

The Relationship Between Accountability Logs and Student Academic Achievement  
in an Eleventh Grade Class at a Selected High School

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### **Abstract**

The purpose of this study was to determine the relationship between accountability logs and student academic achievement in high-school English classrooms. The sample consisted of one eleventh grade English class of nineteen students. Data was collected from students' cumulative grades and accountability log scores. The study was conducted over one semester comprised of two nine-week halves. Accountability logs were implemented during both nine-week halves as an additional graded assignment. The data was analyzed using a Pearson Correlation to compare the students' cumulative grades for each nine-weeks and the grades the students achieved for the accountability log assignment during each nine-weeks. The Pearson Correlation ( $p < 0.01$ ) showed 0.978 for the first nine-weeks, and 0.986 for the second nine-weeks. This indicates a highly significant correlation between cumulative grades and accountability log grades. Additionally, an independent t-test was conducted to compare the difference between male and female students' grades. However, the data indicates no significant difference between male and female students on measured criteria. That is to say, overall, male and female students performed mostly at the same level regarding nine-week and accountability log grades. This, in turn, indicates no significant difference between males and female on either accountability logs or student academic achievement for either the first or second nine-week period. The overall indication is that there is a relationship between student academic achievement and accountability logs, while student gender does not significantly impact this correlation.

**IRB Approval**

Date: November 23, 2018

From: The Institutional Review Board (IRB) at Milligan College

Re: *The Relationship Between Accountability Logs and Student Achievement*

Submission type: Initial Submission

Dear Blake,

On behalf of the Milligan College Institutional Review Board (IRB), we are writing to inform you that your study *The Relationship Between Accountability Logs and Student Achievement* has been approved as expedited. This approval also indicates that you have fulfilled the IRB requirements for Milligan College.

All research must be conducted in accordance with this approved submission, meaning that you will follow the research plan you have outlined here, use approved materials, and follow college policies.

Take special note of the following important aspects of your approval:

- Any changes made to your study require approval from the IRB Committee before they can be implemented as part of your study. Contact the IRB Committee at [IRB@milligan.edu](mailto:IRB@milligan.edu) with your questions and/or proposed modifications.
- If there are any unanticipated problems or complaints from participants during your data collection, you must notify the Milligan College IRB Office within 24 hours of the data collection problem or complaint.

The Milligan College IRB Committee is pleased to congratulate you on the approval of your research proposal. Best wishes as you conduct your research! If you have any questions about your IRB Approval, please contact the IRB Office and copy your faculty advisor if appropriate on the communication.

Regards,  
The IRB Committee

## **Chapter 1**

### **Introduction**

Accountability is held as an important pedagogical methodology in effective teaching. Research conducted by Molenaar, Van Boxtel, and Slegers (2011) demonstrated that supporting students through encouraging accountability leads to higher levels of student achievement. In their study, students from three schools participated in eight 1 hour lessons. The students in these lessons were given varying levels of accountability, or scaffolding, as they completed assignments. The control group was given no accountability. The findings indicated that, while group performance was mostly unaffected, student achievement saw a positive increase. Accountability, therefore, is shown to positively affect student achievement. Cook-Sather (2010), likewise, discussed the study of how accountability in students leads to higher academic achievement. In this study, spanning 15 years, secondary level students participated in lesson preparations and were held accountable for their work. At the end of the study, students who had been held accountable for lesson preparations also showed responsibility for academic achievement. The results of this study showed the correlation between accountability and academic achievement. Thus, student achievement is ultimately, and positively, affected by accountability. However, Chappuis (2012) indicated that not all accountability is effective. In his case-study, he discussed how his daughter (the student) was given feedback and held accountable for assignments. But this accountability did not motivate the student and there was no discernable academic progress. These findings suggest that the effectiveness of any accountability is determined by subsequent academic achievement. Accountability logs are a specific, teacher-made scaffolding tool which allow educators to discuss personalized improvement strategies with students. To determine whether these accountability logs are

effective, academic achievement must be measured for students who are held accountable using these accountability logs.

Relative to this pedagogical methodology, a major issue in educational settings is that ineffective accountability is used which leads to minimal or no academic achievement. As previously discussed, Chappuis (2012), demonstrated that simply providing accountability for students does not solely cause high academic achievement. Likewise, the study performed by Kluger and DeNisi (1996), reinforces this point. 23,633 total observations were performed on 12,652 total participants to determine the effects of accountability, through the use of feedback, on academic achievement. The results of this study showed that accountability has an average positive effect on participants' academic achievement, but one-third of participants' academic achievement was negatively affected by accountability through the use of feedback. Their study intimated that accountability, through the use of feedback, "is only information, that is, data, and as such has no necessary consequences at all" (Kluger & DeNisi, 1996, p. 254). In other words, accountability leads to motivation, but accountability itself does not directly cause academic achievement. When accountability does not motivate students, it does not affect academic achievement. Similarly, Hattie and Timperley (2007) compared multiple studies and concluded that accountability, through the use of feedback, is only effective when it motivates students and, consequentially, leads to higher academic achievement. They compared 74 meta-analyses, comprising over 7,000 studies. Overall, the results indicated that the effects of accountability, through the use of feedback, on academic achievement was neutral. They concluded that, "the type of [accountability] and the way it is given can be differentially effective" (Hattie & Timperley, 2007, p. 81). Effective accountability, therefore, is that which motivates students and, thereby, causes higher academic achievement.

To deem accountability effective, evidenced of student motivation must be demonstrated through academic achievement. The study by Lee and Silver (2007) indicated that it is the level of motivation, and not accountability, that directly relates to academic achievement. They noted how “different types of [accountability]– advice, criticism, and praise... is [successful] in encouraging revisions by [students]” (Lee and Silver, 2007, p. 24). Their study indicated that the type of accountability determines the level of motivation, which, in turn, leads to academic achievement. Lee and Silver (2007) stated that accountability “needs to be credible and informative to be effective and that insincere praise is unlikely to encourage successful revisions” (p. 27). In other words, highly motivated students will demonstrate higher academic achievement than students who are not as highly motivated. Therefore, accountability is the catalyst for motivation, and motivation is the catalyst for academic achievement. Furthermore, the conclusion of Cook-Sather’s (2010) previously discussed study stated: “[S]tudents [who] have the opportunity to develop... awareness of their learning... construct their understanding of subject matter content... [and] translate themselves into new versions of those selves” (Cook-Sather, 2010, p. 560). This emphasizes the point that student academic achievement is impacted by effective accountability. Thus, students who receive effective accountability through the use of feedback, ultimately perform well academically.

This leads to the question which this study attempts to address: How do accountability logs affect student academic achievement? The literature suggests that effective accountability, through the use of feedback, stimulates motivation which, in turn, leads to higher academic achievement. The effectiveness of accountability logs, therefore, will be determined through evaluating subsequent student academic achievement. This study attempts to determine the effects of accountability logs as evidenced by student academic achievement.

**Problem Statement**

Accountability is purported to be part of effective teaching pedagogy. Using accountability logs, (a teacher-made scaffolding tool which allow educators to discuss personalized improvement strategies with students) is one means of implementing accountability in teaching. Academic achievement is an important goal of effective teaching. However, accountability is often used with minimal to zero positive effects on academic achievement. This indicates an overall discrepancy regarding the recommendations of using accountability and the actual pedagogical methodologies being implemented. Hence, the problem of this study was to determine the relationship between accountability logs and student academic achievement.

