</tr>
<tr>
<td>Cognitive Structuring</td>
<td>Topic Control</td>
<td>“Let’s take turns.” “Let’s talk about the main character first.”</td>
</tr>
<tr>
<td>Instructing</td>
<td>Planning and Organizing Argument Development</td>
<td>“Make a connection.” “Answer the question.” “Think about it again.”</td>
</tr>
</tbody>
</table>

While the leadership functions and six means cannot be matched up perfectly, they often
overlap (see Table A.2).

Modeling, the first of Tharp and Gallimore’s (1988) six means of assisted performance is a way to facilitate discussion in a group. Modeling the desired discourse gives students the means to contribute to the discussion in a coherent manner. Students who model productive engagement in discussions help other students plan their contributions to the discussion. For example, a student may repeat a similar language stem, such as “I made a connection when…”, but include a personal connection. As leaders model the use of language stems, other students are exposed to the discourse structure. Contingency managing also serves as planning, organizing, and topic control in that rewards and punishments are administered for staying on topic and maintaining organization in the group. For example, a student might threaten to “tell the teacher” or commend a peer for a helpful contribution to the discussion. Importantly, in the Li et al. (2007) study, the frequency of leadership functions grew over time; therefore, children were actually learning the functions through discussion practice.

The acknowledgement function of leadership might be achieved by offering feedback. This feedback acknowledges other group members’ responses descriptively. In addition, offering feedback is a form of contingency managing. Certain types of feedback—for example, questioning—align with Li et al.’s (2007) argument development function of leadership. Asking questions about members’ contributions helps students examine their own beliefs and contribute to the development of an argument. Through feedback, students make connections and collaborate on the reasoning behind the argument. In addition to argument development, asking general
questions about the text is also a form of topic control. It helps guide the discussion to new pathways. Cognitive structuring is another form of topic control as it explicitly asks students to stay on task as well as on topic through ordering the discussion points. Some may argue, however, that there is much more to cognitive structuring than group pragmatics, such as the reorganization of information in the brain.

Finally, in this researcher’s comparison of group discourse functions, instructing is also evident in argument development, and planning and organizing. Students directly ask students to accomplish certain tasks or elicit particular responses. When instructing, telling or teaching, students also ask their peers to examine their interpretations and rethink their reasoning.

Although there is not a perfect overlap, it is important to see the connection between leadership and scaffolding. But, they are fundamentally different, too. Leaders rarely give up their role, while teachers use scaffolds in order to relinquish their role. In the large-scale leadership study by Li et al. (2007), many leaders emerged, but that may be problematic because too many leaders might counterproductive to scaffolding. Improper implementation of literature circles can be devastating in that class-time is wasted on unproductive discussions that are characterized by negativity and unrelated tangents. Therein lies the problem; ideally every literature circle group should be productive. Teachers need to look towards facilitators, or students with the skills or characteristics to start and perpetuate interesting discussions that include all group members. If appropriate characteristics include personality traits that are fixed, then such traits could arguably manifest across all contexts, and it would be beneficial to determine
which fixed personality traits influence the quality of elementary literature circle discussions. Previous research (Gnadinger, 2008; Palinscar, 1989) indicated that students were capable of scaffolding their peers prefaced by teacher modeling. The Li et al. (2007) also suggested that students were capable of learning leadership functions over time. One must wonder if the same is true for facilitators, or perhaps facilitation is a function of personality. Thus far, no research exists that investigates personality factors and their influence in literature circle discussions.

Measuring Personality Traits with the Five Factor Model

Previously, this literature review focused on the complexity of literature circles as an instructional activity within a social constructivist perspective, existing approaches to literature circles, and the complex interactional nature of the instructional activity. Understanding more about personality factors that influence individual participation in literature circle discussions could provide information to educators on how to organize literature circles for more optimal interaction. The related literature rarely discusses the intrapersonal factors that likely impact the students’ social interaction. Intrapersonal factors such as individual leadership qualities influence student engagement (Li et al., 2007) and should be considered during social learning situations. Because literature discussions are social learning situations, the influences of human factors like personality are worthy of investigation (Chan, 2010).

Over the past century, personality theorists have struggled to create a personality structure that can house all attributes of individuals. Some argue that labeling personality
based on a few factors is potentially limiting or reductionistic (Emmerich, 1968). Others believe that the power of language cannot be removed from connotative factors (Dingman, 1989). For example, different cultures and beliefs value particular descriptors differently, thus self-rating or that of others is influenced by varying negative and positive connotations. Regardless of critique, however, some personality structures have stood the test of time, and remain viable in the 21st century (Goldberg, 1990).

In 1884, Galton estimated that 1,000 adjectives were commonly used to describe people. In 1934, Thurstone empirically shortened the list to 60 adjectives. These adjectives were identified by asking 1,300 people to describe a well-known individual. After the 60 most common adjectives were identified, the researcher utilized multiple factor analyses and found five independent factors. The five factors independently encompassed the 60 adjectives. Goldberg (1990) conducted a similar validation study using over 1,700 trait terms. The research employed five different factor analysis procedures, all of which confirmed the five-factor model.

The five factor model includes the “Big Five” personality traits which is common measure of personality (Anusic, Shimmack, Pinkus, & Lockwood, 2009). The Big Five was originally established in the late 1940s (Fiske, 1949). The Big Five personality traits are extroversion, agreeableness, conscientiousness, emotional stability (also referred to as neuroticism), and openness. According to this model, extroverted students are enthusiastic and energetic. Agreeableness is understood as compassion and the ability to cooperate. When a student is efficient and organized, he/she is described as conscientious; therefore, a lack of conscientiousness would be characterized by
disorganization, carelessness, and spontaneity. Emotionally stable students are secure and confident. Openness measures a student’s propensity to enjoy new experiences or the level of curiosity a student exhibits (Anusic et al., 2009; Barbaranelli, Caprara, Rabasca, & Pastorelli, 2003). These classifications have been used to rate personality in a variety of fields, such as sociology, psychology, marketing, entrepreneurship, and education (GoslingLab, 2012). The model has been studied extensively and has yielded high coefficients (.90) of relatedness across studies (Kaiser, Hunka, & Bianchini, 1971). Other researchers (Norman, 1963; Tupes & Christal, 1992) corroborated Fiske’s (1949) original study. Personality research contends that no matter how large or broad a personality inventory, the items can be categorized in a few robust factors (Dingman, 1986; Goldberg, 2001).

Although there are other personality models, the Big Five model is the most dominant in personality research (Donnellan, Oswald, Baird, & Lucas, 2006). Attempts have been made to expand the model into six or seven factors, but research (Digman & Inouye, 1986) indicates that five are sufficient. One of the largest collections of child personality data comes from the Hawaiian Islands. It includes 88 teachers’ reports on 2,572 elementary students. Using this large data pool, Digman and Inouye (1986) found a weak sixth dimension of creativity, but ultimately contended that five dimensions were sufficient in capturing personality traits. Other research sought to downsize the model into two or three factors (Marsh, Craven, Hinkley, & Debus, 2003; Ng, Cooper, & Chandler, 1998), but again, the model remains a reliable means for measuring personality traits in children and adults (Digman & Inouye, 1986).
Some researchers prefer a shortened assessment rather than asking participants to fill out thick packets to measure personality, especially when the researcher wishes to reduce the burden on the subjects (Muck, Hell, & Gosling, 2007). The Ten Item Personality Inventory (TIPI) (Gosling, Rentfrow, & Swann, 2003; GoslingLab, 2012) is a reliable measure of the Big Five personality factors (Donnellan et al., 2006; Gosling et al., 2003). The brief TIPI can be used when larger assessments might be cumbersome to young students or when time is limited. Research contends that the TIPI is a valid compromise between efficiency and reliability (Jonason, 2011), and is an efficient approximation of larger inventories measuring the Big Five character traits. (Muck et al., 2007).

Although the TIPI has never been used with young children in published research, other brief measures of the Big Five have been validated with children as young as five. Measelle, John, Ablow, Cowan, & Cowan, (2005) assessed 91 children ages five to seven and claim that children as young as five can self-report measures of personality. Children rated themselves on a brief measure of the Big Five while parents and teachers served as external raters. The children’s self-reports were compared to the external ratings provided by the parents and teachers. The results include a correlation coefficient of .60. Therefore, it is reasonably safe to assume that children beyond the age of five years are aware of and can reliably report their personality traits through brief measures.

Other assessments of the Big Five have been used to study other phenomena in young children. In a study (Jensen-Campbell et al., 2002) of middle school children, two of the Big Five personality factors: extraversion and agreeableness predicted acceptance
among peers in middle school. In addition, higher ratings of agreeableness also predicted that students were less likely to be victimized. Another study (Lay, Kovacs, & Danto, 1998) using the Big Five inventory correlated procrastination and lack of conscientiousness among 280 students in grades 3-5. The study utilized teacher reports of students and students’ self-report data. The researchers were able to reliably predict higher observed procrastination in students who lacked conscientiousness (Lay, Kovacs, & Danto, 1998). Beyond the import of such studies, this research reiterates the ability of children to self-report measures of personality, as the personality reports were consistent among the students and teachers.

Considering Literature Circle Group Configuration

Personality traits might play a significant role in peer interaction during literature circles in addition to prior instruction, and preparatory methods. A pilot study by this author investigated the Big Five personality traits, along with reading ability, as predictors of quality verbal engagement in literature circle discussions. Six third-grade literature discussions were video recorded and analyzed for quality verbal contributions. A quality of verbal engagement score was quantified by coding individual students’ discourse according to the three-story intellect (Costa & Kallick, 2000). The score served as the dependent variable in a multiple linear regression. The independent variables were the Big Five personality factors along with reading ability. The Big Five were assessed using the TIPI (Gosling et al., 2003). Students self-reported and the teacher ratings agreed with 100% of the students’ ratings. The regression indicated that higher reading ability,
higher extroversion, and a lack of conscientiousness in student personalities positively predicted higher quality verbal engagement in literature circle discussions. The study aimed to identify personality factors to consider when configuring peer-led literature circle groups (Young, 2010).

