


2015

Community College Instructors' Perceptions and Use of Feedback

Janeth Martin Walker Franklin
Walden University

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Janeth Martin Walker Franklin

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Walden University
2015

Abstract

Community College Instructors' Perceptions of Feedback

by

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MA, California State University at Los Angeles, 1988

BS, University of Nebraska, 1978

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

June 2015

Abstract

Many community college students, especially those who are required to take developmental education courses, do not complete course and degree goals. Research shows that constructive feedback practices used by instructors improve academic achievement while destructive feedback practices diminish student learning. Using a constructivist framework, the purpose of this qualitative, instrumental case study was to understand how faculty who teach developmental education and entry level college courses perceive and use feedback in a large urban community college in the Southwestern United States. Data were collected through 17 in-depth, face-to-face interviews and written feedback examples submitted by the faculty members. Interview transcripts were open coded and thematically analyzed and feedback examples were coded and typologically analyzed to identify type of feedback used. Interview findings indicated that faculty used feedback predominately to provide information to students, believing that all types of feedback benefit student learning. Analysis of the written feedback indicated that instructors used both destructive and constructive feedback. Recommendations include designing a professional development training to equip community college instructors with research-based constructive feedback strategies that will support student learning. Implications for positive social change include increasing the use of constructive feedback practices, particularly in developmental and entry level college courses, which may lead to increased course and degree completion for all students.

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Dedication

I dedicate this doctoral study to my Lord and Savior, Jesus Christ, who is the strength in me. I am forever grateful to my parents, Cecil and Bette Martin, for instilling in me a love for learning and for the value of education. I know they are smiling down from heaven. Their influence and love have been a guiding force to stick with this program and finish this degree.

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Section 1: The Problem

Introduction

Dissatisfaction with feedback is the most often stated concern from students in higher education (Boud & Molloy, 2013c). Feedback is part of formative assessment that increases learning and engagement, establishes positive relationships, and supports cultures that empower the learner to take ownership and responsibility for his or her own learning (Evans, 2013). Students' self-directed learning strategies develop through collaboratively scaffolding support, encouragement, and directions through instructor feedback. The value of learning from mistakes and persevering through struggle and frustration to gain new learning is shared through the collaborative feedback process between instructor and students (Strother, Van Campen, & Grunow, 2013; Van Campen, Sowers, & Strother, 2013). Both instructors and students should be equipped with the knowledge and skills to give and use constructive feedback to increase learning and engagement for course and degree completion.

Constructive feedback is information that is shared between educators and students throughout an entire college course to increase, inform, and enhance the instructor's and the students' learning and engagement (Wiliam, 2012a, 2012b). Feedback is effective if it constructs a pathway of learning that increases student engagement and understanding as it supports reciprocal, iterative, and collaborative learning relationships between educators and students within a culture of continuous improvement where errors are valued as stepping stones to the next level of learning (Fluckiger, Tixier y Vigil, Pasco, & Danielson, 2010). The continuous modeling of the constructive feedback process by faculty equips students to learn how to take ownership

of their own learning and to develop the ability to use feedback for effective personal evaluation (Boud & Molloy, 2013b, 2013c). Learning and engagement improves as students begin to develop and mature self-regulation skills. Self-regulated learners take more personal responsibility for their own learning success in the present course and for future college courses. These skills, using and valuing constructive feedback, will equip students to be better prepared to manage the challenges they will come across in the world of productive work.

Continuous effective feedback information confirms what the learning target is, where the learner is right now, and what the instructor and the learners need to do next to get to their own personal learning goals (Brookhart, 2008, 2012; Hattie, 2009, 2012b, 2012c). The development of specific, constructive feedback practices supports a culture of continuous improvement and a growth mindset (Dweck, 2010), which increases motivation, effort, and perseverance in overcoming obstacles and challenges. In an interview with Morehead in 2012, Dweck shared that a growth mindset in instructors or students is knowing that a person's abilities come from effort and persisting through challenges, changes, and setbacks. A student or instructor with a growth mindset believes that every person has the ability to learn anything to mastery through effort and persistence.

The purpose of this study was to gain information on how community college educators of developmental education courses perceived feedback to further learning and increase academic achievement. The instructors' perceptions of feedback show specific feedback practices, who gives and receives feedback, how instructors and students learn to give feedback, and how feedback is used to impact self-regulated student learning.

Specific feedback, according to Hattie (2009), is one of the most impactful instructor practices to increase academic success for all students. Instructors do not always know that feedback can be destructive or constructive to learning. The most powerful feedback is when instructors seek feedback from their students so that the information leads to adapting teaching practices to better meet the needs of the learners and their learning goals (Hattie, 2012b, 2012c). The high impact of formative feedback comes when both the instructor and the student use it to support each other and improve their own learning and teaching practices.

Definition of the Problem

The administration and faculty at a large, local, urban community college were concerned that students were failing to successfully leave the college within a 6-year period with an earned associate degree, a certificate of training, or transferring to a 4-year university. More than 60% of the newly enrolled first-year students started their college experience by testing into developmental courses after mandatory placement tests determined that they were underprepared to successfully complete the entry level first-year college courses in English, reading, and mathematics (Provost of CC District, 2013). Students who had to enroll in developmental courses have a more costly and longer learning journey than other students who begin their college experience taking entry level courses. Long-term solutions that address underlying problems connected to low course and degree completion rates were necessary to support the success of these students.

According to a 3-year longitudinal study of first-year students from 2009-2012 at this college, students placed into developmental courses were less likely to leave the college in 3 years or less with a degree, a career certificate, or a transfer to a university

than the first-year students from the same years who started out in college level courses (Office of Strategy, Planning, and Accountability, 2013b). Only 5% of the students who enrolled in any developmental math course successfully completed the course and continued on to earn a community college degree compared to 12% of those students not enrolled in developmental math courses (Office of Strategy, Planning, and Accountability, 2013b). In a faculty and staff district conference on developmental education, the college district provost (2013) shared the 6-year district graduation rates for students who were ever enrolled in developmental courses had stayed the same, 16% from the summer of 2010 through the summer of 2012. Students who were members of a minority/ethnic group, those who received financial assistance from a Pell grant, were male, or were first generation college students were the most likely to test into developmental education courses and then struggle to pass the courses according to the provost (Provost of CC District, 2013). This college's stakeholders-the administration, instructors, students, and the community-were concerned that the success rate for course completion of developmental courses was low, which led to low degree completion rates. The provost emphasized the need to redesign developmental education programs to improve student outcomes. Both district and college administrators made it a priority to initiate new strategies to improve course and degree completion rates. The provost suggested that improvement of teaching practices that increased learning and engagement could be one of the most impactful and cost effective ways to improve course and degree completion rates.

Faculty needed to improve teaching practices to strategically equip all students to be successful with the rigor of college level coursework. Effective feedback practices that

are modeled and taught within the course content could increase self-directed learning and academic success for community college students who are enrolled in developmental education. As the students are equipped to be self-directed learners, they acquire skills that can be used in future college courses and in the world of work.

According to data on retention and completion rates for this large, urban community college, there was a need to develop new ways to equip the students enrolled in developmental education courses with learning strategies so that they may complete the necessary courses for their degree plans. The overall retention rates were 58% for full-time students and 37% for part-time students who started at this institution in the Fall 2011 semester and then successfully continued at the same institution through the Fall 2012 semester (National Center for Educational Statistics [NCES], 2011). This college has an overall 14% graduation rate and 22% transfer rate for full-time, first-time, degree/certificate seeking undergraduates who started the program in the fall of 2009 and completed by the end of the fall of 2012, within 150% of the normal time to complete a degree or certificate (NCES, 2011). These data indicate that many students at this college are not successfully completing course or degree goals so it is important to implement the most effective and impactful research-based practices that support student learning and success for all students.

A cohort of 3,426 students who enrolled for the first time in the fall of 2009 at this community college were followed through longitudinal data collection through the fall of 2012 to see how many students persisted through the developmental coursework and the required coursework to earn a degree, career certificate, or credits to transfer (Office of Strategy, Planning, and Accountability, 2013b). In the Fall 2009 cohort, 65% of the

students who enrolled in college for the first time took the reading placement test that determines their placement in a first-year reading course. Of those students who took the placement test, 39% or 867 placed into at least one developmental reading course. Of those students who tested into a developmental education reading course, only 43% or 369 students attempted to complete any of the developmental reading courses. After 3 years or 150% of the normal time to earn an associate's degree at this college, 2% of the initial cohort of students who attempted to complete a developmental reading course earned a degree, 1% transferred to a 4-year institution, and another 2% transferred out of this community college district to other programs (Office of Strategy, Planning, and Accountability, 2013b). Students who are enrolled in developmental education courses need instructors who know and implement the most impactful practices to support and encourage course and degree completion.

A total of 5% of the 369 students who took the placement exam in 2009 enrolled in at least one developmental reading course and continued through the required courses to earn a degree or to transfer to another program to continue their education by the fall of 2012. Students at this college who test into developmental education courses are at high risk for failing to meet course and degree completion goals. Research-based constructive feedback practices, that are impactful for learning for all students, could improve student academic success and raise the completion rates.

The data patterns for the other two areas of developmental education, math and English, at this college were similar and support the concern for the success of students who test into developmental courses. All of the newly enrolled students who were college ready and did not test into any developmental education courses were more than 2.4

times as likely to earn an associate's degree or certificate than a student who enrolled at the same time and was required to take any developmental education courses (Office of Strategy, Planning, and Accountability, 2013c). Only 5% of the students in the 2009 cohort at this college who tested into developmental math courses earned a degree or a certificate by the fall of 2012 (Office of Strategy, Planning, and Accountability, 2013b). Fewer students tested into English developmental education courses. However, similar to the other developmental education courses, only 5% of the students placed in developmental English courses went on to earn a degree or a certificate within 3 years (Office of Strategy, Planning, and Accountability, 2013a). Changes that support effective strategies to significantly increase the success for all first-time college students is needed, especially for those who begin their college experience taking developmental education courses.

According to the Fall 2013 data for this college, 3,622 newly enrolled students took the placement tests. Only 37% of those students' scores showed they were ready to take college level entry courses. The rest of the students who took the placement tests placed into developmental education courses in math, reading, and/or English with "15% placed into all three developmental subject areas and 35% placed into a developmental math course" (Office of Strategy, Planning, and Accountability, 2013b, p. 2). Many of the entering students are underprepared to take college level entry courses and need help and support to successfully complete the required developmental education courses.

The 2011 Survey of Entering Student Engagement (SENSE) was given to students within entry level courses. The SENSE showed areas for improvement in engaged learning as well as high expectations and aspirations. Students were asked to

consider instructional approaches that engage learners and support student success, and when compared to student responses at other colleges within their district or other large community colleges nationwide, this college scored lower in both sections. There was a need to improve instructional strategies that engage students in the learning experience as well as provide “clear, high expectations” to the students from college staff and faculty (Office of Strategy, Planning, and Accountability, 2012). This college needed to find new ways to equip all students, especially those enrolled in developmental courses, to be able to sustain the rigor of college coursework and to persevere through the required courses to earn a degree, career certificate, or the credits necessary to transfer to another college or university.

More than 50% of the students who attempted at least one developmental reading course in the community college were an underrepresented minority (URM), a non-native English speaker, or a first generation college student (Office of Strategy, Planning, and Accountability, 2013c). Improving the quality of education for all first-year community college students, especially those placed into developmental courses and are the most at risk to leave college without a degree or the ability to transfer to a university, was a priority for this institution. Every person who enrolled into the community college deserved to have the best opportunity to successfully complete the community college program in a reasonable amount of time and cost and be equipped for a successful career or to transfer to a 4-year college.

In the past, this community college looked for answers to low completion rates by examining the student factors that could contribute to the failures, such as eligibility for the Pell grant, low socioeconomic background, or underrepresented minority. Many

students at this community college have multiple responsibilities in addition to going to school, such as jobs, marriages, or children. The challenge on limited resources of time, energy, or money can cause stress that impacts the success and completion of college courses. The college has developed programs to support student success, such as streamlining the placement testing process, supporting the career development and course registration process, mandating enrollment in student success courses for all students who test into developmental education courses, streamlining developmental education courses, enhancing student access and support to course instructors, designing special tutoring programs, encouraging dual enrollment high school programs, and providing easy access and more access to resources and materials through longer hours of operation and online resources (Office of Strategy, Planning, and Accountability, 2010, 2013b, 2013d; Provost of CC District, 2013). Some of the attention was placed on finding out why the students come to college underprepared and unprepared for the rigor and routine of entry level college courses. The strategies employed to improve the student factors have not significantly improved the completion rates of those students placed into at least one developmental education course (Office of Strategy, Planning, and Accountability, 2013b). New impactful strategies must be considered, specifically those that will increase the success rate for entering students, especially those placed into developmental education courses, so that they will graduate within a reasonable time and cost from this community college.

Educating instructors to improve teaching practices that are researched-based could increase the success of all entering students, especially students enrolled in developmental courses. Instructors play a key role in student success (Hattie, 2003; Hattie

& Timperley, 2007; Marzano, 2012). The teaching practices that are the most influential, scalable, and cost efficient to empower students enrolled in developmental education courses should be identified and shared with faculty. Attention placed on instructor practices that support students taking responsibility for their own learning so they develop into self-directed learners could improve the successful completion of developmental education courses. In addition, the students could acquire skills and knowledge that will support them in future courses and in future careers. Equipping instructors and students with constructive feedback practices can increase learning and engagement for all students. Equipping the faculty who teach developmental education courses with constructive feedback practices could raise course and degree completion rates at this college for the most at-risk students.

Feedback has an influence on learning and academic achievement. Although there is a large amount of research on feedback, gaps remain in understanding the process and its impact on the development of instructor practices and skills that improve student learning and engagement while also equipping students with expertise and skill using feedback (Boud & Molloy, 2013b, 2013c). There is a lack of understanding at this community college of how to use constructive feedback to increase student self-directed learning and improve course and degree completion rates (Dean of Instruction, personal communication, October 14, 2013). The type of feedback and the way it is given determines if it is a negative or positive influence on the student's learning (Hattie, 2009; Hattie, 2012b, 2012c; Hattie & Timperley, 2007; Kluger & DeNisi, 1996).

The purpose, process, type, quality, and timing of the feedback that is being given to students is not always considered (College Dean of Instruction, personal

communication, October 14, 2013). The student should be situated at the center of the feedback process so that they can learn to value, seek, give, and use feedback to maximize their own learning and to support the acquisition of self-regulation skills that they can use in future learning and problem solving experiences (Boud & Molloy, 2013b). Faculty are hired as experts in their content and curricular areas often without experience or education in the pedagogy of teaching college students. Equipping instructors to evaluate and practice constructive feedback practices would positively influence student success for those students enrolled in developmental courses and as they move through their future college courses and into a work situation.

All students who enroll in college should have the support to successfully complete their courses to obtain a college degree. Close to 50% of enrolled community college students in the United States drop out without a certificate or a degree within 6 years and before transferring to a 4-year university (HCM Strategists, 2013, p. 5). Sixty-three percent of African American students and 58% of Hispanic American students do not leave college with a degree or certificate within 6 years (HCM Strategists, 2013, p. 5). A large percentage of students drop out of community college before beginning their second year (Gates, 2010). While community colleges offer opportunities for enrolling in an education to a broad range of the population, enrolling does not always lead to successful completion of the necessary requirements to earn a degree and to be successful in the workplace. Equipping and supporting all students in completion of the college journey to earn a degree needs to be of importance for all community colleges in the United States. The readiness of U.S. community college first-year students for the rigor of entry level college courses is a factor in the high attrition rates occurring before the

second year of college. A large percentage of community college students are required to take remedial courses before being allowed to take college level courses. The number of students required to take developmental education courses has more than doubled, “rising from 18 percent in fall of 2009 to 41 percent in 2011” (Quint, Jaggars, Byndloss, & Magazinnik, 2013, p. iii). Many of these students are from poverty or a low socioeconomic background (HCM Strategists, 2013). These students often struggle to complete and persist to earn degrees, career certificates, or transfer to 4-year college programs.

There are large numbers of diverse students who test into developmental education courses. The Gates Foundation (2010) revealed the range of diverse students enrolling in community colleges was one of the contributing factors to almost 60% of those students testing into one or more developmental education courses in math, English, or reading. At some colleges, there is a nearly 90% rate of enrollment for students of color and low-income students (Gates, 2010, p. 27). Only 28% of the students enrolling in developmental education courses, regardless if they are successful in the courses or not, successfully leave community colleges with an earned degree, certificate, or transfer to a 4-year university (Gates, 2010).

The additional cost in time and tuition for students required to take developmental education courses can cause discouragement that leads to failure and dropping out of college altogether. The traditional system of developmental education does not enhance student success, while the high referral rates and low completion rates affect future outcomes of academic success (Edgecombe, Cormier, Bickerstaff, & Barragan, 2013, p. 5). Regardless of academic skill level, “all students should be given the tools and

guidance to successfully complete their educational goals” (California Community Colleges Student Success Task Force, 2012, p. 1). There is a need for creative, innovative solutions to enable all community college students to be efficiently equipped with the necessary knowledge and learning skills that will empower them to complete the programs and degrees that they sought within reasonable costs and time periods.

Rationale

There is a gap in practice at this community college in how faculty use feedback in developmental education courses. Feedback is most often transmitted to students from the instructors after an assessment or evaluation. Instructors are encouraged to give feedback to students. However it is not prescribed or mandated to use feedback as a part of instructor practices (Dean of Instruction, personal communication, October 14, 2013). According to students, feedback can be improved by giving it more frequently or making an intentional effort to label communication given to students as feedback so the students recognize the amount of feedback given to them.

Feedback strategies have not been considered in reforms to improve developmental education course and degree completion rates (Dean of Instruction, personal communication, October 14, 2013). Improving empirically supported best teaching practices and “equipping faculty to meet the needs of a diverse student population” have been identified as goals for improving future course completion rates for students enrolled in developmental education courses at this community college (Office of Strategy, Planning, and Accountability, 2013d, p. 26). Empirically supported, effective college instructor feedback practices are one of the most powerful influencers of academic achievement (Hattie, 2009, 2012b, 2012c; Hattie & Timperley, 2007; Kluger &

DeNisi, 1998; Ormond, Maw, Park, Gomez, & Crook, 2013; Sambell, 2011).

Constructive feedback practices should be considered when developing reforms to increase success in developmental education courses.

Feedback is ubiquitous and prevalent in personal communication between faculty and students. Both faculty and students think that feedback is important (Molloy & Boud, 2014). The challenges in giving effective feedback come from many directions and dimensions (Boud & Molloy, 2013c). Feedback practices are complex, dynamic, varied, and differ between faculty members. The purposes, value, and misunderstandings of feedback are diverse among faculty, students, and administration. There is a lack of shared meaning and understanding about what effective; constructive feedback is; who should give and receive feedback, and the parameters for seeking, giving, and using it effectively.

There are confusions about what feedback means to instructors and to students. Feedback is considered as information that is transmitted by the instructor to the student after the learning experience has ended or an assessment has been given (Butler & Winne, 1995). Faculty are concerned because students often do not take time to consider and use the feedback they have spent time to share with them. Students express frustration that feedback is not given to them so they can understand and use it before being evaluated on the learning. The most often heard student complaint about an aspect of a higher education course concerns feedback (Boud & Molloy, 2013c; Molloy & Boud, 2014; Nicol, Thomson, & Breslin, 2014). Feedback is the avenue for students to know if they are successfully on a learning path or if they need to adjust and make changes to get on that path for successful learning in a particular course. Even quality

feedback done correctly is “useless when not well received and put into practice to improve performance” (Van Der Leeuw & Slootweg, 2013, p. 1). There is a divided understanding of what effective feedback is and why it is important when teaching college courses (Nicol et al., 2014). Feedback is familiar to all stakeholders although it is often misunderstood and misused.

Overlooked features of effective feedback should be known by college instructors so that their feedback practices support the highest level of self-directed learning for every student enrolled in their courses (Boud & Molloy, 2013c) as well as a source of information to inform future teaching (Hattie, 2012b, 2012c). College instructors need to know, value, seek, give, and use feedback as well as how to implement a reciprocal process with their students so they are equipped with the same understanding of feedback. Additionally, instructors need to understand the value of effective feedback practices to increase learning and engagement and to build expertise in instructor knowledge regarding the kind of feedback that leads to improvements in academic achievement, especially for students taking developmental education courses.

The type, timing, environment, and purpose for the feedback is important for academic achievement (Earl, 2013; Hattie, 2012b, 2012c; Hattie & Timperley, 2007; Nicol, 2009; Silver 2012; Wiliam, 2011). Another factor to understand is the reciprocity of feedback. It is not only the teacher providing information to the student, but rather a process where the instructor and the student(s) are actively participating in the seeking, giving, receiving, interpreting, and using the feedback to improve learning and teaching. Effective feedback should involve the instructor and students collaboratively communicating back and forth to each other (Boud & Molloy, 2013b, 2013c) to adapt

and meet learning goals as the student learns to initiate, request, and use feedback.