**Purpose Statement**

The purpose of this study was to investigate the relationship between accountability logs and student academic achievement.

**Significance**

Accountability is held as an important pedagogical methodology in effective teaching. The current literature indicates a strong correlation between accountability and academic achievement (Molenaar, Van Boxtel, and Slegers, 2011; Cook-Sather, 2010; Chappuis, 2012). Molenaar, et. al. (2011) noted that supporting students through accountability leads to high levels of academic achievement. Chappuis (2012) discussed the fact that any accountability must motivate the student, otherwise it will not lead to higher academic achievement and, hence, will not be effective. Therefore, there is a delineation between general accountability, which is ineffective, and specific accountability, which is effective. Using quantitative data to measure the effectiveness of accountability might reveal valuable insight for education. Is academic achievement higher for students who receive accountability through the use of accountability



logs? What are the effects on academic achievement when accountability does not motivate students? What, if any, is the measurable difference in academic achievement? Using student academic achievement as a marker, educators are able to determine whether or not accountability logs are effective. Teachers can then use these data to evaluate and modify existing pedagogy for effectiveness. Therefore, as accountability is an important pedagogical methodology, the knowledge of the effectiveness of accountability logs, as measured by student academic achievement, is also of high importance for educators seeking the most effective teaching strategies.

### **Limitations**

1. The sample was not randomly selected and therefore the results cannot be generalized to other settings.
2. Testing instrument: Teacher-made instrument not tested for trustworthiness and generalizability.

### **Definitions**

***Academic achievement:*** Academic achievement represents performance outcomes that indicate the extent to which a student has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university (Steinmayr, et. al., 2014). This will be measured and compared with successful completion of accountability logs to determine the correlation between the two.

***Accountability logs:*** Teacher-made tool used to give accountability to students through the use of feedback. Students will complete these and the results will be measured and compared with academic achievement to determine the correlation between the two.

**Feedback:** Information that has no necessary consequences (Kluger and DeNisi, 1996, p. 254). For this study, feedback will be more specifically defined as focused and specific advice given to students concerning previous performances on academic tasks.

**Motivation:** “[The] social force that binds one to the courses demanded by that force” (Cook-Sather, 2010, p. 555). For this study, motivation will be more specifically defined as that which causes student academic achievement. Ergo, highly motivated students will demonstrate higher academic achievement than students not as highly motivated; all else being equal.

### **Overview of Study**

The purpose of this study was to investigate the relationship between accountability logs and student academic achievement. This thesis comprises five chapters. Chapter 1 consists of the introduction, the problem statement, purpose statement, significance, limitations, definitions, and overview of study. Chapter 2 provides a review of the literature. Chapter 3 provides an outline of the research methods employed. Chapter 4 presents the findings of the study. Chapter 5, as the final chapter, provides a brief review of the study, a summary and discussion of the findings, conclusions, and recommendations for future study.

## Chapter 2

### Review of the Literature

Secondary students are faced with ever-increasing responsibility. One way that educators can teach this major skill to secondary students is through accountability. However, a major issue in the educational settings is that ineffective accountability is used which leads to minimal or no academic achievement. To overcome this issue, educators can implement accountability logs to help students more easily learn responsibility which will ultimately lead to higher academic achievement. Academic achievement represents performance outcomes that indicate the extent to which a student has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university (Steinmayr, et. al., 2014).

Accountability logs are a teacher-made tool used to give accountability to students through the use of feedback. Feedback is information that has no necessary consequences (Kluger and DeNisi, 1996). For this study, however, feedback will be more specifically defined as focused and specific advice given to students concerning previous performances on academic tasks. What is the relationship between accountability logs and academic achievement? Are accountability logs an effective form of feedback as measured by student academic achievement?

Accountability logs focus on students' completion of classwork and provide the teacher with a means to develop individual strategies for improvement for each student. Student academic achievement is affected, in part, by students' completion of classwork. Ergo, students who demonstrate consistently low completion of classwork will demonstrate lower academic achievement than students who demonstrate consistently high completion of classwork, all else being equal. Do students who receive teacher feedback through accountability logs demonstrate high academic achievement? Or is there no correlation between accountability logs and student

academic achievement? The focus of this study was to consider the relationship between accountability logs and student academic achievement.

To better understand accountability logs, student academic achievement, and the correlation between the two, this literature review attempts to scrutinize and synthesize several topics of relevance. First, the more extensive literature regarding accountability logs is considered. As the review progresses, both the literature on feedback and motivation are discussed more in depth. Second student academic achievement is examined. This section concludes with an analysis of the relationship between motivation and feedback. Finally, the relationship between feedback, in the form of accountability logs, and student academic achievement is discussed.

### **Accountability Logs**

As previously noted, accountability is held as an important pedagogical methodology in effectively teaching secondary students responsibility, among other skills. Research conducted by Molenaar, Van Boxtel, and Slegers (2011) demonstrated that supporting students through encouraging accountability leads to higher levels of student achievement. In their study, students from three schools participated in eight 1-hour lessons. The students in these lessons were given varying levels of accountability, or scaffolding, as they completed assignments. The control group was given no accountability. The findings indicated that, while group performance was mostly unaffected, student achievement saw a positive increase. Accountability, therefore, is shown to positively affect student achievement. Cook-Sather (2010), likewise, discussed the study of how accountability in students leads to higher academic achievement. In this study, spanning 15 years, secondary level students participated in lesson preparations and were held accountable for their work. At the end of the study, students who had been held accountable for

lesson preparations also showed responsibility for academic achievement. The results of this study showed the correlation between accountability and academic achievement. Thus, student achievement is ultimately, and positively, affected by accountability. However, Chappuis (2012) indicated that not all accountability is effective. In his case-study, he discussed how his daughter (the student) was given feedback and held accountable for assignments. But this accountability did not motivate the student and there was no discernable academic progress. These findings suggest that the effectiveness of any accountability is determined by subsequent academic achievement. Accountability logs are a specific, teacher-made scaffolding tool which allow educators to discuss personalized improvement strategies with students. To determine whether these accountability logs are effective, academic achievement must be measured for students who are held accountable using these accountability logs.

In her study, Ferris (1997), “examined over 1,600 marginal and end comments written on 110 first drafts of papers by 47 advanced university ESL students” (p. 315). She then “examined revised drafts of each paper to observe the influence of the first-draft commentary on the students' revisions and assess whether the changes made in response to the teacher's feedback actually improved the papers.” (p. 315). The findings from her study demonstrated that much of the given feedback leads students to revise, and certain types of feedback are more beneficial than others. This applies to accountability logs in that feedback for revision (one aspect of the accountability logs) leads to “substantive” improvement in academic achievement. Additionally, the study by Niemiec and Ryan (2009) presented an overview of Self-determination Theory. According to their study, “Self-determination theory (SDT) assumes that inherent in human nature is the propensity to be curious about one's environment and interested in learning and developing one's knowledge” (Niemiec & Ryan, 2009, p. 133). Significant data on SDT were

reviewed and, from this research review, Niemiec and Ryan drew conclusions about the impact of both intrinsic and extrinsic motivation on student academic achievement. The authors found that motivation, of both the intrinsic and autonomous types, promote engagement and higher learning potential. Additionally, their findings suggest that scaffolding provided by educators (e.g. using accountability logs) further encourages students to develop skills of responsibility. In short, this review concluded that teaching students accountability has positive benefits for the classroom (Niemiec & Ryan, 2009). This reflects well on accountability logs because these logs support SDT, which, as the study shows, facilitates academic performance.