It is important to consider group configuration and monitor the interaction of students in literature circles because the interactional dynamics of the groups change when a teacher is removed. In a study involving 29 ethnically and socioeconomically diverse third graders, Maloch (2002) noted difficulty when transitioning from teacher-led to peer-led discussions. As cited previously, Maloch studied third graders for five months as they transitioned from teacher-led to peer-led literature circles, and she found the peer-interactional component of literature circles problematic. Students responded positively to teacher’s scaffolding of conversations through facilitation and mediation, yet some students struggled in the absence of the teacher. Students were off task, negative, and were less likely to discuss the text deeply. However, in other studies, when teachers did not intervene, students were observed assuming leadership roles (Li et al., 2007). Students interact differently in peer-led discussions, but the interactions are not always for the better (Clarke & Holwadel, 2007). The challenge includes identifying the students who might emerge as leaders and who might facilitate the discussions. Such students might facilitate the social construction of knowledge and groups can be configured accordingly. One might also speculate whether certain combinations of personality traits, gender, or ability are less likely to develop students’ thinking about text. Examining factors that may predict strong verbal engagement may help extend the extant research
related to literature circle implementation. In other words, perhaps text choice and reading ability should not be the only criteria that teachers use to determine the configuration of literature circles.

Teachers often spend a large amount of time preparing students for literature circles, and typically the instructional activity is used throughout the year (Miller, 2002); therefore, it is not unreasonable to utilize personality inventories as an additional consideration when grouping students. It is also helpful to consider whether highly engaged students facilitate the participation and understanding of other students during literature circle discussions. If literature circles are to be maximized, then discussions should be analyzed for quality of individual participation and whether students enhance the quality of the conversation or the depth of textual understanding. If students are leading one another to deeper textual understanding, perhaps the facilitative behaviors can be identified and taught to all students. Investigating student facilitation and group configuration of literature circle groups aligns with the belief that instruction should be effective and efficient (Mohr, Dixon, & Young, 2012).

In summary, research in literature circles has focused on implementation and design (Almasi, O'Flahavan, & Arya, 2001; Bond, 2001; Brabham & Villaume, 2000; Burns, 1998; Clark, 2009; Daniels, 2002). Early research (Daniels, 1994) suggested roles to initiate conversations, and since has promoted open-discussions through less restrictive preparatory methods and targeted mini-lessons (Evans, 2002). Research has also looked at individual student perceptions of literature circles, mostly suggesting that students enjoy literature circles (Daniels, 2002; Flowerday, Schraw, & Stevens, 2004; Peralta-
Nash & Dutch, 2000). Then, McElvain (2010) studied the resulting comprehension and indicated that students were in fact developing their understanding of the text through dialogue, a finding aligned with social constructivist theory (Vygotsky, 1978). In addition to understanding the teacher’s role in literature circles (i.e., mini-lesson, preparatory methods), research has explored individual student functions within small groups. Li et al, (2007) and Gnadinger (2008) found that students were capable of scaffolding and leading their peers. The current study intends to expand the extant research by looking at students who facilitate discussions. The role of a student facilitator has not been clearly defined in this research beyond an intuitive inference that facilitators enhance discussions. The current study starts by identifying personality traits that predict higher quality of engagement in order to study the roles of the highly engaged individuals to better understand how students facilitate peer-led literature discussions.
APPENDIX B

DETAILED METHOD
The Pilot Study

To explore the influence of student personality on literature circle discussions, a pilot study by this author investigated how reading ability and personality traits predicted the quality of verbal discussions in small group, peer-led literature circles. Twenty-seven minutes of seven third-grade literature circle discussions were video recorded, transcribed, and coded based on the three-story intellect (Costa & Kallick, 2000). Coded statements and questions were quantified as an individual student quality of engagement scores. Through multiple linear regression, the analysis determined the best predictors of quality verbal engagement in literature circle discussions. Results indicated that higher reading ability and extroversion, along with lack of conscientiousness, were significant predictors of quality verbal engagement in literature circle discussions. However, findings were unclear on how personality factors influenced the quality of interaction in groups. The current study looked more closely at the facilitative behaviors exhibited by the students demonstrating higher-quality verbal engagement. Student gender provided an additional independent variable.

The first part of the current study aimed to answer the following question: To what extent did personality factors, reading proficiency, and gender explain the quality of verbal engagement in literature circle discussions? The second analysis determined how students facilitated peer-led literature circle discussions.
Context and Participants

The study was conducted in a suburban school district in the Southwest. The elementary school was located in a middle-class neighborhood serving 18% economically disadvantaged students. Student demographics in the school are 58% white (non-Hispanic), 19% Hispanic, 14% black (non-Hispanic), 8% Asian/Pacific Islander, and <1% Native American.

The research participants were students at the school where the author worked as a second-grade teacher. Maverick Elementary (a pseudonym) uses the district-adopted language arts textbook, *Texas Treasures* (Macmillan/McGraw-Hill, 2011), and teachers are encouraged to use best practices, which include innovative teaching strategies created at the school and classroom level. The district language arts coordinator strongly recommends the implementation of literature circles. Literature circle information, videos, and lesson plans are available on the district language arts web site. In addition to the web resources, professional development in literature circles has been available to teachers and was provided during the summer prior to the research.

Recruiting

First, teachers received information and asked if they were interested in participating in the study. Teachers were not required to participate. After teachers were recruited, all students in participating classes were invited to participate in the research. Next, students’ families received a letter explaining the study, describing its intent, and requirements for participation. The letter also announced the date of an informational
meeting to explain the study at Maverick Elementary. Although attendance was not required for participation, all families were invited. After informing the parents, guardians, and children of the study and explaining the requirements to participate, informed consent forms were distributed. There was no compensation for participation or punitive measures for non-participation. All students who agreed to participate were included in the study, which entailed completion of the Big Five personality assessment and videotaped segments of literature circles discussions.

Three fourth-grade departmentalized language arts teachers were included in the initial recruitment. One teacher was excluded due to the low number of student consent forms returned. Another teacher was not included due to her implementation of a different style of literature circles in her classroom. In her case, the focus was not on discussion, but restating journal notes while seated in a circle. While reading journal responses aloud is a useful exercise, the discourse did not inform the current study. Following is a brief overview of the only participating teacher’s literature circle design.

Mrs. Mack is a fourth grade language arts teacher with 14 years of experience. At the time of the study, her grade level was departmentalized, so she was responsible for teaching language arts to two separate homerooms. Both of her classes participated in literature circles. Mrs. Mack’s goal for literature circles was “to create and support the environment for analytical (higher-level) thinking and reading skills through a community of readers, affording the unique opportunity for sharing and learning with peers, therefore creating the optimal self-directed, student-choice learning situation.” She did not use assigned roles and encouraged open discussion. She typically required
students to write down any “burning questions”, interesting quotes, or unknown vocabulary words prior to literature circle discussions. The students were grouped based on book choice and reading level. Before the students made their choices, the teacher assembled texts that she thought were high-quality, relatively new, and were of appropriate readability. She allowed students to choose their books, but limited the number of choices based on individual students’ reading ability, and thus the teacher’s assessments of students’ reading ability ensured that students would be able comprehend the text.

The five groups targeted for this study ranged from three to six students, and were selected because the majority of the group members (17) consented to participation. The students read their literature circle books every day and engaged in discussions on Mondays, Wednesdays, and Fridays. She set no time limit on the literature circle discussion, and students were encouraged to discuss until there were no more discussion points or questions.

At the time of the study, the students had been using literature circles all year, and many of the students had participated in literature circles while in third grade. The fourth-grade teacher and the researcher considered the students to be well-practiced discussants. The students were familiar with the routines and the expectations from the teacher.

All of the students knew the researcher because the researcher’s second grade class and the participating teacher’s fourth-grade class met each Friday for Readers Theater (Young & Rasinski, 2009) performances. The teachers often filmed the performances; therefore, the students also had experience being video-taped.
On discussion days, the students sat in their self-selected groups in an isolated part of the room and began their discussions. Although the teacher was present in the room, she did not intervene. There was no rule about who went first, or any order to turn taking. However, the school used Ron Clark’s (2003) Essential 55 for behavior management. Essentially, Clark identifies 55 rules as necessary for respectful behavior. Some of the relevant rules for literature circles included making eye contact with the speaker, respecting and responding to other students’ comments, and learning from your mistakes. The researcher observed adherence to these rules during discussions. Mrs. Mack also expected students to be prepared for the discussions, such as reading the assigned chapters, and writing down required statements and questions for the discussions. The discussions ended when students had nothing left to discuss. Students would ask the group whether they had any other responses or questions. Once all comments or questions were verbalized, the students considered the discussion complete. After the discussion, students began reading independently.

Ten Item Personality Inventory

The Big Five personality traits were measured with the Ten Item Personality Inventory (TIPI) (Gosling et al., 2003). The inventory was administered to each student who participated in the study. The profiles indicated levels of extroversion, agreeableness, conscientiousness, emotional stability, and openness. Because the language used on the survey was potentially difficult to comprehend for an intermediate grade student, synonyms and the example sentences from the American Heritage
Children’s Thesaurus (Houghton-Mifflin, 2007) were read in conjunction with each of the 10 items (Figure B.1). The example sentences aided students in understanding the meanings of the items. The inventory was a self-reported measure and was also used in the author’s pilot study, and the teachers agreed to 100% of the self-reported responses; therefore, this study did not require teachers to confirm the student responses.