Feedback cannot be effective in isolation of student engagement. Faculty attention must be given not only to the composition of the feedback, but also to what happens before giving feedback and afterwards to the actions and responses made by the person receiving the feedback. The ultimate purpose for feedback should be to continually equip and empower learners to assess their own learning and make the necessary changes to improve performance on future learning tasks.

Feedback should help students to improve their learning in the courses they are taking in addition to helping them to know what to do in future learning experiences. According to Boud and Molloy (2013b, 2013c), effective feedback is valuable to students for improving learning and performance in present courses; however, it may be more important for equipping them to self-manage various future learning challenges. The efforts to reform teacher practices have not addressed the importance of the faculty recognizing the value of acquiring effective reciprocal, iterative feedback practices that occur before, during, and after the learning process to increase learning within community college courses as well as equipping the students for managing future learning challenges.

Student learning is dependent on instructors who are willing to learn and practice constructive feedback. According to Gibbs (2010), the best predictors of educational gain, according to higher education research in the United Kingdom, are the use of an institution's resources to make the best learning situation for students through improved teaching practices. The variables that best predicted gains were a small range of teacher practices that significantly raised student engagement, and among the top four are

“raising the level of student effort and engagement and increasing the quantity and quality of feedback exchanged with students on their work” (Gibbs, 2010, section 1.4). Effective instructor teaching and learning practices should demonstrate an understanding and support for practicing and developing skills for giving feedback while modeling those best practices so students can see them demonstrated in real learning situations. This kind of instruction and modeling could increase student engagement and learning while improving self-directed learning.

Effective feedback practices support a dialogue between students and instructors to make meaning of learning and academic achievement in addition to giving information back to the instructors to use to improve and modify instruction for those students. Instructors and students should understand and recognize that the type of feedback, the timing of the feedback, the purpose for the feedback, the learning environment, and additionally the reciprocal sharing of feedback information are needed for the feedback to be effective (Brookhart, 2008; Ormond et al., 2013). The frequency or quantity of feedback does not necessarily determine that the feedback will be meaningful and useful for new learning (Boud & Molloy, 2013b, 2013c). All feedback factors must be known and considered so that destructive feedback practices are discontinued, and constructive feedback practices are used as a powerful resource to increase learning and academic achievement.

Feedback is one of the strongest influencers of learning and academic achievement for all students (Hattie, 2009, 2012c; Hattie & Timperley, 2007; Kluger & DeNisi, 1996, 1998). Effective feedback practices are dialogical processes initiated by instructors and students rather than only a transmission of knowledge from the instructor

to the student. Effective feedback is reciprocal and iterative between instructors, students to students, and students to instructors (Brookhart, 2012; Hattie, 2012c; Marzano & Hefflebower, 2012). Feedback can have a negative or positive impact on learning (Kluger & DeNisi, 1998). The type and purpose of feedback, along with the parameters surrounding how it is given followed by how it is used, determine if it has a negative or positive influence on student learning.

At this community college, it is often the presence and quantity of one-way feedback that is practiced and valued by the teaching faculty (Dean of Instruction, personal communication, October 14, 2013). This is in contrast with the research-supported importance of the quality of feedback within an ongoing reciprocal dialogue between instructors and students focused on developing self-regulated student learning. The quality of dialogic feedback must be considered, which includes its purpose, type, frequency, direction, and timing for optimal student and instructor learning.

There is a lack of understanding at this community college of how to evaluate and discriminate between destructive feedback that interferes with learning and constructive feedback that increases academic achievement. Equipping instructors to identify and discriminate between destructive and constructive feedback for learning, in addition to learning how to evaluate and practice effective feedback practices, would positively influence student success. Community college instructors who are informed about and equipped to give and receive constructive feedback while supporting self-directed learning for students would positively impact students enrolled in all college courses, especially those enrolled in developmental education courses.

There is a need to improve the outcomes for community college students enrolled in developmental education courses. There is a high cost to the students and the college in money and time when students do not complete the developmental education courses after the first enrolled semester. Often the past reforms have placed the expectation for change on student behaviors to increase learning and to improve course and degree completion rates (Dean of Instruction, personal communication, October 2013). Attention has been focused on what the student should be doing differently or on finding out why the student does not come equipped to be successful in college. The greatest positive impact could come from changing direction and giving attention to the continual improvement of instructors' teaching practices to equip students to use feedback to support their learning.

It is the instructor's practices that make the most difference in student academic achievement regardless of the characteristics of the students (Hattie, 2009; Hattie & Timperley, 2007). However, it is not just any instructor who has an influence on student learning, but an instructor equipped with research-based tools and knowledge of best practices to increase learning and engagement in the courses they teach. College resources and attention should center on how to equip teaching faculty with the most powerful, research-supported strategies for increasing student achievement. The strategic use of feedback has been shown to be one of the most powerful teacher practices for increasing academic achievement and developing self-directed learners. Effective feedback practices support and encourage ongoing development of skills to evaluate content learning in relationship to learning goals and to evaluate and build noncognitive factors while encouraging reflection on learning for both students and instructors

(Farrington et al., 2012). This type of feedback requires building trust in safe, relational learning environments within those college courses (Carless, 2008, 2013). In addition, the instructors intentionally embrace “seeing learning through the eyes of the students and motivating students to see themselves as their own teachers” (Hattie, 2012c, p. 5) through modeling and teaching reciprocal, constructive feedback practices.

Feedback received and acted on by the student drives improved learning and mastery of both cognitive and noncognitive skills (Farrington et al, 2012). The improved learning ignites a desire to persevere and exert effort for more learning. Redesigning assessment and feedback practices can also raise student satisfaction and increase positive staff attitudes about teaching and learning (Draper & Nicol, 2013). These self-directed learning strategies empower students as directors of their own learning and lead to completion of developmental courses and future courses.

In this study, I sought to understand how community college educators who teach developmental education courses perceive feedback. It was important to know what the instructors’ perceptions of feedback are so current practices can be developed as shared meanings and understandings about what is effective, constructive feedback, who should give and receive feedback, and what the parameters of constructive feedback are so they can be established and shared with college faculty and stakeholders to improve learning for all students. A case study design was used to collect data from college instructors of developmental education courses in math, English, and reading to better understand how they give feedback to their students and how they use the feedback students give to them. In addition, I requested that the participants bring to the interview three examples of written feedback that they have given to students in their developmental education

courses. The results of the study provided data that were used as the framework for a project study to share effective feedback practices for community college developmental education instructors that will equip students to take ownership of their learning and improve student achievement.

Special Terms

Cognitive factors: An understanding of a foundation of knowledge for a specific college course or subject area such as mathematics or biology (Farrington et al., 2012).

Developmental education: Community college courses below the 100 level that are often required for underprepared college students to strengthen academic knowledge and skills so that they can successfully complete the college level courses that lead to a college degree (Barragan, Cormier, & the Scaling Innovation Team, 2013).

Feedback: Information about learning provided verbally or in writing between one person and another person; feedback can come from reading a book, an experience, or from within yourself. It is information that is shared from instructors to students, between students to students, and also and most importantly from the students back to the instructors to propel learning and thinking (Wiliam, 2012a, 2012b). For this study, effective and constructive feedback are used interchangeably to mean empirically based positive feedback practices that lead to increased learning, engagement, academic achievement, and course completion rates.

Iterative: The act of trying something over and over again and each time making a tiny change that leads to multivariate distributions of practice each time getting closer and closer to a level of mastery (Gelman & Rubin, 1992).

Mindset: A set of internal belief systems that drive a person's understanding of his or her own abilities to perform a particular task or learn a certain subject, especially when there are challenges, change, and obstacles associated with the new learning (Dweck, 2007b).

Noncognitive factors: Important considerations for successful acquisition of and using new learning in addition to the actual learning material subject and content. Many of these factors are personal character traits or thinking patterns that enable self-awareness and self-regulation which lead to appropriately managing a person's and his or her learning as well as relationships with others (Farrington et al., 2012).

Reciprocal learning: Information that comes back and forth between the instructor and students as each of them learns while changing and maturing as a learner and concerning specific learning on a specific learning journey (Weimer, 2013).

Recursive: It is the beginning of self-regulated learning. It is an "internal monitoring by the student of their own current state of learning" on a task which leads to self-generated feedback igniting the learner to regulate future engagement with the learning (Butler & Winne, 1995, p. 246).

Retention: A percentage measurement that indicates the degree to which students stay with an educational program over time. At community colleges, it is the percentage of students who graduate or come back to re-enroll in the same college after being enrolled in that college's programs the previous school year (NCES, 2011).

Rigor in developmental education: The equipping of students to take ownership for driving their own learning and assessment of the learning so they are prepared for college level coursework and beyond (Grubb, 2013, p. 1).

Self-directed learning: When a person is able to take charge of and direct his or her own process of accessing, understanding, using, and assessing new information to gain a new higher level of learning and mastery (Brookfield, 2009). Self-directed learning is used interchangeably with self-regulated learning in this study.

Significance of the Problem

The course and degree completion rates at a large urban college in the Southwestern United States need to be improved. All of the incoming first-year students deserve to successfully reach their dream of achieving a college education that will equip them to obtain and hold a good paying job within a reasonable amount of time and cost. More than 60% of the newly enrolled students at this college are required to take a developmental course or courses before being allowed to enroll in the credit-bearing college level entry courses. Many of those students are URM and students from low socioeconomic environments, and they have the lowest completion rates of all the students required to take the remedial courses. It is of utmost concern to equip these at-risk students with skills to successfully learn.

In August 2013, the large community college district made up of this community college and several others, adopted new resolutions that called for an emphasis on access, completion, and student success. These resolutions also called for eliminating gaps in student group success and to promote faculty and staff development focused on evidence-based educational practice to foster student success for all enrolling students (Provost of CC District, 2013). This college has joined other colleges and influential educational organizations in publicly committing to the Community College Completion Challenge with a goal of increasing by 50% the number of college degrees earned by its students by

the year 2020 (National Institute for Staff and Organizational Development [NISOD], 2010). Increasing college success for all students, most importantly students taking developmental education courses, is important to this college.

The district governing board of this community college adopted a priority guiding principle that emphasizes that all students in developmental education courses master the course competencies within the smallest cost in time and money so they will be prepared to successfully learn in college level courses. At this local community college, developmental education was chosen as the central focus for the current Quality Initiative through their Higher Learning Commission's reaccreditation process, which "requires the institution to undertake a major Quality Initiative designed to suit its present concerns or aspirations" (Higher Learning Commission, 2014, p. 8). The success of students who enroll in developmental education courses is of utmost concern to this community college and the most efficient evidence-based practices are being sought to support course and degree completion for those students.

This college has determined that improving the course and degree completion rates for all students who have ever enrolled in a developmental education course is a top priority for the next decade (Provost of CC District, 2013). It is imperative to equip the instructors with practices that are empirically linked to academic achievement to meet these goals. According to Templin (2012), any new programs developed to solve any of the challenges faced by community colleges in the next decade must include these three factors in consideration of the challenging economic and educational times: (a) be scalable or able to positively effect and serve all students; (b) provide better outcomes as

supported by research; and (c) be able to get the program done for low investments of the college's resources of time, staff, and money.

Focusing on the development of constructive feedback practices meets the parameters of this college district's concerns and the three factors important for any program to be successful for 21st century student success. Ensuring that faculty understand and embrace effective feedback practices would help to improve the academic success rates for all students who have ever taken a developmental education course at this college and equip them with skills for managing the learning they are doing now and the learning they will do in the future.

Guiding/Research Question

In this project study, I attempted to address the local problem at a large community college in the Southwest with high numbers of newly enrolled students needing to take developmental education courses and a historically low number of those students who persist to leave the college with a degree, career certificate, or credits to transfer to a 4-year degree program. Student-directed reforms had not impacted the course and degree completion rates. Instructor feedback practices influences on academic achievement. Feedback practices can be either destructive or constructive for student learning and engagement. The most effective instructor feedback practices focus on students' abilities to use feedback to develop self-directed learning practices, which increase and improve future learning and academic achievement.

The challenge is for community college instructors to be knowledgeable and equipped to recognize both kinds of feedback and be willing to pursue, adapt, and model effective feedback practices that increase learning. It was not understood what the faculty

at this community college knew about orchestrating constructive feedback practices and eliminating destructive feedback practices in their developmental education courses. Changing reform perspectives to equip college faculty with an understanding and skill set for giving and receiving constructive feedback could make a difference in student academic achievement leading to higher course and degree completion rates in developmental education courses and in all courses taught at this community college.

The following research question is in alignment with the research problem and purpose of this study: How does a select group of community college faculty perceive feedback? One broad, open-ended research question was posed to focus the study on the information given in the interview as well as to allow for adapting the direction of the interview to emerge from the data (Bogdan & Biklen, 2007). Probing questions were asked as necessary for clarity, understanding, meaning, and to get more in-depth information. As the data were being collected and analyzed, the interview question was refined and modified and additional questions posed to fit better with how the study was framed by the data (Stake, 1995).

Review of the Literature

This literature review provides research support for teaching community college instructors how to use constructive feedback to increase learning and engagement for all students, especially for students enrolled in developmental education courses. This literature review is divided into seven parts: (a) the conceptual framework for the study, (b) the importance of feedback, (c) feedback for community college developmental education, (d) feedback for learning goals, (e) feedback for instructor learning, (f) feedback for college students, and (g) feedback within a culture of continuous

improvement. This literature review includes a discussion of the current conversations in the field of feedback. I used the following databases to find literature: ERIC, PsychINFO, PsycArticles, Education from Sage, and Educational Research Complete. Search terms included *adult learning, constructivist theory, feedback, feedback for learning, effective feedback, self-directed learning, mindset, academic performance, developmental education, community college faculty pedagogy, community college student learning, culture of continuous improvement, culture of care, neuroscience of learning, and noncognitive factors*. Most of the articles were recent research within the last 5 years supported by seminal research.

Conceptual Framework

This qualitative study is conceptually framed through the constructivist and social constructivist theories. According to the constructivist theory, learning is an active process where the learner must make sense, understand relevancy, and make meaning of new information based on past learning experiences while evaluating and understanding ways to integrate and use the new ideas (Savery & Duffy, 2001). Learning is an internal cognitive activity where the individual must make sense and meaning of new learning in context through making connections from past learning. Misunderstandings and mistakes can come from this process as each person makes his or her own meaning from new learning rather than just imitating and remembering from another person.

Social learning with and from other people rather than the individual making meaning of new learning alone is the social constructivist theory. Social constructivist theorists believe that meaning is constructed from a social experience of reciprocal dialogue and action between the instructor and the learners (Merriam, Cafferella, &

Baumgartner, 2007). The instructor is part of the learning dialogue, acting as a conductor and facilitator of learning rather than just a transmitter of information. Learning is a process of being a part of a culture of learning that requires purposeful, reciprocal teacher intervention or feedback. The instructor supports the student to construct meaning for new learning.

Vygotsky (1978) created the social constructivist principles to show how learners can stretch to make meaning beyond their current understanding with the support and collaboration of another person with more expertise or experience called the “more knowledgeable other” (MKO). The learner’s current knowledge and skills are the starting point, according to Vygotsky’s zone of current development (ZCD). The instructor or other students support the learner in constructing new learning through stretching to make meaning through reasoning and problem solving (Vygotsky, 1978). Feedback is part of an active learning process of collaborative engagement and support between the instructor and the learners. Learning is constructed through an internal construction of meaning as well as a cooperation and communication between both instructors and students as they interpret and seek meaning together by making connections between past understanding and new learning.

The context where the social learning takes place impacts the learning. Adult learning is “shaped by the context, culture and tools in the learning situation” (Hansman, 2001, p. 45). These culturally driven technical or psychological tools drive social meaning for the learning (Vygotsky, 1978). In addition to the context of the learning, attitudes and beliefs are also influences that individuals use to make meaning of new learning.

The academic discipline of mind, brain, and education science combines recent neuroscience, psychology, and education research about how the brain learns and informs teaching practices to the constructivist theory (Fischer et al., 2007; Tokuhamas-Espinosa, 2008, 2010). When the brain actively constructs meaning with learning, new physical connections are made between neurons and neuronal networks (Doidge, 2007; Draganski Gaser, Busch, & Schuierer, 2004; Lomo, 2003; Tokuhamas-Espinosa, 2010, 2011). The ability of the human brain to change and make new neural connections from experience is called neuroplasticity. Neuroplasticity is named as one of only five concepts of the new academic discipline of mind, brain, and education science (Tokuhamas-Espinosa, 2010, 2011). Zelikowsky et al. (2013) found that when the hippocampus, which is the seat of learning and memory, is damaged, some new learning is able to happen because the prefrontal cortex takes over in place of the hippocampus. This means that all human brains can change and make new connections through new learning.

New connections are maintained and strengthened through experiencing and using the learning over time. Strategic, deliberate practice makes the new connections stronger every time they are experienced so the particular learning becomes more efficient and proficient, eventually even automatic (Doidge, 2007). When learning occurs, the brain physically changes by adding and then strengthening new neural connections and neural networks (Doidge, 2015). These changes and enhancements to the neural network of the brain through learning can occur throughout most of a person's lifetime.

The Importance of Feedback

The human brain uses feedback to be able to make adjustments, evaluate next steps, and maneuver in life through changing and unpredictable experiences. Feedback allows human beings to get information through the five senses, process it to get more information, and then go outside of itself to gather more information from other people, time, and space to construct new meaning built on a foundation of prior knowledge. Feedback makes it possible to adapt, change directions, and problem solve in complex dynamic ways that are unique to humans alone. The “ability to grasp, process, and respond to information about the world allows people to follow a specific purpose” (Safford, 2013, p. 4). Using empirically grounded feedback practices based on how the human brain learns in community college courses provides a framework for dynamic learning and developing students into self-directed learners.

Feedback provided to learners through dialogue and reciprocal interaction ignites a sense of progress for the learners (Zull, 2011). The sense of progress sends a jolt of the neurotransmitter, dopamine, to the reward center of the brain which brings a sense of well-being and pleasure. Through this process of active learning using feedback, the learner becomes more interested and invested in the process of the learning.

Feedback is the part of a formative assessment process in college courses that provides timely, constructive information to both instructors and students in order to adjust the direction of the teaching and learning to increase student-regulated learning and academic achievement. Constructive feedback practices lead to and support the development of self-regulated learners (Washburn, 2010). Self-regulated or self-directed learners are the most effective learners because they use feedback to improve personal

skills and learning, as they seek out feedback when they need support to bridge the gap between their current learning and their desired learning goal (Butler & Winne, 1995). Learning through feedback “enables good habits to be reinforced and faulty ones to be corrected” (Ramani & Krackov, 2012, p. 787). Specific, constructive feedback that is open mindedly received and considered by both instructors and students is a powerful influencer of learning and engagement.

There are several purposes to implement constructive feedback practices in community college courses. Constructive feedback can be for learning, as assessment of learning, and finally it can direct the next steps to take towards a learning goal (Earl, 2013, location 504). According to Nicol and Mcfarlane-Dick (2006), in order for students to become self-directed learners they must learn to use assessment and feedback to monitor and evaluate their own work and the work of peers.

The ultimate goal of all feedback should be to empower students to develop the skills to control and take responsibility for their own learning so they improve on the next learning challenge and learn skills that will be beneficial for all future learning. The purpose for using intentional, strategic feedback in college courses is to provide information by both instructors and students for evaluating learning in time to adjust and improve the next learning experience (William, 2011, 2012b). The purpose of the feedback process is to increase understanding and learning while developing personal learning skills rather than to determine grades or ratings (Heritage, 2010; Wiggins, 2012).

The several inclusive parts of formative feedback practice include not only consideration of how the feedback will be used, but also other factors such as learning new concepts and strategies, planning for obstacles and challenges to learning, in addition

to learning from failures and mistakes that result from trying something new (Stakes, Contreras, & Arbesu, 2012). Feedback is a process for increasing learning and understanding, reflecting on learning, and evaluating learning for both students and instructors. All these aspects of feedback lead to the student becoming equipped to realize and take control of their own learning and learning challenges.

Feedback should be shared and considered while the learning experience is still going on and while there is still time to change the student's thinking through consideration of the feedback and then applying the new learning to demonstrate better performance. According to Butler and Winne (1995), the timing of the feedback is important to its effectiveness for student learning. It is useful to energize the learning and teaching process if it is given soon after the learning is demonstrated and while there is time to adjust the learning and thinking and demonstrate new and increased learning.

This is in contrast to feedback information being transmitted to the learner by another person, usually the instructor, after the learning is over or an assessment has been administered. Then there is no time to dialogue about the learning to refine understandings and then apply the new learning to new experiences. The timing of the feedback is instrumental in determining if it is part of formative or summative assessment (Black & Wiliam, 1998; Earl, 2013; Hattie, 2009, 2012b, 2012c; Wiggins, 2012). Formative assessment informs and increases learning within the learning process while summative feedback evaluates the learning after the learning process has ended.

Formative feedback increases learning in college courses. Research has found that students who evaluate their learning through a formative assessment process learn more than students taught in settings where these feedback practices are used only with

summative assessment or not used at all (Black & Wiliam, 1998; Brookhart, 2012; Hattie & Timperley, 2007; Popham, 2008). Formative assessment is a learning process in which both instructors and students participate in ongoing evaluation of learning throughout instruction, after instruction, and again after every time feedback is given until the end of the learning experience or course. Ongoing and iterative feedback between the instructors and the students is beneficial so changes can be made that will improve achievement toward the students' personal and curricular learning goals as well as the instructor's teaching goals throughout an entire college course.

