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# The Vocabulary of Feedback

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**The Vocabulary of Feedback  
in Education**

by

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## **Abstract**

The process of providing feedback in academics has been studied from many angles. It has been shown that feedback can increase motivation and learning, but there have been some conflicting results over which strategies are the most successful and which characteristics of feedback should be used in the process of providing feedback to students. It is important to know which strategies and tools are most effective in providing feedback. Because many studies have addressed similar components needed in the feedback process, but have identified the elements using different terms, the present study is a systematic review of the terminology used to discuss key elements in the feedback process in order to identify the most prevalent elements in the process. During the study, multiple terms were identified and used to discuss research regarding two major feedback elements. Mode and focus were the most researched elements, but researchers used various terms to discuss how mode and focus were used in the feedback process. By the end of the literature review, it was apparent that a common language would be useful for future research around the feedback process throughout multiple disciplines.

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## Chapter 1: Introduction

The Chinese Confucian philosopher Xunzi wrote a passage in the Ruxiao (The Teachings of the Ru) that was translated as:

*“Not having heard something is not as good as having heard it; having heard it is not as good as having seen it; having seen it is not as good as knowing it; knowing it is not as good as putting it into practice” (Para. 3).*

Overtime that translation has morphed into the common quote we see that is incorrectly attributed to Benjamin Franklin, “Tell me and I’ll forget, show me and I might remember, involve me and I will understand” (Popik, 2012). Xunzi’s words were written somewhere between 312-220 BC. Benjamin Franklin was alive from 1706-1790, but has been credited for his quote in the 1980’s. In 2012, Barry Popik wrote a blog to inform interested individuals of the history and transformation of this quote. He referenced roughly fourteen articles or books where the saying was used in one way or another. Some of the references were quote books, but the majority of them were either books or articles on education and learning. Because of this quote, it is evident that the feedback process has been analyzed for centuries. Today, a prominent researcher of education is John Hattie. He has been quoted on feedback since 1999. In an article he wrote titled, *Know Thy Impact*, Hattie starts with, “Teachers give a lot of feedback, and not all of it is good. Here’s how to ensure you’re giving students powerful feedback they can use” (Hattie, 2012). While his words are not identical to Xunzi’s his ending thought is very similar. Students need to be a part of their learning, and it must be something they can continue to understand and use in the future. This paper is a systematic literature review of teacher feedback in an effort to increase the effectiveness of its use in and out of the classroom. The feedback strategy was chosen because while research has been conducted on multiple strategies and components or characteristics of

feedback, there are inconsistencies on the language that ties all of the research together. As shown with the quote that has morphed over centuries, language changes, so while ideas may seem new, they are really just reconstructed findings with new titles. The purpose of this research analysis ways to find commonalities in the feedback process by analyzing and synthesizing similarities in findings that may use different terms to discuss the same elements of feedback.

### **Rationale**

Student motivation and engagement has been under investigation by teachers, administrators and researchers for many years. Researchers such as Marzano and Hattie (2012) have labeled many strategies of an effective teacher; one of those strategies is how teachers provide feedback; the way it is administered, and the time limits in which it is received is a factor in its effectiveness. Chickering, A. W., and Gamson, Z. F. (1987) suggest there are seven steps to engaging student learners. The first step is to increase the contact between the student and the instructor. One of the main ways to increase contact is by informal or formal feedback. Another step is to provide students with the opportunity to work in cooperation with the teacher. Also, encouraging students to use active learning strategies is essential according to Chickering and Gamson. Therefore, involving students in the discussion of how their learning is taking place can help engage students. In addition to involving students in the process, it is important to make sure the feedback is timely. They explain that prompt feedback benefits students by allowing them to reflect on their own work while it is still fresh in their minds. According to Chickering and Gamson, the final three steps in engaging students are the quality of time spent on an academic task, the quality of standards set for academic work and that the lessons address the needs of diverse learners. Marzano (2007) maintains similar perceptions by saying that the teacher is responsible for setting objectives, organizing meaningful activities, providing the

feedback and addressing different learning styles. Thus, feedback is a vital component in the design of lesson planning and merits further research on how to improve the effectiveness of teacher feedback.

### **Problem Statement**

Feedback has promising effects on student achievement and instructor practices, it is important to find feedback strategies in the lesson planning process that have been demonstrated to be effective. This study focused on teacher feedback within the secondary classroom, and its impact on student achievement. It is a review and analysis of literature that synthesizes the components and characteristics of effective feedback.

### **Research Questions**

- I. What are the elements in the feedback implementation process?
  - a. What elements are most prevalent in the research?
  - b. What terms are used to describe the most prevalent elements within the research?

### **Significance of the Study**

To answer the research questions, a synthesis of relative studies on feedback was conducted. Studies were examined for common components in the feedback process. A preliminary search was conducted to identify common elements of the feedback process that may have been worded differently throughout the studies. An example of a similarity yet difference in terminology was found in the preliminary literature review when comparing the Nicol and Macfarlane-Dick study to the Mclaughlin, Rogers and Fisk study. Mclaughlin et al. discussed the number of times feedback was offered as “frequency” while Nicol et al. used the term “opportunities”. Each term is referring to an element of time in the feedback process. Therefore,

an extensive synthesis of the literature would be useful in finding similar strengths and weakness in the feedback process.

### **Summary**

Feedback is important for growth and development in all areas of life. It is important to learn how to give and receive feedback effectively. This study is aimed at determining effective elements in the feedback process, so teachers can help students become competent, independent, self-regulated learners.

## Chapter 2: Meta-Analysis Best Practices

How can teachers give the most effective feedback to help students become self-sufficient learners? Hattie (2003) says that there are many outside factors that influence a student's education, and often discussion among teachers, administrators and community members becomes more about how the family needs to pay attention at home, or how the technology at the school is not up-to-date, or that there is not enough bussing to keep kids for after-school programs. Hattie (2003) attests that there are a number of factors that influence the education of the students. The influence teachers have on the education of students is stressed when Hattie says, "the most powerful single moderator that enhances achievement is expert teacher feedback" (Hattie, 2003, p. 2). Hattie goes on to say that expert teachers are better at monitoring student struggles and assessing their level of understanding and progress. These teachers provide more relevant and useful feedback. Another researcher, Huey, identifies additional components of feedback. The components Huey identifies as important are: standards-based, instructional, positive and timely. Given these four components, there is a lot of planning involved in order to provide effective feedback. The teacher must provide the standard being taught to the student prior to giving feedback if the standard has not been met. The instructional strategies need to be relevant to the standard being taught, and they must be adjusted based on individual student learning styles. Finally, the feedback should be delivered in a positive and timely manner, so the student is motivated to try again with the feedback

provided while it is fresh in his mind. The above preliminary literature review assesses elements of teacher feedback and the process for implementing feedback strategies. The challenges of feedback are just that: challenges. They are not roadblocks meant to deter instructors from proceeding, but merely caution signs to advise educators to proceed with a plan. It is essential to research best practice strategies for teachers to provide quality feedback. Multiple components are echoed in various studies on feedback, but the terminology used is slightly different. Thus, it becomes unclear as to which components match throughout the research.