<table>
<thead>
<tr>
<th>Trait</th>
<th>Synonyms</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraverted, enthusiastic</td>
<td>Passionate, excited</td>
<td>My dog always gives me an enthusiastic welcome when I get home.</td>
</tr>
<tr>
<td>Critical, quarrelsome</td>
<td>Judgmental, disapproving</td>
<td>The librarian was critical of the plan to save money by ordering fewer books.</td>
</tr>
<tr>
<td>Dependable, self-disciplined</td>
<td>Trustworthy</td>
<td>A dependable friend will always be there in a time of need.</td>
</tr>
<tr>
<td>Anxious, easily upset</td>
<td>Worried</td>
<td>Ross was anxious about his visit to the doctor.</td>
</tr>
<tr>
<td>Reserved, quiet</td>
<td>Shy</td>
<td>He did not act out much, he was quiet and reserved.</td>
</tr>
<tr>
<td>Sympathetic, warm</td>
<td>Concern for others, understanding</td>
<td>My friends were very sympathetic when I had my tonsils removed.</td>
</tr>
<tr>
<td>Disorganized, careless</td>
<td>Unorganized, forgetful</td>
<td>It was careless of the circus performer to leave the tiger’s cage unlocked.</td>
</tr>
<tr>
<td>Calm, emotionally stable</td>
<td>Unworried</td>
<td>Danielle was the only one who remained calm when the fire alarm went off.</td>
</tr>
<tr>
<td>Conventional, uncreative</td>
<td>Standard, normal, regular</td>
<td>My parents thought about getting married in a hot air balloon, but they settled on a more conventional wedding in a church.</td>
</tr>
<tr>
<td>Open to new experiences, complex</td>
<td>No synonym</td>
<td>We went skydiving because we liked new experiences.</td>
</tr>
</tbody>
</table>

Figure B.1. Prompt key for the Ten Item Personality Inventory.
Measure of Academic Progress

Data from the spring 2012 administration of the Measure of Academic Progress (MAP; (Northwest Evaluation Association, 2011) were used to determine students’ reading achievement. The Reading MAP test is a computer assessment that assesses student reading achievement and progress based on grade-level norms. The MAP provides a percentile score based on the normal performance of students at the same grade level. The test is an adaptive test based on item-response theory where the test reacts to student responses, thus becoming more difficult or easier as students answer items. In the end, the assessment produces a variety of reading measures including the percentile score that was used in this study. The MAP test-retest reliability ranged from .76-.93. Ideally, reliability should not fall below .80, but the researchers explained that the reported range was due to the test question sets being different at each administration. The reported average Pearson correlation coefficient is .85, with a range of .69-.80, statistically demonstrating the test’s acceptable reliability and validity (Northwest Evaluation Association, 2011).

Literature Circle Discussions

The researcher followed a filming schedule created with the participating classroom teacher. The goal was to film video-record discussions that occurred during the beginning and the end of the text because the content of discussions varies at different times in the book. For example, a discussion at the beginning of the book might focus on character analysis as readers get to know the characters. However, a discussion at the end
of the book may focus more on the plot. A total of 17 students in five groups were filmed in their assigned classroom during the regular school day. Each scheduled group of students engaged in a discussion about the texts (Table B.1). The teacher filmed the students’ discussion in their entirety on two separate occasions. The discussion ranged from approximately 5 to 30 minutes. The teacher did not require students to follow any order during their discussions and students engaged in topics of their choice. The length of the discussion was directly related to how much the students needed or wanted to talk about.

Literature Used for Discussions

Table B.1

*Description of Literature*

<table>
<thead>
<tr>
<th>Title</th>
<th>Grade Level Equivalent</th>
<th>Pages</th>
<th>Genre</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Joey Pigza Loses Control</em> (Gantos, 2000)</td>
<td>5.2</td>
<td>224</td>
<td>Realistic Fiction</td>
</tr>
<tr>
<td><em>Ghost’s Grave</em> (Kehret, 2007)</td>
<td>6.1</td>
<td>224</td>
<td>Fantasy</td>
</tr>
<tr>
<td><em>Closed for the Season</em> (Hahn, 2009)</td>
<td>4.2</td>
<td>192</td>
<td>Fantasy</td>
</tr>
<tr>
<td><em>Operation Yes</em> (Holmes, 2009)</td>
<td>4.5</td>
<td>256</td>
<td>Realistic Fiction</td>
</tr>
<tr>
<td><em>Toys Go Out</em> (Jenkins &amp; Zelinsky, 2006)</td>
<td>4.0</td>
<td>144</td>
<td>Adventure Fiction</td>
</tr>
</tbody>
</table>

Five students, four males and one female, read *Joey Pigza Loses Control* (Gantos, 2000). This is the second installment in a series describing the life of a young hyperactive boy. He spends the summer with his equally hyper dad. He realizes that his dad lives
every day without the medicine that Joey takes, and decides to give life without medicine a try. The rest of the story is the account of his wildly hyperactive adventure in his attempts to please his father.

Three female students read *Ghost’s Grave* (Kehret, 2007). The text is about a 10-year old boy that has to go live with his elderly aunt who appears to be crazy. Josh eventually meets a ghost named Willie who is unable to rest in peace because his leg was not buried with him. While Josh attempts to help the ghost, he finds a box of money that was previously stolen.

The next group of three (two males, one female) read *Closed for the Season* (Hahn, 2009). The story is about a boy named Logan who moves into a house where a lady was murdered. Logan teams up with his next-door neighbor, Arthur, to solve the mystery of the murder.

Three males read *Operation Yes* (Holmes, 2009). The story takes place on an Air Force base in Iraq. It describes a classroom of sixth-grade students and their beloved teacher Ms. Loupe. Because of the setting, students in the class have a vested interest in the troops, and start a class fundraiser to support injured troops that goes nationwide.

The fourth last group, consisting of three males and three females, read *Toys Go Out* (Jenkins & Zelinsky, 2006). The fantasy tale is about toys that come to life in a little girl’s room. The story is mostly about the adventures the toys take outside the comfort of the bedroom. Household appliances in the house may seem ordinary to humans, but they look very differently to a group of toys.
Quantitative Analysis

In order to render a quality of engagement score, the discussions were coded based on the quality of student contributions (see Table B.2). The quality score assignment was based on the three-story intellect (Costa & Kallick, 2000). Statements and questions were awarded 1, 2, or 3 points (Figure B.2) based on students’ contributions. The first level is an input level that focuses on recall of text information. Some examples of level-one contributions include: recall, describe, name, or identify. The next level, processing, required higher-level thought from the reader. The reader was required to summarize, compare, sequence, infer, or analyze. The third level required output. Some examples of this level included: evaluating, speculating, predicting, generalizing, or judging. The researcher coded all utterances, such as statements that evidence higher-level thinking. In addition, students’ questions were coded according to the elicited cognitive processes. For example, if a student asked, “What do you think the character will do next?”, then a score of 3 was assigned because the question expected a prediction. Although the student was not making a prediction himself, he was using higher-level questioning to extend the discussion (Figure 2). Moreover, some may argue that predicting is a form of inferring, and this research agrees with the argument. However, when students infer to predict, the students enter the hypothetical realm associated with the third level intellect. All discrepancies were scored in favor of the student. For example, a prediction (level 3) was also considered an inference (level 2); however, a score of 3 was assigned because the student hypothesized based on their inference. The scores were totaled into a Quality of Verbal Engagement (QVE) score.
Finally, a graduate student coded a percentage of the statements to determine inter-rater reliability.

The researcher did not employ an additional comprehension measure for two reasons. The first is because of the purpose of the three-story intellect (Costa & Kallick, 2000). The three-story intellect was created to teach educators how to help their students think (Fogarty & McTighe, 1993). When the researcher observed students contributing at the varying levels, it was assumed the students were thinking at differing levels. The researcher assumed that students demonstrated comprehension through dialogue on one of the three levels. The second reason was because of the Mrs. Mack’s goal for literature circles. She wanted to create a community of readers that collectively analyzed text. Her goal was not to recreate standardized testing verbally, but to create an environment where students could explore text through high-level discussions.

Table B.2

Discourse Coding Scheme

<table>
<thead>
<tr>
<th>Score</th>
<th>Level</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Input</td>
<td>Name, Recall, Restate, Reread, Locate, Describe, State, Inform, Define, Identify, List</td>
</tr>
<tr>
<td>2</td>
<td>Process</td>
<td>Compare, Contrast, Classify, Distinguish, Explain (Why), Infer, Sequence, Analyze, Synthesize, Make Analogies, Reason</td>
</tr>
<tr>
<td>3</td>
<td>Output</td>
<td>Evaluate, Generalize, Imagine, Judge, Predict, Speculate, If/Then, Apply a Principle, Hypothesize, Forecast, Idealize</td>
</tr>
</tbody>
</table>

Matt: What is A.G.? [Infer = 2] This solicits an inference.
Julie: Well, it didn’t really say that—it just said it was on the suitcase. [Recall = 1]
Jeremy: Well, first, Stanley just thought it was probably a word. [Recall = 1]
Julie: Maybe it’s like initials. [Infer = 2]
Jeremy: He thought it was Adgy. [Recall = 1]
Matt: It’s probably initials. [Infer = 2]

Figure B.2. Coded example from Holes (Sachar, 2001; 1998) transcription.
The data, including reading percentiles, gender, and personality inventories, were analyzed through multiple linear regression in R (R Development Core Team, 2010). The QVE score served as the dependent variable, and the independent variables were 1) MAP percentile score, 2) extroversion, 3) agreeableness, 4) Conscientiousness 5) emotional stability, 6) openness, and 7) gender.

Qualitative Analysis

The purpose of the second analysis was to explore the functions of highly engaged discussants in peer-led literature circles. The researchers original intent was to use a priori coding frameworks. First, the researcher coded the data based on the six means of assisted performance (Table B.3; Tharp & Gallimore, 1988). However, the framework by Tharp and Gallimore was insufficient because the researcher found it difficult to determine what statements/questions were modeling. Because thinking aloud is sometimes considered modeling, every statement would have been coded as modeling. Conversely, if modeling were considered intentional, then none of the contributions would have been coded (Kucan, 1997). This conflict led the researcher to question the usability of the framework (Tharp & Gallimore, 1988). The feedback category was too general, and simple responses such as, “I agree” were not deemed facilitiative. Finally, “cognitive structuring” was defined as chunking tasks, a function rarely observed in the data. Furthermore, the notion of “cognitive structuring” seemed more managerial, and focused less on the restructuring of cognition. The researcher, then, used Li et al.’s (Table B.4; 2007) leadership qualities to code the data, but again, the framework was insufficient
it did not capture the functions observed in the videos. Acknowledgement seemed too general, and could encompass simple nods, a function that this researcher did not correlate with higher QVE, because the nodding was not coded. In the end, the researcher sought to establish a new framework based on emergent themes using the constant comparative method (Lincoln & Guba, 1985; Strauss & Corbin, 1994) by pulling from existing frameworks (Li et al., 2007; Tharp & Gallimore, 1988), previous research (Maloch, 2002), and utilizing some open coding.