Numerous studies in the literature have established that specific, intentional feedback has a significant effect on learning and engagement (Black & Wiliam, 1998; Boud & Molloy, 2013b, 2013c; Brookhart, 2008, 2012; Butler & Winne, 1995; Carless, 2008, 2013; Chappius, 2012; Ende, 1983; Evans, 2013; Hattie, 2009, 2012b, 2102c; Hattie & Timperley, 2007; Kluger & DeNisi, 1996; Silver, 2012). Hattie (2009, 2012b) found through his synthesis of the research findings of more than 900 meta-analyses based on millions of students relating to factors effecting academic achievement “that feedback is among the most powerful influencers and has the highest effects on student learning and achievement” (p. 173, p. 18). Different types and styles of feedback strongly impact the powerful effect on learning in varying degrees both negatively and positively. Feedback must be an intentional, specific, strategic, ongoing learning process within a reciprocal, dialogic student-instructor relationship in order to make the greatest difference in academic achievement and developing self-regulated learners.

The feedback factors that affect learning and engagement include the purpose, the direction, the timing, and most importantly, the language used to give feedback (Hattie,

2012b). Kluger and DeNisi (1996) discovered that feedback can be a double-edged sword, either destructive or constructive to learning, engagement, and academic achievement. According to Wiliam (2012a, 2012b), feedback should emphasize specific learning and learning skills that will move the learner forward toward their learning goals rather than only communicating what they got wrong. Feedback from the instructor to the student should be task oriented and process directed rather than labeling a person by their behavior. The ability of instructors to evaluate and discriminate between destructive and constructive feedback practices comes from a process of intentional attention, in addition to strategic, deliberate practice and learning from mistakes during the process of conducting feedback for learning within the course content.

Giving constructive feedback to students includes providing information and understanding about the tasks that make a difference in light of what the student already knows, understands, and how they construct meaning. The feedback must also identify student misconceptions and confusions. According to the research, feedback should be “non-evaluative, supportive, timely, and specific” to the learning task (Shute, 2008, p. 154). Feedback should be timely, occurring in time for adjustments in thinking and performance to increase learning. Instructor considerations for giving the most impactful feedback include understanding the characteristics of the learner, the timing of the feedback, the words to say that increase learning, and those things to avoid doing or saying because they disrupt or turn off learning.

Different types of effective feedback have different purposes. Hattie (2012b) describes these three types or levels of feedback: task feedback gives information about how to improve a specific task in the learning process, process feedback concerns the

strategies necessary to understand and use the learning, and self-regulation feedback directs the students' attention to their own actions and beliefs that impact the process of learning that specific information. Descriptive feedback is another type that describes what the student can currently do to establish personal learning goals along with support to continue moving understanding of the course content through maturing necessary noncognitive factors to move closer to the learning goal (Farrington et al., 2012; Shute, 2008). This type of feedback influences the student to consider the information shared and use it to adjust future practices that will improve and increase learning. Comparative feedback is assessment-based feedback giving a grade, score, or rating in relationship to other learners after the learning process has ended. Grades, marks, and comparison words or ratings that negate the effectiveness of feedback and discourage the learner from considering the feedback to increase future learning are not formative (Shute, 2008). Task feedback, process feedback, self-regulation feedback, and descriptive feedback are more effective to promote learning and reflection. Comparative feedback gives information at the end of the learning process about how the learning compares to others and to the course parameters.

Feedback is both an intrinsic and extrinsic process. Feedback consists of internal thoughts that lead to external feedback and interpretations of feedback from others. All of these types of information influence learning and the belief that learning can occur for both the instructor and the student. The internal feedback are the thoughts or voices going through the mind that lead to physiological, psychological, and behavioral changes in humans and then lead to more internal feedback (Billman & Heit, 1988). This inner dialogue within the human brain is often subconscious and can become habitual

whenever triggered by certain emotions or experiences according to Cheal (2013). The inner voice can be very critical and self-defeating or a voice of reason and encouragement that is helpful in challenging learning situations (Dweck, 2010; Purkey, 2000). It is important for instructors and students to learn to hear and listen to their inner voice and redirect the thoughts that are detrimental for learning to thoughts that will energize and drive perseverance and resilience when learning is challenging.

The inner dialogue influences the persons' beliefs about their own abilities in connection to learning situations as well as affecting and influencing the belief systems and learning of others around them (Dweck, 2006, 2010; Purkey, 2000). Dweck (2007b) named the two inner belief systems that drive or disrupt effort and perseverance for challenging learning as mindsets. A person with a *fixed mindset* believes abilities to learn and master specific learning cannot change. It is the belief that a person is born with certain abilities and nothing can be done to change those abilities. A person with a *growth mindset* believes that all abilities and learning are dependent on working hard through deliberate, strategic practice over time.

Considering and reflecting on feedback from others is a useful strategy for a person with a growth mindset to further learning goals especially when the learning is hard. Teaching the inner voice to think "feedback" instead of failure when analyzing experiences with inner dialogue can change the learning from one of negative defeat to one of hope centered on learning from mistakes (O'Connor, 2011). Effective feedback practices must consider the strong transformative effect that internal dialogue has on learning and also on accepting and using external feedback.

Challenges, obstacles, and hard learning often cause students to question their own abilities to learn and even to continue on the learning journey. Effective feedback when someone is having difficulty or not understanding the content keeps them “believing that successful learning is within their reach” (Halvorson, 2011, p. 225) and through effort and persistence they can learn the material (Dweck, 2006, 2010). Valuing effort and perseverance to continue when it is hard is important for supporting learners to stick it out and keep trying new strategies until the new learning is understood (Elmore, 2013). Taking away a learners’ sense of control over the learning situation leaves them feeling powerless and without hope to be able to change which can lead to learned helplessness. Feedback that supports taking responsibility for thinking and behavior whether it is a success or a failure empowers learners to see themselves as capable and in control to persevere through challenges, obstacles, and frustration. Self-directed learning equips learners with personal and learning skills that they can use in future learning situations, in work, and in life.

External feedback is any and all information from outside sources that influences thinking and behavior in response to a previous performance, and which, in turn affects the internal feedback of that person. It is any combination of language, visual, auditory, tactile/kinesthetic, smell, or taste information from the environment or other people. External feedback can also be the externalizing of an instructor’s or a student’s own thinking and understanding connected to personal learning or another person’s learning through behaviors, attitudes, or the use of oral or written language.

Attention to specific feedback strategies facilitates the development of self-assessment and reflection about learning, giving opportunities to practice self-regulation

and then reflect on the resulting learning, both for the instructor as a learner and as provider of effective feedback and for the student who is constructing meaning with new learning. These are the benefits of recognizing, understanding, and attending to the importance of the dance between internal and external feedback so it is intentional and effective and leads to the greatest gains in learning for everyone. The words used in internal thought processes as well as for providing external feedback to others affect the beliefs and the direction of the learning process.

The words and language used to share feedback information strongly affect the receivers' reception of feedback information and even the beliefs concerning their own ability to do the learning. The specific words used for feedback are influential in disrupting or increasing the learning process. The verbal and written words used to give feedback can make a difference for the students' response to the information (Dweck, 2007b). Giving meaningless praise such as "good job" or "fantastic work" or personal criticism such as "you are lazy" or "you are sloppy" shuts down the ability to consider or to learn from the feedback. These general labels serve to cement the feeling of doing the work right or wrong without information about what to do in the future to further learning. All feedback should support and direct the learners to take ownership and responsibility for their own learning, actions, and the negative or positive consequences of them.

According to Brookhart (2012), the most effective feedback information is task oriented rather than person directed, as it helps the learners and the instructor to know what to change, adapt, refine, or discontinue as they work towards a specific learning goal. Specific information that can be repeated in the future rather than praise is more

likely to lead to new learning. Meaningless praise and personal criticism should be separated from intentional feedback practices that increase learning and engagement (Yeager, Paunesku, Walton, & Dweck, 2013). Meaningless broad categorizing (“You are smart,” “You are good at math,” “You can write”) even when positive, can be confusing to the student and supports a fixed mindset rather than a growth mindset (Bronson, 2007). The feedback should describe what specifically needs to be repeated to continue to be successful including both cognitive and noncognitive factors (“You stuck it out when it was really hard,” “You used different strategies until you found one that worked for you”). Emphasis should be placed on characteristics that support learning especially when it is hard and frustrating like effort, practice, persistence, and strategies. Specifically describing and celebrating successful understanding and use of new learning increases future learning and engagement.

Increasing the complexity or expanding on specific details when giving feedback rather than just giving a correct answer is best for transfer of learning but not for rote recall. Feedback that gives an explanation for what needs to be done next is more effective than feedback that just gives a correct answer for applying the learning in new contexts and applying it in new ways (Butler, Marsh, & Godbole, 2013). The complexity of the feedback in comparison to just knowing the correct answer does not affect the ability to remember the correct answer only to use that answer in a new learning situation.

Feedback to drive learning and improvement when performance has failed or fallen short of the requirements should be specific and given from a positive perspective. A positive perspective includes sharing the belief that learning comes from mistakes and

that learning and understanding are still possible through reevaluation and making adjustments in both cognitive and noncognitive factors. Being specific includes giving a detailed visual picture, model, or example of what to do next so the thinking or behavior can be repeated or tried in the future and the learner will feel empowered to be able to do it (Halvorson, 2011). The use of generalizations that can ignite self-doubt are not helpful to further learning or to promote change and learning from mistakes. Avoid “You are a horrible writer” and instead give a specific behavior to improve such as “Use a separate paragraph for each of your points.”

Feedback should be positive and give information to equip the learners to understand what they should do next time rather than what not to do. Words like *don't*, *shouldn't*, and *can't* should be substituted with words that give information about what should be done so it can be repeated by the student independently. A response to a student's use of these words can be to add “yet” to the comment. For example, the student says, “I can't do these kind of math problems.” And the instructor or another student response should be “Yet! Which means I can't do these kind of math problems yet!” Feedback should always drive the learning and thinking forward toward the learning goal.

Minimalizing past performance by praising effort or attempts that did not get the desired results or did not meet the required parameters disrupts motivation and engagement in the learning process (“Oh well. You worked hard on that”). The student can interpret the feedback as saying that no amount of effort will make a difference to getting their desired learning outcomes. The student's perception of lack of their control of and ability to do the learning can cause quitting, disappearing, or withdrawing from the

college course (Blackwell, Trzesniewski, & Dweck, 2007; Brookhart, 2012). Dismissing negative feelings diminishes the learner's power or sense of control to be able to do anything about the situation. Direct the learner's thinking and attention through questions to take ownership of all emotions so new strategies can be employed to improve and increase the learning outcome the next time around.

Asking questions as feedback can guide learners to consider and choose options and directions that will lead to further learning and better understanding. Essential open-ended questions posed by the instructor can lead the student to reflect on past and present learning and to realize adaptations necessary to optimize future learning (Elder & Paul, 2006; McTighe & Wiggins, 2013). Effective feedback "requires that a learner has a goal, takes action to achieve the goal, and receives goal-directed information about his or her actions" (Wiggins, 2012, p. 13). These three feedback questions support thinking about the learning process and how to take ownership of it:

1. What is your learning goal?
2. What do you understand so far?
3. What do you still need to learn and practice? (Wiliam, 2011, 2012a, 2012b)

In addition, these three questions guide the direction of the next steps in the learning process:

1. What are you doing that is helping you to be successful on this learning journey (Keep)?
2. What do you need to stop doing or remodel so it will support learning (Stop)?
3. What do you need to start doing that you have not been doing (Start)?

When learners see a discrepancy between a predicted goal and actual present performance, they are motivated to achieve the goal (Kluger & DeNisi, 1996). The responses to the questions and how the instructor responds to the students' answers is the most impactful for propelling learning and thinking forward. Feedback can equip the learner with reflection experiences that mature self-management skills, deepen understanding of content material, direct the next steps, and lead to becoming a more self-directed learner.

Feedback to students about how their brains learn is impactful for understanding the learning process (Dweck, 2006, 2010). Students need to know that the human brain is neuroplastic, which means it physically changes by growing new and stronger neural networks through experience and new learning (Blakemore & Firth, 2005; Doidge, 2007; Sousa, 2010). When given feedback, the brain gets a burst of pleasure chemical called dopamine which increases the likelihood that the student will want to continue that learning (Glick, 2011). Motivation for practice comes from feedback that is considered and then acted upon in a new learning experience.

It is through strategic, deliberate practice that new neural connections are developed and strengthened and the adult brain changes. Without practice, these changes in the neural networks do not strengthen and may “reverse when people do not have the opportunity to use the skills they have developed” (Van Dam, 2013, p. 32). Students who understand basic things about how the brain learns better understand that the physical brain changes through all learning and experience. This knowledge empowers them as self-directed learners.

Frustration and struggle must be valued as necessary steps in the learning process to learn, remember, and be able to retrieve new learning as well as to make the new connections efficient and proficient. Feedback to support going through struggle and frustration as part of the learning process is valuable for all learners to understand. Often instructors will try to alleviate or minimize frustration and struggle by saying this is easy and the student can do this rather than addressing the fact that all new learning is hard and is a struggle (Willingham, 2009). It is part of the process of making and strengthening new neural connections and expanding neural networks through new learning. The learning process gets more efficient and proficient or easier through practice and after time is spent using the new learning in many ways.

The timing of feedback is important for the feedback to be valuable and useful. It must be timely, meaning that it needs to be in time to connect to new learning to make sense and be relevant and meaningful so it can be implemented immediately (Brookhart, 2012; Hattie, 2012c; Pollock, 2012; Sadler, 1989). It needs to come in time to be able to use it to change and rethink the information so different actions and behaviors can be practiced and learned while there is still time to bring the learner closer to the specific learning goal. Formative feedback during the process of learning is the most valuable feedback (William, 2011). There needs to be opportunity to make changes to the performance of the learning in connection to the feedback before it is submitted for a final evaluation.

Random feedback given without understanding or intention to the specific ways to give effective feedback can have a negative or positive effect on future learning and can even disrupt the students' learning and thinking process altogether. Like shooting a

gun randomly in the air and not knowing where the bullet will go, who it will hit, or how it will affect those in the environment, ineffective feedback can negatively affect anyone in the environment. Everyone in the environment is affected by the feedback they hear. People make unconscious determinations of the safety, trust, and respect for learning that is evident in that environment as well as assuming instructor and peer attitudes and beliefs about how learning is constructed there.

Teaching faculty often believe that it is the quantity of feedback that is transmitted to the student that is important for learning rather than the quality of the feedback that is exchanged between instructors and students that is most impactful (Hattie, 2009; Hattie & Timperley 2007). "...when done right, feedback is likely the most effective tool educators have" (Scherer, 2012, p. 7). Intentional attention to the quality, type, and purpose of the feedback has a great positive impact on learning and engagement for all students while preventing the negative effects that can disrupt and extinguish learning.

Feedback has little value for learning when there is no opportunity to use it, to incorporate it into practice, or to increase and cement the learning that leads to improvement in performance or mastery. Most students do not pay attention to the time intensive feedback instructors often give on summative evaluations. Intentional, timely feedback should come from instructors, peers, and self-evaluation before final performances. Just in time feedback leads to increased learning and engagement and improved higher level thinking skills while maturing the ability to self-evaluate and self-manage. Increased learning and engagement leads to higher academic achievement and student success.

Feedback for Community College Developmental Education

Feedback has a significant influence on academic achievement for all learners. Black and Wiliam's (1998) meta-analysis of formative assessment found that learning environments that use feedback to evaluate and grow learning show larger effect sizes than most other educational interventions (Merry, Price, Carless, & Taras, 2013). Black and Wiliam (1998) found that formative assessment through feedback helps low achievers even more than other students, because the feedback reduces the deviations in achievement between students while increasing relationships, learning, and achievement overall. The use of specific, reciprocal feedback can be an impactful teaching practice for instructors of developmental education courses.

Constructive feedback has a powerful effect on academic performance for new to college students. Goals of feedback that focus on first year college students include “focusing on learner empowerment (the ability to monitor, manage and evaluate one’s own learning), bringing together the academic and the social experiences so they help learners to develop a sense of identity and belonging” in the college culture (Nicol, 2009, p. 4) while understanding and using new content knowledge. Self-directed learning in addition to learning with and from other people increases persistence and resilience within educational experiences.

Learning to consider and evaluate feedback concerning both cognitive and noncognitive (behaviors, skills, attitude and strategies) factors is important for students to be successful in college and in life (Farrington et al., 2012). Academic achievement is only possible through college instructors’ attention to the whole student so self-management skills can be honed to use, learn, and remember challenging new content in

addition to mastering the learning in the course. These skills equip students to be successful in future courses in college, in the world of work, and as life-long learners.

Feedback impacts learning and academic achievement in different ways depending on many variables. The power of feedback can be both negative and positive (Brookhart, 2012; Chappuis, 2012; Dean, Hubbell, Pitler, & Stone, 2012; Fisher & Frey, 2012; Good, 2010; Goodwin & Miller, 2012; Hattie, 2012b; Hattie & Timperley, 2007; Himmele & Himmele, 2012; Johnson, 2012; Lalor, 2012; Marzano & Heffebower, 2012; Nichols, 2012; Pollock, 2012; Sambell, 2011; Tomlinson, 2012; Tovani, 2012; Wiggins, 2012; Wiliam, 2012a, 2012b). A negative or positive impact on learning and engagement comes from the purpose and quality of the feedback. The purpose of constructive feedback in college developmental education courses is to increase knowledge and understanding to build student competency and confidence in specific content areas or in a general skills (critical thinking, creativity, and problem solving), personal learning traits or a noncognitive factors (self-management), and in the ability to reflect on and self-assess their own learning and to learn autonomously (self-directed learning; Farrington et al., 2012).

Destructive feedback shuts down learning and disengages the learner from persisting through the challenging process of making meaning with new information or reflecting on what could be done differently next time to get closer to a learning goal in developmental courses. College instructors who strive to positively impact learning and engagement should be continually developing skills to recognize and evaluate the most effective feedback practices for supporting student learning in all of these areas.

Feedback for Learning Goals

In all cases, feedback should help both instructors and learners to connect to specific self-determined learning goals, to recognize how the present personal performance aligns with that learning goal, and to understand what the learner needs to do to continue on the learning journey until the learning goal is met (Halvorson, 2012). Learning goals should be set and modeled at the beginning of a learning period whether it is a class period, week, module, or semester, first by the instructor and then personalized, embraced, and continuously evaluated by the learner (Dean et al., 2012). Often curriculum goals and outcomes are considered important information for the instructor; however they are not intentionally interacted with by the learners to guide them to set goals for their own learning.

Setting personal goals for a specific time period and then later evaluating the goals to determine how their own understanding and performance compare to the goal they set for themselves is an important part of the feedback process. It leads to figuring out what is the next necessary step to take to get to that goal. That also includes the learner's prediction of the effort and understanding that it will take to make the learning goal. At the end of the learning experience, another self-evaluation process compares the predictions to the actual learning that occurred. This type of learning experience gives the learner the ability to see the connection between the effort put into the learning experience and new learning that comes as a result of that intentional effort so they can take ownership for defining and executing the next step in the learning process.

Feedback research shows that feedback only, without grades or scores, has the most power to propel learning toward a preset learning goal. It is feedback alone that

propels the learner to consider what steps to take to continue or increase learning (Race, 2010). Grades and marks negate the learning power of the feedback words. The learner's attention is directed towards the mark or grade instead of the more important information for how to move to the next step on the learning journey. The learner feels finality and no reason to continue in the learning process when given marks or grades even when feedback information is also given.

Scores and grades are a final appraisal given by an outside source, usually an instructor, who evaluates learning and performance in comparison to others in the same course and to the predetermined outcomes desired by the instructor for that course. It is a final or summative evaluation for a specific assignment or an entire course learning that usually cannot be changed with more intentional thought and consideration. Learning brains do not consider grades or scores to be helpful for continuing engagement in the learning. Information that helps the student to propel learning forward and gives specific directions on what can be done to get closer to the learning goal is effective positive feedback.

College instructors should encourage the learners to evaluate and adjust learning goals to include new behaviors that will move them along on their learning journey. Feedback should support the learner in evaluating the present learning and how it compares to the desired learning goal. This process includes recognizing and repeating the use of strategies that are working to increase the learning and performance towards the learning goals. Collaboration between the instructor and student and between students and students clarifies the best new strategies and next steps to maximize the learning in the future.

Instructor sincerity when giving feedback is important to build trust with the learners so they feel valued and safe to learn from mistakes as they work to reach their personal learning goals. An instructor, who exudes warmth and competence through facial expressions and an open body position with arms out stretched rather than crossed, drives a sense of security, builds trust and balances stress and is most likely to influence the motivation to learn (Cuddy, Kohut, & Neffinger, 2013). Matching constructive feedback words with a supportive and sincerely caring tone of voice and body language develops learning relationship between learners. Feedback should value and focus on real effort and perseverance along with deliberate, strategic practice that leads to proficient and efficient learning of new concepts, ideas, and skills despite the mistakes and failures that shape the learning along the way.

