Formative Feedback and Student Attitudes: Investigating the Impact of Teacher Feedback on Student Attitudes in the Classroom

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Abstract
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by

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Abstract

This action research study explored the impact of formative feedback on student attitudes in the classroom. Four Grade 12 college-stream English students from an independent school in southwestern Ontario participated in semi-structured interviews where they responded to questions surrounding their attitudes towards their own self-efficacy, towards the English course content, and towards English instructors. Responses reflected on experiences in English courses throughout their high school career. The results of this study suggested that formative feedback has a strong impact on student self-efficacy and their relationship with the instructor, but minimal effect on student attitudes towards English course content.

*Keywords*: Formative Feedback
In 2010, the Ontario Ministry of Education published *Growing Success*, a document aimed at improving assessment, evaluation, and reporting in Ontario schools. This document created a push for the effective use of feedback as a required mode of assessment and learning for all teachers in Ontario. "As part of assessment for learning, teachers provide students with descriptive feedback and coaching for improvement." (Ontario Ministry of Education, 2010) This push came out of research that “recommended the use of assessment for learning and as learning – including strategies such as sharing learning goals and success criteria, providing feedback in relation to goals, and developing students’ ability to self-assess – as a way of increasing students’ engagement in and commitment to learning." (Ontario Ministry of Education, 2010)

The use of formative feedback is, according to the Ministry, aimed at improving learning and a student's commitment to learning. Cakir, Korkmaz, Bacañak, and Arslan (2016) furthered this idea by conducting research that suggested that all students, regardless of pre-existing learning skills, prefer receiving formative feedback to improve their learning. James and Folorunso (2012) also suggested that the use of feedback and remediation both have a strong positive relationship with improved achievement.

The Problem

Pre-existing research clearly shows the effectiveness of formative feedback on improving student learning (Hyland, 2000). However, as the push for a holistic approach to education continues, the *Growing Success* document and other research literature fail to address the impact that student attitudes have on their learning. Regardless of the techniques a teacher may use, the attitude of the student may impact how that student approaches or engages with their learning; if
a student is uninterested or otherwise unmotivated to improve their learning, teaching techniques may be rendered ineffective.

However, formative feedback may be a way to influence student attitudes, which in turn could influence a student's approach to their learning. While the pre-existing research focuses on the leap from use of formative feedback to the impact on achievement, there exists little research on the stepping-stone between those two poles: student attitude.

**Research Questions**

Understanding of intelligence and how it relates to achievement is slowly changing. Markham (2016) presented "... a more dynamic definition of intelligence that incorporates native ability, environmental influences, and personality into a holistic understanding of how people behave intelligently." (p. 33) With this definition in mind, it is imperative that the impact of formative feedback be explored not only in regards to achievement, but also as an environmental influence and an influence on student attitudes. For the purpose of this study, that focus will be narrowed to focus on secondary school, college-stream English student attitudes. This research study sought to explore the following questions related to the impact of formative feedback on classroom attitudes:

1. How does formative feedback impact student attitudes towards their own efficacy?

2. How does formative feedback impact student attitudes on secondary English course content?

3. How does formative feedback impact student attitudes towards the instructor?
Definitions

A basic understanding of the key terms used in this study is essential in order to generalize the results to the teaching practice. The terms defined here are the author's, unless otherwise stated.

Formative Feedback - According to Shute (2007), "Formative feedback represents information communicated to the learner that is intended to modify the learner’s thinking or behavior for the purpose of improving learning." (p. i)

Student Attitudes are defined as the student's way of thinking, either positive or negative, towards a given subject (i.e., their own learning, the course content, or the instructor).

Course Content is the material that is chosen, organized, and taught by the instructor in a given course of study.

Assessment is the documentation of knowledge and skills of a student in order to compare student progress to a set of educational expectations.

Self-Efficacy is the belief in one's ability to succeed in specific situations.

Attribution Feedback is feedback that focuses on feelings, beliefs, intentions, and effort.

Summary

As the formal education system attempts to adapt to an ever-faster-changing world, a shift in teaching practices needs to take place. Part of this shift is in the role of the teacher; instructors need to move from the "sage on the stage" towards the "guide on the side." Working with students to help them develop the skills they need to adapt and to be able to grapple with a world that is constantly shifting requires a teacher to engage with students on a more personal level.

By providing formative feedback, a teacher helps students develop self-awareness and self-assessment skills that will aid them in understanding a post-high school world that most
likely does not yet exist. An important element of this practice is the teacher understanding how their feedback is going to impact the student. Achievement is one measure for this impact, but it is only related to one facet of the student. A more holistic view of the student needs to measure the impact formative feedback has on the character of the student. One way this can be measured is through the attitude of the student that is inspired by interactions in the student-teacher relationship.