Table B.3

*Six Means of Assisted Performance*

<table>
<thead>
<tr>
<th>Tharp &amp; Gallimore (1988)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Modeling</td>
</tr>
<tr>
<td></td>
<td>Contingency Managing</td>
</tr>
<tr>
<td></td>
<td>Feedback</td>
</tr>
<tr>
<td></td>
<td>Questioning</td>
</tr>
<tr>
<td></td>
<td>Cognitive Structuring</td>
</tr>
<tr>
<td></td>
<td>Instructing</td>
</tr>
</tbody>
</table>

Table B.4

*Leadership Functions*

<table>
<thead>
<tr>
<th>Li et al. (2007)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Organizing</td>
<td></td>
</tr>
<tr>
<td>Topic Control</td>
<td></td>
</tr>
<tr>
<td>Acknowledgement</td>
<td></td>
</tr>
<tr>
<td>Argument Development</td>
<td></td>
</tr>
<tr>
<td>Turn Management</td>
<td></td>
</tr>
</tbody>
</table>
The researcher first looked for themes by examining the contributions of the top five students (29% of the total number of students) who scored high in QVE. By looking at these particular students, the researcher was able to focus on the functions that were demonstrated by proficient contributors. The first category answered the researchers initial questions. How were topics being started? How and when did topics change? The researcher realized that introducing and changing topics were necessary for a functional group, and thus the topic management category was added to the framework. Topic management was similar to Li et al.‘s function of topic control. However, topic management differs because the students used facilitative functions (exploratory talk and confessionals) as a means for topic change.

The second category that emerged was directly related to level 2 and 3 statements/questions (Costa & Kallick, 2000). The researcher originally named this category “high-level”. However, a distinction was made between self-initiated contributions, and those based on the contributions of others. High-level contributions that were self-initiated were unprovoked by others, and reflected the exploratory thoughts of the speaker. However, students that contributed high-level responses to these exploratory thoughts were building the conversation through feedback. Therefore, the “high-level” category was separated into exploratory talk and elaborative feedback. Maloch’s (2002) goal for literature circle discussions was to increase exploratory talk, and the exploratory talk function in this research appeared to make the notion more explicit. Feedback was one of the six means of assisted performance presented by Tharp and Gallimore (1988), but this research suggests that the elaborative dimension is what
makes the feedback facilitative.

The researcher also observed an interesting phenomenon in some of the discussions, and thus began the open coding. Students openly admitted to not comprehending aspects of the text. At first, this phenomenon was added to exploratory talk, but later separated, and given a category of its own—confessionals. Lastly, the researcher observed students managing the group. The talk could not be coded as exploratory talk, elaborate feedback, or confessionals, yet the talk facilitated the discussion. Therefore, the researcher gave accountability a category of its own. Although the category seemed like management, those who held students accountable elicited facilitative talk. For example, a student asked another student what he thought about the relationship between two characters and he responded with exploratory talk, and thus perpetuated the discussion with his elicited contribution.

Table B.5

Emergent Themes: Facilitative Functions

<table>
<thead>
<tr>
<th>Facilitative Functions</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory Talk</td>
<td>Asking questions that are open ended that expect high-level responses and statements that are allowed for debate</td>
</tr>
<tr>
<td>Elaborative Feedback</td>
<td>Agreeing or disagreeing and providing reasoning or text evidence</td>
</tr>
<tr>
<td>Topic Management</td>
<td>Introducing important topics and big ideas as well as changing topic when necessary</td>
</tr>
<tr>
<td>Confessionals</td>
<td>Admitting when meaning breaks down and asking for help from group members</td>
</tr>
<tr>
<td>Accountability</td>
<td>Making sure all group members participate and back up their contributions and questions with text-evidence</td>
</tr>
</tbody>
</table>

After examining the top five students’ contributions, five categories emerged (Table B.5). Via video-tape, the researcher observed students using exploratory talk,
elaborative feedback, topic management, confessionals, and holding other group members accountable. After the framework was established, the researcher recoded of the data (N=17) to confirm the usability of the facilitative functions framework.

Because students often used topic management in tandem with other facilitative functions, such as exploratory talk or confessionals, their statements/questions were coded twice. For example, a student may have changed the topic by admitting a misunderstanding, and thus the statement was coded as topic management and as a confessional.

The researcher did not code statements that were unrelated to the text or lacked qualities captured by the facilitative framework. Statements that were considered feedback, but not elaborative were not considered facilitative. This is an important distinction. For example, a student may have agreed or disagreed with another student, but did not elaborate on his/her reasoning. Following is more thorough explanation of the facilitative terms.

Exploratory talk was observed when students asked high-level questions and contributed open-ended responses. Although some questions were basic, and scored a 1, other questions were considered high-level based on the three-story intellect (Costa & Kallick, 2000). Students asked questions that required processing from other group members. For example, students asked questions about the characters, “Why do you think Joey put his dog in the glove box?” This type of question required other students to infer, speculate, or make judgments. The statements in this category were open-ended. They were not definitive in nature, but prompted other students to debate or provide feedback.
For example, instead of saying, “Joey was a boy.”, exploratory talk was more speculative like “I kind of think Joey was crazy.” Exploratory statements were not derived directly from the text, but were the result of processing information from the text. Some of the processes included inferring, comparing, analyzing, or predicting. Statements and questions on the second and third level of the three-story intellect (Costa & Kallick, 2000) typically illustrated exploratory talk.

The researcher also observed elaborative feedback. This type was feedback that was often observed when students agreed or disagreed with another group member’s contribution. However, students not only expressed their dis/agreement, but also followed up with reasoning or text evidence. Essentially, a student agreed or disagreed, and built a case based on his/her own logic or directed the other group members to the text for evidence to support thinking. The elaborative feedback went beyond a reply of, “yeah” or “I think that, too” by providing reasoning. The elaborative feedback sometimes resulted in debate, conflict resolution, or the reconciliation of misconceptions.

The researcher also observed topic management. Topic management served two functions. Firstly, students introduced topics in an exploratory style. Topic changes that were introduced at a high-level provided a foundation for debate or further exploration of a topic. The second function of topic management was focusing the discussion on main ideas. The researcher read the texts used by the groups, and observed the students discussing what the researcher believed to be the main points.

When students verbalized their misconceptions or misunderstandings, the researched coded the contributions as confessionals. Students occasionally admitted to
some sort of misunderstanding regarding text, character motivations, or plot, and this typically instigated other group members to offer feedback to enhance the confessing student’s comprehension of the text.

Finally, the researcher observed evidence of accountability. Accountability manifested through students in two different ways. First, students verbally required other group members to provide evidence or reasoning behind exploratory talk. Next, students who shirked responsibility were given directives to contribute.

The researcher did not include two coded categories as facilitative. The two categories were: feedback and unrelated. Statements that were considered feedback, but not elaborative were not considered facilitative. For example, a student may have agreed or disagreed with another student, but did not elaborate on his/her reasoning. Both of the categories originally coded as unrelated or feedback were collapsed and coded as non-facilitative.
APPENDIX C

UNABRIDGED RESULTS
Quantitative Results

The quantitative portion of this research was guided by the question: to what extent do personality traits, reading ability, and gender predict the quality of verbal engagement (QVE) in fourth-grade literature circles? In order to answer this question the researcher used the statistical method of linear multiple regression (Crawley, 2007). Seventeen students were included in the analysis. Each student had a quality of engagement score, reading percentile score, gender code, and ratings for each of the Big Five personality traits (Gosling et al., 2003). See Table C.1 below for descriptive statistics. The QVE score was calculated by coding and totaling students’ contributions. The QVE standard deviation is relatively large, which raised questions whether the data represented a normal distribution. Therefore, the researcher tested for outliers. Although the QVE scores ranged from a minimum of 4 to a maximum of 200, no outliers were detected by the Bonferonni test with a significance of $p < 0.05$.

Table C.1

Descriptive Statistics

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Median</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Verbal Engagement</td>
<td>77.00</td>
<td>80.59</td>
<td>63.94</td>
<td>Max=200 Min=4</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>88.00</td>
<td>80.18</td>
<td>18.12</td>
<td>Max=97 Min=40</td>
</tr>
<tr>
<td>Extroversion</td>
<td>5.50</td>
<td>5.21</td>
<td>1.34</td>
<td>Max=7 Min=2.5</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>5.50</td>
<td>5.38</td>
<td>1.05</td>
<td>Max=7 Min=4</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>6.00</td>
<td>5.71</td>
<td>0.87</td>
<td>Max=7 Min=4</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>5.00</td>
<td>4.82</td>
<td>1.78</td>
<td>Max=7 Min=2</td>
</tr>
<tr>
<td>Openness</td>
<td>6.00</td>
<td>5.53</td>
<td>1.37</td>
<td>Max=7 Min=1.5</td>
</tr>
</tbody>
</table>
The mean reading ability, on average, suggests students were reading above the expectation for typical fourth-graders. The QVE score had a substantial standard deviation, thus indicating that students’ contributions varied greatly in quality. The reported mean extroversion score indicated that the class was more extroverted than not; therefore, many of the students were likely comfortable sharing in groups. Student mean scores in agreeableness, conscientiousness, and openness were also in the medium to high range. The descriptive statistics reveal that emotional stability had the largest standard deviation and lowest mean of the personality factors. Therefore, students were more similar in the other personality factors than emotional stability. Because the subjects were above average in many of the areas assessed, the researcher will not generalize these results, but make practical recommendations when applicable.