Feedback words should confirm what has been learned and exhibited successfully. Clearly identifying the learning skills and abilities that are moving the learner along the learning journey identifies for them what to continue to do to move towards accomplishing their learning goals. Ownership and responsibility for the success should be directed to the learner so they feel power and control to do it again while building confidence to continue to try new things. Feedback words that direct learners to try new and different strategies also propel learning forward toward learning goals.

Recognizing and preparing for possible obstacles and challenges that impede or slow learning and reaching learning goals is called realistic optimism (Halvorson, 2012). This self-evaluative strategy empowers the learner to be flexible and change direction through developing strategies to continue on the learning journey and reach the learning goals despite obstacles and challenges that may interfere. The words used by teaching

faculty to give feedback can further a fixed mindset which discourages, disrupts, and decreases learning and engagement. Contrary to that result, the words used by teaching faculty can encourage and increase the growth mindset to empower the learner through challenges and obstacles and staying on the learning journey towards specific learning goals.

Questions and learning to question for both the learner and the instructor are paramount to being able to contemplate and practically use new learning. Questions guide the learner to think and take responsibility for the learning and the outcomes and to recognize that what they do improves the learning outcomes as well as to choose and implement new learning strategies (Himmele & Himmele, 2012; Tovani, 2012). Telling the learner what to do rather than asking them guiding questions takes away the control and ownership for the learning.

Asking questions challenges the learner to think and decide what to do and to be equipped to try a new strategy independently the next time. For example, these questions could include, “What can you do next? What can you do differently next time? What strategy can you try?” According to Fisher and Frey (2010b), questions help to check for understanding for the sole purpose of knowing what the student understands and of helping the learner to see what more they need to know or experience to complete the learning goal.

In addition, the right questions help to find misconceptions or errors in the understanding that lead to errors in performance. Both cases lead to the student considering what is known and not known “followed up with a prompt or a cue to scaffold the student’s understanding” (Fisher & Frey, 2010a, p. 17). Asking questions

instead of giving advice or telling the learner what to do supports them so they can grow as an autonomous learner and as a practitioner of giving and receiving feedback.

There are several types of feedback questions that lead to the understanding and appropriate application of learning. Some of the questions, according to Fisher and Frey (2010a, p. 29), are learning or experience questions (coming from a reading or an experiment or discussion) while others are in the head or brain questions like predicting, inferring, naming themes, and making connections to past, present, and future learning. Recognition of when and what questions to ask of yourself or others to propel learning comes through experience, modeling, and strategic practice by both instructors and students. Questions are an impactful way to build choice, autonomy, critical thinking, problem-solving, and reflection into the learning process for everyone.

Feedback for Instructors

An important research finding is the impact and power of feedback received by the instructor from the student about the learning experience. Specific feedback from students helps to improve understanding about what particular students can and cannot do in relation to a specific learning target so instructors can adapt and make changes to improve the student's learning and adapt their teaching (Hattie, 2009; Hattie & Timperley, 2007; Nicol & Macfarland-Dick, 2006). The challenge is for instructors to listen to student feedback as valuable information to consider the learning process. This feedback cycle supports the instructor to use student feedback to refine their teaching practices so they meet the learning needs of their students growing into self-directed learners.

Hattie (2009) called this model of learning, Visible Teaching and Visible Learning. He described it as “when teachers see learning through the eyes of the students and the students see themselves as their own teachers” (p. 238). It required instructors to put themselves in the place of their students to empathize with the struggle it takes to develop, integrate, and connect learning to make new meaning about the lesson. Feedback from students to teachers involved information and understanding about the tasks that make a difference in what the teaching faculty already understand, what is misunderstood about the student learning, and how the students construct meaning (Hattie, 2009). This happened through practicing new learning in new contexts while feeling safe to work through mistakes as they arise and supported by frequent, reciprocal feedback.

Learning through feedback is a dynamic, multidimensional process of working through frustration and struggling to understand new learning. It requires development of safe learning cultures that value mistakes and failures as necessary steps in the learning process and use iterative feedback as information to refine and perfect new understandings. Excitement and interest in the acquisition of new knowledge and skills while moving closer to learning goals drive this process for both the students and the instructors (Hattie, 2009, 2012b; Hattie & Timperley, 2007). It matters for everyone’s learning when instructors see learning through the eyes of their students, and students see themselves as teachers as well as learners.

The feedback process gives information to the instructor on how to adjust future teaching to better fit the learning needs of their students. This learning experience takes place through an ongoing, dynamic, reciprocal, and iterative feedback process that

benefits everyone in the learning environment and is “integral to learning and teaching itself” (Sambell, 2011, p. 5). Feedback leads to complex learning that involves instructor to self-information and evaluation, instructor to student information and evaluation, student to self-information and evaluation, student to student information and evaluation, and also student to instructor information and evaluation. The learning that comes from feedback helps every person who is a part of the process to learn and to self-evaluate so they are all constantly improving and moving forward on their learning journeys.

Instructors must examine their own thinking and practices to see how their mindsets influence their words and actions. The teachers' belief systems or mindsets can influence their own personal learning and abilities as well as also strongly influence the mindsets and learning of their students. These beliefs come from the subconscious and conscious mind and connect to the specific words humans speak to themselves when they find themselves in challenging situations or when obstacles and setbacks get in the way of learning goals. This inner speech or dialogue names and labels the abilities that person has and what the chances are to finish and be successful especially when faced with obstacles and challenges. Those thoughts and beliefs directly relate to a person's willingness to put in effort and to persevere through deliberate strategic practice over time to reach learning goals. Mindset affects personal beliefs about the ability to accomplish goals especially in light of challenges and obstacles.

Mindsets can change through intentional attention to inner dialogue and then deliberate, strategic practice through speaking in growth mindset language when faced with a challenge. The feedback that is given to others should support and encourage a growth mindset in them.

Feedback for College Students

The most powerful way to support learners to become interactive, responsible partners in the learning process is through mutual instructor and student value for constructive feedback. According to Nicol et al. (2014), students who develop abilities to evaluate and assess their own learning and that of others develop self-regulation skills and higher cognitive skills through collaboration that equips them for future courses and for work and life. Social interactions and relationship building are known to boost executive functioning problem-solving when students take the perspective of another student and engage in learning with that other person (Ybarra, Winkielman, Yeh, Burnstein, & Kavanaugh, 2011). How students interpret feedback, through hearing it, feeling it, or seeing it, is the most important thing for all instructors to keep in mind when giving feedback according to Brookhart (2008). Actively participating in the feedback process and considering the feedback while integrating it into future learning increases academic achievement, builds confidence and competence, and develops self-directed learners.

The intrapersonal feedback or inner dialogue that influences learning and performance connects to an individual's personal belief system about their own abilities and intelligence in any specific learning situation. "Negative self-talk becomes a self-fulfilling prophecy" (Purkey, 2000, p. 3) when allowed to drive belief systems. According to Purkey, internal dialogues are the "interpretive and evaluative thoughts" that define what we are experiencing and what is happening. This is true for the mindsets of instructors and students and how they can influence each other.

These belief systems called mindsets drive a person's willingness to put out effort to overcome challenge and difficulty to learn new things (Dweck, 2007b, 2010). They influence self-regulation (Molden & Dweck, 2006). "When teachers expect students to do well and show intellectual growth, they do; when teachers do not have such expectations, performance and growth are not so encouraged and may in fact be discouraged in a variety of ways" (Rehm, 1999, p. 1). The mindset of the instructor has a profound influence on the feedback that is given, on the reception of that feedback by the students, and on the students' mindset. These mindsets influence the effort put into and the direction of future learning for both the instructor and the students.

Mindsets matter, and they are influenced by feedback especially when the learning is challenging and frustrating. The student or instructor with an entity mindset or fixed mindset is concerned with looking smart at all costs. According to Dweck (2006, 2010), in new or difficult learning situations, people with a fixed mindset will shut down, quit, disappear, and even cheat or lie to appear competent or smart. They often do not see that they are able to do anything to change the situation or to be able to understand and use the new learning.

In contrast, the student or instructor with the incremental mindset or growth mindset sees challenges and difficulties, even mistakes and failures, as stepping stones to learning and improving performance. They value the learning more than the appearance or label of being smart. They see themselves as in control of their own learning and being able to make changes to make desired learning happen. They are able to see hope in the face of obstacles and challenges (Wiliam, 2012b). Recognizing mindsets and directing

thoughts and words of feedback specifically can have a strong impact on a growth mindset and learning especially in challenging situations.

Halvorson (2011, 2012) refined the mindset theory with her own research and connected mindset to the importance and ability to set personal learning goals and then evaluate the present performance in relationship to the desired performance or goal. She calls the fixed mindset the *Be Good* mindset because these students desire to be seen as smart or at the top of a group in comparison to others no matter the cost. Any necessity to put out effort to overcome challenge or obstacles is seen as not being smart. In contrast there is the growth mindset which Halvorson (2012) calls the *Getting Better* mindset because these students are concerned about learning and improving and growing. They embrace mistakes and failures as learning opportunities and intentionally exert effort and energy to master challenging learning and thinking necessary to get to their long term learning goals. The improved learning takes precedence over grades and marks which in turn reflect the increased learning and performance.

The entity, fixed, or be good mindset (Halvorson, 2011, 2012) can negatively influence a person so they believe that they do not have the genes or ability to do certain things no matter how hard they try or persevere, making it is useless to put out energy or attention or effort. This mindset is influenced initially by parents and teachers who give feedback to children at an early age, telling them how smart they are and how talented, rather than labeling the effort, hard work, attention, perseverance, and learning from mistakes that are observed as the children learn. It continues to develop throughout life as a person hears the same message from people in authority reinforced through their own self talk (Dweck, 2007b, 2010). The person with a fixed or be good mindset is concerned

with looking smart at all costs and so will often hesitate to try anything that requires effort, challenge, new strategies, learning from failure, perseverance, or practice as they view those things as attributes of not being smart.

On the other hand students with a growth or getting better mindset (H. G. Halvorson, personal communication, Oct. 16, 2012), recognize that effort, hard work, seeking optimal challenges, trying new strategies, learning from failures, and deliberate practice will ultimately lead to new abilities and skills and an increase in learning along with a higher level of mastery (Wiliam, 2012b). The getting better mindset is ultimately and primarily concerned with lifelong learning and continues to think and ask questions beyond the required learning for an assignment or course objective.

Dweck's (2010) recent work centered on determining how teachers and parents' own belief systems affect the words and language they use to give feedback to others. She has found that random students in the classes of teachers with a growth mindset have higher grades and better course completion than random students who have been in the classes with the teachers with the fixed mindsets. Another example of these influences was found by Dweck (2006) and Rattan, Good, and Dweck (2012). They found that boys are more likely to blame teachers or others for their learning problems, and girls are more likely to blame themselves for their learning problems. This may be because of the way teachers and parents talk to girls and boys differently. They tend to expect and tell girls that they are so smart and to say to them, "Why aren't you learning this or doing this?" With boys they seem to expect poor attention and problems with learning so they say they are lazy or sloppy or not organized when they do not exhibit the desired learning behaviors and attitudes. The positive or negative effect of a teacher's mindset contributes

to the success of students and affects the development of the students' own mindset. These mindsets affect the words and actions used for feedback as well as the interpretation of them by the receiver of the feedback.

Praise does not improve the learning environment or increase learning. Giving general praise as feedback can increase or disrupt learning (“Good job,” “Fantastic,” “Well done”). According to Halvorson (2011), “praise should emphasize behaviors that are under the learner’s control” (p. 230). When praising for behaviors that seem to be unchanging, it can cause learning, effort, and persistence to diminish or be extinguished (Hattie, 2012b). Praise should instead be given for specific characteristics that lead to successful learning such as persistence, strategies, practice, and determination in conjunction with the necessary effort. Specifically naming the behaviors that are being successfully carried out in such a way that they can easily be repeated at another time in another learning experience (“You got the order of all the problems correct,” “The reference list is in correct APA format”) is what is important. The student then understands what can be repeated to continue successful learning.

Praise is giving a very temporary external positive feeling about something connected to the learning. The behavior or performance that connects to the praise is often vague to the learner so they cannot repeat the behavior that will lead to better learning. It can get in the way of allowing the feedback to refine the learning that needs to take place to get closer to the learning goals (Hattie, 2012b, p. 22).

Error correction is the instructor’s ideas about what the student needs to do or change to obtain the learning. Grades and marks come at the end of the learning process and indicate that more learning is not possible or required so feedback has little or no

positive affect at this point. Instead of praise, teachers should notice and comment on grit which is perseverance and passion exhibited while accomplishing long term goals (Duckworth, Peterson, Matthews, & Kelly, 2007). Recognizing perseverance and never giving up or working through struggle and frustration is critical.

Another important aspect of perseverance is that it not only means sticking with a task until the learning goal is accomplished but it also doing what you need to do when you need to do it even when you do not want to. Being able to determine what is the most important priority that needs to be done in a specific time frame builds self-regulation skills. The ability to distinguish between praise and feedback is important as it is specific feedback that is given to students that will increase learning and engagement.

Finally, instructors should model and teach reflective practices to the students so the students themselves can learn to self-assess their own learning and give effective feedback to themselves, their peers, and back again to their instructors. Self-directed learners develop the ability to evaluate and learn from feedback and consequences and then to change behaviors to adapt to the feedback (Foerde & Shohamy, 2011). Feedback should be recursive, which is the beginning of self-regulated learning. It is an “internal monitoring by the student of their own current state of learning” on a task which leads to self-generated feedback igniting the learner to regulate future engagement with the learning (Butler & Winne, 1995, p. 246). Self-directed learners are equipped to be successful in future courses and in the world of work.

Community college instructors should equip students with skills that will help them to successfully learn and be able use the course content while equipping them to develop the skills that will make them successful in future courses and employable after

graduation (National Center on Education and the Economy, 2013). The key to being employable is the ability by the employee to “recognize and address their own learning needs and then share that learning with appropriate others” (Guglielmino & Guglielmino, 2006, p. 21). Students who leave college with the ability to seek and use feedback along with strong self-regulation skills can solve problems in the real world of work and life.

The literature in adult learning supports the need for adults to have autonomy and control over their own learning (Brookfield, 2013; Knowles, Holton, & Swanson, 2005; Merriam et al., 2007). The college instructors’ responsibility when designing learning for students is to “help learners to be able to plan, carry out and evaluate their own learning” (Merriam et al. 2007, p. 107) as they develop and practice skills to become self-directed learners. The ability to have total control or autonomy comes from experience and maturity developed through the support and modeling of college instructors within college courses. Students enrolled in developmental education courses come unprepared or underprepared to college. Learning from and experiencing effective feedback practices within the developmental courses will equip them with skills to develop into self-directed learners.

Self-directed adult learners take what they learn from the process of giving and receiving feedback in one learning environment and apply it to new learning experiences independently. They ask for feedback from others to further their own learning, and they evaluate and use that feedback effectively to increase future learning and academic achievement. College students should learn to give honest, constructive, and respectful feedback to instructors and others to improve practices that support learning in the future for themselves and for the instructors.

This is an important aspect of self-directed learning through feedback. Feedback that an instructor receives from the students might be the most valuable feedback there is for improving teaching practices that support and encourage learning, engagement, and equipping self-directed learners (Hattie 2009, 2012b, 2012c; Himmele & Himmele, 2012; Kaster, 2012). It is also the kind of feedback that is the least likely to be valued and intentional in the community college learning environments.

The responsibility to model and support self-regulated learning is not familiar to many college instructors (Svinicki & McKeachie, 2011). According to Svinicki and McKeachie (2011), it is important for students to be proactive learners by initiating responsibility for their own learning processes, “sustaining motivational beliefs, and delaying gratification” because many of them do not have parents or other support systems around to do it for them (p. 1). Utilizing effective strategies which support academic success in all areas of college and personal life are necessary to acquire the personal goals set when registering for college.

Specific feedback words and practices used by community college instructors of developmental courses can disrupt and negatively impact students’ future learning, or they can be powerful positive influencers of future learning and engagement. It is necessary for all instructors to be aware of feedback practices that disrupt or impede student success, and at the same time be educated and intentional about what constitutes powerful feedback which increases students’ thinking and learning (Brookhart, 2012). The most effective feedback is useful to the student, focuses on the quality of the work and things that can be repeated, adjusted, deleted, or started that will bring the learning closer to the learning goals. Feedback should bring attention to the self-regulation

strategies that students need to bring them closer to their personal desired results through effort and strategic, deliberate practice (Brookhart, 2008).

Another important aspect of the feedback process is to make sure the students realize that their own mindset has a powerful effect on how feedback is interpreted and used in addition to how they view their own abilities to learn challenging content. Students who know that mindsets and learning experiences can change through intentional effort, practice, and the use of new strategies see hope for reaching learning goals and completing courses and degree plans even when faced with challenges and setbacks.

It is also important for instructors to model and teach these practices to the students so the students can give impactful feedback to each other and back to their instructors. Instructors in higher education need to understand the profound positive or negative influence feedback has on learning and thinking and then on academic achievement and student success. The recognition and understanding of the reciprocal feedback process of thinking, reflecting, giving, and receiving feedback, first from the instructor's self-reflection then from instructor to student, student self-reflection, student to student feedback, and finally student to instructor feedback increases learning and engagement for all the participants involved in the learning experience.

Effective feedback helps both the instructors and students to "see what they know and what they need to keep working on" (Chappius, 2012). The sharpening of intentional feedback skills by teaching faculty through learning new information about the strategies to employ and those to avoid when giving feedback could positively impact learning and engagement and academic achievement in all areas of higher education and for all

learners. That academic achievement would lead to increasing the course and degree completion rates and put competently equipped people out in the workforce.

Feedback in a Positive Learning Culture

There are many aspects to recognizing and evaluating feedback practices that support a safe and trusting learning environment where everyone is a valued and respected learner. From this environment emerges a culture of care and continuous improvement where mistakes are seen as valuable stepping stones for future learning. Adult learners thrive in environments where interaction and relationships are valued and strengthened through the learning experiences. The human brain seeks meaningful, challenging, and interactive learning experiences built in environments where safety and learning from mistakes are valued by both instructors and students (Cozolino & Sprokay, 2006). Enriching social learning environments “stimulate the neuroplasticity required for certain kinds of learning” improving learning and engagement (Cozolino & Sprokay, 2006, p. 13).

Feedback between instructors and students is highly connected to building healthy and inviting learning environments through relationships built on trust and respect. The social relationships in the learning environment are very influential in supporting or disrespecting the errors that lead to new learning (Immordino-Yang & Damasio, 2007). It is important for all college instructors to learn to model and build respect between diverse people who have many different opinions from different life and learning experiences, especially when mistakes are made as new learning is experienced.

A culture of continuous improvement supports instructors and students to develop a repertoire of informal feedback practices that are used automatically even in the heat of

emotion to further learning. Just like fire drills, practicing constructive feedback in many environments helps instructors to change thinking and communication so it becomes more natural and automatic in the community college classroom. Modeling and valuing opportunities for new learning that arise from errors and making mistakes establishes a culture of care and continuous improvement where people feel safe and are able to learn from mistakes.

Both formal and informal feedback influence the development of the culture of the learning environment. Cultures of continuous improvement in learning need to be rich in both formal and informal feedback (Sambell, 2011). Formal feedback can be written information about learning from the instructor to the student or self-assessment systems. Informal feedback is much more prevalent and includes spontaneous dialogues, comments concerning learner behaviors, peer interactions, and task completion among many other examples. Both formal and informal feedback practices are important for improving and increasing learning experiences. Intentional understanding and attention to all feedback contributes to the trust and safety that is the foundation of rich learning environments.

The communication between persons in any learning environment spreads past the specific persons that are talking to ignite attitudes and beliefs in everyone within hearing or feeling distance of the conversations. Language to promote a growth mindset and the importance of effort and practice through challenging learning must be understood and modeled by all members of the learning community (Brookhart, 2012). Cultures of continuous improvement and care value new understandings of learning as they progress and lead to recognizing incorrect information and conceptions. These

cultures provide safety and value for each learner to belong and be respected so they will try new ways of thinking and considering the learning.

Changing and tweaking learning and performance through misunderstandings and mistakes is seen as necessary for new learning and understanding to occur. It also requires instructor modeling of how to respect, empathize, and value all learners and their unique ways of learning and understanding especially when a mistake is made and witnessed by others. This learning environment encourages communication and collaboration between all persons involved in the learning to play with new ideas, build new concepts, and figure out new strategies connected to the learning goal in order to create new learning and understanding.

Learning environments should invite learning through building and valuing relationships, trust, and respect so mistakes can be embraced and expressed. Then learning can grow and change through collaboration and cooperation in a safe environment. Neuroscience shows that the human body has an automatic response to fear and shame that results in a physiological, emotional, and cognitive response called fight, flight, or freeze (Lupien, Maheu, Tu, Fiocco, & Schramek, 2007). The brain is built to deal with stress that lasts about 30 seconds. Research shows that long term stress leads to reduced executive function, a weakened immune system, and sleep disruption (Medina, 2008).