**Literature Review**

Student attitudes are addressed regularly in past research, often in relation to a teaching tool or learning environment. However, there is limited research on student attitudes related to formative feedback. Many past studies have also looked at how formative feedback fits into a teaching practice or learning environment. Looking at the body of research of these two topics separately can provide a picture of how they might be related, although there is very little research exploring their direct relationship.

**Formative Feedback and Self-Efficacy**

Self-efficacy is a strong motivator for learning (Fryer & Oga-Baldwin, 2017). Therefore, it is important for teachers to focus on maintaining or increasing their students’ high degree of self-efficacy. However, according to Camelo-Lavadores, Sanchez-Escobedo, and Pinto-Sosa (2017), small, consistent decreases in self-efficacy beliefs are evident across multiple subject areas during the junior year of high school. Their longitudinal study showed that in Math, Science, and English as a Second Language, students consistently demonstrated lower self-efficacy beliefs from the first testing period to the second, ten months later. While the study did not explore the reasons for this decline, it does illustrate a need for teachers to explore practices
that will increase their students' self-efficacy beliefs in order to maintain one significant source of motivation for learning.

Formative feedback specifically influences student attitudes in many ways, including towards the students' self-efficacy. A study by Jain, Bruce, Stellern and Srivastava (2007) explored the effect that attributional feedback had on self-efficacy. Using a sample of 192 grade eight students, with equal numbers of male and female students, the researchers studied the effects on self-efficacy of feedback versus no feedback, as well as the effects of different types of attributional feedback (feedback on effort, ability, or both). Based on previous research, researchers hypothesized that receiving attributional feedback would lead to improvement in self-efficacy, as opposed to receiving no feedback. The results of this study supported the hypothesis, showing a strong effect of attributional feedback on self-efficacy. More specifically, effort feedback had the strongest positive effect on self-efficacy. Ability feedback as well as the combined effort/ability feedback both had a positive effect on self-efficacy, but to a lesser degree. Formative feedback throughout the process of student work can lead to a greater degree of self-efficacy. As the study by Jain et al (2007) showed, providing formative feedback, particularly around effort, raises the students' belief in their own chances of success.

Different types of feedback do affect the students' self-efficacy in different ways. A study by Akkuzu (2014) explored the interaction of feedback, teaching performance, and self-efficacy. Using a case study format, six student teachers were observed and interviewed to identify several things, including the effect of feedback on self-efficacy beliefs. The results from the study showed that feedback overall had a positive effect on self-efficacy beliefs. Different subjects reported different effects based on different types of feedback. Positive feedback had a positive effect on self-efficacy beliefs; one participant stated that negative feedback on his mastery led to
FORMATIVE FEEDBACK AND STUDENT ATTITUDES

decreased self-efficacy beliefs. This study by Akkuzu (2014) clearly illustrated that positive formative feedback is necessary for an increase in self-efficacy.

Showing the need for formative feedback in learning, Planar and Moya (2016) conducted an exploration of literature to determine the effectiveness of instructor-created formative feedback in online undergraduate courses. The focus of the study was on research literature from the year 2000 to 2014. The methodology of the study employed a snowball method (using the reference list from articles studied to find new articles). The study focused only on instructor feedback in order to broaden the sample of institutions present in the study (since some institutions would only use instructor feedback with no peer feedback.)

The results of the Planar and Moya (2016) study showed that effective feedback is key to supporting the learning experience of students in online higher education. Specifically, it was found that the student-to-teacher ratio was important for effective, timely feedback. The attitude of the instructor towards the use of feedback was also important to the effective use of feedback. This study showed that formative feedback is necessary to create a strong, effective learning experience for students, which could lead to increased self-efficacy.

These studies show that unless the practice of formative feedback includes positive, timely, and supportive formative feedback, there will be no benefit to the self-efficacy beliefs of the students. Without a high degree of self-efficacy, students will be less motivated to learn. This could affect their attitudes towards all areas of education.

**Formative Feedback and Course Content**

Formative feedback may also have an impact on student attitudes towards the content and process within a classroom. As background, a study by Afitska (2014) reviewed recent research on formative assessment in language classrooms. The review of the research highlighted
important elements of effective formative teacher feedback as well as the gaps in the research surrounding this topic. The study looked at 580 articles related to formative feedback in language classrooms.