In another study, Locke and Latham (2002) abridged 35 years of experimental research on goal-setting theory. The first issue they addressed was how goal difficulty relates to performance. One student demonstrated that assignment rigor, as measured by likelihood of success, correlated with success rate. The uppermost effort level happened during moderate difficulty, whereas the least effort level was observed during both low and high difficulty. Furthermore, they noted how the linear function of student performance leveled off when the student reached the limits of ability or when the student's motivation decreased. From this observation, they concluded that higher and more difficult goals produced the highest levels of effort and performance (Locke & Latham, 2002). This can be applied to the use of accountability logs because these logs are a means for teachers to work with students on setting goals. This goal setting, according to the study, is related to academic performance. Similarly, the study by Hong, et. al., (2009) surveyed differences among two grades, gender, and three achievement levels in students' reported benefit of homework, motivation, and "metacognitive strategy use" when completing homework. Hong, et. al., (2009) considered the differences between six homework "self-regulation constructs (utility value, intrinsic value, effort, persistence, planning, and self-

checking)” among 330 seventh and 407 eleventh graders from an urban school in China. They observed students reporting a decrease from middle to high school in self-regulated learning when completing homework. Conversely, Hong, et. al. (2009) noted that students highly regarded utility value and effort but not intrinsic value and self-checking. Applying these findings in a general sense indicates a strong need to provide the necessary scaffolding when secondary (high school) students’ self-regulated learning begins to decline. Thus, using accountability logs to provide necessary scaffolding will be beneficial for student academic achievement.

Another study by Seker and Dincer (2014) was performed as follows: They developed a questionnaire to collect students’ opinions on receiving feedback in their writing classes. The questionnaire had a twofold design. The first section was comprised of questions to obtain demographic information including age, gender, and level of language proficiency. The second section included 57 items in “5-point Likert Scale format” which was on a linear scale of strongly agree (corresponding to the number 1) and strongly disagree (corresponding to the number 5). The items were originally directed towards students’ underlying constructs regarding (a) the types of feedback they receive; (b) the types of feedback they prefer to receive; (c) students’ opinions on the impacts of receiving feedback on their foreign language improvement; (d) students’ emotional dispositions toward feedback; and (e) students’ action initiation time upon feedback (Seker & Dincer, 2014). The questionnaire was given to a large number of participants in line with a previous proposal to have a minimum number of participants per variable. When the students were asked to complete the questionnaire, they had already completed the first two blocks of English Language education and were familiar with feedback procedure that their teachers followed. After receiving necessary permissions, participants were asked to complete the questionnaire at school. Sufficient time was allotted, as well as necessary assistance from researchers while students completed the

questionnaire (Seker & Dincer, 2014). From this intensive study, they found that students received more frequent feedback concerning grammar, content, vocabulary, and organization, whereas punctuation, capitalization, and spelling received less frequent feedback. When asked for their preferences, students expressed the strongest preference for feedback on grammar mistakes. Nevertheless, they quantified that feedback on all writing aspects was also important. In short, participants were content with the received feedback because they understood it to correspond with difficult but useful aspects of writing (Seker & Dincer, 2014). Furthermore, Seker & Dincer, (2014) found a direct correlation between positive feelings and immediate actions, and a similar relationship between negative feelings and postponed initiation of action. The conclusion of this study was that students who feel positive act on received feedback more quickly, whereas students who feel negative tend to postpone acting on received feedback (Seker & Dincer, 2014). Thus, helping students orient themselves through the use of feedback is related to students' academic performance. Because accountability logs are a tool teachers use to help students orient themselves, the research suggests that there is a correlation between accountability logs and academic performance.

### **Feedback**

Relative to this pedagogical methodology, a major issue in educational settings is that ineffective feedback is used which leads to minimal or no academic achievement. As previously discussed, Chappuis (2012), demonstrated that simply providing feedback for students does not solely cause high academic achievement. Likewise, the study performed by Kluger and DeNisi (1996), reinforces this point. 23,633 total observations were performed on 12,652 total participants to determine the effects of feedback on academic achievement. The results of this study showed that feedback has an average positive effect on participants' academic achievement, but one-third of participants' academic achievement was negatively affected by



feedback. Their study intimated that feedback, “is only information, that is, data, and as such has no necessary consequences at all” (Kluger & DeNisi, 1996, p. 254). In other words, feedback leads to motivation, but feedback itself does not directly cause academic achievement. When feedback does not motivate students, it does not affect academic achievement. Similarly, Hattie and Timperley (2007) compared multiple studies and concluded that feedback is only effective when it motivates students and, consequentially, leads to higher academic achievement. They compared 74 meta-analyses, comprising over 7,000 studies. Overall, the results indicated that the effects of feedback, on academic achievement was neutral. They concluded that, “the type of [feedback] and the way it is given can be differentially effective” (Hattie & Timperley, 2007, p. 81). Effective feedback, therefore, is that which motivates students and, thereby, causes higher academic achievement.

On this same note, Enginarlar (1993) did a study that “surveyed the attitudes of 47 freshman students at Middle East Technical University to the feedback procedure employed by two English Composition I instructors” (p. 193). This study “involved mainly: (a) indication of linguistic errors with codes, and (b) various types of brief comments to help students improve their drafts” (Enginarlar, 1993, p. 193). The findings of this study demonstrated that students possess a definite positive outlook towards the use and moralistic value of the aforementioned feedback process. Students rated the necessities of “time and effort” involved in feedback. These ratings show how students view this process as “co-operative learning” involving exertion and accountability shared by students and teachers. Furthermore, the results of this study highlight varied student perspectives on feedback related to revision work. (Enginarlar, 1993). This is an important finding because feedback is shown to have different effects on student academic performance (or revision work in the case of this study).

Similarly, Balzer, et. al., (1992) performed a study involving an experiment designed to assess how different combinations of cognitive feedback (CFB) components lead to different levels of performance. In their study, undergraduate students were randomly assigned to “one of five CFB conditions,” and participants completed a task to predict the amount of wins for specific major league baseball teams. After one week, participants returned and were given the CFB related to their experimental condition in order to repeat the judgment task (Balzer, et. al., 1992). The findings of their study showed participants who were given feedback performed at a much higher rate than participants who were given no feedback (Balzer, et. al., 1992). This study demonstrates that there is a positive relationship between feedback and student performance. Because of the validity and accuracy of this study, these findings can be generalized to state that feedback positively affects student academic performance, all else being equal.