Effective intentional feedback can help instructors and students learn to balance stress and build physiological and physical environments that are the most conducive to learning. When the human brain and body are in a state of fear, safety and survival are given focused attention, and academic learning is very difficult. The learning state is only

possible when the human brain and body feel safe in the present environment with those relationships and where the subconscious survival responses are controlled. Caine, Caine, McClintic, and Klimek (2005) coined the term “relaxed alertness” to indicate the optimal level of stress and the best emotional state within a learning environment or within a person that is conducive to focusing, engaging, and using learning.

Social collaboration within the learning environment drives safety for learning. The human brain is designed “to assume that it is embedded within a relatively predictable social network characterized by familiarity, joint attention, shared goals and interdependence” (Beckes & Coan, 2011, p. 977). Learning occurs when the brain is in a state of attention with just the right amount of stress to be alert and interested in the learning without being on alert for possible danger (Ramakrishnan & Annakodi, 2013). A learning brain needs the right amount of challenge without threat in order to be in the best state to learn and try new things (Caine & Caine, 1990). Effective feedback supports a positive learning culture that develops self-reliance and is conducive to risk-taking, attempting challenging learning and then evaluating where to go next on the learning journey.

The challenge to faculty who desire to develop an optimal learning environment is balancing and learning to respond appropriately to the factors that cause fear and shame and the factors that cause relationships and safety. Another challenge is balancing the desired level of stress or concern to keep the diverse students alert and turned on to learning while also diminishing the stress levels that cause physiological survival factors to be turned on that diminish the ability to focus on academic learning.

In addition, it is important to create a learning environment where social learning relationships are built through rigor, challenge, and interdependence while also valuing learning from mistakes and failure. Failure needs to be valued as a stepping stone to learning and self-evaluating what to do next as well as what to avoid doing next time as an intentional part of the learning process. The feedback that is given by the instructor sets the example for how everyone in the environment should respond to similar situations, and it has the potential to construct a strong environment of safety and excitement for learning.

Literature Review Summary

Feedback practices are complex because they involve both instructors and students in a reciprocal, iterative learning process. Research shows that feedback is impactful to learning and academic achievement even though it can have a negative or a positive effect on learning and learners. Feedback includes responsibilities for the college instructor as well as the college student. The purpose of the feedback along with its type and timing influence its effectiveness. Constructive feedback is directed to reaching learning goals and includes both student and instructor dialogue on what is working, what needs to change, and what needs to be added. The words used to share it can determine if it has a negative or positive effect.

The reception and reflection on the feedback by both the instructor and student and how it is used for future learning are all important factors for feedback to be effective. The instructors' and students' mindsets and beliefs about their own abilities influence how they give, interpret, and use feedback. Self-directed and self-regulated learning develop from the use of effective feedback. Feedback is especially constructive

for students who do not yet have the necessary skills or learning for entry level college courses and are required to enroll in developmental education courses.

Implications

The benefits of this study were for me as a researcher to gain deeper understandings of community college instructors' perceptions and experiences giving feedback. There is a plethora of research to support the power of giving feedback for increasing academic achievement for all students and especially for those who are high risk for leaving college without a degree, career certificate, or a plan to transfer to continue their education at another institution. Additionally, feedback received and valued by instructors can improve the quality of the learning experience for the instructor as well as all the students. If all community college teaching faculty are exposed to opportunities to learn to identify, evaluate, and practice constructive feedback practices, it could raise all students' opportunities for deeper learning and to obtain a degree or transfer to a university.

The project for this study which was determined from the findings of the study is a series of professional learning experiences on constructive feedback practices such as a professional development workshop. The professional developments are interactive workshops for practicing and adapting effective feedback practices to each instructors' learning environment and students' needs while also reviewing the latest neuroscience research on how the brain learns and how it informs teaching. Collaborative learning and experiencing the current mindset research and the importance of instructors' and students' belief systems for impacting the words spoken for feedback will be shared.

Developing and supporting cultures for continuous improvement that support effective feedback practices in diverse content are explored. Professional learning communities, where faculty voluntarily learn with and from one another outside of professional development and without evaluative consequences, support continuous learning and practice of effective feedback strategies even after professional development by building collaborative instructor-to-instructor learning relationships both online and in person.

Summary

It is imperative for instructors in higher education to become intentional feedback practitioners who know how to value, seek, receive, give, and use constructive feedback to develop and support self-directed student learning. Knowing what to avoid when giving feedback to prevent disruptions in learning and especially what to do to seek, receive, and give constructive feedback to increase academic achievement are both important. In addition, these instructors must be aware of the mindsets that lead to learning for themselves and their students. The words they use for feedback connect to their own mindsets and contribute to the mindset of their students affecting persistence to work through challenge and change.

Knowing what disrupts learning allows for instructors to notice and monitor their own feedback practices. Student feedback gives information that leads to being able to recognize teaching practices that need to be changed or adapted and finally to practice and adopt better feedback practices that increase student learning and engagement. Finally, students need to learn how to value, seek, receive, give, and use feedback to

increase their own self-regulated learning and to be empowered for future learning experiences and for the world of work.

Section 2 outlines in further detail the methodology for this qualitative research, including justification for the specific design and approach. The choice of participants and their ethical protection is discussed in depth. The data collection process is described as it aligns with the research question. Finally a description of the process for data analysis along with procedures to ensure accuracy and credibility of the findings is addressed.

Section 3 addresses the Project Study, which is a professional development training to learn about constructive feedback practices for instructors, staff, and administration of this community college. It includes the professional development training's purpose, goals, design, organization, interactive learning experiences, application to participants' college courses, reflecting on the learning about constructive feedback, and evaluating the professional development and the resulting student learning. Also included are the rationale for that type of project study along with a literature review specific to that genre, the project's implications for social change, and accountability to the stakeholders for the value and results of the professional development training.

Section 4 is my opportunity to reflect on the entire doctoral process as a scholar and practitioner along with the importance of the work, the strengths and limitations of the project and future research implications.

Section 2: The Methodology

Introduction

Most of the research on the impact of feedback on academic achievement has been quantitative studies that include feedback interventions designed to promote increased student learning and engagement (Hattie & Timperley, 2007; Kluger & DeNisi, 1996). Researchers have compared students' academic performance to a group of students that have not experienced the feedback intervention or mindset intervention (Dweck, 2006, 2010). There are many factors that impact academic success through feedback. Constructive feedback practices are complicated and multidimensional. What is missing is the voice of the instructors describing in depth their experiences and perceptions using and evaluating feedback practices. In this qualitative study, I explored the experiences and perceptions of feedback by instructors of developmental education courses at one community college in the Southwestern United States. The study provided data that can be used to design more effective faculty professional development experiences supporting and equipping college instructors to evaluate and implement constructive feedback practices.

Research Design and Approach

The purpose of this study was to gain information on how community college educators of developmental education courses perceived feedback in the community college courses they were teaching. The faculty revealed meanings and understanding of feedback, language used for feedback, student involvement in the feedback process, how both instructors and students learned about feedback practices, and how feedback was used to impact student learning. A qualitative case study was used to answer the research

question related to participants' experiences because the investigator had little or no control of the behavioral events (Yin, 2009).

Participants for this study were teaching faculty from one community college who were instructing at least one developmental education course in English, reading, or math. This approach fit this study because I sought to develop an in-depth understanding about college instructors' experiences using feedback as part of the instructional process of teaching community college courses. Two forms of data were collected, first through individual interviews in the participants' settings and then through reviewing documents of participant-selected examples of recent written feedback shared with developmental education students by those instructors. General themes on the perceptions of faculty using feedback were derived through inductive data analysis (Creswell, 2013). The data were used to design a professional development training to share feedback practices to increase academic achievement and student learning as it was illuminated by the case study research.

The instrumental case was the best research design choice for this study because I was interested in the local situation at a community college and a bounded group of participants who taught developmental courses. This research design differed from other types of case studies because I looked at how feedback was used by teaching faculty in higher education by examining a group of instructors teaching specific courses rather than examining the use of feedback by a broad group of instructors as in an intrinsic case study design. In addition, I explored personal experiences and perceptions of those participants. The instrumental case study design gave me the opportunity "to explore or describe phenomenon in context using a variety of data sources" (Baxter & Jack, 2008, p.

544). The process was used to answer the question of interest while collecting information that came from the inquiry process.

The instrumental case study was chosen because I was interested in gathering instructors' "in-depth insights and perspectives" (DeAngelis, 2013, p. 79) while "it serves the purpose of illuminating the particular issue" (Creswell, 2012, p. 465) of how feedback was used by a specific group of college instructors. Leading to this single instrumental case design I focused on "an issue or concern and then select[ed] one bounded case to illustrate this issue" (Creswell, 2013, p. 99). The focus of this instrumental case design was to explore how meaning was constructed by community college instructors' use of feedback. A representative or typical case allows the researcher to represent or "capture the circumstances and conditions of everyday or commonplace situations" (Yin, 2009, p. 48) so the results were informative of the circumstances or conditions of the average instructor at this college. I looked at a single case of one group of college instructors who taught developmental education courses at a community college to discover their perceptions on using feedback.

This was not an intrinsic case study because most community college instructors use feedback in teaching their college courses. The research interest of my study did not fit an ethnographic approach because I was not studying the behaviors of a culture sharing group. It was also not my intent to generate a new theory of feedback so it would not be considered a grounded theory research design. Other types of qualitative research designs did not provide the data and information that were needed to answer my research questions. A narrative study, which focused on the life story of an individual, nor a phenomenological study, which is used to study the essence of what lived experiences of

a specific group of people have in common, fit the research question for this project study (Creswell, 2013). Quantitative research was also not an appropriate methodology for this project because the research questions were not answered by trying to establish cause and effect or other relationships through numerical data (Lodico, Spaulding, & Voegtle, 2010).

The instrumental case study design was the best approach for this study because I was attempting to understand how faculty construct meaning for the use of feedback to emerge from the multiple types of data collected from a bounded group of participants in a community college. I looked at a group of college faculty who teach at least one developmental education course in one of the core areas of reading, math, or English. The findings from this case will be shared through a written report designed to meet the particular interests of the stakeholders.

The foundation of this case study was the constructivist approach. I was interested in uncovering realities constructed by participants sharing their personal meanings (Hatch, 2002). The meanings that participants shared were important to understand the topic of feedback. The instrumental case study was the best design to fit the purpose and parameters of this research.

Participants

The participants were chosen from the purposeful sampling of teaching faculty of developmental education courses at a community college in the Southwest United States. According to Merriam (2009), there are two levels to purposeful sampling for a qualitative case study. The described case and then the bounded sampling within the case were considered. The participants were faculty who taught at least one English, reading,

or math developmental education course at the community college and volunteered to be interviewed for this study on feedback. Three criteria were applied to the participant group of 17 teaching faculty to insure maximum variability from each of the content areas and a rich contribution of information to reach the research goals. They were (a) balanced mix of men and women, (b) a cross-section of participants who taught one of the three subject areas (math, reading, or English) of developmental education, and (c) a cross section of participants with different number of years of teaching experience.

Designing intentional parameters for the criterion of the participants through purposeful sampling provided rich and diverse information to determine both the broad spectrum of insights across the case and the depth of understanding from each participant about how community college educators of developmental courses used feedback (Glesne, 2011). To reach saturation of themes and redundancy of ideas, 17 semistructured interviews of faculty were conducted until saturation was reached. The intent was to find the details and the particulars of the participants' experiences while describing their perceptions about the case (Creswell, 2007). Signed permission and support for conducting this project study was granted from the college's vice president of academic affairs to do this research (see Appendix B).

Approval from Walden University (#05-06-14-0224772) and the community college district (#2014-02-342) institutional review board (IRB) was obtained in order for research to be conducted. After IRB approval from both institutions was obtained, the consent form with an invitation to participate in the research was sent to potential participants through the college e-mail system. The list of potential participants who taught developmental education courses was obtained from the college's math, English,

and reading departments through the department chairperson for developmental education courses. The consent form doubled as an invitation letter and was sent to request volunteer participation from all potential participants. An additional attachment asked for preinterview information from possible participants to be returned in a reply e-mail to my designated Walden e-mail address with the consent to participate in the research study.

The consent form contained the purpose of the research study, an introduction of myself as the researcher, a request to voluntarily participate in the study, a description of the time commitment required, and a request to submit at the interview three self-selected written feedback examples used in a developmental course taught. The participants read and agreed to the terms in the consent form (see Appendix C) by replying to the e-mail with "I consent." The e-mail reply confirmed the potential participant's understanding of the confidentiality issues with guarantees for privacy, the options for quitting the study, clarity that there is no compensation for participating in this study, and the procedures involved in participating in the study. .

Additionally, the consent form confirmed that the potential participant understood that the knowledge gained through this research project outweighs the minimal risks and burdens that might come from doing the research. The consent form emphasized the importance of this research to understand faculty instructors' perceptions, definitions, and use of feedback, in order to determine if empirical data on feedback practices could be used to improve or enhance present teaching practices which would increase student learning and develop self-directed learners. In addition, it was important to understand

instructor buy-in for improving teacher practices specifically with feedback. A copy of the receipt of the consent form was e-mailed back to the participants.

An additional document (see Appendix D) was included in the initial introductory e-mail with the consent form to collect information to ensure diverse participants. The document asked questions to determine gender, which discipline of developmental education courses the participants teach (English, reading or math), how many years they have been teaching, in addition to indicating if they were residential or adjunct faculty. Any volunteers not chosen for the study because of saturation were contacted personally by phone on their office number and thanked for volunteering to participate. No participants from vulnerable populations were intentionally included in this study.

The teaching faculty were chosen to represent a diverse group of men and women, while representing all three disciplines of offered developmental courses: English, reading, and math. The diversity of the participant group was also ensured through choosing participants with different number of years of teaching experience (0-5, 6-10, 10-15, 16+) as indicated on the returned pre-interview questions from the faculty who volunteered to participate in the project study.

It was determined that interviewing 10 to 15 participants would be the number likely to reach data saturation so that if I continued to interview people I would begin to get fewer and fewer new insights (Tracy, 2013). I interviewed 17 instructors because that ensured diversity across the disciplines and among the participants which led to rich data from many perspectives while still getting new information and insights. There were 17 interviewed participants, 10 males and 7 females with 7 of the instructors being full-time residential faculty and 10 of them being adjunct faculty. Five of the instructors were from

the English department, 4 from the reading department, and 8 were from the math department. The information that the participants shared with me about their teaching experience was divided into total teaching experience, the number of years teaching at the college level, and other teaching experience. The participant diversity across the many areas is illustrated in Figure 1.

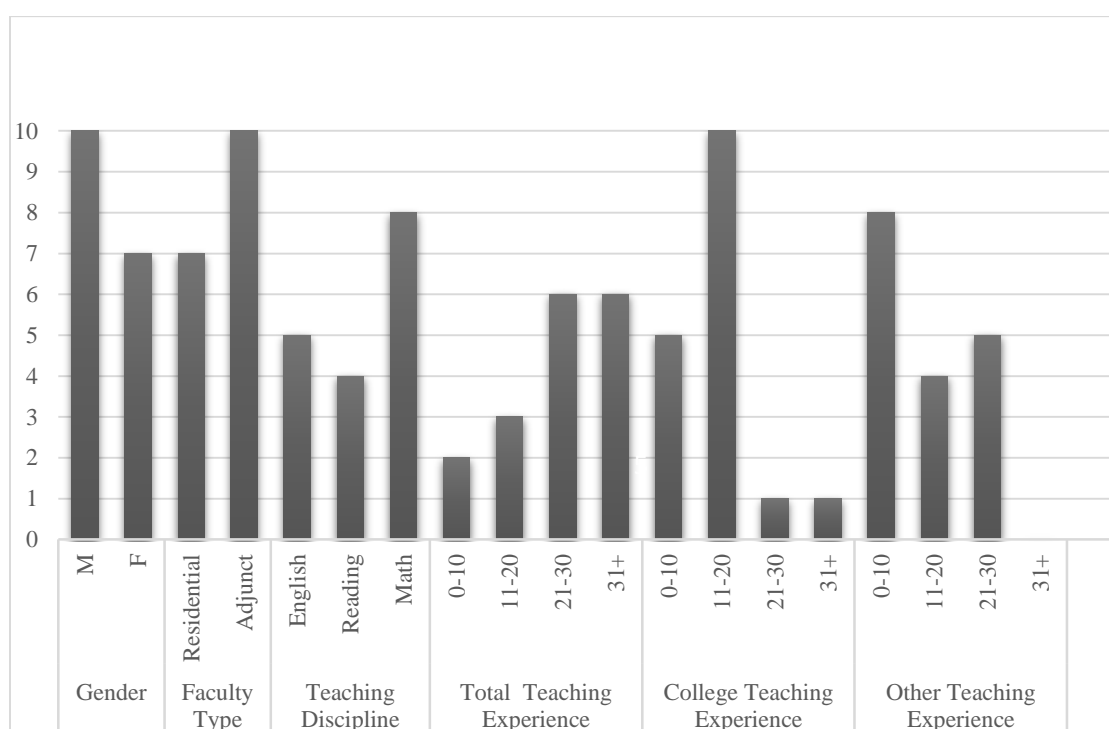


Figure 1. Faculty demographics.

The teaching faculty who volunteered to participate received a phone call from me on their college office number obtained through the college website to confirm their interest in participating in the research study, to introduce myself, to answer any other questions they might have about the research, and to establish the place and time for the interview. Seventeen teaching faculty voluntarily returned the consent forms. I invited all

of them to participate in the interviews. That was the beginning of building the rapport and safety for a healthy researcher-participant working relationship (Dundon & Ryan, 2010). Initiating a working relationship began to build trust between the participants and myself which helped to put the participants more at ease and enabled them to be able to share naturally and honestly about their feedback practices.

Data Collection

How and When Data Were Collected

For this qualitative instrumental case study, I conducted 17 individual in-depth interviews of community college teaching faculty of developmental courses in order to collect data on how they constructed meaning using feedback. This number was chosen as enough interviews to allow for saturation of rich and deep contributions to the goals of this research while eliminating redundant information and allowing for the time necessary for careful transcription and “penetrating interpretations” from each interview (Tracy, 2013, p. 138).

In addition, documents were collected from each participant at the interview. The participants were asked to self-select three examples of written feedback that they had given to students in their present developmental education courses. The participants were asked in the interview process to explain why they chose the examples, the purpose of the feedback in the examples, and the results obtained from giving that feedback.

The following research question was in alignment with the research problem and purpose of this study: How do community college faculty teaching developmental education courses perceive feedback?

The direction of the supporting interview questions emerged from the participant's response to the initial, broad question about their perceptions of feedback (Bogdan & Biklen, 2007). The interview questions were open-ended to allow the participants' perspectives and personal experiences to evolve from the questions (see Appendix E). I was prepared with possible open-ended probes or questions to find out more specific information, to clarify and better understand each participants' perceptions. Information, or to expand on ideas in connection to the participants' responses to the initial, broad question (Creswell, 2012; see Appendix E). The interview was audio-recorded with permission from each participant.

In addition to the interviews, the faculty participants were asked in the researcher-initiated phone introduction to provide three self-selected examples of anonymous, written feedback used with students in current developmental courses at the interview appointment. The participants were asked for permission to keep and use the documented examples in this study. Instructor and student names were removed from these feedback samples. The feedback documents were labeled with a pseudonym in place of the name of the instructor to ensure confidentiality. Additional interview questions addressed the feedback documents that each participant submitted to the researcher. These questions helped to better explain how the feedback samples were chosen, the circumstances, and thinking used when giving the specific feedback, the student's response to the feedback, and anything else that would help me to understand how the instructor and student used the feedback.

Field notes were taken during the interview in a notebook or on the interview notes. Descriptive notes, analytic notes, and autobiographical notes were included in the

field notes. The descriptive notes included mental notes taken during the interviews, descriptions of people, places, events, researcher observations, notes on emerging patterns, hunches, ideas, and reflections (Glesne, 2011). They visually described the researcher's experiences and included notes on the dialogues, particularly unique or frequently used words. Sketches and drawings were included in the notes.

Analytic notes or observer comments were included in the field notes throughout the research process and included memos to myself about the interview process, personal thoughts that developed through the experiences, "problem identification, questions refinement and development, understanding the patterns and themes" (Glesne, 2011, p. 76) that came from my research. These analytic notes helped me to go beyond the surface descriptions of what I saw and heard in the interviews. In the autobiographical notes I also included some of my own behaviors and emotions noticed throughout the research process.

Process for Collecting Data

All interviews were held in a quiet, private place approved by each participant at the specific community college where the participants were employed. Participants were called on their office phone or through campus e-mail to set up a convenient time and place, outside of instructional time, to conduct the half hour to one hour long interviews.

The interviews were audio recorded after an explanation and a signed consent form was obtained. The participants were positive and eager to share their ideas about feedback. Many of them commented that they had been thinking about and noticing the feedback practices they were using in the courses they were teaching and they had not intentionally considered those practices often before the opportunity to be a part of this

research. The interviews lasted 45 – 60 minutes. I added additional prompts for clarification or further information in most of the interviews. The participants provided three examples of written feedback given to students and explained the reason for the feedback and the results that came from the feedback.