The study found that effective formative teacher feedback is descriptive, is integrated into teaching and learning, promotes learning goals, helps to train students in self-assessment, and provides opportunities for interaction between student and teacher that ideally leads to learning (Afitska, 2014). These findings showed that formative feedback is an integral part of the learning process between teacher and student, and showed what effective formative feedback looks like. Other results from this study showed that formative feedback had a positive effect on student learning experiences, both in attitude and achievement (Afitska, 2014).

With respect to student attitudes, Paulsen Gjerde, Padgett, and Skinner (2017) conducted a study on how feedback impacts both student performance and student perceptions of their learning. Using feedback on quizzes as the treatment, 48 university students participated in a study that explored different elements of feedback: the message of the feedback, the recipient of the feedback, and the recipient's perception of the feedback. The results showed that student perceptions of feedback were integral to that feedback impacting any change in the student's performance. The authors noted that there were many factors that affected perception, but highlighted several: understanding of feedback, perceived helpfulness, relation to learning goals, relevance to the student's learning (Gjerde et al, 2017).

Closely relevant to the focus on English classrooms, Acar (2016), in a study of 443 secondary students, explored the relationship between student attitudes towards their skills in English as a Foreign Language and their performance. English as a Foreign Language skills included reading, writing, speaking, and listening.
The Acar (2016) study found that there was a positive relationship between attitudes and academic success. As academic success increased, so did student attitude. The inverse was also true: as academic success decreased, so did student attitude. The results also showed slight differences when the English as a Foreign language skills were broken down into reading, writing, listening and speaking, although a positive relationship was still noted.

**Formative Feedback and the Teacher**

Furlich (2016) noted that in a sample from a small liberal arts university, there was a positive relationship between student motivation to learn and "verbal immediacy" from the teacher. Furlich's broad definition of verbal immediacy included informal greetings or conversations, addressing students by name, and encouraging or praising student work. This finding suggests that formative feedback could also have a positive relationship with student motivation to learn. Furlich (2016) also found that verbal immediacy led to a positive relationship between the student and teacher, that also contributed to a greater motivation to learn. Therefore, formative feedback may also impact student attitudes towards the teacher or instructor, as well as to their teaching methods.

With that in mind, Lilley and Barker (2007) conducted a study of 76 second-year students in order to explore the attitudes of students towards formative feedback. In this study, formative feedback was provided automatically through a computer adaptive test (CAT). After the test was completed, students completed a survey to understand their attitudes towards the usefulness of the feedback provided. Findings showed that students had a positive attitude to the feedback provided. Interestingly, performance on the test had no notable relationship to the attitude towards feedback. This study by Lilley and Barker (2007) highlights the necessity for *formative* feedback in the learning process.
These studies all point to the relationship between formative feedback and student attitudes. While many of the studies do not explore this in an explicit fashion, there are countless references to the interplay between formative feedback, student attitudes, and the learning process. Each plays an important part to create a holistic education experience. Research is needed on the direct relationship between formative feedback and student attitudes. As these studies point out, formative feedback is an opportunity for interaction between the teacher, the student, and the course content. A better understanding of how a teacher impacts student attitudes through formative feedback would be valuable to all in the educational profession.

Methodology

Participants

The research participants were two male and two female college-stream grade 12 English students selected from current students at an independent school in southwestern Ontario. The students in this study are white and upper middle class and volunteered for the study when invited by the researcher.

Materials

The data for the study was collected using semi-structured interviews approximately fifteen minutes in duration. This allowed for flexible, probing questions to gain a better understanding of students' experience with formative feedback. See Appendix A for the list of interview questions.

Procedure

Participants were asked to volunteer for the study. Once they agreed, participants set up an interview time, lasting approximately 15 minutes. During the interview, participants were asked open-ended but focused questions guided by the pre-determined questions created by the
researcher. The interviews were recorded for posterity. The information gathered from the interviews was coded using three themes: self-efficacy-, course content-, and instructor-related responses. The recordings and transcriptions were destroyed after the study was complete.

Participants were told the purpose of the study and were given the assurance of anonymity in any publications. Participants were asked to only refer to their experience with formative feedback in English courses taken during their high school career as they responded to the interview questions.

**Results**

For the purpose of anonymity, the participants were identified using names that begin with A, B, C, and D: Annie, Brad, Cathy, and David.

**Research Question One**

The first research question chosen by the researcher asked: How does formative feedback impact student attitudes towards their own efficacy? Using the semi-structured interview questions, participants provided a variety of responses to how formative feedback affected their attitudes towards their own efficacy.