## **Results**

While the literature of Marzano, Hattie, Geilen et al and Huey reviewed had essential elements of feedback that help students learn, the inconsistency in terminology caused confusion on which elements were the most prevalent in the feedback process and how to implement the particular elements. The preliminary review of the literature provided guidance as to which areas to investigate further.

## **Method**

This study focused on the feedback process and how feedback is delivered to students. It was important to be specific in the quest for information without being so narrow that the search limited access to creative new ideas. The search procedure utilized for this paper started with exploring words and phrases found in articles in professional journals on feedback strategies. From there, the search was expanded based upon the ideas and approaches reviewed. After that, a table was created to identify common elements within the research. A rubric was created to identify similarities in the research. The rubric consists of six generic terms that help synthesize the information within the research. The five components of focus in this synthesis are: timing, mode, audience, focus and goals. The first four terms were collected as a basis for research from

Susan M. Brookhart's book *How to Give Effective Feedback to Your Students* (Brookhart, 2008).

Brookhart's book provided eleven components of feedback. However, only four were used in this study because they were the most widely used components of feedback in the preliminary research. While the preliminary research discussed each of these elements using different terms, the book provided simpler synonyms to use for collecting data on the final literature review. The last term, goals, was chosen based on the consistent mention of objectives and standards in the preliminary research. The word "goals" is related to the idea of a learning purpose.

### **Definition of Terms**

(Brookhart, 2008, p. 5-7)

**Feedback:** Brookhart gives a very simple yet clear definition of feedback when she says, "It is just-in-time, just-for-me information delivered when and where it can do the best." (2008).

**Timing:** Timing refers to when the feedback is provided and how often it is provided.

**Mode:** Mode refers to what type of feedback is given such oral, written, visual etc.

**Audience:** Audience refers to who the feedback is directed towards when it is given. It could include an individual setting, whole group or small group setting.

**Focus:** Focus refers to what the feedback is regarding. The focus of the feedback could be pertaining to the task, the process to complete the task, the student's self-regulation, or on the student personally.

**Goal:** Goal refers to the target outcome of the task. Often times goals and objectives relate to educational standards.

Below Table 1: is used to synthesize the literature of feedback components and strategies. The rubric was used to determine similarities used in regards to the five components of feedback in each article. The rubric helped identify commonalities within the feedback process.

Table 1

*Feedback Elements Rubric*

	<b>Timing</b>	<b>Mode</b>	<b>Audience</b>	<b>Focus</b>	<b>Goal</b>
<b>Article 1</b>					
<b>Article 2</b>					
<b>Article 3</b>					
<b>Article 4</b>					

## Chapter 3: Analysis of Research

### Introduction

The preliminary literature review provided useful insight into the elements of feedback that were important to explore for the final literature review. Based upon these preliminary findings, this literature review takes a closer look at the commonalities between the research. Research is performed in different settings, times, and by different researchers. Therefore, the terminology used to identify key components of the feedback process will differ as well. It is the purpose of this literature review to find common feedback elements within the literature by analyzing and synthesizing terms with similar notions. Below there is a brief summary of each article. Chapter four provides a table in which the articles key terms were organized to root out the feedback element's similarities or differences.

### **Gamlem, S. M., & Munthe, E. (2014) Article 1**

Gamlem and Munthe conducted their research in the fall of 2009 in four Norway schools. An immediate point in why it is essential to compare the studies linguistically is evident in the abstract of the article. They refer to their research as taking place in "lower secondary schools" (Gamlem, 2009). An assumption initially could be that the research was conducted in schools that were alternative learning programs for students that did not find success in the mainstream secondary school. Upon further reading, it becomes clear that the term "lower secondary schools" refers to younger high school students, so it could

have been referring to 6<sup>th</sup>-8<sup>th</sup> grade or middle school students. It is not until the reader gets to the methods section of the research that it is evident that the specific group is 8<sup>th</sup>-10<sup>th</sup> grade students. There was a total of twenty-nine teachers that volunteered to be videotaped during two lessons that were instructed to be regular lessons that were not enhanced for the observation. The study stressed the importance of the two video cameras they used to conduct the research explaining that one stationary and one mobile camera provided more opportunity to assess the whole classroom and individuals.

There was an array of subjects studied to evaluate multiple content areas. The variables Gamlem and Munthe analyzed were, emotional support, classroom organization and instructional support. Emotional support had two simple dimensions, positive or negative climate. A positive climate referred to encouragement and affirmation. While emotional support is not one of the variables in my particular study, it is important to relay Gamlem and Munthe's findings because it was where they found their highest mean values during their research. They learned that a positive climate has a significant effect on quality interactions, however, they did not find that it had an effect on the quality of feedback. So, the positive climate made students more willing to interact, but the feedback provided was not always rated as quality feedback. Therefore, within this element, they decided that a way in which to improve would be to provide teachers with professional development training on how to provide quality feedback.

Another variable analyzed was that of classroom organization. This variable had one dimension, and it was called instructional learning formats; it regarded what they called learning targets. Their use of learning targets in the study matches my element called goals. The final variable Gamlem and Munthe analyzed was called instructional support. This variable had four dimensions. Instead of listing every component of each dimension, it is more productive to list

the terms that were associated with this variable and how they fit into the rubric used in my research. One term that was related to this variable was “feedback loop” which referred to the quality of feedback such as back-and-forth exchanges, persistence and follow-up questions. This term would fit under the timing and mode elements in my rubric. Another term; scaffolding task (assistance on task, hints on task; prompting completion and thought process on task), and scaffolding process (assistance on process, hints on process/learning strategy; prompting completion and thought process). I put both of these under the focus column in the table because focus refers to what the feedback is regarding and in Gamlem and Munthe’s research they used scaffolding task and process to determine if the teacher was providing feedback on the task or the process of learning the task.