In a similar study, Brunit, et. al., (2000) conducted a study in which French language students were clustered in groups of 11-15 participants in their regular classroom. During this study, students were presented with writing tasks to “test a new type of French exercise” (Brunit, et. al., 2000). The study was separated into three sections. The first section involved restoring the punctuation of a short text. The second section required students to locate an anomaly in several series of words. The final section directed students to link words with the correct definition. Brunit, et. al., (2000) devised these subsections to give students the opportunity to respond regardless of their certitude. The researchers reasoned this also increased the perceived integrity of false feedback. Following the initial test, participants were instructed to record their thoughts, irrespective of correct writing conventions, during a 4-minute window. Subsequently, the students completed a “filler task” while the researchers imitated grading the initial test – this grading constituted false feedback. Afterwards, a random selection of participants received the

false feedback. The false feedback consisted of high (15-17) and low (5-7) achievement that was randomly assigned to participants. The remaining participants received no feedback as they were the group designated “no feedback condition” (Brunit, et. al., 2000). Participants were also informed that the average classroom score was 11, which provided a basis on which students could compare their feedback. To further intensify the impact of feedback, students were informed that their grades would be reported to their teacher. The final step of the study involved participants recording their thoughts for a second time (Brunit, et. al., 2000). In short, this study considered whether the reception of feedback, in and of itself, was enough to affect students’ academic performance. From this study, Brunit, et. al., (2000) found that “high achievers” exhibited introspection when receiving failure feedback as opposed to success feedback or no feedback. Alternatively, “low achievers” showed introspection after receiving success feedback as opposed to failure feedback or no feedback. This indicates a strong correlation between feedback and the motivation students have to demonstrate academic performance. That is to say, when feedback is the independent variable and it is changed to be positive feedback, the dependent variable of student academic performance is positively affected by their motivation. Thus, the discussion must turn to focus on the impact motivation has on student academic performance.

### **Motivation**

To deem feedback effective, evidenced of student motivation must be demonstrated through academic achievement. The study by Lee and Silver (2007) indicated that it is the level of motivation, and not feedback, that directly relates to academic achievement. They noted how different types of feedback, including “advice, criticism, and praise” is successful in encouraging revisions by students (Lee & Silver, 2007). Their study indicated that the type of feedback

determines the level of motivation, which, in turn, leads to academic achievement. Lee and Silver (2007) stated that feedback needs to be valid and reliable to be effective and that disingenuous commendation is unlikely to encourage successful revisions. In other words, highly motivated students will demonstrate higher academic achievement than students who are not as highly motivated. Therefore, feedback is the catalyst for motivation, and motivation is the catalyst for academic achievement. Furthermore, the conclusion of Cook-Sather's (2010) previously discussed study indicates that students who have the opportunity to develop awareness of their learning construct their understanding of subject matter content and improve themselves both academically and personally. This emphasizes the point that student academic achievement is impacted by effective feedback. Thus, students who receive effective feedback (e.g. through the use of accountability logs), ultimately perform well academically.

In a similar study, Deci, et. al., (1999) performed an analytical review of 128 previous studies to examine the impact of extrinsic return on intrinsic motivation. The findings of this study indicated that “engagement-contingent, completion-contingent, and performance-contingent” (i.e. extrinsic) rewards considerably weaken intrinsic motivation. This study further demonstrated that rewards that were contingent on student engagement and completion negatively affect motivation. Furthermore, the data that were gathered from the 128 studies indicated that all rewards, whether tangible or expected, negatively impact motivation (Deci, et. al., 1999). Alternatively, the researchers noted a direct correlation between positive feedback and student motivation. Deci, et. al., (1999) further compared the impact of rewards and feedback on motivation between secondary and post-secondary students. They found that tangible rewards negatively impacted the motivation of secondary students, whereas verbal rewards impacted secondary students more positively (Deci, et. al., 1999). These findings are important for the

focus of this literature review. From the results of this study, it can be surmised that verbal rewards for secondary students, those closer to the college age students in the study, would be more beneficial than tangible rewards. This type of reward is very similar to the conferences teachers conduct with individual students concerning their accountability logs. Thus, the findings of this study could be generalized to state that the verbal reward (and, by extension, the individual strategy for continued academic progress) of using accountability logs will be beneficial for students.

Further consideration of this idea is seen in the report by Dweck (2002). This report highlighted how feedback given by teachers impacts students' beliefs about their own intelligence and, subsequently, the students' motivation and achievement (Dweck, 2002). The report compares two theories. The first theory is that intelligence is a "fixed trait," unable to be developed. The second theory is that intelligence is not a fixed trait and, thus, can be developed (Dweck, 2002). The author suggests that it is possible to change these two theories of intelligence to promote student motivation and achievement. This report is applicable to this literature review because it considers how different pedagogy affect student motivation. As this literature review focuses on the correlation between accountability logs and student academic achievement, the postulation of feedback directly affecting motivation and, thereby, achievement is relevant.

Next, consideration is given to the longitudinal study on students from the middle elementary through the high school years conducted by Gottfried, et. al. (2001). Their study focused on two characteristics of permanency, steadiness of "individual differences" and means. The findings of this study supported two theories about permanency. The first theory suggests that student intrinsic motivation is a non-malleable factor. The second theory suggests that

student intrinsic motivation is a malleable factor (Gottfried, et. al., 2001). The researchers found that, as students progress through their academic careers, their self-motivation increases.

However, they also noted that this progress is relative to motivation present in students at an early age. This means that students who are less motivated than their peers at an early age will still be less motivated than their peers after the increase in motivation fostered by progress in academic careers (Gottfried, et. al., 2001). The findings are applicable to this literature review because they demonstrate that students with lower motivation at a younger age are at a motivational disadvantage in their later academic career. From the previous studies' findings regarding the impact of feedback on motivation, this conclusion demonstrates the need for teachers to have a tool, such as the accountability logs, to promote student motivation.

Finally, regarding motivation, the report by Hidi and Harackiewicz (2000) is of great importance. Their report identified "interests and goals" as two important variables that affect students' academic achievement. The report involved reviewing current developments in the two areas and then examining the inherent relationship. The researchers noted the need to reconsider the divergence of contextual and personal interest, motivation, and academic achievement. They postulated that teachers should acknowledge the positive impact of extrinsic motivation in lieu of those of intrinsic motivation (Hidi & Harackiewicz, 2000). This report directly impacts this literature review because it suggests that reliance on students' interest in topics is not a reliable means to foster academic achievement. Hidi & Harackiewicz (2000) suggest that performance goals (i.e. those present in accountability logs) are directly related to academic achievement. This, however, necessitates consideration of literature on student academic achievement.

### **Academic Achievement**

Academic achievement represents performance outcomes that indicate the extent to which a student has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university (Steinmayr, et. al., 2014).

Ultimately, this will be measured and compared with successful completion of accountability logs to determine the correlation between the two. However, consideration must be given to the literature regarding academic achievement in order to fully scrutinize and synthesize this aspect.