All four participants discussed how frequent, quality formative feedback increased their confidence in being successful in their course work. Formative feedback often gave students a clearer understanding of the expectations for their assignments or projects. Three participants also mentioned how formative feedback also served as encouragement to continue doing things they were doing well or to explore ideas that fit the expectations of the course work. When discussing the balance of positive and negative feedback, Annie said, "I think it makes me feel better as well because [the teacher] did like that part, but I should change another part." (Annie's
This clear understanding gave a clear path to success for the students, leading to a higher degree of self-efficacy.

Each of the four interviews also yielded reflection on how the instructor's expressed belief in the ability of the student through formative feedback affected their attitude towards the student's self-efficacy. Whether through encouragement to continue with a project idea or the instructor's confidence that the student would be able to shift their focus and modify their learning, the student felt a greater degree of self-efficacy in their project work. When discussing a speech project, David said,

[Teacher feedback] was helpful because it made me think a little more about what I was saying. It gave me more options. I thought what I had at first was pretty good, but then feedback made me think more and made my project better.

(David's interview, 6-3-18)

Two participants pointed out that if they felt they had a voice in how they responded to formative feedback, they felt greater ownership of the project and an increased sense of their own self-efficacy. The way formative feedback was delivered by the instructor helped the student feel like they had the freedom to continue using their own ideas and maintained their sense of choice in the project work. When speaking about the type of feedback he prefers, Brad said, "I like helpful suggestions. Then instead of using that exact suggestion, you can do your own spinoff." (Brad's interview, 6-3-18)

One student made an observation that in courses or projects in which she already had high self-efficacy, formative feedback had a lessened effect on her attitude towards her own self-efficacy. The already established confidence and understanding of the project expectations made
formative feedback less necessary. This observation was not made by the other three participants.

Research Question Two

The second research question asked: How does formative feedback impact student attitudes on secondary English course content? Again using semi-structured interview questions, participants expressed several thoughts in response. It is important to note that participant responses to this question were less robust than the other two research questions.

The most common response to how formative feedback affected attitudes towards English course content was in regard a greater understanding of the topic of study. Participants identified that formative feedback was helpful in gaining a deeper understanding of the intended path of study, which led to a more positive attitude towards the current project. When sharing about how formative feedback impacted her attitude towards the course, Annie stated, "I think that [feedback] helped me...want to be more involved and enjoy the class more." (Annie's interview, 7-3-18) Two participants stipulated that project-specific formative feedback didn't make a significant change on their attitude towards the course as a whole, but simply to the current topic of study.

More minor insights identified by the participants suggested that formative feedback provided a greater understanding of the expectations and process intended by the instructor. This led to a general positive attitude towards the course content.

Research Question Three

Research Question Three asks: How does formative feedback impact student attitudes towards the instructor? Participants provided anecdotes and reflection during the parts of the semi-structured interviews that address this question.
Three of the four participants spoke about formative feedback allowing them to trust in the teacher's expertise. Being assured of the teacher's expertise in both the subject area and as a practitioner allowed the student to have confidence in their learning. When discussing whether peer feedback or feedback from his teacher was more helpful, David said, "The teacher is probably more helpful because she was more...like, she knows more, so can give you a better suggestion about what I should be writing." (David' interview, 6-3-18) Two other participants also shared anecdotes highlighting their trust in their teachers' expertise.

Three participants provided anecdotes explaining how formative feedback gave them a greater understanding of both the teacher's expectations for their learning as well as a greater understanding that the teacher was comfortable with the student having voice and choice in their learning. When discussing the effect of feedback on his confidence, Brad said, "You aren't so worried about your final mark. I know what [teacher] wants, and then I did what she wanted me to do." (Brad’s interview, 6-3-18)

By far the most expansive topic addressed by all four participants was an understanding of the teacher being invested in the student's success. Formative feedback was the main avenue in which this was communicated. When discussing how formative feedback impacted his view of his teacher, Brad said,

It showed they cared, and they're looking for the best for you too, right? They're invested in their students. They're not just there to come in at 8 o'clock...and get out of there as soon as possible and not care what their students are doing. (Brad's interview, 6-3-18)

Through encouragement and critique, participants understood that their success, improvement, and learning were goals of the teacher. While two participants preferred written formative feedback as a way to improve their course work, all four participants stated that formative
feedback conversations and conferences were the best way a teacher's care and understanding were communicated. One participant shared an anecdote in which poorly constructed feedback had the opposite effect of a loss of trust in the teacher. When discussing feedback that pushed her into a direction she didn't appreciate, Annie said, "I didn't really appreciate that feedback. I wish [teacher] should have been more open to doing something else, because I shared with [teacher] that I wasn't comfortable with it." (Annie's interview, 7-3-18)

Discussion

Overview of the Study

This study aimed to answer this question: What impact does formative feedback have on student attitudes? Using a semi-structured interview, qualitative data was collected from four participants and was then analyzed for common themes and experiences relating to their attitudes towards their own self-efficacy, toward the course content, and toward their instructors.