In the end, Gamlem and Munthe’s research on oral feedback echoed some of the key elements needed in the feedback process that other researchers have identified. They concluded that more research needs to be done on how to improve the quality of the interaction and not that the elements or principals of feedback were used, but how well they were used (Gamlem and Munthe, 2014).

### **Ruiz-Primo, M., & Li, M. (2013) Article 2**

In the research article, *Analyzing Teachers' Feedback Practices in Response to Students' Work in Science Classrooms* Maria Araceli Ruiz-Primo and Min Li observed written feedback in student’s science journals (2013). This article, like Gamlem and Munthe’s, had an occurrence of linguistic ambiguity in the introduction when referring to the science notebooks. However, the authors provided a detailed definition of what a science notebook is used for and the other terms that might be associated with it. Ruiz-Primo and Li described the notebooks as, “science notebooks (also named works folders, journals, or binders by teachers). A science notebook is a

compilation of entries that provides a partial record, with varying degrees of detail, of a student's instructional experiences (e.g., activities carried out) in the classroom over a certain period of time, such as for a science experiment (Ruiz-Primo, 1998).

The research focused specifically on written feedback from teachers within the science notebooks. There were three separate studies done that analyzed the feedback process. Study 1 focused on the notebook entry and the amount of feedback provided by the teacher. Study 2 focused on the type of feedback provided and Study 3 broke the feedback down into the type and quality. In study 1, the amount of feedback was broken down into a six level scale. A -2 was given if feedback was provided, but it was incorrect. A -1 was given if there was no feedback given, but it was needed. A 0 was given for no feedback. A 1 was given if the teacher put a grade or a brief comment such as "Good!". A 2 was given if the teacher provided feedback with direct usable information. Finally a 3 was given if feedback was provided that helped a student to reflect on their learning and understanding of the material. In this first study the vocabulary used to describe the feedback process fits into two categories on the Feedback Elements Rubric: mode and focus. "Mode" refers to the way the feedback was given and "focus" refers to what the feedback is regarding and the quality of the feedback. During their first study, they use the following words to refer to mode when the teacher was receiving low scores: positive comment, simplified code (phrase only). However, when the teacher was receiving high scores Ruiz-Primo and Li started to turn towards the focus category on the Feedback Elements Rubric. They used words such as: direct, usable information and reflection.

Eventually, it starts to become clear why a second study was needed. The coding system in study one was providing feedback using one scale for two separate categories. In the second study, Ruiz-Primo and Li then developed a coding table to analyze each instance of feedback

further. The table was divided into two parts; the first part coded the form of written communication into three forms: symbols, scores and written comments. Examples of symbols include checks, happy faces, question marks, circles and stamps. From there the symbols were identified as positive or negative or neutral. Next, the coding for feedback in the form of scores was broken down into numbers or grades. The written communication form of feedback was not broken down into specific categories, however, they did create five dimensions of the feedback's quality. The five dimensions of quality looked at how accurate, focused, informative, supportive and cognitively stimulating the feedback was. They used a yes/no dichotomous scale for the feedback, but if the teacher only provided feedback in the form of symbols, the default code was a "no" for the informative, supportive and cognitively stimulating dimensions. It is at this point the researchers must have realized they were truly studying two categories of the feedback process.

In the third study, Ruiz-Primo and Li used a more sophisticated coding system. The table was broken down into two parts: form and nature. Form focused on how the feedback/communication appeared, and nature focused on the type of formative information the feedback/writing offers to students. The new two units of analysis fit into the mode and focus categories on the Feedback Elements Rubric. Ruiz-Primo and Li's research was still focused on the same elements or "categories" as called in the coding table. However, the elements flipped from the coding category sections to the sub-categories. Ruiz-Primo and Li combined the data from all three studies and found that 61% of the feedback was in the form/mode of grades, numbers or symbols. They found that 33% were comments and of those comments 14% were descriptive and 4% were prescriptive.

The results of the study disappointed the researchers because they firmly believe that deliberate feedback helps communicate weakness and strengths, it provides students with information needed to improve and gives the student feedback on what quality work looks like. Another disappointment was that there were findings of incorrect feedback or no feedback on incorrect answers. Study one was able to identify the lack of feedback or incorrect feedback because of the coding used. Therefore, it is noteworthy that while the coding tables evolved, all three of the studies were beneficial in acquiring useful data. One weakness of this study was that it did not account for verbal feedback that may or may not have occurred between the student and the teacher. It also does not account for non-verbal communication such as facial expressions and gestures that may have provided feedback in the classroom setting instead of the notebook.

The article ends by stating that more research needs to be done on this topic from the students' point of view to further understand how the feedback provided by teachers is received. As for linguistic findings, Ruiz-Primo and Li's research has provided a significant amount of terms that are used in the categories of form and mode. Thus, giving data that form and mode are important elements in the feedback process.

**Nicol, D. J., & Macfarlane-Dick, D. (2006). Article 3**

The article, *Formative Assessment and Self-Regulated Learning: A Model and Seven Principles of Good Feedback Practice* by Nicol and Macfarlane-Dick was not a research study, but rather a synthesis of the research. The study focused on higher education students and how teacher feedback can align with internal feedback to help students become self-regulated learners. The article described the qualities of feedback rather than the elements. Nonetheless,

components of quality feedback were identified using various terms that aligned with the Feedback Elements Rubric.

As the article title states, its purpose is to provide seven principles of good feedback practice. Nicol and Macfarlane-Dick provided prescriptions for how to provide feedback rather than elements that should be included in the feedback process. Subsequently, there were multiple terms that did not fit within the five categories of the Feedback Elements Rubric, and there were a few terms that overlapped or only slightly fit into one of the categories. While these words do not fit neatly into the categories, they do provide evidence of necessary elements of the feedback process. This article gives future researchers alternative terms to include in the quest for information pertaining to the feedback process. Naturally, Nicol and Macfarlane-Dick's research provided multiple alternative terms for all five categories of the elements table because it was a study of the whole feedback process rather than a study focusing on a particular element or two within the feedback process.

In the time category, words that were used to refer to when or how often feedback was provided were: accessible, often, regularly, before submission, soon after submission. The focus of these words was for the teacher to provide the students access to the feedback, so they could reference it as often as they would like and that the feedback was an on-going process rather than a singular occurrence at the end of a task.