The first study regarding academic achievement to be considered is the one by Earley, et. al., (1990). In their study, they observed feedback given both during and after students worked on assignments. They considered how these types of feedback impact motivation and academic achievement. The researchers used a computer-simulated investing process, wherein 85 students worked under the conditions that goals and feedback were varied (Earley, et. al., 1990). The researchers concluded that both “process and outcome feedback” impact motivation and further positively affect academic achievement. Furthermore, they noted that there is a strong correlation between academic achievement and feedback given as an improvement strategy, whereas the correlation was much weaker between academic achievement and feedback given after students completed assignments (Earley, et. al., 1990). This study shows that academic performance, in this case “quality of information search and task strategy” is most strongly affected by “process feedback”, or feedback given during specific tasks, i.e. formative assessment (Earley, et. al., 1990). In contrast, outcome feedback that is given after completion of a task does not impact academic performance.

Moving forwards, the report by Deci and Ryan (2002) discusses how giving too much feedback negatively affects academic performance. They discuss the absurdity of achievement wherein more work fosters poorer results (Deci & Ryan, 2002). The researchers noted that

educators can promote student motivation to meet goals and improve academic achievement by encouraging through implementing inquiry-based learning. The evidence presented indicates that students internalize extrinsic motivation, (thereby transforming it to intrinsic motivation) when teachers develop strong student-teacher relationships. Deci and Ryan (2002) note that setting rigorous goals, offering objective feedback, providing reasoning for behavior requirements, presenting choices for assignments, and establishing opportunities for learning are effective ways to develop strong relationships. Furthermore, implementing these methodologies fosters higher students' motivation (Deci & Ryan, 2002). Their conclusion is relevant to this literature review because it demonstrates that process feedback (i.e. objective feedback) ultimately fosters positive academic achievement. In contrast, therefore, subjective feedback would foster negative academic performance. Thus, academic performance is a dependent variable affected, in part, by feedback, be it positive or negative.

Furthermore, the report by Eccles (2007) focuses on the motivation necessary for academic achievement and, is thus, relevant to this literature review. Eccles (2007), discusses “the impact of experiences in the family and at school on the development of achievement motivation and engagement in skill-based learning” (665). She gives a summary of student academic achievement, motivation, and engagement in classroom activities, centered on the “expectancy-value model” of choices and behaviors related to success. She then notes research that suggests that families influence student academic achievement, motivation, and engagement in classroom activities (Eccles, 2007). Furthermore, she discusses how students’ academic experiences support or undermine the development of positive motivation and school engagement (Eccles, 2007). In summary, Eccles report suggests that academic achievement is not solely influenced by teacher feedback. This is relevant because it indicates that motivation,



rather than feedback, is the independent variable which affects academic achievement. As a tertiary goal of this literature review is to scrutinize and synthesize literature concerning motivation as a topic of relevance to accountability logs, Eccles study is relevant to this review.

Additionally relevant to this review is the article by Klose (2008). In this article, Klose (2008) discussed how a major goal of school administrators is to foster academic achievement and motivation in students. Klose (2008) noted that when considering the climate of schools, means of grading, and awards programs to recognize effort and academic achievement, administrators focus on encouraging motivation. Klose (2008) continues the discussion by considering both the methods to motivate students and to encourage higher academic achievement. While this brief article mostly comprises a discussion of an issue, the suggestions therein are relevant to this literature review. First, Klose (2008) suggests that achievement is a means of measuring student motivation. Furthermore, Klose (2008) postulates that motivation can be enhanced. This stands in agreement with previously discussed literature concerning motivation. Hence, the article by Klose (2008) emphasizes the correlation between motivation and academic achievement.

Finally, consideration must be given to the study done by Steinmayr and Spinath (2009). In their study, they set out to investigate the effects of metacognitive ability on student academic achievement while also monitoring the impact of intelligence. Their sample consisted of 684 students, ranging from 6th to 12th grade, enrolled in a private Brazilian school. Students participated in three intelligence tests, as well as three metacognitive tests (Steinmayr & Spinath, 2009). Their findings indicated a correlation between metacognitive ability and academic achievement. More acutely, Steinmayr and Spinath (2009) noted that students' "general metacognitive ability" impacted general academic achievement, while "specific metacognitive

ability” impacted specific academic achievement. Steinmayr & Spinath (2009) concluded that a student’s metacognitive ability impacts academic achievement more than a student’s level of intelligence. Both the results of this study, and the conclusions made by Steinmayr & Spinath (2009) are important to this literature review. First, metacognitive ability could be described as the skill of responsibility. As previously discussed, responsibility is a major skill which secondary students must be taught in order to continue their academic careers. Furthermore, the conclusion that the “predictive power of the general metacognitive ability was greater than fluid intelligence in the explanation of general academic achievement” suggests a correlation between responsibility and academic achievement (Steinmayr & Spinath, 2009). Because of this correlation, accountability logs could also be said to have a correlation with academic achievement.

### **Conclusion**

The goal of this review was to scrutinize and synthesize several topics of relevance to better understand accountability logs, student academic achievement, and the correlation between the two. The more extensive literature related to accountability logs indicated a strong correlation to academic achievement (Cook-Sather, 2010). Studies, such as the one by Chappuis (2012), indicated that feedback impacts motivation. The analyses like the one performed by Lee and Silver (2007) indicated a relationship between feedback and motivation. Student academic achievement, as seen in the study by Earley, et. al., (1990) is positively related to motivation. And finally, the relationship between feedback, in the form of accountability logs, and student academic achievement can be derived from studies like Steinmayr and Spinath’s (2009).

After carefully considering the aforementioned studies and research regarding accountability logs and student academic performance, there does seem to be a correlation

between accountability logs and academic performance. Because secondary students must learn responsibility as they progress through their academic career, accountability logs may be a viable tool for teachers to promote the skill of responsibility in students. However, the literature still leaves some unanswered questions, such as: What is the most effective form of feedback log? Would a generalized feedback log work in all classes, (i.e. Is there a cross-curricular application?) Is the effectiveness of teaching responsibility stronger in certain subject areas? How does a students' affinity for a specific subject area affect the impact of accountability logs on academic performance? Based on the literature, there is a positive correlation between accountability logs and student academic performance.

## **Chapter 3**

### **Methodology and Procedures**

The purpose of this study was to examine the relationship between accountability logs and student achievement in high school English classrooms. The students' tests scores, daily assignments, and unit grades were evaluated after implementing the use of accountability logs as an additional weekly assignment for the entire semester. Student grades were then compared to determine if a correlation exists between successful completion of accountability logs and academic achievement. This chapter explains the population, participants, data collection instruments, and procedures used for this research, as well as the research questions that guided the process.

#### **Population**

This research study took place in a city high school, eligible for Title I funding, located in Northeast Tennessee. The school had 2,233 students enrolled, 30.4% of which were considered economically disadvantaged. Of the total student body, 17.3% of students were considered to have disabilities. The demographics of the student body were 84.6% white, 3.5% Hispanic or Latino, and 9.3% African American. The remaining students were Asian or Native American/Alaskan.

#### **Participants**

The participants of this study consisted of one eleventh grade English class of nineteen students. Nine students were female and ten were male. Fourteen of the students were white among the participants, four were African American, and one was Hispanic or Latino. The ability levels of the students varied. Two of the students had IEPs and the class as a whole was below grade level in reading, writing, and comprehension. The students were between sixteen

and eighteen years old. The participants were not randomly selected, as the researcher was assigned a class that was already composed.