Summary of Findings

Responses to Research Question One provide several insights of the benefit of formative feedback. First, students clearly receive a boost in confidence when receiving quality formative feedback. Students feel a higher degree of self-efficacy through the process of formative feedback.

According to several responses, it is important for an instructor to frame formative feedback in a way that still gives voice and choice to the student. This allows the student to maintain ownership over their learning, instead of simply fulfilling a narrow view of expectations set out by the instructor. This is one benefit formative feedback has over final summative assessment feedback. Formative feedback that is narrow, limiting, and restrictive does not have a positive impact on a student's self-efficacy. This finding is a related extension to
the study by Akkuzu (2014) which stated that negative feedback has a negative effect on a student's self-efficacy belief.

A minor conclusion drawn from the participant responses is the limited benefit formative feedback can have on self-efficacy. It can benefit the self-efficacy of a student with lower self-efficacy, but has limited effect on a student who already has a high degree of self-efficacy. This seems to be a new finding as no previous research addresses this specifically. This is an area for expanded research in the future.

While the responses to Research Question Two provide a few insights, there was a relatively small amount of discussion by the participants. This lack of responses points to an even bigger point. The responses do support previous research that states formative feedback is beneficial for greater understanding of course content (Afitska, 2014). However, the fact that participants so rarely addressed course content when discussing formative feedback suggests formative feedback is much more beneficial to the relationship between teacher and student as well as to the degree of self-efficacy in the student. While formative feedback is, as stated above, aimed at modifying or improving the student's learning, the side benefits of improved relationship and self-efficacy are a much more important aspect. Despite the lack of responses, this is an important conclusion from this research question.

The responses to Research Question Three provide some of the most significant insights into the benefits of formative feedback. From responses from all four participants, it is clear that quality formative feedback creates trust. This includes trust in the expertise of the teacher, trust in them as a professional, and trust in the teacher's assessment of the student. Quality feedback is a necessity for these benefits. This does not just apply to positive feedback; teachers taking the time to provide helpful and specific feedback creates strong trust between the teacher and
student. This is supported by Furlich’s (2016) research that quality, intentional verbal immediacy and feedback leads to a positive relationship between the teacher and student.

Overall, the responses to this research question point to the importance of the character of the teacher. Without strong, caring, invested teachers, students may have more negative experiences in their learning, growth, and self-efficacy. Because of this, high-quality formative feedback becomes an absolutely necessary teaching practice.

**Recommendations**

These data-supported insights highlight the importance and effect of formative feedback. The necessity of high-quality formative feedback has been explored. The next step for this study would be to look further into how to create strong, high-quality feedback in order to ensure the benefits discussed in this study.

The need for quality formative feedback is obvious. Formative feedback maintains or builds trust between the teacher and student; it provides a motivation for learning; and it betters the students' understanding of the course content. With these benefits in mind, formative feedback rises in importance for sound teaching practice. Creating structures that allow for quality, timely, and intentional formative feedback clearly needs to be a priority for both current and future teachers.

**Limitations of the Study**

There were some factors in this study that may have influenced the collected data. The group of students who were asked to volunteer were all from a single English class with a fairly homogenous population. This was also a sample of convenience, as the researcher was the instructor for the course from which the volunteers were sampled. Other research should be
conducted outside of the course, school, and area in order to be able to better generalize the results.

Further, this sampling process may have created a bias as participants were participating in interviews conducted by a teacher who was both currently teaching and may have taught them in the past. Along with this, the sample was quite small. This may have impacted the variety of experiences from which the participants could draw their responses. A larger sample size could either provide a more varied set of responses or it could reinforce some of the conclusions of this study. The small sample size would also limit generalization to other contexts. In order to generalize the results to school contexts other than the one in this study, research should be conducted with a larger sample from multiple classrooms, schools, or geographical areas.
References


Appendix A

Semi-Structured Interview Questions

1. What is formative feedback to you?

2. Describe an experience in which formative feedback was helpful. Why do you think it was helpful?

3. Describe an experience in which formative feedback was not helpful. Why do you think it was not helpful?

4. Has formative feedback helped you believe you can succeed?

5. Specifically in your English courses, has formative feedback been helpful? Why or why not?

6. What processes for formative feedback have you experienced (i.e., one on one conference, written, etc.)? Which did you prefer?