The researcher collected a total of 136.7 minutes of footage from 10 sessions (two tapings of each group) in the spring of 2012. The groups averaged 27.34 minutes of discussion. The discussions ranged from 5 minutes and 14 seconds to 28 minutes and 27 seconds. The groups ranged from three to six students. (Some students in the literature discussion groups were not included in the study due to lack of consent so their data is not included.) The researcher coded the data using the three-story framework (Costa & Kallick, 2000) to quantify the QVE score for each student. A graduate student independently coded 10% of the data to establish inter-rater reliability. She used the three-story framework to code 10% of the students’ QVE in order to determine the reliability of the coding system. The coders were initially in 79% agreement, and subsequently discussed all discrepancies until agreeing on 100% of the items. The most
common discrepancy was when the graduate student coded statements, such as “yeah” as a level one, when the researcher had coded the statement a zero because the contribution was merely a confirmation. The other discrepancies were between level-two inferences that could also be described as level three predictions. According to the three-story intellect (Costa & Kallick, 2000), however, predictions were different because not only did the student process the text, but also the student’s verbalized output was hypothetical. For example, if the story says it is snowing, the reader can infer that it is winter. However, if a story says that a suspect has no alibi, the reader has to think beyond to the text and predict a future event. In addition, as stated in the method, codes were scored in favor of the student.

The linear model assumptions were also tested to ensure the model was not misleading, biased, or inefficient. Global tests of model assumptions (global statistic, skewness, kurtosis, heteroscedasticity, and link function) were all met. The variance inflation factor was examined to test for multicollinearity and returned false. Models that have multicollinearity, two or more highly correlated predictors, are not necessarily problematic when examining the model as a whole, but the highly correlated predictor variables cannot be analyzed individually because of the multicollinarity. However, in this model, the variables were not highly correlated, so the analysis of individual predictors was reliable.

The results of the quantitative analysis suggest that the regression model was insignificant based on the overall p-value of 0.225 (Table C.2). However, there was one
significant factor, emotional stability \( (p < .05) \). Students who were more emotionally stable, described as secure and confident, provided more quality contributions.

Table C.2

*Regression Model*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE(B)</th>
<th>t</th>
<th>Sig. ( (p) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>-225.5056</td>
<td>176.1773</td>
<td>-1.280</td>
<td>0.2326</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>0.3553</td>
<td>1.2357</td>
<td>0.288</td>
<td>0.7802</td>
</tr>
<tr>
<td>Gender</td>
<td>65.2633</td>
<td>40.0453</td>
<td>1.630</td>
<td>0.1376</td>
</tr>
<tr>
<td>Extroversion</td>
<td>-1.5330</td>
<td>14.1057</td>
<td>-0.109</td>
<td>0.9158</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>13.6397</td>
<td>15.0085</td>
<td>0.909</td>
<td>0.3871</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-13.1725</td>
<td>17.3985</td>
<td>-0.757</td>
<td>0.4683</td>
</tr>
<tr>
<td>Emotional stability</td>
<td>24.5089</td>
<td>10.3218</td>
<td>2.374</td>
<td>0.0416 *</td>
</tr>
<tr>
<td>Openness</td>
<td>13.9213</td>
<td>13.6722</td>
<td>1.018</td>
<td>0.3352</td>
</tr>
</tbody>
</table>

*Note. Significance code: *' 0.05; Multiple \( R^2: 0.5642, \) Adjusted \( R^2: 0.2252 \)*

The model was circumspect because of the low degrees of freedom due to the limited number of participants in the study \( (N = 17) \). Even if the critical \( p \)-value were less than .05, the results cannot be generalized to larger populations because of the low power (.11).

Although only emotional stability was the statistically significant prediction within the model, there was a positive trend toward gender. Its positive correlation suggested that the fourth-grade girls were more likely to provide quality contributions in literature circle discussions, but further research is needed.
Another interesting factor was extroversion. The original pilot study (Young, 2010) revealed that increased extroversion predicted higher quality of verbal engagement \((p < .05)\). Yet in the current study, as a student’s extroversion decreased, the quality of verbal engagement increased, but not at a significant level. In fact, the extroversion factor was insignificant when predicting variance \((p = .91)\) in this case.

The model did not corroborate the pilot study results, nor was the model significant, thus no accurate inferences or correlations were revealed. A post hoc analysis was conducted to investigate whether size of the group would help explain the variance in quality of verbal engagement (Table C.3).

Table C.3

*Post Hoc Regression Model*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE(B)</th>
<th>t</th>
<th>Sig. ((p))</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>71.09155</td>
<td>143.78853</td>
<td>0.494</td>
<td>0.63430</td>
</tr>
<tr>
<td>Reading Ability</td>
<td>-0.05581</td>
<td>0.82713</td>
<td>-0.067</td>
<td>0.94786</td>
</tr>
<tr>
<td>Group Size</td>
<td>-30.60642</td>
<td>8.65988</td>
<td>-3.534</td>
<td>0.00768 **</td>
</tr>
<tr>
<td>Gender</td>
<td>43.72194</td>
<td>27.23026</td>
<td>1.606</td>
<td>0.14702</td>
</tr>
<tr>
<td>Extroversion</td>
<td>4.47393</td>
<td>9.50153</td>
<td>0.471</td>
<td>0.65031</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>3.14734</td>
<td>10.38021</td>
<td>0.303</td>
<td>0.76947</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-9.09292</td>
<td>11.58818</td>
<td>-0.785</td>
<td>0.45525</td>
</tr>
<tr>
<td>Emotional stability</td>
<td>17.08167</td>
<td>7.15613</td>
<td>2.387</td>
<td>0.04406 *</td>
</tr>
<tr>
<td>Openness</td>
<td>2.33881</td>
<td>9.63545</td>
<td>0.243</td>
<td>0.81432</td>
</tr>
</tbody>
</table>

*Note.* Significance codes: ‘**’ 0.01 ‘*’ 0.05; Multiple \(R^2\): 0.8299, Adjusted \(R^2\): 0.6597
All the previous factors were included with group size as an additional factor. The global test of assumptions was accepted, and no outliers were detected.

The post hoc regression model revealed a significant $p$-value of .019. The multiple $R$-squared was .83 with an adjusted $R$-squared of .66. The model results showed that 66% of the variance was captured by the 8 factors, 2 of which were significant. Emotional stability was still significant ($p < .05$). The additional factor, size, was significant at the $p < .01$ level indicating that the smaller the group size, the higher the quality of engagement.

The model showed that students in groups of three were correlated with higher verbal engagement in literature circle discussions. Also, students who were more emotionally stable tended to engage in higher quality discussions despite group size. Students who were secure and confident contributed more the discussions.

Qualitative Results

The researcher used the facilitative functions that emerged from the data to code the students’ discussions. The researcher was able to code 643 out of 704 contributions using the five facilitative functions (Table C.4). However, some contributions were not coded because they were not facilitative.

In the case of topic management, the researcher double coded the contributions first as topic management, and the facilitative nature in which the topic was changed. For example, a student may have changed the topic with exploratory talk; therefore, the statement was coded with topic management and exploratory talk. For
example, Robert changed the topic in a discussion by asking, “Is his dad crazy or something?” The question was exploratory (speculative), but it also changed the subject.

Table C.4

**Frequency Count of Utterances Coded as Facilitative Talk**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory Talk</td>
<td>69</td>
<td>99</td>
<td>56</td>
<td>49</td>
<td>37</td>
</tr>
<tr>
<td>Elaborative Feedback</td>
<td>31</td>
<td>53</td>
<td>112</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>Topic Management</td>
<td>12</td>
<td>26</td>
<td>15</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Confessionals</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Accountability</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Non-Facilitative</td>
<td>17</td>
<td>17</td>
<td>8</td>
<td>0</td>
<td>19</td>
</tr>
</tbody>
</table>

The groups’ reading ability means were relatively close, except for the *Toys Go Out* (Jenkins & Zelinsky, 2006) group (Table C.5). However, two of the participants were excluded making it difficult to conclude whether the calculated mean represented the entire group. Nevertheless, the quantitative analysis revealed that reading ability was an insignificant independent variable. In the fourth grade class, reading ability was not correlated with higher QVE. However, the researcher did not include time in the quantitative analysis, and it appeared to be a factor that could be related to the quality of verbal engagement score. Some groups talked for much longer than others, and thus students had a greater opportunity to contribute to the discussions; consequently, the following table controls for time and shows the QVE per minute as compared to the total recorded QVE (Table C.6).
### Table C.5

**Group Data**

<table>
<thead>
<tr>
<th>Title</th>
<th>Gender Makeup</th>
<th>Duration(MM:SS)</th>
<th>Student Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Joey Pigza Loses Control (Gantos, 2000)</strong></td>
<td>4 Males 1 Female</td>
<td>19:02</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>%ile  QVE</td>
</tr>
<tr>
<td></td>
<td>Robert</td>
<td>86</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>Mike</td>
<td>75</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Carol</td>
<td>86</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>David</td>
<td>97</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Kevin</td>
<td>89</td>
<td>19</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>86.6</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td><strong>Ghost’s Grave (Kehret, 2007).</strong></td>
<td>3 Females</td>
<td>42:06</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>%ile  QVE</td>
</tr>
<tr>
<td></td>
<td>Stephanie</td>
<td>48</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>Kacy</td>
<td>93</td>
<td>143</td>
</tr>
<tr>
<td></td>
<td>Hillary</td>
<td>90</td>
<td>92</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>77</td>
<td>117.5</td>
<td></td>
</tr>
<tr>
<td><strong>Closed for the Season (Hahn, 2009)</strong></td>
<td>2 Males 1 Female</td>
<td>37:43</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>%ile  QVE</td>
</tr>
<tr>
<td></td>
<td>Cassandra</td>
<td>81</td>
<td>191</td>
</tr>
<tr>
<td></td>
<td>Ryan</td>
<td>89</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Excluded</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>85</td>
<td>179.5</td>
<td></td>
</tr>
<tr>
<td><strong>Operation Yes (Holmes, 2009)</strong></td>
<td>3 Males</td>
<td>18:00</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>%ile  QVE</td>
</tr>
<tr>
<td></td>
<td>Christian</td>
<td>77</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Carter</td>
<td>91</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>Randy</td>
<td>95</td>
<td>60</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>87.7</td>
<td>79.3</td>
<td></td>
</tr>
<tr>
<td><strong>Toys Go Out (Jenkins &amp; Zelinsky, 2006)</strong></td>
<td>3 Males 3 Females</td>
<td>13:14</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>%ile  QVE</td>
</tr>
<tr>
<td></td>
<td>Andy</td>
<td>93</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Billy</td>
<td>88</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>45</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Molly</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Excluded</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Excluded</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>66.5</td>
<td>19.5</td>
<td></td>
</tr>
</tbody>
</table>