This article also focused on the internal feedback process that happens within a student's mind. Internal feedback is derived from a comparison of current progress against desired goals; it generates feedback at a variety of levels that include: cognitive, motivational and behavioral (Nicol, D. J., & Macfarlane-Dick, D. (2006).

In the mode category the focus was on teacher feedback specifically since internal feedback is not in control of the teacher. “External inputs” was used to identify teacher feedback. The external inputs or teacher feedback were not discussed as elements that must be included in the process, but rather as types of feedback and ways to provide feedback. The types included: questions, discussion, dialogue, marks, grades, comments and models. The ways in which feedback could be delivered were through audio feedback and computer feedback.

Since this article gave suggestions for providing feedback it was one of the few articles that addressed audience options. Nicol and Macfarlane-Dick gave suggestions for steps in providing feedback to an individual, small group and large group or large class as they called it. This is where a term “feedback loop” was used introduced. Here the authors suggest a systematic approach to moving the feedback process from individual to small group. It is a sort of feedback-loop approach, but it is not referring to the feedback between just the teacher and student. They suggested giving individual feedback to students then having the students take their individual feedback to a small group to process and discuss the implications of the feedback. A large group option was to use technology to provide questions and answers to the larger class. When the answer was given to the whole group, the students are instructed to convince their neighbor why they have the right answer (Nicol, D. J., & Macfarlane-Dick, D. (2006). In this way, the feedback is coming from the teacher and the peer group.

In the focus category there are only three terms. “Corrective advice” and “corrective criticism” refer to making suggestions on a student’s paper, so they are then able to do the final step/term which is “self-regulate.” The student is included in this part of the process because of the internal feedback theme of the article.

Finally, the goals category had a nice array of optional terms to use. The terms included: learning outcomes, specific targets, purpose, intentions, criteria, standards, expectations, resulting effects, achievements, and improved works. It was difficult to try and break these words down into sub-categories of the goal element because in the literature the words were used interchangeably. All of the terms referenced an end result of sorts. In the end, Nicol and Macfarlane-Dick did an efficient job of compiling ways in which to organize how feedback is provided. They suggested that teachers use their research and suggestions to reflect on their current feedback process to identify areas of strength and weakness in order to make improvements. Essentially, they provided a tool for teachers to be self-regulated learners.

**Tunstall, P., & Gipps, C. (1996). Article 4**

The article *How Does your Teacher Help you to Make your Work Better? Children's Understanding of Formative Assessment* focused on a far different learning group than the other articles thus far. To start, the focus was on children ranging from six to seven years' old that were described throughout the article as "infant children". This term being used to refer to children between the ages of six and seven is a bit odd considering the term "infant" generally refers to a child two years' old or younger. Forty-nine children were selected for the detailed study based on teacher ratings. Children were chosen from three general levels of high achieving, average and low attaining pupils. The major focus of the research was the children's perception of feedback and how it related to their success in school.

The research question being studied was, "How does your teacher help you to make your work better?" In order to answer this question during interviews with children (which proved to be a bit challenging), Tunstall and Gipps established a typology of feedback. Typology in this study refers to a classification chart for feedback. Terms that were used interchangeably for

“typology” were categories and principles. Their framework was broken down into two major types of assessment feedback: evaluative and descriptive.

The evaluative category referenced feedback that was judgmental in form with implicit or explicit usage of norms. The term “norms” is used to refer to goals. The descriptive category makes specific reference to the child’s actual achievement or competence. These categories are then broken down into sub-categories, but before describing each sub-category, it is interesting to point out that the two main feedback identifiers are on a continuum. Therefore, the feedback can move fluidly from one form of feedback to another (on a side note, if Ruiz-Primo and Li had identified the idea of a continuum between the elements of feedback, they may not have had the need for three separate studies that modified the elements into further sub strands).

The evaluative types were broken down then into either positive or negative feedback that were called rewards or punishments and achievement and improvement feedback. Towards the left side of the continuum was the evaluative feedback that referred to positive or negative types of feedback such as positive personal expressions, general praise or just a specific reward such as a sticker or play time. On the right side of the continuum was the descriptive type of feedback. This was more in the form of specific praise or correction of errors. The specific categories were as follows:

*Assessment feedback: evaluative types*

*A1 Rewarding            B1 Approving*  
*A2 Punishing            B2 Disapproving*

*Assessment feedback: descriptive types*

*C1 Specifying attainment    D1 Constructing achievement*  
*C2 Specifying improvement   D2 Constructing the way forward*

When aligned with the Feedback Elements Rubric, the evaluative types of feedback fit best in the Mode category because they focused on the type of feedback give while the descriptive types of

feedback fit best in the Focus category because they focused on what the feedback was referencing.

Terms that Tunstall and Gipps used in the mode/evaluative category included: rewards (smiley face, sticker, play time), approval (“Nice Work”), punishment (“Naughty), correcting (write the words on top, erases (“rubs it out” in London), breaking down the task (splits the words up, makes the missing or incorrect sound) and copying (spells on the board, gives word on piece of paper). Eventually these terms start to morph between the two categories because it is based on a continuum. Therefore, it depends on how the teacher is using the feedback in the particular moment. For example, a teacher could be in the mode category when correcting sub strand if she just puts an x over the word that is incorrect. However, if she writes the correct word on top and verbally asks the child to correct the word with the given feedback, then she had moved into the descriptive category.

Sub categories that start to make the definite shift to the Focus element on the rubric are: communicating standards, the role of teacher talk, independence strategies. In order to use these three “strategies” of feedback, the teacher must explain what the expected outcome is and what task needs to be done in order to achieve the desired outcome. Tunstall and Gipps pointed out the linguistic nuances between the idea of feedback, teaching, learning strategies and formative assessment. Tunstall and Gipps study was a fun article to read because it was akin to watching the T.V. show Kids Say the Darndest Things. Each report entered into the table was from an interview with a child that was questioned on how his teacher helped him learn. For many of the kids, they did not attribute their learning accomplishments to the teacher initially. This is because of the stage of development and self-centered mindset of a six to seven-year-old. However, after some scaffolded questioning, the results showed that teachers of this student age

are very skilled at providing just the right amount of feedback for a child to self-correct and feel that they accomplished the task on their own. Nonetheless, students were eager to share the positive comments about their work and proud of their teacher's approval. However, toward the end of the article, the authors relay a finding that was somewhat disturbing, and while it does not pertain to this particular linguistic research, it is important to note.