Role of Researcher

I performed three roles for the purpose of this study. The first was that of the researcher and designer of this study about feedback. The second was that of a professional developer, which involved teaching professional development courses which are available every semester to any faculty or staff at any of the community colleges within this large community college district; and finally the third was that of adjunct faculty at the same specific community college where the participants are employed.

I knew some of the participants in the study from working together at the same college or through a faculty professional development experience; however, I did not have any supervisory position over any potential participant, and I did not work directly with any of the potential participants. I do not teach any of the courses or in the disciplines taught by the participants. I am known as an advocate for professional development training on learning and neuroscience, but I did not allow my background or biases to interfere with the experiences and perspectives of the participants in this study. My relationship with any of the participants was only name or face recognition and not personal knowledge so I believe that the participants feel comfortable sharing honestly and openly with me in the interviews.

Relationship with the participants was important so that “rapport can be established with the participants and multiple perspectives can be collected and

understood to reduce the potential for social desirability responses” (Baxter & Jack, 2008, p. 556). I have a personal passion and interest in using constructive feedback practices to increase learning and engagement; however, I was neutral and open to listening to the participants share their perspectives without predicting or interpreting what they were sharing about using feedback in developmental education courses. My posture and body language as well as my tone of voice were neutral and supportive regardless of the information that was shared with me in the interview. According to Creswell (2013), the closeness of the researcher to the participants supports the value and accuracy of the study. All of the data that were collected were valued and respected.

Data Analysis

All of the collected data were kept in my locked personal office or on my personal home password-protected computer and my password-protected smartphone. Data were backed up on a password-protected cloud storage and on a thumb drive stored in a locked file cabinet. The audiotapes were transcribed verbatim into a printed Word document by an approved transcription company who provided a privacy consent form. Approvals were obtained from both the college IRB and Walden IRB to make the change from researcher transcriptions to using a transcription company. The transcriptions were saved on my personal, password-secured computer.

The confidentiality of the participants was assured by assigning pseudonyms to specific data collected from each participant. The participants’ names and contact information were saved in a separate place from all the confidential data, with access only by me, until the research process was completed. I needed to know the names and contact information of the participants so they could be contacted for follow-up e-mail

conversations and to share a final summary of the research findings with them. All names and contact information were deleted after the findings were shared with the participants. Only data without any identifiable information connected to it was reviewed by others outside of the researcher. The examples of written feedback collected from the participants were made into a qualitative text document database and kept on my personal password-protected computer. The original documents will be kept in a folder in a locked cabinet in my home office. All data, notes, and research records will be kept for at least 6 years.

Data collection and some of the analysis occurred simultaneously in this qualitative case study. The analysis process involved complex reasoning going between deductive and inductive (Creswell, 2013), analyzing the data from specific to general (Figure 2). There were six iterative and reciprocal steps important to analyzing this qualitative research data. I first determined a system of organizing the data both before and after transcribing it, beginning with “themes that emerge from the interviews and then any additional themes that come from the current literature” (Creswell, 2012, p. 238). Descriptive notes, analytic notes, and autobiographical notes were included in the field notebook. The descriptive notes included mental notes taken during the interviews, descriptions of people, places, events, researcher observations, notes on emerging patterns, hunches, ideas, and reflections (Glesne, 2011). They visually described my experiences, including notes on the dialogues, particularly unique or frequently used words. Sketches and drawings were included in the notes.

Analytic notes or observer comments were included in the field notes throughout the research process. They included memos to myself about the interview process and

personal thoughts that developed through the interview experiences. The autobiographical notes included my own behaviors and emotions throughout the research process.

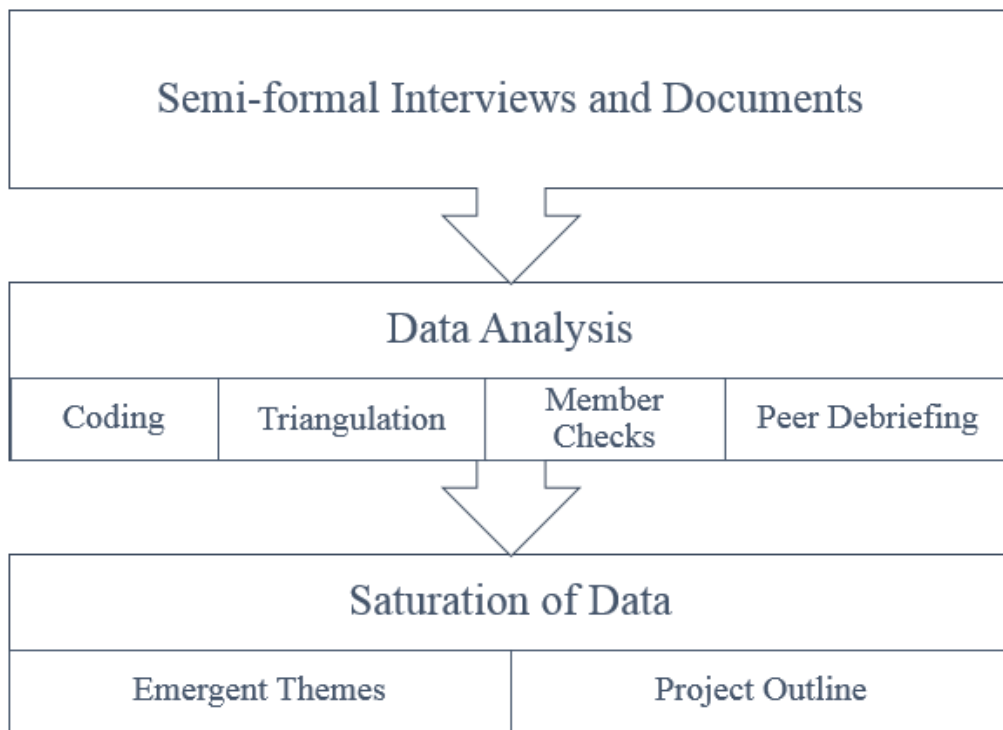


Figure 2. Data analysis.

I organized the transcripts of the interviews chronologically in a folder labeled *interview transcripts* on my computer and in a notebook. The documents of participant feedback examples were organized in a notebook while keeping the data and notes concerning the documents in the notebook and in a folder on my computer labeled *feedback research*. First, new computer folders or notebooks were set up according to the emerging themes and patterns. Second, I started an initial and ongoing exploration of

the data analysis through coding of the data connecting it to the typologies and emerging themes either by hand color coding or by highlighting data in color on the computer or a combination of both to determine which made sense, and was the most accurate, efficient, and meaningful for me. In the third step, I determined important themes or categories that could be described in rich language and thick descriptions to answer the research questions. Step four is where I represented, through visuals and a narrative discussion, a detailed summary of the findings and supports for the themes that emerged from the data.

For the fifth step, I interpreted the findings so they made sense, made meaning of the themes and descriptions that emerged, and formed “larger meaning based on personal views, comparisons with past studies, or both” (Creswell, 2012, p. 257). It also included recognizing and acknowledging the limitations of the study and making suggestions for future research from the new areas of interest that have come from this study.

Finally, in step six, I validated the accuracy of my findings through triangulation, member checking, and peer review. I triangulated the data from the interview process with the feedback documentation the participants shared with me to “corroborate evidence from different sources to shed light on a theme or perspective” (Creswell, 2013, p. 251). To provide validation of my data analysis through an external check, I shared my data analysis and research findings with a peer who is employed as faculty at another college in my community college district. The peer reviewer signed a confidentiality form (see Appendix F). The peer reviewer was not employed at the college where the data were collected and the participants are employed. I asked her to review and reflect on my methods, meanings, and interpretations of the data as well as to ask me probing questions to justify and validate my findings for this research. Her comments required me

to collaboratively reflect on my methods, findings, and thoughts concerning this research. Those reflections led me to make some changes to clarify my results for better understanding of the findings.

My personal reflections during the entire research process, and especially when collaborating with the peer reviewer, were written down in a reflective journal to keep track of my thoughts, impressions, new questions, connections, and possible interpretations as the study proceeded. Finally, through member checking, I asked each participant to review the credibility of my preliminary themes, descriptions, and interpretations. I asked for their views of what is accurate, clear, and credible in my account as well as what might be missing from them (Creswell, 2013). Adjustments, additions, or deletions were carefully considered after reflection on the submission from the participating member checkers.

The analysis of the data from the feedback example documents was triangulated to compare and contrast the themes and patterns with the same participant's interview data. The results showed similarities between the verbal examples of feedback shared in the interview and the written examples observed in the documents. The written feedback shared in the documents were most often examples of final exams, writing projects, or homework that included both written feedback and scores or grades. The data obtained through both the interviews and the documents substantiated the findings that the instructors were using feedback to perpetuate student learning. However, both feedback which could be destructive to learning and feedback that could be constructive to learning were exhibited by the instructors.

The data were deconstructed and then reconstructed again to examine the details as well as the big picture many times. The various iterations were connected to the constructivist framework and predetermined themes that came from the researcher's review of the current literature on feedback. The typological analysis began with the predetermined typologies (Hatch, 2002) for this study that emerged from the current literature which were constructive feedback practices (Brookhart, 2008; Hattie 2009, 2012c; Hattie & Timperley, 2007; Kluger & DeNisi, 1996,1998; Sambell, 2011), destructive feedback practices (Brookhart, 2008; Hattie 2009, 2012ca; Hattie & Timperley, 2007; Kluger & DeNisi, 1996, 1998; Sambell, 2011), instructor feedback practices (Fisher & Frey, 2012; Sambell,2011), student feedback practices (Fluckiger et al., 2010; Sambell, 2011), and developing a culture for learning (Boling & Beatty, 2010).

New themes and typologies also emerged from the data analysis process. The data from the two groups of interview transcriptions and the feedback documents were separated out to connect and compare the themes as well as cross-case themes or new themes that arose from the data. The interviews were also kept intact and considered as a whole and also with the multiple themes that came from the data analysis. The analysis started immediately as the first data were being collected so that analytical judgments could be made early to shape and change the approach to the interview process as needed (Hatch, 2002). Data that did not fit existing typologies were analyzed to determine if new typologies were needed. The data analysis was an iterative, adaptive process which emerged from the data collection process.

The data themes that arose from the analysis of the interview data collection were triangulated with the information revealed through the document analysis. The

information was compared and considered for similar and contradictory themes and new themes that emerged from the triangulation. It was a challenging researcher call to determine when the data analysis was complete because there are always more ways to consider the information and more questions to ask. According to Hatch (2002), some things to consider when determining if the data analysis is complete are the following: the deviant cases are accounted for, the analysis can be explained and justified, a complete story can be told, and the findings can be written in a coherent, understandable form.

The analyzing of qualitative data was an iterative, reciprocal, and dynamic process as it goes from examining detail to examining the big picture and back again. According to Hatch (2002), the patterns, relationships, and themes discovered in the data collections become the generalized outcomes. An iterative analysis was used which included consideration, comparison, and contrasting the emergent data from the interviews and documents with reflection on existing models, frameworks, explanations, and theories in the feedback literature. It was a reflexive process that repeatedly connected the data with “emerging insights, refining focus and understandings” (Tracy, 2013, p. 184).

After transcribing the audio recordings from the interviews, the information was coded for emerging themes. The data were analyzed by attempting to answer questions of who, what, where, when, what, and how. Then the data’s relationship to research questions, examining my own feelings, and finally contemplating “where does this lead?” followed (Tracy, 2013). During the research process, I captured my own reflections by “sprinkling analytic reflections” throughout my field notes according to Tracy (2013, p. 121). In addition, the written field notes were a way to keep and organize my thoughts,

observations, and feelings to be used to make sense and meaning out of the research process. The feedback documents were analyzed and compared to the interview data and the predetermined typologies. The data analyzing continued until there was enough data to make sense and meaning of the research question so it could make a difference to improve future thought and practices.

Findings

This study sought to answer one open-ended research question of a specific group of college instructors: How do you perceive feedback in teaching your developmental education courses? I categorized the participants' responses and aligned them with the predetermined typologies, which built the themes underlying these findings. The eight themes (see Figure 3) that evolved from the data were Perceptions of Feedback, Constructive Feedback, Destructive Feedback, Multiple Person Feedback, Instructors Receiving Feedback, Culture for Feedback, Learning to Give, Use, and Value Feedback, and Feedback Challenges.

Themes	Subtheme 1	Subtheme 2	Subtheme 3	Subtheme 4
Theme #1 Feedback Perceptions	Feedback in developmental education courses	Descriptions of feedback	Purposes for feedback	
Theme #2 Constructive Feedback	Growth mindset feedback	Constructive feedback given by instructors	Constructive feedback received by instructors from students	
Theme #3 Destructive Feedback	Fixed mindset feedback	Destructive feedback given to students	Destructive feedback between students	
Theme #4 Multiple Person Feedback	Instructor to students feedback	Students to students feedback	Students to instructor feedback	
Theme #5 Instructors Receiving Feedback	Descriptions of feedback received from students	Purposes for receiving feedback from students		
Theme #6 Culture for Feedback	Culture of care	Culture of continuous improvement	Passions and love of learning	Feedback for practical application of learning
Theme #7 Learning to use and value feedback	How instructors learn to give, receive, value and use feedback	How students learn to give, receive, value and use feedback		
Theme #8 Feedback Challenges	Time	Discriminating and evaluating feedback	Measuring effects of feedback	Classroom arrangement

Figure 3. Themes and subthemes.

Theme 1: Perceptions of Feedback

The participants explained their perceptions of feedback practices used in teaching developmental education courses through the descriptions of their understandings and their purposes for feedback. The instructors who were interviewed shared what feedback meant to them and how they used feedback as a college instructor teaching developmental education courses in math, reading, or English along with how they taught students to value, seek, give, and use feedback to increase their own learning.

Specific feedback practices designed to meet the needs of the students in developmental education courses were explained by the instructors. The participants described feedback practices for students they taught in developmental education courses as only slightly different from the feedback practices they used in teaching all their other courses. Some of the comments shared by the participants about feedback practices used in teaching developmental education courses pertained to intentionally paying attention to the amount of feedback given, the type of feedback given, and making the feedback personal, visual, and caring for students in developmental education courses. Many instructors shared that their feedback for students in their developmental education courses required more support and was to focus on and strengthen areas of weakness often exhibited by the students in those courses. Examples of specific feedback for students in developmental education courses included:

- “They [students in developmental education] need to not be judged. They are used to ‘Look at what we have done wrong.’ [We need to be] more personal and gentle.”

- “They [students in developmental education] have heard and experienced a lot of negativity. They are set up for failure so balance with honesty and positive.”
- “For one thing, I’ve learned with developmental education, I give them little, tiny chunks at a time.”
- “What I worry about is that development students tend not to be especially skilled what to look for on papers and how to give feedback.”
- “For Dev. Ed especially- reaffirm their [correct] thinking. I give and get lots of feedback in that class.”
- “The feedback, a lot of it, is about being taught how to do school, how to learn and how to deal with all the mass of information that they have to handle.”
- “The students [in my developmental education courses] are not as confident about their ability to do mathematics, and two, they are not as organized as they could be.”

The participants responded to the research question by describing what feedback meant to them. The participants defined feedback as information given to students from the instructor to inform them of what they were doing right and what they were doing wrong, to give the correct answers, and to point out specific information that is important for the student to know to increase the likelihood of being successful in the course. Verbal and written feedback was given to a whole class, in small groups, and to students individually.

Questioning was shared as a feedback strategy. Participants shared examples of using questioning as feedback to cause deeper thinking, make connections, self-assess,

and develop self-regulation skills. Feedback questions were asked of students that would guide the students to think critically, learn to think on their own, solve problems independently, or think about the learning goal(s).

Some of the descriptions of feedback given by the participants were:

- “It’s a way for me to help them track areas that they still need to work on and look at their strengths and to be able to notice that.”
- “[Feedback is] progress they’re [the students] making towards the goals that are outlined in the syllabus.”
- “What is your goal?” was handwritten feedback on papers.
- “Things to notice or support their learning and to support my goals for my students”
- “Mostly what I’m doing is just correcting their [students’] mistakes.”
- “Feedback is any way that the student gets a message back to them as to how they’re doing, how they’re comprehending the information, the use of making all the information, their correct level of correctness or accuracy or incorrectness or inaccuracy. Sometimes feedback is emotional.
- “Praise of course is feedback but I believe in, the more specific the feedback, the more useful. Great job only goes so far.”
- “I give the feedback when they ask questions. I give the feedback because I know how going at some problem from one direction does not always work. So I gotta figure out another way to get there.”

- “I think feedback is a two way street. There’s a feedback that students get from me, and then there’s a feedback that I get from the students and students get from other students.”
- “Feedback to me is my way of letting the students know what they've done right and what they've done wrong so they can go back and study on their own, especially the college level.”
- I tell them, ‘You may not recognize, you’ve gotten a lot better during the semester. Here’s where you were at the beginning of the semester. I'm going to give you the same assignment. I bet it’s a thousand percent better.’”

Information that was given to students about how they did on assignments, papers, quizzes, and tests was described by the participants as feedback. Many of the written documents showed feedback as scores and grades along with comments on tests, quizzes, rubrics or papers. The comments indicated what was done correctly, pointed out errors, and gave corrections for all or some of the errors such as:

- “Formal feedback on quizzes that students give to me and giving them the right or wrong answers and correcting them.”
- “That’s my job, is to find all the corrections on the paper, make all the corrections.”
- “I want you to look at my comments, because that’s what I think is the most important type of feedback you’re getting on your papers, are those comments. It’s even more important than your grade.”

- “Feedback is a grade. I grade every single day and put grades on the computer so they know every single day what their grade is.”

The instructors gave descriptions of both explicit and implicit feedback practices they used in the courses they taught. Explicit feedback was descriptive information given to students both verbally and in written form, that instructors intentionally labeled as feedback and made the students aware of as feedback (Ajabshir, 2014). The instructors often implied their expectations for students to respond in some way to explicit feedback.

Explicit feedback was the most commonly described feedback by the participants. Explicit feedback descriptions included verbal and written information given to individuals, small groups, and to the entire class. Grades, points, or scores with explanations about them, words describing performance or asking questions, use of rubrics or teacher designed organizational materials to show level of expertise or performance, asking questions to get students to think about things differently, giving or asking for models or examples, correcting answers, pointing out mistakes, and making connections to develop relationship were examples participants shared of explicit feedback.

Implicit feedback was also described by the interviewees. Implicit feedback is behaviors or actions by the instructors to promote or extinguish specific behaviors or actions by the students without labeling it feedback to the student (Ajabshir, 2014). Often the instructors described implicit feedback as nonverbal feedback such as facial expressions like glares or frowns or smiles. It could also be specific instructor behaviors such as using a red pen on written work, or moving to stand next to a person. Implicit

feedback was used to emphasize a point or motivate a student to engage and participate in the learning. Examples of implicit feedback included:

- “I glared at her and that’s feedback. It’s time to show me what you know on your own. I withheld my smile and I watched her very closely. As far as I’m concerned, that’s implicit but its feedback.”
- “If you [the students] don't come to me, I'm just going to assume that you're going to know what you're doing.”
- “I'm fairly good at reading them [the students] by now. I can kind of tell when they can blow me off and go home or they truly get it.”
- “Some people, I can drift by, lend an ear, see that they’re on tasks and move on. My feedback is implicit because I’ve moved on and I haven’t redirected them, I haven’t corrected them, I’ve smiled and nodded and they just non-verbally gotten the message that I recognized them.”
- “Being able to sit down alongside a student to learn from what they were doing.”

Finally, instructors described feedback information they received from students.

A few of the participants emphasized the importance of feedback they received from students. All of the participants mentioned information that they received from students or student work as feedback. Received feedback was used to remodel teaching practices to improve student learning or as information about what the student knows and understands. It could also give personal information about the situation that the student is in that is influencing their ability to learn in the course. Received feedback could also be categorized into explicit and implicit feedback with many more examples of explicit

feedback given by the participants. The participants described feedback information that they received from the students that informed what they needed to teach next or to reteach in another way or to reinforce the value of something they learned from that student. Some of those examples were:

- “One student told me one time, ‘I never knew how to do long division until you.’ What an honor that was for me. I got a really good warm fuzzy out of that that was feedback from him. That is feedback that makes me feel good, that makes me want to do a better job, just something I always strive to do.”
- “Another way [tickets out at the end of the class period- cards with answers to specific questions, or class practice opportunities] that is immediate feedback and it’s an immediate feedback for me because I know the next day what I should prepare if I would see that majority of the students didn’t get slope.
- “If you [student] don't come to me [instructor], I'm just going to assume that you're going to know what you're doing.”

Participants described several purposes for giving feedback. The main purpose shared by all the participants was that feedback is a way for instructors to let students know if they are learning or not. They described feedback as a way to get information to students to help them see how they are doing, to explain grades or scores, to motivate the students to make changes, to point out errors and corrections, and to support building relationships that further the learning process. Information about progress toward goals was also shared. The goals could be the instructor’s goals, completion of the course, or

long term goals for completion of a degree. Feedback was also to support learning from mistakes and to develop self-regulation skills. Examples included:

- “I want them [the students] to move forward and I want them to know that they're moving forward.”
- “I want the feedback to facilitate them [the students] to go in there and go for it again. I don't want it to be debilitating”.
- “To teach them [the students] what to do and have them respond and do it.”
- “I think they [the students] need realistic feedback to see where they are.”
- “[Feedback] to cause thinking about how things make sense, to ask questions or to figure out another way to do the problem to understand the process.”
- “Feedback is very important. It's communication between me and my student, letting them know that they're on the right track or they're doing the right thing, or here's an error, and here's how you correct it.”
- “Progress they're making towards the goals that are outlined in the syllabus.”
- “That's the other thing, trying to get them ... being comfortable with being wrong. I'm just saying, ‘Why do we make that error?’”