### Table C.6

**QVE Per Minute vs. Total QVE**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>QVE Per Minute (m=10.52)</td>
<td>13.66</td>
<td>10.34</td>
<td>9.51</td>
<td>13.22</td>
<td>5.90</td>
</tr>
<tr>
<td>Total QVE (m=234)</td>
<td>260</td>
<td>235</td>
<td>359</td>
<td>238</td>
<td>78</td>
</tr>
</tbody>
</table>
The comparison reveals that the *Toys Go Out* (Jenkins & Zelinsky, 2006) group was lowest in QVE per minute and total QVE. Therefore, the researcher compared the *Toys Go Out* group and the *Joey Pigza Loses Control* (Gantos, 2000) group (Table C.7) to better understand and compare the discourse in high-quality and lower quality discussions. The researcher observed that exploratory talk, topic management, confessionals, and accountability were relatively similar. However, the researcher noticed that the amount of elaborative feedback and the contributions that were not considered facilitative were quite different.

Table C.7

*Frequency Count of Facilitative Functions by Group*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory Talk</td>
<td>69</td>
<td>99</td>
<td>56</td>
<td>49</td>
<td>37</td>
</tr>
<tr>
<td>Elaborative Feedback</td>
<td>31</td>
<td>53</td>
<td>112</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>Topic Management</td>
<td>12</td>
<td>26</td>
<td>15</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Confessionals</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Accountability</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Not Facilitative</td>
<td>17</td>
<td>17</td>
<td>8</td>
<td>0</td>
<td>19</td>
</tr>
</tbody>
</table>

The *Toys Go Out* (Jenkins & Zelinsky, 2006) group engaged in elaborative feedback 3.03% of the time indicating that the group did not offer elaborative feedback very often. In order to offer elaborative feedback, students must listen to other group members’ ideas and perpetuate the discussion with agreement or disagreement followed by reasoning or text evidence. After the researcher reviewed the data, he observed students in the group that often ignored exploratory talk by others in favor of their own.
The discussion lacked cohesiveness and connectivity. It seemed to be chaos that never organized into something other than its constituent parts. In other words, the students had a lot to say, but the talk was not directly related to the previous student’s contribution. Although the group may not have been completely dysfunctional, it lacked the connectedness and depth of other observed literature circle discussions.

The *Toys Go Out* (Jenkins & Zelinsky, 2006) group also had a more non-facilitative contributions than the other four groups, indicating that the students were either having unrelated discussions or providing basic contributions, such as restating the text or offering simple confirmations. After reviewing the footage, the researcher noticed that students were talking about the text, and spent time recalling or restating the text. However, the statements were not provided as text evidence typical in elaborative feedback. Therefore, the researcher inferred that the group was disadvantaged by low-level contributions and lack of elaborative feedback. Perhaps the larger group size six resulted in a more pedantic and contrived discussion. The students were prepared for the discussion, and students spent more time reading their journal entries than building conversations based on the insights of others. Perhaps students were trying only to comply with the teacher’s expectation that members share their journal entries. The resulting conversation was disconnected, and the researcher did not observe students exploring and expanding on other members’ contributions.

Subsequent analysis compared the percentages of elaborative feedback and coded contributions of all groups. The percentages reveal that the *Toys Go Out* (Jenkins & Zilensky, 2006) group spent the least amount of time providing elaborative feedback.
(Table 14), and thus supported the inference that more productive groups utilized elaborative feedback. In addition, the researcher observed more productive groups engaging in higher-level conversations that were coded as exploratory talk. The percentage comparison of coded vs. not coded revealed that the *Toys Go Out* group was also disadvantaged by the lower percentage of facilitative functions in general. According to the posited functions, 29% of the groups’ data was not classified as facilitative. While the facilitative functions developed in the method sections are certainly not all-inclusive, the functions appear to help explain why some groups outperformed others in peer-led literature circle discussions.

Exploratory talk was the most prominent function in every group except for *Closed for the Season* (Hahn, 2009). The data suggest that the students spent more time engaging in elaborative feedback than any other facilitative function. The group also scored the highest QVE of 359. There were not enough data to correlate increased elaborative feedback with increased QVE, but it is interesting to note, and worthy of further research. Perhaps another regression using the facilitative functions as predictor variables of QVE would provide insight into the possible correlation of elaborative feedback and increased QVE. If so, the teacher could emphasize elaborative feedback as the most effective facilitative function in elementary grade literature circles.

Another interesting finding was that all of the utterances were coded as facilitative in the *Operation Yes* (Holmes, 2009) group coupled with the nonexistence of accountability functions. One might assume that these students who were consistently on task did not require the facilitative function of accountability. In summary, due to the
lower prevalence of facilitative functions in lower performing groups, and the increased prevalence of facilitative functions in high performing groups, one might infer that the facilitative functions enhanced the peer-led literature circle discussions.

Examples of Facilitative Functions

*Topic Management*

The following analysis focuses on Robert from the *Joey Pigza Loses Control* (Gantos, 2000) group. The analysis uses the first discussion in its entirety, highlighting recurring functions exhibited by Robert. The group was engaged in its first discussion about the first few chapters. The discussion lasted for 7 minutes and 1 second. The discussion began somewhat unfocused, but Robert began facilitating the discussion after 1 minute and 15 seconds. These examples demonstrate how students used topic management during peer-led literature circle discussions.

“Is his dad crazy or something?” After Robert asked this question, the group speculated on whether Joey Pigza’s dad was, indeed, crazy. The group carried on this conversation for the next 44 seconds. The subsequent conversation included four turns by Robert, four turns by Mike, and one turn by Kevin. The other two group members did not participate.

The topic of Joey’s dad ended when Robert changed the subject. He stated, “I was kind of surprised when he shot his Chihuahua with an arrow in the ear and now he has his ears pierced.” This topic lasted for 42 seconds. After 16 seconds Robert perpetuated the conversation by asking, “Why wouldn’t they take him to the vet?” This time Robert took
5 turns, Mike took 3 turns, and Kevin took one again. The students discussed the “insanity” of shooting a dog with an arrow, and the conversation ended again when Robert changed the subject.

Robert asked, “Why would they put him [the chihuahua] in the glove-box?” This question captured the group for 2 minutes and 12 seconds. This time Robert talked on 9 occasions; Kevin spoke 3 times; Mike took 4 turns; David took 1. This question, clearly solicited others to analyze the character, and lasted longer than the previous two topics. However, the topic changed, once again, with Robert’s contribution.

Robert started the last topic when he commented on the author’s style, “It’s a different kind of author. He wrote other books about Joey. He’s a good author. I like his style. It’s kind of weird how he writes. It’s kind of different.” The evaluation of the author incited others to share their opinions of Jack Gantos. This conversation included everyone and lasted for 2 minutes and 31 seconds, the most popular topic in this group’s first literature circle discussion.

The major events that had happened in assigned chapters of Joey Pigza Loses Control (Gantos, 2000) were all discussed. Robert introduced the topics in a variety of ways. First, he asked open-ended questions. The open-ended questions were high-level and required other students to process the information from the text, interpret it, and share their hypotheses. The resulting conversations were highly speculative, but tied directly to the text content. The second topic change occurred when Robert shared a feeling he had had while reading. He shared that he was surprised when the chihuahua was shot with an arrow. Not only was this an important and humorous event in the story, but Robert’s
statement of surprise also invited others to share their feelings about the topic. When the
conversation lulled, Robert asked a question that required other group members to
speculate. This perpetuated the topic and allowed students to make judgments based on
the Pigza family not bringing the dog to the vet. These judgments were important when
grasping the dysfunctional nature of the family.

Finally, Robert steered the topic into a sophisticated discussion of the author’s
style. The group members compared Gantos’s writing style to other authors as well as
discussed whether Gantos deserved the Newbery Medal rather than the Newbery Honor
award. One student, Mike, mentioned that he was not an avid reader, but the author’s
style was a good fit for him and he was looking forward to reading the rest of the book.

It seemed the most significant functions that Robert demonstrated were topic
selection and control. He was able to bring up important topics in the reading, perpetuate
the discussion, and change the topic. Although Robert took more turns than any other
group member, he also facilitated the high-level discussion by introducing topics in three
ways—asked for speculation, verbalized his feelings while reading, and evaluated the
author’s style.

*Exploratory Talk and Elaborative Feedback*

This example comes from the group that read *Ghost’s Grave* (Kehret, 2007). The
example illustrates exploratory talk and elaborative feedback. Stephanie started the topic
with exploratory talk and Kacy provided elaborative feedback.

Stephanie: Don’t you think Aunt Ethel was kind of crazy? [exploratory talk]
Kacy: In some ways, yes. [feedback—not elaborative]

Stephanie: I mean, why would you scream if you saw your sister? [exploratory talk]

Kacy: No, she was not screaming. It was the peacock. [elaborative feedback]

The example demonstrates how Kacy listened to Stephanie’s exploratory talk and offered elaborative feedback using text evidence to clear up a misconception. The example also illustrates the difference between feedback and elaborative feedback. When Kacy initially agreed with Stephanie, the researcher coded her statement as feedback. She did provide feedback, “In some ways, yes.”, but it was not elaborative as she did not provide her reasoning or text evidence. In another excerpt, Stephanie made a judgment and Kacy offered feedback in the form of her opinion to help Stephanie understand the complexity of the character motives.