As stated earlier, children were selected from all ability levels and the initial sub categories were either positive or negative feedback. Two children that rated below average by teachers described how their work had been torn up and thrown in the trash by their teachers. A girl in the same class reported that she witnessed the teacher throw the work away. This is an example of negative evaluative feedback according to the table provided by the study. It could be a potential factor in the development of low self-esteem at such a young age. In the end, the article surmised that given the evaluative experience of the children and their ability to relay their experiences, the inclusion of children this young in the feedback process is not too complex or farfetched of an idea. Tunstall and Gipps (1996) argue that all learners of whatever age need the same support; praise and reward linked with the recognition of competence, together with the provision of strategies for developing critical appraisal.

### **Shao, X. (2015) Article 5**

Shao's literature review called, *On Written Corrective Feedback in L2 Writing. English Language Teaching* starts with the dichotomy between Truscott's (1996) theory that WCF (written corrective feedback) is a waste of time and Ferris's rebuttal to Truscott (1996) that WCF improves the accuracy of writing. Each of these researchers limited their theories to the acquisition of a second language and the writing process. Truscott (1996) defines WCF as grammar correction or written error correction.

The second part of the literature review provides various definitions of feedback and highlights differences and similarities of the research. This part of the review provides multiple definitions and reasons feedback is essential. It also was the starting point during the review to find synonyms for feedback elements. Shao references Kulhavy's work (1977) in saying that the effectiveness or quality of feedback is influenced by "presearch availability" which was later defined by Shao as "research availability". Thus, saying that a learner must be involved with the feedback/learning process. So, if a teacher simply gives the student the answer, the "research availability" is low, but if the teacher provides the student with feedback that prompts the student to actively search for the answer then the feedback includes the presence of "research availability".

Presearch and research availability were placed in the mode section of the Elements of Feedback Rubric because they regarded the manner in which the feedback was delivered. Kulhavy and Stock (1989) provide two more terms for the mode category, verification and elaboration. Verification refers to whether the answer is correct or incorrect while elaboration provides learners with clues to direct them toward the correct answer. According to Shao, these two terms needed to be identified and defined because Hattie, Biggs, and Purdue (1996), assert that in order for feedback to be effective, students need to know what they did wrong and how to correct it. These are two key factors in the feedback process that guide the student to achieving their learning goals, or as Hattie et al. (1996) called it, "learning achievement".

Shao claims that research in second language acquisition is generally broken into two categories called implicit and explicit feedback. These two terms also fall in the mode category of the Elements of Feedback Rubric because the term "implicit" refers to identifying an error, but not specifying the location or type of error while "explicit" refers to feedback that gives a clear

indication of what type of error was made. Within the definition of “implicit” the term “recast” was identified as a type of implicit feedback. Recast was defined by Long (1996) as:

*A reformation of all or part of a learner’s immediately preceding utterance in which one or more non-target like (lexile, grammatical, etc) items are replaced by the corresponding target language form, and where throughout the exchange, the focus of the interlocutors is on meaning not language as an object (p.2).*

Recast has been added to the mode section of the rubric, but Shao clarifies that recasting may not always simply fall in the implicit category because the way in which the recast is delivered could be explicit if the teacher adds stress or intonation.

Shao later identifies seven categories of corrective feedback according to Lyster and Ranta’s (1997) research. The seven terms are explicit, recast, metalinguistic feedback, elicitation, repetition, clarification and translation. Explicit feedback means that the teacher told the student there was an error and provides the correct response. The teacher may also provide information about a language rule that helps the student understand the reason for the error. Recast, as stated earlier, gives no indication of where the error is or what it is. For example, if a student says, “I go to store yesterday” the teacher would simply say “I went to the store yesterday” and then move on. Therefore, the teacher did not give a clear indication of what the error is or where the error was unless like Shao stated, the teacher used intonation or put stress on the incorrect utterance. Metalinguistic feedback is when the teacher tells the student there is an error and asks the student to find it. Elicitation feedback is simply when the teacher pauses near the error and allows the student to fix it on his own. Repetition is when the teacher repeats the students mistake by using intonation on the part of the utterance that contains the error. Clarification is when the teacher indicates that they did not understand the utterance and asks the student to

reformulate the utterance. Finally, Lyster and Ranta's (1997) definition for "translation" was not very clear in my opinion. Their definition of "translation feedback" was, "feedback that involves the detailed correction process."

The remainder of Shao's literature review delved into the research of several prominent linguists and their stance on the effectiveness of positive and negative feedback in relation to WFC (written corrective feedback). While the research was highly engaging, it did not provide new terms for the purpose of this study. In the end, Shao maintained that more research needs to be done on the feedback process in its entirety because there was not sufficient evidence within the existing literature of positive impact that feedback has on the writing process.

**Collins-McLaughlin, A., Rogers, W. A., & Fisk, A. D. (2006). Article 6**

Collins-McLaughlin et al. (2006) did an extensive review of the literature on feedback in their report, *Importance and Interaction of Feedback Variables: A Model for Effective, Dynamic Feedback*. The project's focus was to understand the role of human operator (in collaboration with automated systems) with the interface technology issue of translating data into feedback. Thus, the researchers needed to have a clear understanding of the feedback process and the elements which make it efficient. The report supplies insight into how feedback design affects learning.

The authors did a thorough job of identifying all of the terms that were encountered during the literature review process; they created a table that identifies the terms that they continued to use during the report. This table was extremely helpful in the current research because it provided a list of terms used synonymously in regards to the feedback process. The first term they identified was "internal feedback". This term refers to the feedback that happens

within an individual's mind. For example, a swimmer may realize that her turn was a bit off, so she corrects the turn the next time she swims the lap.

The next term was "knowledge of results" (KR). This term has been used in various articles that were reviewed but not used within the current research. KR is when a teacher or an automatic system in the case of the Collins-McLaughlin et al., tells the student whether the answer is correct or incorrect. A component of this term or element of feedback is what Collins-McLaughlin et al. called AUC, answer until correct. Terms that were also associated with KR were: minimal feedback, augmented feedback and outcome feedback. Next, was the term KCR (knowledge of correct response) which is a type of feedback that simply gives the correct answer if the student answered wrong; another name for KCR was corrective feedback. The above terms were all placed in the "mode" category of the rubric because they focused on how feedback was delivered to the student. The term "performance feedback" was placed in the focus category on the rubric because while it was a way of providing feedback, it also focused on specific parts of the outcome or goal.