### **Data Collection Instruments**

Data were collected from students' grades, which consisted of formative assessments, daily assignments, and summative assessments in the form of teacher-made tests. In addition, the researcher observed student behavior, participation, motivation, and engagement. The eighteen-week term was divided into two nine-week halves, or semesters, and accountability logs were implemented for the entire semester. Lesson materials covered the impact and literature of Puritan society in America. In particular, the play *The Crucible* was studied as students developed knowledge of characterization, dramatic structure, and the historical context in which the play was set and written. The first half of the second nine-week period covered the Age of Reason and the works of Thomas Jefferson, Patrick Henry, and Thomas Paine. Students were assessed on their ability to analyze eighteenth century texts, identify rhetorical devices, and discuss historical and literary significance. The second half of the second nine-week period covered American Romantic literature and the works of Washington Irving, Edgar Allen Poe, and Nathaniel Hawthorne. Students were assessed on their ability to compare and contrast different themes and literary devices used in texts from the same genre. Through each literary unit, students were also assigned accountability logs to complete by specific checkpoints. To complete the accountability log, students recorded any assignments for the literary unit that were incomplete. At the checkpoint for the accountability logs, students would conference with the teacher to discuss current academic achievement and individual strategies for improvement. A grade was also assigned based on the student's completion of the accountability log at each checkpoint. The grades from both the literary unit assignments and the accountability logs were

compared to determine the relationship between accountability logs and student academic achievement.

### **Procedures**

Permission has been granted from the principal of the school to conduct a study researching the relationship between accountability logs and student academic achievement in the classroom. Permission has been granted from the Milligan college Institutional Review Board. After receiving the appropriate permission, the study was conducted on the assessment results of a third period college preparation English class using traditional teaching methods, as well as accountability logs assigned by the eleventh-grade English team, for the entire semester. The class is on a block schedule, which means each class is eighty-five minutes long and the course will conclude by the end of the first half of the school year.

The participants consisted of a class of nineteen eleventh grade students, ages sixteen through eighteen. Nine students were female, ten were male, and two had IEPs. Three units were selected for this study. The English department head deemed the units equal in difficulty and comprehension. The first unit was implemented over the course of the first nine-week period of the semester. Students studied the play *The Crucible*, compared and contrasted the time period in which the play was set to the historical context in which the play was written, and analyzed a text from the historical context in which the play was written. In addition, students gained knowledge on characterization, thematic elements, and narrative structure and terminology.

Weekly checkpoints for completing accountability logs were established for students during the first nine-week period as they explored seventeenth-century American literature and society. Each week, students were given a list of assignments and due dates. Students were also instructed to complete their accountability logs at the end of each week before conferencing with

the teacher. The use of accountability logs was implemented to help students meet the increased academic rigor between tenth-grade and eleventh-grade classes. The eleventh-grade English team had decided to implement this strategy at the beginning of the semester to promote student academic achievement. After conferencing with the teacher about individual strategies for improvement, students were given a grade for completing their accountability log.

During the second nine-week period, students began a two-week unit on the literature of the Age of Reason. Traditional methods were employed to teach the texts of *The Declaration of Independence*, “Speech to the Second Virginia Convention” by Patrick Henry, and “The Crisis No. 1” by Thomas Paine. Afterwards, students completed a seven-week unit on American Romantic literature during the second unit of the second nine-week period. Like the previous unit, the texts of “The Devil and Tom Walker,” “The Pit and the Pendulum,” and “The Minister’s Black Veil” were taught using traditional methods. In both units, the teacher used both direct instruction and inquiry-based learning. Lectures and worksheets were the primary means by which the material was introduced. Students were then given inquiry-based assignments that required higher-order thinking skills to complete. Students completed a teacher-made summative assessment for each piece studied.

After completing the second nine-weeks, the researcher compared and contrasted student grades for unit assignments and accountability logs completed throughout the course of the study. The researcher examined the data to determine if there was a correlation between accountability logs and student academic achievement.

### **Research Questions and Hypotheses**

**Research Question 1:** Is there a correlation between accountability logs and student academic achievement?

**Hypothesis 1:** There is a correlation between accountability logs and student academic achievement as measured by unit assessments.

**Null hypothesis 1:** There is no correlation between accountability logs and student academic achievement as measured by unit assessments.

**Research Question 2:** Does student gender impact the correlation between accountability logs and student academic achievement?

**Hypothesis 2:** Student gender does impact the correlation between accountability logs and student academic achievement.

**Null hypothesis 2:** Student gender does not impact the correlation between accountability logs and student academic achievement.



## Chapter 4

### Data Analysis

Secondary students are faced with ever-increasing responsibility. One way that educators can teach this major skill to secondary students is through accountability. However, a major issue in the educational settings is that ineffective accountability is used which leads to minimal or no academic achievement. To overcome this issue, educators can implement accountability logs to help students more easily learn responsibility which will ultimately lead to higher academic achievement. The purpose of this study was to examine the relationship between accountability logs and student achievement in high school English classrooms. The students' tests scores, daily assignments, and unit grades were evaluated after implementing the use of accountability logs as an additional weekly assignment for the entire semester. Student grades were then compared to determine the results of this study.

### Collection of Data

Data were collected using the students' end-of-semester grades, which consisted of formative assessments, daily assignments, summative assessments; accountability log grades were also collected in order to compare to students' end-of-semester grades and determine if a correlation exists. Lesson materials for the first nine-week period covered the impact and literature of Puritan society in America. In particular, the play *The Crucible* was studied as students developed knowledge of characterization, dramatic structure, and the historical context in which the play was set and written. The first half of the second nine-week period covered the Age of Reason and the works of Thomas Jefferson, Patrick Henry, and Thomas Paine. Students were assessed on their ability to analyze eighteenth century texts, identify rhetorical devices, and discuss historical and literary significance. The second half of the second nine-week period

covered American Romantic literature and the works of Washington Irving, Edgar Allen Poe, and Nathaniel Hawthorne. Students were assessed on their ability to compare and contrast different themes and literary devices used in texts from the same genre. As the researcher was a student teacher at the time of this study, the teacher of record ultimately determined the implementation and level of difficulty of the aforementioned lesson content; it was determined that this was a standard level of difficulty for an eleventh-grade English class. In all, the cumulative grades of the students were compared with the students' final grades on the accountability log assignment to assess whether or not there was a relationship between student academic achievement and accountability logs.

The class of students in this study consisted of a variety of students with ability levels ranging from below average to above average. The majority of students was female, and the minority was male. The study analyzed academic achievement both as a whole and as related to gender. The demographics of the study are displayed in Table 1.

**Table 1**

<b>Gender</b>	<b>Number</b>	<b>Percentage</b>
<b>Male</b>	<b>7</b>	<b>46.67%</b>
<b>Female</b>	<b>8</b>	<b>53.33%</b>
<b>Total</b>	<b>15</b>	<b>100.00%</b>

### **Research Questions and Related Hypotheses**

Two research questions and related hypotheses were analyzed during the course of this study. Data was recorded, as seen in Table 2 and Table 4. The results were examined using 0.01 level of significance.

**Research Question 1:** Is there a correlation between accountability logs and student academic achievement?

**Research Hypothesis 1:** There is a correlation between accountability logs and student academic achievement as measured by unit assessments.