Stephanie: I have something against Steven. [exploratory talk]

Kacy: You can’t blame Steven because he had to move for a job. [elaborative feedback]

Kacy explained her opinion and noted that sometimes people have to move for jobs. Two minutes and four seconds after Kacy offered her opinion on Steven, Stephanie stated, “I think Steven is a good person.” Thus, Kacy not only provided feedback that explained the character’s motives, but Stephanie listened and changed her opinion about the character.

The next selection from the Closed for the Season (Hahn, 2009) group shows students trying to reach some sort of resolution through exploratory talk and elaborative feedback. They also speculate regardless of the risk that others might disagree. After the students read a letter out loud, they noticed that some of it was missing, and they
speculated whom the letter was about, hoping it would lead to the identification of the killer. Cassandra began with explaining that the letter was incomplete. Ryan expressed his curiosity regarding the intentions of the letter, and they continued to debate who the letter was about.

Cassandra: I think they are missing a piece. It ends with “she’s just.” [exploratory talk]

Ryan: She’s just what? And who is scared of you-know-who? [exploratory talk]

Cassandra: Silas? [exploratory talk]

Ryan: No it’s a girl. It says she. [elaborative feedback]

Cassandra: Well now I think it is Nina because it can’t be a boy. [exploratory talk]

Ryan: She just showed up. [elaborative feedback]

Cassandra: She was taking pictures and went into that dark hole for a long time. [elaborative feedback]

Ryan: Yeah, maybe she was memorizing it for later on. Yeah, I’m starting to think she might be the killer. [elaborative feedback]

It appeared that exploratory talk and elaborative feedback were used by discussants to reach a coherent understanding of the text. The exploratory talk created a speculative context in which students could verbalize their thinking. The elaborative feedback helped students understand other points of view, clear up misconceptions, and move towards a better understanding of events in the story.

Confessionals

Students also facilitated discussions by confessing when they did not understand.
Stephanie was often observed making confessionals. She began topics with phrases like, “I didn’t get it when…” She confessed when she did not understand parts of the text. In response, other group members explained their interpretations of the text. For example, she confessed, “I don’t get it. Why would you not just spend the money?” This question referenced the fact that someone had buried money in a grave. The confessional led the students into a generalization that sometimes people were buried with jewelry and other valuable objects. The group also speculated on the ethics of stealing the money.

Stephanie incited an ethical debate with another confessional, “I don’t get it. If you know you will feel guilty about stealing, why would you do it?” The resulting debate relied on relevant connections. Consider the following discourse.

Stephanie: It’s like if you steal someone’s reading journal. You will feel bad.

Kacy: Yeah, they have all of their notes that they worked hard on.

Stephanie: You would feel guilty.

Kacy: I have seen trials before. It’s like sometimes they just say you are guilty. But, if you say you are innocent and they find out you did it, then you get a worse punishment.

Stephanie: Yeah, it’s like if you stole the journal, but then you tell the truth to the teacher your grade might only go down by 20% instead of all the way.

The connections helped the students consider a larger ethical debate about grave robbing. Although the students had no experience with grave robbing, they were able to make personal connections that helped them understand it on their level. In Stephanie’s eyes, who later commented that people should “treat others the way you want to be treated”, she could not understand how a person could rob a grave. However, the “stolen reading journal” analogy apparently helped her sort through some of ethical implications.
Following is an example of a student admitting she was unsure of who was screaming in the chapter. Kacy used elaborative feedback with text evidence to help Stephanie better understand the event in *Ghost’s Grave* (Kehret, 2007).

Stephanie: Oh, I thought it said the Aunt was screaming. [confessional]

Kacy: No, she wasn’t screaming.

Stephanie: But I think it is crazy that she left the bag in the cup holder until it smelled, and then asked him [the son] if he wanted a snack.

Ana: Yes, that was disgusting.

Stephanie changed the topic by confessing to a misconception. However, confessionals did not always result from textual misunderstanding, but also misunderstandings of why events occurred in the text. Following is an example of a student who did not understand the character’s motives. In this example, Ryan attempted to help Cassandra understand an event from *Closed for the Season* (Hahn, 2009).

Cassandra: I don’t get it. Why did they (previous owners) leave stuff in the (Mrs. Donaldson’s) attic? [confessional]

Ryan: Maybe because they thought it had no value.

Cassandra: But still, usually they take everything.

Ryan: Maybe the owners bought it (the house), they simply bought the stuff with it.

Cassandra: What do you mean? Mrs. Donaldson didn’t buy it all?

Ryan: Yeah, maybe some came with it and the police did not know what part came with it.

Cassandra: But why would Mrs. Donaldson keep it?

Ryan: If you have something from the other owners, you are lucky. Some people might just think, “let’s sell it”, but Mrs. Donaldson thinks it holds value.
The confessionals served as a verbalized metacognitive function allowing students to express their misunderstandings of text. Because students verbalized their misunderstandings, other discussants could engage in dialogue to enhance their comprehension of the text. Confessionals were less salient in the discussions, but the researcher observed the function extending the discussions. Upon reviewing the data, the confessionals were most prominent in the *Ghost’s Grave* (Kehret, 2007) group. A closer look revealed that the student with the lowest reading percentile (48) contributed four out of the five confessionals. Perhaps, then, the confessional function may be more common in groups with a challenging text.

*Accountability*

In some groups accountability was used to keep the discussion on track and to ensure that all group members participated in the discussion. Accountability was also used to make sure students’ contributions were backed up by text evidence or sound reasoning. The following example from the *Toys Go Out* (Jenkins & Zelinsky, 2006) showed a student asking for text evidence to support another group member’s claim.

Kevin: Why was the buffalo licking things?

Randy: Buffalo like to lick things.

Andy: Where does it say that? [accountability]

Andy was not satisfied with Randy’s response. It appeared to be a wild speculation that Andy apparently thought needed elaboration in the form of text evidence.
Following is an example where a student also asked for elaboration. In this case, however, she was asking for the group member’s logic behind a speculation.

Hillary: They gave a lot of suspense, so I think it was good.

Stephanie: Yeah, but don’t you think they should have given more details about how she thought it was haunted.

Kacy: About how she thought it was haunted? Well, they said that Aunt Ethel was the kind of person that when she thought something was true, she stuck to that. She didn’t go change her thought.

Stephanie: Yeah, but what makes you know that she’s true about it?

[accountability]

Kacy: Well, I think it said she was hearing voices and it was just really creepy.

Not all accountability moves were directed at eliciting elaboration. The researcher also observed students making sure all students participated in the discussion. Consider the following example from the *Joey Pigza Loses Control* (Gantos, 2000) group.

Robert: Yeah, that would be funny, because when he (Joey) takes off all the patches he will go crazy. Okay, David? [accountability]

David: The relationship between Joey and his father is interesting because in the book it says that his dad is crazy, too.

Up to that point, David was the only one in the group that had not contributed to the discussion. Robert noticed this, and asked him to participate. Robert looked towards David, and said, “Okay, David?” Robert did it again less than a minute later.

Mike: Maybe his dad might be like mentally ill or something.

Robert: Yeah, it kind of seems like it. Okay, Kevin?

Kevin: Honestly, I think Joey is a mini-version of his dad.
Facilitative Functions Summary

Students in these literature circles facilitated discussions in several different ways. Most prominently, students used exploratory talk to extend the discussion of text. Secondly, students offered elaborative feedback to other group members, usually in response to the exploratory talk. Topic management was another function that kept discussions focused and moving forward. Student confessionals also facilitated discussions because students attempted to correct misconceptions and enhance a confused student’s comprehension of the text. Finally, some groups utilized the accountability function to include every student and to ensure students’ contributions were based on text evidence or sound reasoning. The researcher observed each of these functions during peer-led literature circle discussions.

A Deeper Look at Select Individuals’ Contributions

This next analysis compared data between the two highest readers and the two lowest readers (Table C.8). The intent of this analysis was to explore why the two lowest readers and highest readers had relatively low QVE scores.

Table C.8

High vs. Low Readers’ Data Comparison

<table>
<thead>
<tr>
<th>Student</th>
<th>QVE</th>
<th>Reading %ile</th>
<th>Extroversion</th>
<th>Agreeableness</th>
<th>Conscientiousness</th>
<th>Emotional Stability</th>
<th>Openness</th>
</tr>
</thead>
<tbody>
<tr>
<td>David</td>
<td>20</td>
<td>97</td>
<td>3</td>
<td>4</td>
<td>6.5</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td>Andy</td>
<td>32</td>
<td>93</td>
<td>6.5</td>
<td>5</td>
<td>5.5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>April</td>
<td>5</td>
<td>45</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>Molly</td>
<td>4</td>
<td>40</td>
<td>6.5</td>
<td>4</td>
<td>5.5</td>
<td>3</td>
<td>3.5</td>
</tr>
</tbody>
</table>
David scored the highest in reading, but relatively low in extraversion. The researcher observed the footage of David, and agreed with his low extraversion score. According to the quantitative analysis, his high emotional stability should have predicted a higher QVE. The first of two questions arose. Did David enhance the discussion? The researcher examined his contributions to the discussion (Table C.9).

Table C.9

*David’s Facilitative Contributions across Two Discussions*

<table>
<thead>
<tr>
<th>Exploratory Talk</th>
<th>Elaborative Feedback</th>
<th>Topic Management</th>
<th>Confessionals</th>
<th>Accountability</th>
<th>Facilitative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>8.33%</td>
</tr>
</tbody>
</table>

David was responsible for 8.33% of the facilitation in the group. While he engaged mostly in exploratory talk, he rarely offered elaborative feedback. David also changed the topic three times. When he first used topic management, the topic only lasted for 10 seconds; the second time did not instigate any further discussion, as the next student changed the topic on the next turn. The final topic change lasted for one minute and 13 seconds. It is impossible difficult to say whether his topic management was integral in the discussions, but the contribution did perpetuate the discussion because he brought up an important topic that focused on the complicated relationship between two main characters.

The second question focused on what David gained from the discussion. Does a highly proficient reader gain understanding from others during a peer-led discussion? Due to his high reading ability, one might infer that David already had a proficient
understanding of the text. His role in the discussion may have been more passive because
he had sufficient comprehension on his own.