Performance feedback contained two subtypes called kinetic and kinematic. Kinetic feedback is directed at force or spatial properties. For example, a swim instructor points out that the swimmer went underwater too soon before touching the timing pad. There are regulations on how close the swimmer has to be to the finish before their final stroke is completed. Kinematic feedback refers to the movement to produce the outcome. So, using the same swimmer scenario, instead of focusing on space (distance from board) like the kinetic feedback does, the kinematic feedback stresses specific movements needed to achieve the goal. Therefore, the instructor would now tell the swimmer that when she is close to the board, she needs to kick her legs and stretch her arms in a fluid motion.

Terms that were associated with performance feedback were: informative feedback, elaborative feedback, topic contingent, response contingent, knowledge of performance, kinetic feedback and kinematic feedback. The final term on the table was summary feedback. This term was placed in the “mode” category on the rubric because it served as a way to present a number of attempts at feedback into a graph or some other form of summarization. Terms related to summary feedback were: terminal feedback and trails-delayed feedback.

After Collins-McLaughlin et al. completed their extensive literature review, they developed a conceptual model of what they considered to be the most critical factors that affect the efficiency of feedback. Their model contained three main components that were broken into subcategories. The first component was “Learner Characteristics” which had two subcategories of “user ability” and “current state of a user”. The authors expressed the importance of identifying the student’s (user) abilities so that feedback could be calibrated to the learner’s abilities.

Also, Collins-McLaughlin et al. (2006) stressed the importance of the current state of the user such as fatigue, arousal and motivation levels. The need for this information was to be able to create a program that would increase intrinsic motivation. The second component was “Task Demands” which also had two subcategories: simple and complex. Simple meant that the tasks had few components and required minimal working memory demands from the learner. Complex tasks required more mental work from the learner and thus the learner may avoid the feedback or ignore it. As a reminder, the focus of Collins-McLaughlin et al. research was to use what they learned about feedback to develop an automated system that provides feedback.

The final component of their model was “Feedback Characteristics”. This component had four subcategories: content (feedback is matched to the amount of information a learner can

handle so it is not ignored), timing (feedback is calibrated to ensure the information is relevant, so the user can process the information at that point in time), frequency (determines if the feedback should be presented every time an event occurs or on a different schedule), precision (the specificity of the information provided by the feedback).

The model also provided a unique diagram of the above elements depicting how there is a constant flow from one element to another with content, time, frequency and precision containing a slider that moves from one degree to another. Content is on a scale that goes from abstract to explicit while time and precision have a scale that goes from less to more, and frequency's scale goes from low to high. In the end, Collins-McLaughlin et al. concluded that feedback must train operators to self-assess, it should be calibrated to the resources of the learner and demands of the task and it should enable the learner to perform the task without becoming a crutch (Collins-McLaughlin, et al., 2006).

### **Summary**

Toward the end of the research process, the terms and ideas started to overlap. Many articles referenced similar studies which resulted in common terms or components that identified the same element within the Elements of Feedback Rubric. The six articles summarized provided a sufficient basis for the purpose of this literature review's purpose of finding elements that are most commonly researched and terminology that is used interactively between the research to discuss said elements. The two elements that were most commonly identified and researched were that of mode and focus.

## Chapter 4: Meta-Analysis Results

### Introduction

The research question for this literature review was: What are the elements in the feedback implementation process that are most prevalent and what terms are used to describe those elements. During the literature review process, five elements were on the radar. Those terms were timing, mode, audience, focus and goal. Timing and audience were not present in much of the literature even though the elements were chosen because work from Hattie and Marzano suggested the two elements to be key components in the feedback process. Mode and focus had the most synonyms used to identify the importance of the two elements. The following table and analysis show the two key researched components and the terms used to discuss the elements.

### Timing

While timing was mentioned by Marzano and Hattie as a key element in the feedback process, the articles reviewed did not focus on it as a substantial component of the process. Three of the articles' references identified elements of time. Gamlen and Munthe (2014) and Ruiz-Primo and Li (2013) mentioned the element of time as: feedback loop, frequency of occurrence. Both terms referred to how often feedback was provided during the process. Nicol and Macfarlane-Dick (2006) was the only other article to mention time as part of the process, and it focused not on how often, but when the feedback was provided. The terms used to reference timing in Nicol and Macfaclane-

Dick's research were: accessible, often, regularly, before submission and soon after submission.

Like timing, goals was another element that was said to be important, but did not present itself in the literature as a key component.

### **Goal**

Goal is a term used to discuss learning outcomes. While the research articles had learning outcomes, the terms used to identify the learning outcome were not vast. The term "learning target" was used in the first two articles. Other terms associated with goals were: norms, records of achievement and learning achievement. Nicol and Macfarlane-Dick (2006) provided the largest list of alternative terms used in conjunction with goals. The terms they used in regards to goals were: learning outcomes, specific targets, criteria, standards, resulting effects, intentions, expectations, achievement, purpose and improved works. The obvious reason for Nicol and Macfarlane-Dick's research providing the widest array of terms across the rubric is because the article was in itself a literature review, so terms were taken from multiple research and compiled.

### **Audience**

Audience was only identified clearly in Nicol and Macfarlane-Dick's research. The terms used to discuss this element were: individual, small group, large group and large class. The element may not have been needed to be clearly identified because the audience is often implied depending on the mode and focus of the feedback. However, I do wonder how many of the studies focused on how a change in audience means a change in feedback strategies?

### **Mode**

Mode was a generic term used to identify what type of feedback is given. Examples include written, oral or verbal feedback, but they are not limited to these modes. Throughout the research, multiple terms were used to discuss what type of feedback is provided. Because the list

is vast, a few broad terms are identified in this section. The Feedback Elements Rubric provides a full comprehensive list of the identified terms used to discuss mode within the research. To start, written feedback was identified using terms such as: symbols, grades, numbers, phrases, sentences, questions and comments. These terms provide a wide range of possibilities when it comes to written feedback. A student could be simply receiving a letter grade or a complete formal letter from their teacher. Ruiz-Primo & Li (2013) were able to see the issue with such ambiguity between terms while they were conducting their research. Thus, their research took the form of three separate studies in order to try to create a concise method of providing feedback and evaluating their results. It was an example of why it is important to provide clear definitions of terms used in research. Other modes of feedback that went beyond written feedback related to modeling, dialogue and computer feedback. This is where the term feedback loop branched over from the timing element into the mode element because the looping was not only about how often feedback was provided, but how it was delivered as well. In the end, multiple terms were used to discuss different modes of providing feedback.