The participants' perceptions of feedback were shared in Theme 1 as they emerged into the two categories of descriptions of feedback and the purposes for feedback. The descriptions of feedback were further explained as specific feedback for developmental courses, general feedback examples, written feedback examples, explicit and implicit feedback examples, and feedback received by the participants. Finally, examples were given of the purposes of feedback as shared by the participants.

Theme 2: Constructive Feedback

All of the participants described constructive feedback practices that were used to positively impact future student learning. Constructive feedback described by the instructors was used to increase student learning and engagement. This feedback also developed and supported a growth mindset in the students when they faced challenging learning. Examples were:

- “You have people who were leaving class sometimes, saying ‘I can't do this, I give up.’ You don't have a choice. You can't give up. That's not a choice in this class. By the time you get to the middle point, it's like, ‘I get this’.”
- “I'm not once [accepting] ‘I'm out the door, I'm done.’ I'm there for you as much as I can be. I'm trying to think of what else I do in there.”
- “I think that my feedback needs to be combined with self-reflection, and so I started to use more rubrics, more self-reflective activities, so that they have that opportunity to tell me how they think they're doing or to disagree with me in how I think that they're doing, so to have those open conversations.”

Specific feedback addressed defined criteria and directions connected to the instructor's content learning and what they perceived as most important to learn, practice, and remember and led to practical application of the learning. Intentional positive feedback highlighted for students things that are done well or understood, including self-regulation skills that support learning course content. Often this feedback was connected to a rubric, graphic organizer, or acrostic so students could remember it and use it easily. Constructive feedback was given both verbally and through written modes. This kind of

feedback also supported the development of learning relationships between students, instructors, and other students. Examples of this constructive feedback were:

- “What I'm trying to do is get the students to a point where they're teaching themselves. I'm hoping that they don't need me anymore.”
- “I don't tell them, ‘Oh, that's right,’ or ‘That's wrong.’ I ask questions, and even if the question is correct, I may ask, “How do you know that is correct?” Give them time and leeway to figure things out on their own.”
- “To understand what you did not understand, to know what you don't know is to know. Where am I now? Target?”
- “Feedback is assessment for performance.”

The participants also described feedback as information they received from students that helped them to plan the next lesson based on the students' responses to the present learning experience. The feedback received gave the instructors information on what the students understood, what they were challenged by, needed more practice on, misunderstood, or did not understand at all. The feedback from students came from information after a learning experience such as ticket out/in assignments or reflections on learning, conversations in online discussion boards, or personal face to face conversations with students. Participants considered observations of students' participation, engagement, questions, and homework as feedback about student learning. Examples of constructive feedback received by the instructors included:

- “At the end of the hour, what have you learned, what do you still not understand? Those types of quick assessments [are information for them and for me]”.

- One instructor shared about a ticket out short daily assignment “to show mastery of small part-I needed to check it before they could go. They would come up and I would look at it and I would give them a verbal feedback right there.”
- Another participant gives problems to solve as homework and ticket in to the next class, “whether it is right or it’s wrong, I don’t care.”
- “Feedback is any way that the student gets a message back to them as to how they’re doing, how they’re comprehending the information, the use of making all the information, their correct level of correctness or accuracy or incorrectness or inaccuracy. Sometime feedback is emotional.”

Constructive feedback is any information received by the students or the instructor that positively impacts student learning in the future. The constructive feedback that was identified in Theme 2 was effective feedback that was given and received by both the students and the instructor. Constructive feedback could be verbal or written, coming from the instructor, from the students, from peers, or obtained through using learning tools such as rubrics, acrostics, or graphic organizers which cause reflection and self-evaluation.

Theme 3: Destructive Feedback

All of the college instructors’ thought that their feedback practices were increasing student learning. The participants used these feedback practices to increase learning and student success in the courses they taught. Some of the participants actually described feedback practices that could disrupt learning processes and interfere with learning or decrease the students’ investment in the learning experience or environment.

Some of the feedback practices supported a fixed mindset which believes in a fixed intelligence meaning that talents and abilities cannot change. Those perceptions cause instructors and students to have difficulty persevering through frustration, change, and challenge (Mangels, Butterfield, Lamb, Good, & Dweck, 2006).

Some of the instructors shared feedback examples that labeled whole groups or classes of kids with specific learning characteristics. Different characteristics were assumed about specific students and groups, and then feedback was given to them according to the assumptions that were made. The feedback labeled the students as smart or brilliant when they demonstrated understanding of the learning, and as lacking effort, attention, or of not caring or being motivated when they did not demonstrate the learning expected by the instructors. Participants described generalizations about students' possible academic performance based on course level or the type of course they were in such as: developmental education students or by a specific course number.

Participants emphasized grades and scores to make the students aware of current performance, intending it as feedback to support or encourage student learning. Empty praise does not impact student learning and self-regulation. It is focused on the product such as "good job, fantastic, wonderful" or on the person such as "you are smart or you got the best score or you are talented" and was used to showcase correct responses and compliment final products rather than encourage learning and valuing the process.

In addition, the participants expected adult students to know how to seek, receive, give, and use feedback to increase learning and develop self-regulation skills. Humor, provocation, sarcasm, and intimidation which could lead to shame and humiliation, were shared as feedback strategies by some of the participants to motivate students to engage

in the learning or to critically think on their own. Errors students continually made were sometimes emphatically pointed out to motivate change and attention to that issue through feedback such as repeated red marks on written work or repetitive verbal reminders and through an abundance of corrections.

Some of the participants gave feedback that labeled learning experiences as easy when they saw a student struggling with something or agreed with a student's negative perceptions of a learning task and supported it with their own personal examples. The instructors assumed that certain student behaviors or lack of them was feedback to them about what a student was thinking or the reason behind a learning performance without finding out the student perspective on what was actually interfering with successful learning. Examples of destructive feedback practices described by the participants were:

- “For correct response, it would be something like, ‘You’re right. That’s great. Excellent’ or to reaffirm thinking or support more organization- I will write things like, ‘Good job’, or ‘Well done’, or ‘Way to go.’”
- “They get lots of corrections on them, a lot of red marks. I make comments at the bottom”
- “My approach is to correct every single little mistake.”
- “You’re just hitting them where it really hurts. You’re telling them, ‘You can’t do this. This is how you do it. You need to ... You’re not getting it, so this is what we need to do’.”
- “They [the students] might say, ‘Well, where am I?’ I said, ‘Well, you’re kind of at a C right now.’ ‘Well, what can I do?’ ‘Well, you can do these things.’”
- “Come on. _____are real easy. They really are.”

- “This is easy, that's all they got to do.”

Destructive feedback was seen as constructive feedback by participants. Theme 3 outlined feedback practices described by the participants as supporting learning when actually these feedback practices could be destructive to student learning and engagement through breaking down student-instructor relationships and perpetuating fixed mindsets.

Theme 4: Multiple Person Feedback

Participants shared examples of reciprocal multiple person feedback between instructor and students, students to students, as well as feedback that is given to the instructor from the students. The participants described some feedback as information and communication shared back and forth between instructors and students. The participants transmit feedback reciprocally between instructor and students and vice versa most often through face to face, small group, and whole class conversations, and also through written comments on tests, quizzes, papers, and assignments. There were also examples of feedback given through phone calls, e-mail, texting, online course discussion boards, and specially designed materials. In addition, some examples of giving and receiving information through facial and body language feedback were shared by the participants.

There were examples where participants talked about the feedback they received from students, most often verbally, also through written assignments, and formal and informal questionnaires, surveys or forms. The participants received feedback from students through verbal sharing of information about their specific learning, through performance on assignments, homework, tests, quizzes, papers, class learning activities,

and from instructor made learning experiences that intentionally sought feedback information for the instructor.

The participants shared examples of written feedback information given to the students together with grades or scores on projects, tests, quizzes and assignments. That information informed the student about performance on a test, quiz, or assignment with a score, grade or points along with written comments explaining what was right and wrong. Participants described the feedback shared with students as information to help them and support their learning often including corrective feedback where all or some of the errors are corrected or a better answer is given to consider for future learning. Written feedback examples included:

- “Corrective to let them [students] know that an answer is wrong and give the correct answer”
- “Feedback for me is extremely important. Most of it is on exams. A lot of times when I do feedback for them, I will circle their first mistake. I'll show them maybe where they go from here if they made a mistake. I'll always let them figure it out by themselves after that. I'll say, this is not what you should have done. Let's trying going with this route and finish it. I never actually do the entire problem for them.”

Instructor designed special materials such as rubrics, directions, exemplars, modeling, personal life experience models, and hands-on learning activities as well as surveys and questionnaires were shared as feedback. These materials were seen by the instructors as feedback given to the students as guidelines for specific learning, as guidelines for the students to self-assess their own learning and they also served as

parameters for the instructor to use to evaluate and give feedback on the final projects or the expressions of the learning. Some of the examples included:

- “I think they need feedback to see where they are. I think I feel strongly that the feedback has to be realistic like rubrics, self-reflective activities--quick assessments, response journals, quote-notes, or a 3x5 quiz. At the end of the hour, what have you learned, what do you still not understand?”
- “Yes, that's why I give them the note sheets [problems to solve for that day].”

Feedback was given among students through group work, peer reviews, collaborative learning groups, and online discussion boards. Many of the participants shared that feedback from many sources was important for learning; however it was difficult to do because of many challenges with time and material to cover and student's expertise in knowing why and how to give and receive feedback from one another. Students often showed an unwillingness to participate in collaborative learning also. It was new thinking for most of the participants to consider how students learn to give and receive feedback as part of learning and what their role is in equipping students to value, seek, give and use feedback. The participants gave these examples of peer to peer feedback experiences:

- “I think that's very important [collaborative group learning], if they explain it to somebody else that means they master it, so if you know how to explain [to someone else], you understood.”
- “I put in these things [group work] as the expectations in the class, and sharing the benefits of collaborating with other people, helps the dynamics in the class.”

- “We get to know each other really well. I feel like the students get to work with different people and then they have a network. The key is for them to leave the class with more people that can serve as resources based on their future.”
- “It’s very important to learn with different people, with somebody else, to me it’s different, so in real life, you don’t get to pick or choose with whom you are working you have to learn to adapt.”

Theme 4 described reciprocal multiple person feedback. All of the participants articulated that this kind of feedback is information shared reciprocally between the instructor and students and between students and students to increase learning and understanding of a common learning content.

Theme 5: Instructors Receiving Feedback

Participants shared personal examples of how they received feedback from students to inform them about what the student knows and does not know as well as how their teaching is supporting student learning. The descriptions of feedback shared by the participants were more often information given to the students than received from the students; however a few participants emphasized that receiving feedback information from the students was very important for them to further learning for a particular student or the whole class. Some of the participants emphasized that this is the most important feedback to them because it helps them to know what to do or revise for the next learning experiences. Those participants were very intentional about designing learning opportunities where students must reflect and share feedback about their learning with

their instructors. The participants also talked about the purpose and importance of receiving feedback from students.

Some of the ways that instructors described receiving feedback from their students were:

- “My focus is to make sure that when I look at their work, the things that I see tell me what they know or don't know, or highlight some gaps.”
- “When I give them assignments, I want them to communicate their understanding to me, and then it's my role to respond to that, and my response will be ... will take the forms of, ‘Good job. Have you thought of this?’”
- “It's (daily fill-in-the-blank sheets as tickets out of class) an immediate feedback for me because I know the next day what I should prepare if I would see that the majority of the student didn't get slope let's say then I know that tomorrow I have to start with that and I don't go on to the next lesson because they are still confused.”
- “What I've learned from feedback for me as an instructor is I can explain problems in multiple different ways. I've learned I can't always just teach it one way and then expect everyone to do it my way.”
- “I tell my people [students], you are my teacher, because I learned so much from you, from what you put on the table in front of me every day. You keep me sharp, you keep me consistent, you keep me organized with what I need to bring to each class with me.”
- “They don't think they can do it and then here they are helping somebody in their group. To me, as a teacher, I love seeing that look. When I'm having

them do group work and I see a struggling student helping somebody else finally, it's just incredible. That's really good feedback for me.”

- “I always call them three-by-five-card quizzes so I can quickly for myself assess what ... Did I do it today or not? Does that make sense to them?”

Theme 5 shared the feedback perceptions from the participants about receiving feedback from students. All of the participants talked about this kind of feedback; however, there were different understandings regarding the importance of receiving feedback from students.

Theme 6: Culture for Feedback

The participants were asked to describe how feedback supported a culture that was conducive for learning. The participants often described it was important for their learning environments to be places where people were respected and valued, and where relationships were intentionally built through collaborative learning experiences. There was not always a connection between feedback and building and maintenance of the culture for learning.

A culture of care and continuous improvement uses feedback to build learning relationships through trust and to value that mistakes lead to better and more refined learning along with welcoming ideas of how to do things in a new and better way. Cultures of continuous improvement bring unity to groups of diverse people through building the understanding that small changes can have big impact, people can learn to love to improve because they are passionate about the importance of their work, they like to see improvement in their learning and performance, and they have confidence in the ability of their colleagues to collaboratively make progress happen (Halvorson, 2013).

Feedback practices in a culture of care and continuous improvement support the growth mindset and align with how the brain learns (Tokuhama-Espinosa, 2011). These learning cultures are built from and support constructive feedback practices and positively impact student learning as they encourage the reception and use of feedback to improve learning. A culture of care and continuous improvement encourages the value, seeking, giving, and using of feedback by all learners.

These learning cultures are safe learning environments where students and instructors want to be and want to return to because they enjoy the learning process and can make positive contributions. Cultures of care and continuous improvement are built on trust and respect through personal, caring relationships, including the ability to make and learn from mistakes, to see real-life applications, and to develop self-assessment skills while equipping and empowering self-regulation skills. Finally, the instructors and students were passionate about teaching and student success. Four areas came from the data connecting to building a culture for constructive feedback.

A culture of care builds trust through respectful, caring relationships between students, instructors and other students; through shared learning relationships, knowing names, exchanging life experiences related to the learning to make connections between the students. Participants described smiling and showing warm affect to students. They intentionally used a kind and caring voice when talking to students even when correcting them or giving them ways to improve. The students were addressed specifically and specially to make them feel important and valuable. Learning experiences were designed to build relationships through every students' engagement while having fun learning.

Some instructors do this through designing learning experiences that are related to holidays, to a students' areas of interest, with a puzzle or a game.

Personal relationships were built between students and instructors through offering times to meet up with students outside of the classroom or faculty office: on campus special spaces, in the library or at a local Starbucks to talk about anything concerning course content or anything at all. There were examples shared of listening and meeting individual student needs like meeting up with a very anxious student at their car or grading with a color other than red for a student who tells the instructor how much they hate red.

Some of these examples also included:

- “I try to be authentic with the students as well when giving feedback to know that I'm really here to help.
- “Once they're more comfortable with the colleagues and with their teacher, they tend to be better.”
- “I am even more-so intentional in pushing their thinking, and their making sense. They're justified. They're critiquing others, because I want to not only change the culture in the class, but also often change the culture in the class that they will teach.”
- “That seems to be one of the primary factors on developmental students' success, how teachers connect with them.”
- “I'm their ally, but at the same time I have set the boundaries, that this is a class in which any question that you ask is very important to everybody. [I'm] intentional about developing the culture for learning.”

- “I get to know them- I give them a little information card and they fill it up and one of the questions is what's your major, what's your field of study?”
This participant made connections throughout the semester between the course content and the academic or career goal of the students.
- “Get to know them- I know who plays softball. I know who plays basketball. I know who's in student council, and in the band.”
- “It's trying to put yourself in the student's shoes.”
- “Feedback needs to be nurturing and loving.”
- “I treat them a certain way. I treat them with respect. I wait for their answers. I listen. I make time for questions and answer them as thoroughly as I can and try to be responsive for what they need.”
- “[I have] great admiration for anyone who wants to come and learn and I'll help you.”
- “All students are my kids. And who doesn't love their kids? Built on trust- I will trust you.”
- “But I make sure anyone in this classroom knows everybody else in this classroom, knows where they come from, and what they are doing.”
- “I have a relationship with them, too. My relationship with them is that you're a valuable part of this class. You're providing input, you're respected, we're learning from you. We. Not just them, but me, too.”

A culture of continuous improvement was described where errors were valued and mistakes were allowed along with embracing new ideas or ways of doing things as part of the learning process like:

- “They (the students) are comfortable in class because they’ve made mistakes sometimes and nobody yells at them and everybody makes mistakes.”
- “Try to always start the program by saying I’m the one who makes the most amount of mistakes in the classroom, so this is all about learning. It’s all about improving.”
- “I invite them to put a homework problem up on the board.”
- “Don’t feel bad that you didn’t know because there’s a lot of stuff that we don’t know. That’s why we provide feedback so we do know. If I didn’t say anything then you’d never know.”
- “I believe that you’re going to make mistakes. I’m going to make mistakes.”
- “The one thing I do, I repeat it again, is just to reinforce the fact that mistakes are okay. Mistakes, that’s the best way to learn.”
- It’s the best way for me to learn, to make a mistake, because then I try not to make the same mistake twice. When I get the answer right, is it right because I knew it or is it right because I guess it? I don’t always know.”

Instructors and students who were passionate and compassionate about teaching, learning and student success used feedback to encourage learning and sticking it out to make goals in addition to sharing personal life examples that caused learning and growth

through perseverance and tenacity. One experienced instructor said that he would stay another 20 years to teach if the college would let him. Examples were:

- “I love what I do. If you love what you do, then you will do it well.”
- “I still have a lot of learning to do.”
- “I’m always evolving.”
- “Students say this is their favorite class.”
- “This class is so much fun.”
- “I just kind of thought that it’s very important as a teacher to look at the staff development and things that will help you change your teaching.”

The participants shared feedback examples that directed the students learning and thinking toward real-life practical applications to make the new learning meaningful and relevant to the students’ life and future. This feedback supported the development of reflective and self-regulation skills. Some instructors shared real people’s stories, mentors and models from their own life experiences and from the news or history through videos, book clips, photos and storytelling as feedback to support learning characteristics they saw or wanted to develop in their students. Examples of this giving and receiving feedback from practical real life applications included:

- “I model through true life stories and practical life learning experiences like the food critique project –fun in learning.”
- “Another thing I really emphasize the father of problem solving when it comes to math, you may know this, deceased now, he taught at Stanford until he was 95 years old and I had the privilege of taking a course with him one

summer at Stanford and he has written lots of books. He is considered the Guru of problem solving.”

- “I pull in things from business ads or papers or newspapers.”
- “I’m going to give you the best education possible, but at the same time, you also have to take it upon yourself to sit down and go what did _____ [instructor’s name] teach me today?”
- “Turn numbers into money or numbers into temperature if you live in Minnesota where it gets so cold it is below zero. Practical examples that can be applied to real life.”

Theme 6 describes the culture for learning that is built through feedback. The research data showed that a culture of care and continuous improvement is built through these four areas of feedback: feedback that developed trusting, caring and respectful relationships, feedback that valued errors as stepping stones for learning, feedback that showed passionate and committed instructors who loved learning and finally feedback that supported practical application of learning.

Theme 7: Learning to Use and Value Feedback

Participants were asked how they learned to give, value and use feedback and how the students learned to give, value and use feedback. The participants were also asked how feedback was valued or used by them to improve their own personal teaching practices which impact student learning. The instructors learned about their feedback practices mostly from trial and error and from modeling after someone they had observed, through professional development or taking college or university education courses. Most of the participants had not had formal training to learn about constructive

feedback practices that increase student learning. Still the participants were confident in the feedback practices that they were using to increase learning. Here are some examples of how the participants responded:

- “I don't ever recall instruction or examples of getting feedback from students, if I had something like that then I don't remember it, but it seemed like I was just, when I started teaching, I just picked it up as I went along.”
- “I take advantage of professional development.”
- “Okay. To be honest, I never really thought about calling this feedback until I was looking through your document.”
- “If there was a role model in my teaching career or my academic career, Professor _____ would be the person that inspired that. I think also just the material of reading.”
- “I wouldn't have done it right, because I would have done it the way I liked it and what works for me. That's not necessarily the right way for everybody else. I learned in those education classes.”

The participants often considered the feedback from the college required anonymous student surveys as evidence that the teaching practices they were using were beneficial for the students. If it was mostly positive they saw themselves as successfully teaching that course section. They also saw positive student relationships and liking the instructor as evidence of successful feedback practices such as “I have students that take my classes over and over and over again where we become friends.” Some participants discussed concern for students to pass the course and meet completion goals, however it was not connected to the effectiveness of the instructor feedback in the course. The

participants shared examples of how the feedback they received in the courses they taught was used to reteach or rethink the teaching practices for the next learning experience or for a particular student. Some of the responses from the participants were:

- “I usually try to give 3-4 examples where’s it’s the very traditional, lecture based, hand the ball over to them. If they can’t handle that first think- pair- share or whatever, then I know, maybe I didn’t do enough or maybe I need to explain more. That feedback for me tells me I need to do more examples.”
- “Their [the students’] written feedback at the end of the semester during the evaluation time, to the extent that they address that issue, it was pretty positive.”