**Null hypothesis 1:** There is no correlation between accountability logs and student academic achievement as measured by unit assessments.

To answer this question, a Pearson Correlation (Tables 3 and 6) was used to compare the students’ cumulative grades for each nine-weeks and the grades the students achieved for the accountability log assignment during each nine-weeks (Tables 2 and 5). The Pearson Correlation ( $p < 0.01$ ) showed 0.978 (Table 3) for the first nine-weeks, and 0.986 (Table 6) for the second nine-weeks. This indicates a highly significant correlation between cumulative grades and accountability log grades. The overall indication is that there is a relationship between student academic achievement and accountability logs. This can also be seen in the scatter plots (Tables 4 and 7) for each nine-weeks. After reviewing these data analyses, the null hypothesis was rejected.

**Table 2**

**Descriptive Statistics**

	Mean	Std. Deviation	N
1st 9 wk Grade	84.6667	13.42528	15
Acc Log Grade 1 (1st 9 wk)	85.6667	12.93758	15

**Table 3**

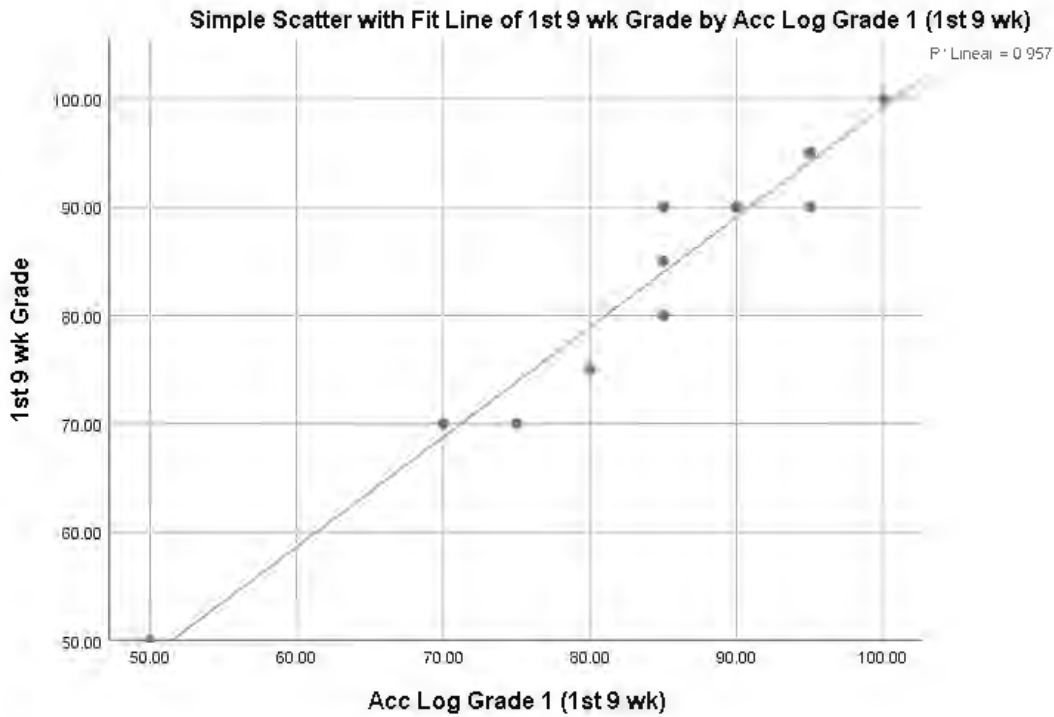
**Correlations**

		1st 9 wk Grade	Acc Log Grade 1 (1st 9 wk)
1st 9 wk Grade	Pearson Correlation	1	.978**
	Sig. (2-tailed)		.000
	N	15	15
Acc Log Grade 1 (1st 9 wk)	Pearson Correlation	.978**	1
	Sig. (2-tailed)	.000	

N	15	15
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\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 4**



**Table 5**

**Descriptive Statistics**

	Mean	Std. Deviation	N
2nd 9 wk Grade	85.3333	15.97617	15
Acc Log Grade 2 (2nd 9 wk)	85.3333	15.63726	15

**Table 6**

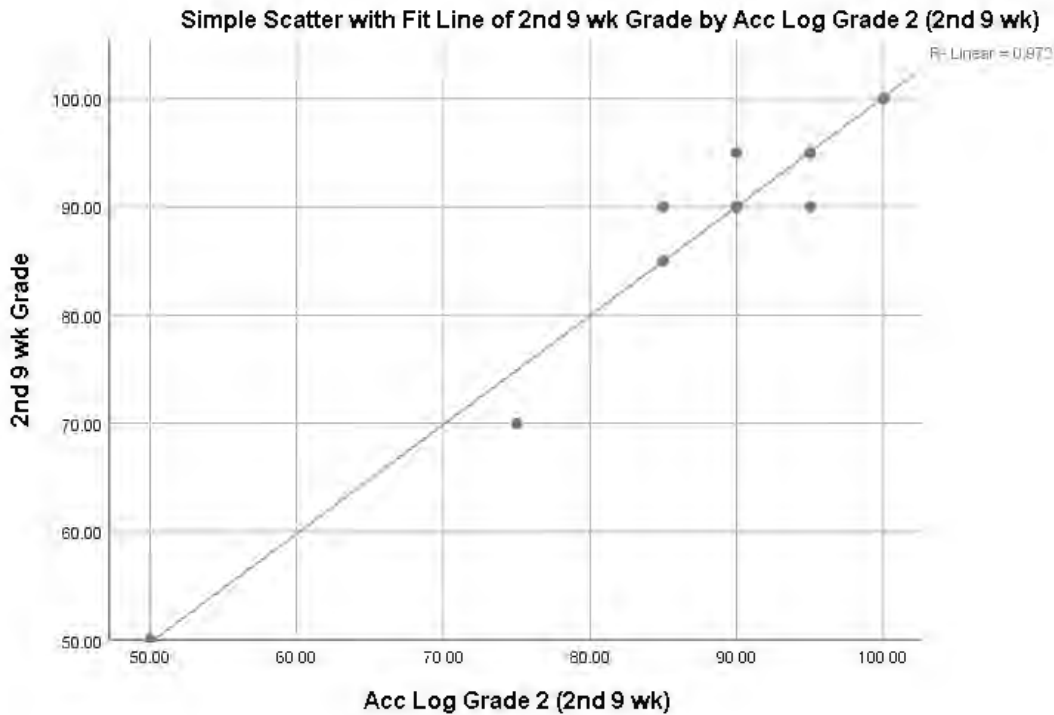
**Correlations**

		2nd 9 wk Grade	Acc Log Grade 2 (2nd 9 wk)
2nd 9 wk Grade	Pearson Correlation	1	.986**
	Sig. (2-tailed)		.000
	N	15	15
Acc Log Grade 2 (2nd 9 wk)	Pearson Correlation	.986**	1

Sig. (2-tailed)	.000	
N	15	15

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Table 7**



**Research Question 2:** Does student gender impact the correlation between accountability logs and student academic achievement?

**Research Hypothesis 2:** Student gender does impact the correlation between accountability logs and student academic achievement.