### **Focus**

Finally, focus was used to identify what the feedback was focused on. For example, the feedback could be focused on the product of whether a student's answer was incorrect or correct. However, it could have also focused on the task used to achieve a particular goal. Like the mode category, the focus category had multiple linguistic terms related to what feedback was in regards to. Ruiz-Primo & Li again provided a large list of synonyms because they conducted three experiments within one study. As they developed each study to perfect the last, they were able to identify key components and clarifications for their terms. In the end, they settled on six terms to describe the nature/focus of the the feedback. They used terms such as: evaluative on

quantity, evaluative of quality, editorial, descriptive, prescriptive and transitional. Nicol & Macfarlane-Dcik used terms such as: corrective advice, corrective criticism and self-regulation to discuss the focus of their feedback. Both studies provided terms to identify the focus of their feedback. However, this area also became muddy when trying to distinguish between mode and focus in some studies. For example, Shao X. (2015) used the term elaborate as a mode of providing feedback, but Collins-McLaughlin et al. (2006) used the term elaborate as a focus of the feedback. So one used the verb “elaborate” to identify what the teacher was doing while providing feedback while the other used the adjective “elaborative” to describe the focus the feedback had on the learning outcome. Thus, that is just another testament as to why it is important to evaluate the language used to discuss and research the feedback process and elements that are essential in the process. Below is Table 2: the Feedback Elements Rubric that provides a list of terms used in each article to discuss the following feedback elements:

Table 2

*Feedback Elements Rubric*

<b>Authors</b>	<b>Timing</b>	<b>Mode</b>	<b>Audience</b>	<b>Focus</b>	<b>Goal</b>
Gamlem & Munthe	Feedback loop	Formative Feedback (oral) Feedback loop		Scaffolding task Scaffolding process	Learning target
Ruiz-Primo & Li	Frequency of occurrence	<u>Study 1</u> <b>Positive comment</b> <b>Simplified code</b> (phrase only)  <u>Study 2</u> <b>Symbols</b> (check marks, happy faces, question marks, circles, stamps)		<u>Study 1</u> <b>Direct</b> <b>Usable information</b> <b>Reflection</b>  <u>Study 2</u> <b>Quality:</b> <b>Accurate,</b> <b>Focused,</b> <b>informative,</b>	Learning target

		<p><b>Scores</b> (number, letter grader)  <b>Written Comments</b></p> <p><u>Study 3</u>  <b>Form: score</b> (grade, numeric),  <b>symbol</b> (evaluative information that does not involve rating), <b>comment</b> (words, phrases, sentences), <b>rubric</b> (structured page with specific scoring criteria, rating and evaluative information),  <b>illegible</b> (communication that is meaningless or does not make sense)</p>		<p><b>supportive, cognitively stimulating</b>  <b>Positive/negative</b></p> <p><u>Study 3</u>  <b>Nature:</b>  <b>Evaluative on quantity</b> of work (signals of incomplete work),  <b>evaluative on quality</b> of work (feedback indicates level of understanding, or recognition of misunderstandings but without explanation “good job, needs work”),  <b>Editorial</b> (feedback edits, annotates or models),  <b>Descriptive</b> (describes what is right or wrong),  <b>Prescriptive</b> (probes thinking on how to improve and can be divided in conceptual understanding, scientific process or meta-cognitive),  <b>Transitional</b> (indicates a need for verbal</p>	
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				interaction with the student)	
Nicol & Macfarlane -Dick	<b>Accessible Often Regularly Before submission Soon After Submission</b>	<b><u>External Inputs</u></b> Questions Discussion Dialogue Marks Grades Comments Model Audio Feedback Computer Feedback  <b>Feedback Loop</b>	<b>Individual Small Group Large Group Large Classes</b>	<b>Corrective Advice Corrective Criticism Self-Regulation</b>	<b>Learning Outcomes Specific Targets Criteria Standards Resulting Effects Intentions Expectations Standards Achievement Purpose Improved works</b>
Tunstall & Gipps		<b>Evaluative:</b> rewards (smiley face, sticker, play time), approval (“Nice Work”), punishment (“Naughty), correcting (write the words on top, erases (“rubs it out” in London), breaking down the task (splits the words up, makes the missing or incorrect sound) and copying (spells on the board, gives word on piece of paper)		<b>Descriptive:</b> communicating standards, the role of teacher talk, independence strategies	<b>Norms Records of achievement</b>
Shao, X.		<b>Presearch/Research Availability Verification Elaboration Implicit:</b> recasts			<b>Learning achievement</b>

		<b>Explicit:</b> explicit correction, meta-linguistic (comments, questions, information)			
Collins-McLaughlin, A., Rogers, W. A., & Fisk, A. D.		<b>Internal Feedback</b> <b>Knowledge of results (KR):</b> minimal feedback, augmented feedback, outcome feedback, AUC (answer until correct) <b>Knowledge of correct response (KCR):</b> corrective feedback <b>Summary Feedback:</b> terminal feedback, trials-delayed feedback, graph		<b>Performance Feedback:</b> informative feedback, elaborative feedback, topic contingent, response contingent, knowledge of performance, kinetic feedback, kinematic feedback	

**Timing:** Timing refers to when the feedback is provided and how often it is provided.

**Mode:** Mode refers to what type of feedback is given such as oral, written, visual etc.

**Audience:** Audience refers to who the feedback is directed towards when it is given. It could include an individual setting, whole group or small group setting.

**Focus:** Focus refers to what the feedback is regarding. The focus of the feedback could be pertaining to the task, the process to complete the task, the student's self-regulation, or on the student personally.

**Goal:** Goal refers to the target outcome of the task. Often times goals and objectives relate to educational standards.

The bolded terms in the above table are the words used within the literature. The non-bold terms are examples that were used to further define the terms.

## **Chapter 5: Conclusion and Implications of the Study**

### **Summary**

It was evident that a wide range of terms are used throughout the research to discuss similar concepts within the feedback process. The most common terms discussed were mode and focus. One can assume that these two elements were present in the majority of the research because they are elements that require the teacher to take action as part of the feedback process. Therefore, they are elements that are more easily researched and tested.