Andy scored the second highest in reading percentile (93). According to Andy’s
QVE score, his contributions were of higher quality and more frequent than David’s, but
his facilitative functions were similar to David’s (Table C.10). Andy spent more time
utilizing exploratory talk, and little time providing elaborative feedback. Andy facilitated
the discussion for 7.57% of the turns. Between David and Andy’s data, it appears that the
students had little interest in enhancing the discussion. One can only speculate on the
cause(s) of the low prevalence of facilitative functions. In addition, the causes could be
unique to each of the students. The data show, however, that contributions of these two
proficient readers were relatively low.

Table C.10

Andy’s Facilitative Contributions across Two Discussions

<table>
<thead>
<tr>
<th>Exploratory Talk</th>
<th>Elaborative Feedback</th>
<th>Topic Management</th>
<th>Confessionals</th>
<th>Accountability</th>
<th>Facilitative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7.57%</td>
</tr>
</tbody>
</table>

Molly read in the lowest reading percentile (40) and scored the lowest in QVE.
According to the quantitative data, Molly’s low emotional stability predicted her lower
QVE. Molly only spoke twice across both discussions. Qualitatively speaking, Molly
changed the topic twice, and she used exploratory talk to do so in both instances (Table
C.11). The researcher reviewed the footage, and inferred there was no way to determine
whether Molly comprehended the text. However, did listening to the discussion enhance
Molly’s comprehension? Elaborative feedback appeared to be the best way to determine whether students were listening to other group members. The data indicated that Molly did not contribute any elaborative feedback, and thus made it difficult to determine how engaged Molly was during the discussions. Molly may have benefited more from time spent with the teacher, rather than her peers, but further research is necessary to know for sure.

Table C.11

*Molly’s facilitative contributions across two discussions*

<table>
<thead>
<tr>
<th>Exploratory Talk</th>
<th>Elaborative Feedback</th>
<th>Topic Management</th>
<th>Confessionals</th>
<th>Accountability</th>
<th>Facilitative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3.03%</td>
</tr>
</tbody>
</table>

April scored the second lowest in reading percentile (45). Her low emotional stability was correlated with her lower QVE score (5). Like Molly, April did not offer any elaborative feedback, making it difficult to determine whether she was truly engaged in the discussion (Table C.12). However, she did admit to not comprehending a particular paragraph in the text. Therefore, April’s limited data indicated that her only facilitative function was changing the topic with a confessional. Speculatively, the teacher may have also best served this student with a different activity, but further research is needed to confirm the contention.

Table C.12

*April’s facilitative contributions across two discussions*

<table>
<thead>
<tr>
<th>Exploratory Talk</th>
<th>Elaborative Feedback</th>
<th>Topic Management</th>
<th>Confessionals</th>
<th>Accountability</th>
<th>Facilitative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1.52%</td>
</tr>
</tbody>
</table>
Perhaps the peer-led, literature circle discussions did not benefit every student in the class equally. The top two readers may have benefitted from a more challenging activity, or allowed more time to read in lieu of discussions. The teacher may have best served the lowest two readers in a small teacher-led group, especially because the teacher acted as an observer, and had the ability to meet with the students who were not highly engaged in literature circle discussions. However, the researcher believes that literature circles were appropriate for the majority of the students in the study because many of the students contributed to the quality of the discussions, especially when considering Mrs. Mack’s goal for literature circles in creating a community of high-level discussants. In the end, it is quite possible that all students met her expectation, regardless of QVE.
APPENDIX D

OTHER ADDITIONAL MATERIALS
Greetings,

My name is Chase Young, a second grade teacher at Maverick Elementary, and I am writing this letter to inform you about some research I will be conducting this spring. I am a doctoral candidate at the University of North Texas and I am currently working on research involving literature circles. After talking with your child’s teacher, I have found out that your child participates in literature circles or book clubs. Because your child’s teacher is already using this great instructional activity, all I have to do is collect the data.

In summary, this research aims to determine which personality traits are best suited for discussions literature circles and whether students help others during the conversations. The basic steps in the research start with a short survey that your child will complete. Then, I will film the students discussing the book. After filming, I will analyze their conversations. I hope to use this research to help teachers maximize their use of literature circles.

I want you to know that your child does not have to participate in this study. Participating will in no way effect your student’s academic record. However, if you and your child agree to participate in this research, rest assured that I take confidentiality very seriously.

I will be hosting a question and answer meeting at Maverick Elementary. The meeting will be held in Room E102 on March 22nd at 3:00 PM. After the meeting, whether or not you chose to attend, I will be sending home research consent forms for you and your child. If you cannot attend the meeting, please feel free to send your questions to [redacted].
On the following webpage you can track the progress of the research, read the pilot study, and download forms if you need additional copies: [redacted].

The University of North Texas Institutional Review board as well as a small committee of professors from UNT and TWU have approved the research. The approval process ensures that I have taken every step to ensure your child’s confidentiality, safety, and potential benefits from the research. Thank you for your time.

Sincerely,

Chase Young
Teacher Consent Form

University of North Texas Institutional Review Board

Informed Consent Form

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

**Title of Study:** Exploring Predictors of Quality Engagement in Literature Circle Discussions

**Student Investigator:** Chase Young, University of North Texas (UNT) Department of Reading.

**Supervising Investigator:** Dr. Kathleen Mohr

**Purpose of the Study:** You are being asked to participate in a research study which involves analyzing your students’ talk in literature discussions. The goal is to find out if the effects of personality and reading ability on their quality of discussion.

**Study Procedures:** You will be asked to allow me to film the literature discussions on two occasions for 5 minutes each as well as administer a personality survey that will take about 10-15 minutes of your time.

**Foreseeable Risks:** The potential risks involved in this study are loss of class time, anonymity, nervousness from video recording, and coercion. However, every effort will be made to minimize or eliminate these risks. In an effort to minimize the loss of class time, the personality survey will be given whole group, and the filming will not require any deviation from your normal classroom routine. If a student becomes anxious during filming, the video recording will be stopped. All data will be coded, and the key will only be accessed by Chase Young. Finally, neither you nor your students will be coerced into participation. No compensation will be given for participation and no sanctions for nonparticipation.

**Benefits to the Subjects or Others:** This study is not expected to be of any direct benefit to you, but we hope to learn more about how literature circles can be used to increase reading comprehension and quality engagement in literature circles. The results can be used for your personal reflection and instructional decisions.

**Compensation for Participants:** None

**Procedures for Maintaining Confidentiality of Research Records:** The video will only be viewed by the primary researcher, Chase Young, and the transcripts will be coded to protect the identity of you and the students. The confidentiality of your individual information will be maintained in any publications regarding this study. The footage will not be used in any presentations.

Office of Research Services
University of North Texas
Last Updated: July 11, 2011

Page 1 of 2
Parent/Guardian Consent Form

University of North Texas Institutional Review Board

Informed Consent Form

Before agreeing to your child’s participation in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

Title of Study: Exploring Predictors of Quality Engagement in Literature Circle Discussions

Investigator: Chase Young University of North Texas (UNT) Department of Education.

Supervising Investigator: Dr. Kathleen Mohr, UNT Department of Education

Purpose of the Study: You are being asked to allow your child to participate in a research study which involves analyzing your child’s talk in literature discussions. The goal is to find out if the effects of personality and reading ability on their quality of discussion.

Study Procedures: Your child will be asked to participate in their regular literature circle discussions while being filmed that will take about 10 minutes (two 5 minute sessions) of your child’s time. They will also be asked to fill out a brief survey to determine their personality traits. The survey is expected to be completed in 10 minutes.

Foreseeable Risks: The potential risks involved in this study are loss of class time, anonymity, nervousness from video recording, and coercion. However, ever effort will be made to minimize or eliminate these risks. In an effort to minimize the loss of class time, the personality survey will be given whole group, and the filming will not require any deviation from your normal classroom routine. If a student becomes anxious during filming, the video recording will be stopped. All data will be coded, and the key will only be accessed by Chase Young. Finally, neither you nor your child will be coerced into participation. No compensation will be given for participation and no sanctions for nonparticipation. Participation is not required.

Benefits to the Subjects or Others: This study is not expected to be of any direct benefit to your child, but we hope to learn more about how literature circles can be used to increase reading comprehension and quality engagement in literature circles.

Compensation for Participants: None

Procedures for Maintaining Confidentiality of Research Records: The video will only be viewed by the primary researcher, Chase Young, and the transcripts will be coded to protect the identity of your child. The confidentiality of your child’s individual information will be maintained in any publications regarding this study. The footage will not be used in any presentations.
Student Assent Form

You are being asked to be part of a research project being done by the University of North Texas Department of Education.

This study involves you being filmed during literature circle discussions.

You will be asked to talk about your reading with your group that will take about 5 minutes.

You will also be asked to fill out a short survey.

If you decide to be part of this study, please remember you can stop participating any time you want to.

If you would like to be part of this study, please sign your name below.

Printed Name of Child

Signature of Child		Date

Signature of Student Investigator		Date

APPROVED BY THE UNT IRB
FROM 11/5/10 TO 11/7/10

Office of Research Services
University of North Texas
Last Updated: July 11, 2011
Suggested Open-Ended Responses

I wonder
I realized
I can connect with
This is giving me the idea that
I think
I disagree with...because…
I wish
I hope
I know
I predict
I think the main idea is
I think the main idea of the chapter is
There is one thing I do not like, and it is
The author should have
I think ____ is like ____ because
This connects with
(Name) helped me understand
I partly agree with
At first I thought...now I think...because…
I agree with (Name) because…
My favorite part was...because…
I don't know why

I liked...because...

I think the author’s purpose is

I was surprised

I was confused

I used context clues

I do not get...

What if...

Why...

How do you know?

What do you mean?

Can you repeat that?

How did...?

Do you think...?


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King, C. (2001). "I like group reading because we can share ideas": The role of talk within the literature circle. *Reading Teacher, 35*(1), 32.