**Null hypothesis 2:** Student gender does not impact the correlation between accountability logs and student academic achievement.

To answer this question, an independent t-test was conducted (Table 9) to compare the difference between male and female students’ grades (Table 8). The data, demonstrated in Table 9, indicates no significant difference between male and female students on measured criteria.

That is to say, overall, male and female students performed mostly at the same level regarding nine-week and accountability log grades. This, in turn, indicates no significant difference between males and female on either accountability logs or student academic achievement for either the first or second nine-week period. Therefore, based on the data as analyzed, Null Hypothesis 2 was retained.

**Table 8**

<b>Group Statistics</b>					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
1st 9 wk Grade	F	8	88.1250	7.03943	2.48881
	M	7	80.7143	18.12654	6.85119
2nd 9 wk Grade	F	8	91.2500	4.43203	1.56696
	M	7	78.5714	21.73980	8.21687
Acc Log Grade 1 (1st 9 wk)	F	8	89.3750	5.62996	1.99049
	M	7	81.4286	17.72811	6.70059
Acc Log Grade 2 (2nd 9 wk)	F	8	90.6250	4.95516	1.75191
	M	7	79.2857	21.49197	8.12320

**Table 9**

		<b>Independent Samples Test</b>									
		Levene's Test for Equality of Variances				t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
1st 9 wk Grade	Equal variances assumed	8.275	.013	1.072	13	.303	7.41071	6.91139	-7.52043	22.34185	
	Equal variances not assumed			1.017	7.575	.341	7.41071	7.28924	-9.56388	24.38531	
2nd 9 wk Grade	Equal variances assumed	27.811	.000	1.620	13	.129	12.67857	7.82696	-4.23054	29.58769	
	Equal variances not assumed			1.516	6.437	.177	12.67857	8.36495	-7.45753	32.81468	
Acc Log Grade 1 (1st 9 wk)	Equal variances assumed	7.972	.014	1.206	13	.249	7.94643	6.58981	-6.28999	22.18285	
	Equal variances not assumed			1.137	7.059	.293	7.94643	6.98999	-8.55452	24.44738	
Acc Log Grade 2 (2nd 9 wk)	Equal variances assumed	17.316	.001	1.456	13	.169	11.33929	7.78749	-5.48456	28.16313	
	Equal variances not assumed			1.365	6.559	.217	11.33929	8.30997	-8.58172	31.26029	

## **Chapter 5**

### **Findings, Limitations, Recommendations, and Conclusions**

#### **Introduction**

This chapter contains the findings, recommendations, and conclusions for future studies to determine the correlation between using accountability logs and student academic achievement in an eleventh-grade English classroom.

#### **Findings Summary**

This study focused on students in an eleventh-grade English classroom. This study compared student performance on classwork and assessments with student performance on completing accountability logs to determine if a correlation exists. The study spanned one semester that was divided into two nine-week halves. The cumulative grades of the students were compared with the students' final grades on the accountability log assignment to assess if there was a relationship between student academic achievement and accountability logs.

To compare the collected data, a Pearson Correlation (Tables 3 and 6) was used. The data suggests that there is a relationship between student academic achievement and accountability logs; these results can also be seen in the scatter plots (Tables 4 and 7).

This study also considered whether student gender has an impact on the aforementioned correlation. To address this question, an independent t-test was conducted (Table 9) to compare the difference between male and female students' grades (Table 8). The data suggests that there is no significant difference between male and female students on measured criteria. Overall, male and female students performed mostly at the same level regarding nine-week and accountability log grades.

#### **Findings Interpretation**

The findings in this study confirm previously conducted studies regarding the relationship between teaching students accountability and student academic achievement.

For example, Molenaar, Van Boxtel, and Slegers (2011) demonstrated that supporting students through encouraging accountability leads to higher levels of student achievement. This is confirmed by this study as seen in Table 8, where the mean grade for female students saw an increase from the first nine-weeks to the second nine-weeks.

However, Chappuis (2012) indicated that not all accountability is effective. This is also confirmed by this study. As seen in Table 8, while the mean grade for female students saw an increase from the first nine-weeks to the second nine-weeks, the mean grade for male students saw a decrease over the same time-frame.

Overall, the study done by Steinmayr and Spinath (2009) relates well to the findings of this study. Steinmayr and Spinath (2009) set out to investigate the effects of metacognitive ability on student academic achievement while also monitoring the impact of intelligence. They concluded that a student's metacognitive ability impacts academic achievement more than a student's level of intelligence. Metacognitive ability could be described as the skill of responsibility; that is, thinking about what needs to be done and how to do it. As previously discussed, responsibility is a major skill which secondary students must be taught in order to continue their academic careers. Furthermore, the conclusion that the "predictive power of the general metacognitive ability was greater than fluid intelligence in the explanation of general academic achievement" suggests a correlation between responsibility and academic achievement (Steinmayr & Spinath, 2009). This study confirms that the correlation exists between general metacognitive ability (in this case, using accountability logs) and student academic achievement.

### **Limitations of the Study**



In chapter 1, the first limitation listed was that the sample was not randomly selected and therefore the results cannot be generalized to other settings. This also means that the data may be less trustworthy than that obtained from studying a randomly selected sample. The validity and reliability were also affected by the non-random sample. Were a more representative sample used, the reliability and validity would be much higher.

The second limitation listed in chapter 1 was that the testing instrument was a teacher-made instrument not tested for trustworthiness and generalizability. That is to say, the accountability logs were planned by this researcher's mentoring teacher before the study began. For this reason, the instrument could not be tested or altered. This also means that the reliability and validity of the data may be skewed because of the teaching instrument. Nevertheless, because the testing instrument was not changed once implemented, all of the data was collected in a consistent manner from the beginning of the study. This means that the data is mostly reliable and valid for the purposes of this study.

### **Recommendations**

In future studies, randomly selected samples would yield more generalizable data. This would also yield data that is more trustworthy, reliable, and valid than the data collected in this study. Understandably, Locke and Latham's (2002) abridged 35 years of experimental research on goal-setting theory is likely outside of the scope of student-researchers. However, Molenaar, Van Boxtel, and Slegers' (2011) study, incorporating students from three schools who participated in eight 1-hour lessons, would be feasible and also yield much more generalizable data.

Additionally, future researchers should test all instruments for trustworthiness and generalizability before being implemented; this would also alleviate possible skewing of data

reliability and validity. For this study, the researcher collaborated with the teacher of record to use currently implemented testing instruments. This was due, in part, to the researcher not having sufficient time to plan and strategize because of the incongruencies between school start dates. Future researchers should consider postponing and/or altering research plans to maximize planning and preparing testing instruments.

### **Conclusions**

In conclusion, determining the correlation between using accountability logs and student academic achievement in an eleventh-grade English classroom yielded results that can be helpful for all educators. As the literature review in chapter 2 noted, teacher feedback and student motivation are important for student academic achievement. The results of this study confirmed the previous research and found that a strong correlation exists between using accountability logs and student academic achievement. Educators can use the results of this study, as well as previously conducted studies, to further promote student success through teaching responsibility. Teachers can give students feedback that motivates them to increased academic achievement. If the results of this study and others are accurate, students will greatly benefit from teachers' implementing this strategy.

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