### **Common Language**

Throughout the workforce and educational settings, common language is described as a key element for successful communication. The International Reading Association (IRA) Commission has published six principals to guide the implementation of RTI (Response to Intervention) initiatives (IRA Commission on RTI, 2009). One of those principals emphasized a systematic approach to language usage. They said, “For collaboration to be successful participants in the process have to create shared language for communication (IRA Commission on RTI, 2009). They define collaboration as “joining of forces, pooling of resources, and sharing of expertise in order to meet shared goals for instruction and assessment.” They stress that if there is not an intentional focus on language usage across disciplines, confusion may result. Without a shared meaning of terms, educators may not be able to engage successfully in problem-solving and decision-making. For example, a reading specialist may need to communicate with a speech pathologist, but if they do not agree on the definition of terms, they might be using the same terms with different expectations. With this being said, it would be worthwhile to apply the common language concept to future research around the elements of feedback. The table in chapter four provides a starting point for researchers when deciding

which terms to include in their study. It is also a place where different types of researchers can look for guidance or insight into what other researchers are using for terms surrounding feedback. It would be beneficial for researchers to have a common language prior to developing research questions and methods for future feedback research.

### **Recommendations**

Further research should take place in regards to linguistic commonalities between the elements. If I were to conduct future research, I would suggest focusing on one element at a time. Having five separate categories on the rubric table caused confusion when looking into the literature. It would be beneficial to pick one element and focus on that. This way, a researcher could refine the search terms to include terminology from the Feedback Elements Rubric in Chapter 4. By focusing on one element at a time, more focused data would be found to guide additional research questions in the future. In addition, focusing on one or two terms would identify categories that were stronger than others. For example, the audience and timing category proved not to be as heavily researched as suggested in the preliminary literature review. However, another category might be identified throughout more focused research such as learning management systems. In addition, it might be useful to focus on one type of research at a time. For example, during this research process, I wanted to include all forms of research so as not to create a bias. It could be useful to focus specifically on original research or literature reviews, but not both within the same study. Also, during the research process, there was an element of technology tools to provide feedback, but since it was not part of the original research question, the topic was not an area of focus. However, this too could be a future focus of research regarding feedback and terms associated with the research. Finally, there was a gap within the research included in this study and the best practices provided by the leading

researchers on the feedback process. The leading researchers such as Marzano, Hattie and Brookhart all included timing and audience as key elements of the feedback process, but the literature analyzed, besides one article, did not address these two components. Further investigation into the elements of audience and timing would be beneficial.

### **Conclusion**

In the end, the research was fruitful in the fact that multiple terms were identified throughout the research process. It was helpful to see how many different terms were used if only to stress the importance of a common language for future research. This study helped identify the need for future research on terminology associated with the feedback process. It has provided awareness that there are certain terms that may not resonate the same between disciplines. It has made a case for the importance of providing clarification of terms used in future research. Finally, it has bestowed the noteworthiness of finding common ground and language that unifies disciplines, so future research can be used by all whom are seeking clarification of how to improve the feedback process.

### **Reflection**

I have learned that the research writing process changes and grows with time. As I dove deeper into the process, my mind became more engaged and finding a stopping point was critical in order to complete the paper. I feel I have grown as a professional and individual. I now know that I am capable of tackling the unknown and finding a drive within myself to succeed.

## References

- Brookhart, S. M. (2008). In Houtz J. (Ed.), *How to give effective feedback to you students*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Collins-McLaughlin, A., Rogers, W. A., & Fisk, A. D. (2006). *Importance and interaction of feedback variables: A model for effective, dynamic feedback*. (Technical Report No. HFA-TR-0603). Atlanta, GA: Georgia Institute of Technology.
- Ferris, D. R. (1999). The Case for Grammar Correction in L2 Writing Classes: A Response to Truscott (1996). *Journal of Second Language Writing*, 8 (1), 1-11.
- Gamlem, S. M., & Munthe, E. (2014). Mapping the quality of feedback to support students' learning in lower secondary classrooms. *Cambridge Journal of Education*, 44(1), 75-92. doi:10.1080/0305764X.2013.855171
- Hattie, J. (2012). Know thy IMPACT. *Educational Leadership*, 70(1), 18-23.
- Hattie, J., Biggs, J., & Purdue, N. (1996). Effects of learning skills interventions on student learning: A meta-analysis. *Review of Educational Research*, 66(2), 99-136.
- IRA Commission on RTI (February/March 2009). Working draft of guiding principles. *Reading Today*, 26(4), 106.
- Kulhavy, R. W. (1977). Feedback in written instruction. *Review of Educational Research*, 47(2), 211-232.
- Kulhavy, R. W., & Stock, W. A. (1989). Feedback in written instruction: The place of response certitude. *Educational Psychology Review*, 1 (4), 279-308.
- Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake. *Studies in Second Language Acquisition*, 19(1), 37-66.

- Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education, 31*(2), 199-218. doi:10.1080/03075070600572090
- Popik, B. (2012, December 19th, 2012). Retrieved from [http://www.barrypopik.com/index.php/new\\_york\\_city/entry/tell\\_me\\_and\\_i\\_forget\\_teach\\_me\\_and\\_i\\_may\\_remember\\_involve\\_me\\_and\\_i\\_will\\_learn](http://www.barrypopik.com/index.php/new_york_city/entry/tell_me_and_i_forget_teach_me_and_i_may_remember_involve_me_and_i_will_learn)
- Ruiz-Primo, M., & Li, M. (2013). Analyzing teachers' feedback practices in response to students' work in science classrooms. *Applied Measurement in Education, 26*(3), 163-175. doi:10.1080/08957347.2013.793188
- Shao, X. (2015). On written corrective feedback in L2 writing. *English Language Teaching, 8*(3), 155-168.
- Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning, 46*, 327-369.
- Tunstall, P., & Gipps, C. (1996). 'How does your teacher help you to make your work better?' children's understanding of formative assessment. *The Curriculum Journal, 7*(2), 185.
- Wen-Chen Huang, Ching-Wen Chen, & Weng, R. (2015). Constructing a multimedia mobile classroom using a novel feedback system. *International Journal of Distance Education Technologies, 13*(2), 1-14. doi:10.4018/IJDET.2015040101