The instructors were hesitant when answering how students learn to give feedback. Many of the participants had never considered that question before and responded that it was a good question to think about and consider. The participants did not have any instruction built into their courses to teach students how to value, use and give feedback except for some intentional modeling by them. Instructors assumed that the students knew how to give feedback if they participated in the feedback exchange between students and instructors shared through online discussion boards, online practice programs with reciprocal feedback capabilities, and also through reciprocal texts and camera shot exchanges. In addition, the instructors were asked to describe how they knew that the feedback they gave was valued and used by the students. The participants gave various examples of evidence of the students using or asking for feedback such as:

- “I guess I’ve never actually taught that. That’s never even crossed my mind how to teach them how to give feedback to somebody else, but when I hear

them talking a lot of it is what did you get for this one? It's not how did you get to that? Now that I think about it, that's a really good idea. I should probably show them how to work with each other to give good feedback other than what did you get for this one?"

- "I don't know [how the students are using the feedback from me]. I hope what they're doing is they're learning when they get the feedback from me."
- "It's hard for me to tell. I give them time to look it over, see if they have any questions for me, when we're not doing anything else. They have time in class, assuming they show up, to review the comments at least."
- "Well I think for them [students] the last two minutes or three minutes, they just think about what we've learned today, [write down] what I've learned today and if they do this [learning] in groups then they give the feedback in the same groups, too. I hope it could help them to have different formats and not confuse them".
- "It just differs from student to student. Some of them don't use it all. It's clear because they don't improve. Most of them do. Most of them do seem to get better as the semester goes on."
- "I don't know that they always receive that feedback. Meaning, actually read it and have a response to it. I guess as I'm talking, I'm thinking that maybe that's something that ... Yes, that comes up continuously, so what could I do about that? I do believe the feedback is important. I just wonder, do they recognize that?"

- “I think that’s always a challenge because I do tell them, ‘I spend hours of writing these notes. I want to make sure that you read them.’ When I give back papers, there’s always a little bit of time in there to go over notes. I find they don’t necessarily come back to me about my notes, and so I do ... I have to say, I do question how effective that may be. I believe the feedback is valuable. I guess my concern would just always be, are they receiving that feedback the way I want them to?”
- “Usually students will pay attention to my comments, but if I don't ask them to redo tests, it's difficult for me to keep track of how they are using the comments. I don't have a measurable way to report how they're using it, but at least it's modeled in class.”
- “Since I put comments on the paper, they know exactly what should have been done to get the correct answer and I do that on every problem. To me the self -feedback would be they go through, they look at the problem and then I would suggest that they go back to their homework where the problem came from and do some more problems.”
- “They'll come ask me to clarify a lot of the times because sometimes I might know what I want to say and I'll write it down and it makes perfect sense to me. Then they'll come back to me and go what did you mean by this?”

Theme 7 asked the participants about how they learned about feedback and how they used student feedback to improve their practices. They were also asked about how their students learned to use, value, and give feedback. The instructors shared various

ways that they learned from student feedback and also how they used student feedback to improve their own practices.

I was also interested in the evidence that the participants used to support how students learned to give feedback as well as used and valued feedback to improve their learning. The instructors were unsure in most cases and expressed the realization that this might be an area to more carefully consider in the future.

Theme 8: Challenges to Practicing Constructive Feedback

Many challenges to using feedback to impact learning were shared by the participants while describing the perceptions of feedback especially regarding the ability of the instructors to implement feedback in the way that they know it is most effective. Most of the challenges were about time constraints and the instructors' uncertainty of the students' value and use of feedback.

Time was a challenge factor in many ways to the participants. Some of the other challenges that were described included the following: knowing the right quantity of feedback necessary to impact student learning, understanding the timing and context of giving feedback, having the time needed by the instructor to learn, design, and implement constructive feedback practices, along with developing the knowledge base and experience to effectively evaluate and discriminate between constructive and destructive feedback practices. These challenges were especially expressed by the participants when teaching developmental education courses where students have many pressing academic needs.

The participants shared that time was a big issue in several ways. Making time in class for reciprocal feedback and peer review groups is challenging. It takes a lot of time

to think about and create ways to embed feedback practices into current college courses. It takes time to think about and then to give written comments on every quiz, test, project, and class activity. Developing meaningful relationships between learners takes time. The instructors did not see frequent or consistent positive responses to the feedback from the students.

Students do not have time to consider the feedback and make changes suggested by the feedback. Students often do not respond to comments or show they are using the feedback or even that they value feedback. Students do not have the time to come to see instructors to give feedback on their learning or to get feedback to improve learning. When the instructors asked students to come in for help they might say something like, “I’m in this class every day. I don’t have time to come in, I’ve other classes. I got to go home to take care of my kids, I’ve something after work, it’s amazing.”

Instructors do not see the time that it takes them to give feedback being balanced out with the value or importance of the feedback to the students. There is so much content to cover according to the curriculum guidelines and in relationship to the amount of time in each class period. There is not enough time to practice lots of ways to get the same learning and a deeper understanding that comes from the feedback. The time challenges are magnified when the courses are condensed summer courses or late start courses. Some of the participants’ comments about these challenges were:

- “[Because of time restraints] the only feedback I see between students is I’ll find them down in the math solution lab working together or talking about it.”

- “Not a lot [of group work]. I might do one or two days where they work together in the room. That's a tough one for me because every class there's a lot to teach. There's not a lot of group activities or group projects.”
- “Truthfully, sometimes they [students in developmental courses] are like, ‘I don't have time but in two weeks I can look at it when I'm not working 70 hours a week.’ I think a lot of times, and truthfully, their lives are rushed.”
- “They have very little time and very little commitment to the studies themselves.”
- “In the evenings while doing homework if the students struggle and need help they need it right then. They need the feedback during the time they are working on the learning. So I try to get back to them within an hour. I know a lot of them are trying to do their homework now, now, now, now. That's worth a lot.”
- “Students need the time they need [to use feedback]. [There is not much you can do about that.]”
- “You don't have time, you barely have any time to cover the curriculum.”
- One participant uses a ticket out to get feedback from students every day and still even with this feedback and knowing what to do says there is not always time to go back and reteach.

Other challenges mentioned by the instructors were the difficulty to measure student value and student use of feedback, knowing how to differentiate feedback for all students, and how to use feedback to effectively motivate student engagement,

participation, and ownership in the learning process. Additionally the physical room arrangements were a challenge for sitting with students or flexibly grouping students together to foster feedback through peer interaction and closer proximity between the instructor and students. Room organization was discussed as a challenge to giving and receiving feedback especially for peer review groups. One example given by a participant was the challenge of having students give each other feedback in the computer lab.

Theme 8 described the many challenges that participants shared concerning using feedback in the courses they taught especially in the developmental education courses. These challenges centered around the time constraints on the parts of both the instructors and the students that prevent them from learning about and using feedback effectively.

Summary of Findings

The overarching theme that emerged from this research was that feedback is important to college instructors who teach developmental education courses. The participants thought that feedback was important to students also. The feedback practices for developmental education courses were very similar to the feedback practices used in all courses taught by the same instructor. The differences in feedback described for developmental education courses by the instructors were seen as the need to simplify and connect the feedback to the level of the developmental students' understanding of the particular task, to give feedback in a kind, caring, and compassionate way, along with being positive, consistent, and specific.

The purpose for using feedback expressed by all the instructors was to increase student learning and success. Feedback was valued as a tool to give information to students about how they are learning, what they know, and what they do not know. In

most cases the instructors also mentioned, but emphasized differently, the importance of receiving feedback information about how the students are learning and achieving in the course so the instructors could make adjustments to increase student learning. The instructors did not discriminate between formative and summative assessment when describing feedback practices. The feedback descriptions often included quizzes, finals, and papers with final scores or grades on them in addition to written comments most often to correct errors. It was mentioned only a couple times by the instructors that any learning experience could be redone and resubmitted to show new learning after receiving feedback on it.

The instructors described positive feedback that shows student strengths or understandings as just as important as corrective feedback to point out errors. Often the examples given of positive feedback included person praise or empty praise, such as “good job,” “great writing,” “top of the class,” without specific information about what was done correctly so it could be repeated by the student. The instructors described feedback practices that were both destructive and constructive to student learning though the participants considered them all to be constructive for learning. Often the destructive feedback combined constructive feedback purposes with destructive words, tone of voice, or fixed mindset language which could impede student learning and engagement. The interviewed instructors had differing abilities in evaluating and distinguishing between destructive and constructive feedback.

The culture for learning was viewed as important to all of the participants. Allowing and valuing learning from mistakes as well as using collaborative learning between students to get feedback from different perspectives were shared by the

instructors as important aspects of the culture for learning that was supported by feedback. Developing personal relationships with everyone in the learning environment was described as necessary for feedback to be valued and used by the students. However, the participants gave differing amounts of time and attention to establishing the culture for learning especially connected to establishing and maintaining healthy learner relationships in the courses they teach.

There were many challenges seen by the participants that interfered with being able to implement constructive feedback practices into the courses they taught especially for developmental education courses. Many instances of time restraints were seen by all participants as one of the biggest challenges for both instructors and students to use feedback to increase learning. The biggest area of challenge described by all of the instructors was the ability to know if students use and value feedback. The intentional training of students to give and receive feedback was new thinking for all of the participants. The instructors have had very little direct learning about how to give feedback, how to teach students to give feedback, and how to measure if feedback is being valued and used by students to increase learning.

The ability to evaluate and discriminate between destructive and constructive feedback was a challenge to the participants. Those instructors who have had recent professional development directly linked to constructive feedback practices were more likely to be focusing on trying to improve feedback practices. All of the instructors showed interest in learning more about constructive feedback practices, teaching students to use and value feedback, and in improving their own feedback practices.

Discrepant Cases

After all the data were coded, there were no pieces of information that did not appear to fit anywhere. As the researcher, I figured out if the codes used already accurately fit the data or if a new code(s) could be found to better accommodate the data. If not, then it was decided what would be done with the discrepant data that did not fit in the existing patterns and themes. Data were considered that could be contradictory to existing data categories and explored for the possible existence of a new pattern or category (Hatch, 2002). Searching for and labeling non-examples or data that did not fit typologies was as important as labeling and coding the examples that fit the typologies to ensure the accuracy and quality of the research study.

Complete and thorough investigations into rival cases was considered one of the strongest ways to support the validity of a research study. These would be cases that actually rival each other where if one were true the other could not be true. I kept a continued sense of awareness during the entire process to notice any possible rival cases. I asked myself questions outlined in Yin's (2011) work about, "whether events and actions as they appear to be; whether participants are giving their most candid responses when talking with you and finally whether your own original assumptions about a topic and its features were indeed correct (p. 80)". I concluded that the participants were giving me candid responses and my final conclusions were in line with the data collected from the interviews, documents, peer debriefer, and the member checks.

I searched the data to check for rival explanations. The perceptions about feedback were similar in all of the interviews. The differences noted were not in the areas of feedback that were described, but in the importance of receiving feedback over giving

feedback for only a few of the participants. In the interviews, most of the participants emphasized giving feedback to students in contrast to a few participants who put more emphasis on the importance of receiving feedback from students. All of the instructors valued both the feedback they gave to the students as well as feedback they received from the students. The other areas of feedback were consistent between participants differing only in the importance given to the types of personal feedback practices used to give specific feedback to students and also to get feedback from students. I did not find any rival or discrepant cases.

Evidence of Quality

The criteria for determining the quality of a qualitative design was “human-made and subjective, ever-changing and sometimes even problematic” (Tracy, 2013, p. 228). At least two sources of trustworthiness were recommended by Creswell (2013). A model was used that had developed eight criteria for quality to consider when designing and evaluating qualitative research. According to Tracy, they included having a “worthy topic, sufficient rich rigor, sincerity, credibility, resonance, significant contribution, ethical and meaningful coherence” that showed the researcher had sincerely considered the subjective perspective of bias, inclinations, and challenge in this particular study (2013, p. 230). The topic of college instructors’ perceptions of feedback is a worthy topic in light of the research that supports that constructive feedback is one of most impactful practices to increase student learning and foster self-regulation. It strongly impacts learning for all students. There is an ongoing need for community college instructors to design learning experiences with the most impactful research based practices that lead to academic success for all students especially those who start their college experiences

taking developmental education courses. This research study was carried out in an appropriate manner through rigorous practices.

I have shown sincerity as I have done and shared my research, reflecting and being transparent about my own practices, motivations, and experiences doing this research. Credibility was shown through thick descriptions, triangulation, many voices or perspectives, plus member reflections with resonance to a variety of audiences. This research makes a significant contribution to community colleges by helping them understand the faculty perspectives on feedback and the importance of making sure that faculty are empowered with constructive feedback practices because of the strong impact they have on student learning especially for students enrolled in developmental courses. This study included these eight criteria outlined for excellent qualitative research (Tracy, 2013).

Several of the specific ways that the quality of this study was verified was through member checking, peer debriefing, triangulation, and self-reflectivity. Triangulation is a way to confirm the quality and trustworthiness of the data from the perspective of three sources (Yin, 2011). In my research, I used the transcripts from the face to face interviews as a verbal report from each participant. I also collected documents of written feedback from each participant to support the oral data about their perceptions of feedback, and I used member checking to converse with participants several times to confirm the accuracy and clarity of the data I collected from them and to make sure I had correctly represented their views.

In addition to conducting 17 interviews to gather data for this research project, I also collected from each participant three self-selected documents of written feedback

they had given to students in their developmental education courses. The reason for these documents was to code the feedback and the themes that emerged from them to see if they corroborated with the themes that came from the interview data. The data from the interviews and the documents corroborated and illustrated the participants' interview descriptions and purposes for feedback used in the developmental courses that they taught.

Member checking occurs when the participants are asked for their views on the accuracy, credibility, and completeness of the findings for this study (Merriam, 2009). The participants studied my preliminary analysis consisting of descriptions and themes and also considered the biases or misunderstandings that I might have made in my interpretation of the data. I was interested in their opinions of what is meaningful to them as well as what had been left out. I updated the data to reflect any additional comments that were made by the participants after they reviewed my understandings of the descriptions and themes.

According to Creswell (2012), the peer debriefer is a person who has knowledge of feedback practices and will read the draft of the findings to confirm the quality of the evidence before the final report on the findings is shared with others. The peer debriefer for this study was a person who teaches professional development about best teaching practices including use of effective feedback for learning. She signed a confidentiality form (see Appendix F) to protect the confidentiality of the participants and the research. The peer debriefer was sent a draft of the study findings, without any personally identifying information, through college e-mail to review and reflect on the accuracy, completeness, and clarity in connection with the preliminary findings and themes. The

debriefers did not have access to raw data from this research to be able to reflect on the accuracy and completeness of the findings. A signature of agreement from the debriefer was obtained before sharing the final findings of the study. The data analysis from the interviews and the data analysis from the documents was triangulated to provide corroborating evidence to support emerging themes and perspectives.

Finally the researcher integrity is very important in qualitative research, and for that reason, it is important to take a look into my own thinking and feelings in my position as the researcher to determine how my thoughts and actions influenced the research interpretations and results (Lichtman, 2013). Using a reflective notebook, I reflected on the research process to consider my own place in it as well as my own interpretations of the others who participated in the study. Use of a peer debriefer, triangulation of data, member checks, and researcher reflections through a reflective journal are the four strategies that were implemented to support the quality and trustworthiness of this case study.

Evidence of quality or trustworthiness of a qualitative research study is of utmost importance for the findings of the study to be valued and considered worthy of determining future practices in education and also leading to future research. Trustworthiness was upheld through collecting sufficient detail in the data, member checking the accuracy of the data, collaboration with a peer debriefer, and including reflection practices throughout the research process. The question that was answered is “Are the findings credible given the data presented?” (Merriam, 2009 p. 213). The answer is “Yes”, to the best of my abilities as a researcher.

Outcomes

The data gathered from 17 in-depth interviews with instructors of developmental education courses at a specific college in the Southwest established several themes that may increase the understanding of college instructors' perceptions of feedback. Through a better understanding of the current perceptions of feedback, it is possible to determine how to better equip college instructors with constructive feedback practices that research shows substantially impact student learning for all students. The themes showed that feedback is important to both college instructors and to students. The purpose for instructor feedback practices is to increase student learning and success even though their feedback practices could be destructive as well as constructive to student learning. The ability to discriminate between destructive and constructive feedback practices is important for all college instructors so that the feedback practices in their courses are positively impacting student learning. This knowledge about feedback will allow instructors to evaluate the impact of their feedback practices through learning to collect evidence of impact on student learning.

This research confirms that college instructors can use knowledge, support, and education to improve current feedback practices so the instructors become confident that their feedback practices are constructive for student learning. It is also important to learn ways to integrate feedback practices into the current time frames available for both instructors and students. The data confirmed that the instructors see feedback as instrumental for successful student learning. As a result of the findings, current faculty development in best teaching practices must be expanded to include specific experiences in evaluating and discriminating between destructive and constructive feedback practices

along with learning to collect evidence of the impact of those feedback practices on student learning. In addition, this research data shows that it is important to learn how to establish a culture of care and continuous improvement while teaching and learning to value, seek, give and use feedback for both instructors and students.

The project that was created from the results of this study is outlined in section 3. The project is a professional development program for community college instructors concerning all aspects of constructive feedback practices that impact student learning and success. It consists of 12 modules of 90 minutes each taught in a three day workshop or a 6 week class that meets for 2 hours once a week. The project outlines a training that will involve active, engaged learning to model, practice, and equip the college instructors to use constructive feedback practices as a dynamic, reciprocal, iterative process. In addition, this professional development will teach constructive feedback strategies that can also be taught to the participants' students and that will positively impact student learning in the courses they teach and in future learning experiences. Strategies to embed constructive feedback practices within the time frames available to both instructors and students will be shared and experienced in the learning experience. This training includes ways to evaluate and discriminate between destructive feedback and constructive feedback while changing current destructive feedback practices into constructive feedback practices and strengthening current constructive feedback practices. Learning to collect evidence of feedback that impacts student learning is embedded throughout the professional development.

Conclusion

The research question for this project study was “How does a select group of community college teaching faculty perceive feedback when teaching developmental education courses?” The best methodology for alignment with the research question was the qualitative instrumental case study design. Seventeen diverse community college faculty volunteers who teach any developmental education course were interviewed and shared self-selected examples of written feedback given to students while teaching developmental courses. Documents of written feedback were triangulated with the data from the interviews to be able to see many perspectives. Researcher reflections were written down along with field notes to record emotional responses and thoughts about the study.

Data from the interviews and the documents were coded for emerging themes and compared to the current literature on feedback. Member checks and a peer debriefer clarified data and the data analysis to establish trustworthiness. As a result of the findings a professional development training for community college instructors has been designed on how to use and improve feedback practices to increase student learning and academic achievement for all students. The results and findings from the project study have been shared with all of the participants and shareholders through e-mailed reports and personal presentations.

Section 3: The Project

Introduction

The purpose of this instrumental case qualitative study was to explore community college developmental education instructors' perceptions of feedback. Eight themes came from the data analyzed from the interviews of 17 instructors from a large community college in the Southwest United States. The eight themes were perceptions of feedback; constructive feedback; destructive feedback; multiple person feedback; instructors receiving feedback; culture for feedback; learning to value, seek, give, and use feedback; and feedback challenges. According to the patterns and relationships that came from the data analysis, college instructors valued feedback and wanted to use feedback to positively impact student learning. The instructors were unclear about how to evaluate and discriminate between destructive and constructive feedback so that their feedback had the maximum impact on self-regulated student learning. The following sections include the project description, learning goals, rationale for the project, review of the literature, positive social change implications, and the conclusion.

Project Description, Learning Goals, and Success Criteria

The parameters of the professional development training guide the effectiveness of the training from transforming teacher practices to transforming the instructor's impact on student learning. In order for professional development training to impact student learning, it must be personally meaningful for the participating instructors so they value the time and effort spent in the professional development and see that transforming

teaching practices can improve the learning outcomes for the students in the courses they teach.

The learning experiences in the professional training must be able to be modified and used by the instructors in their learning environments. The instructor participants must be actively engaged in the learning process so they can understand how to implement them within their own course curriculums. Instructors who seek professional development opportunities and see them as valuable for their personal practices both now and for teaching future courses have higher student scores and higher instructor retention rates than instructors of the same courses who do not attend professional development trainings, especially when the professional development experience comes before the students final assessment or testing periods (Fields, Levy, Karelitz, Martinez-Gudapakkam, & Jablonski, 2012). The principles shared in the professional development training must be grounded in valid, reliable, and trustworthy research so that the strategies embraced will have maximum impact on student learning.

This project study developed from the research and is a professional development training that includes the components of a dynamic, iterative, reciprocal constructive feedback process that connects to learning goals and has evidence of impact on student learning. College instructors will be immersed in learning experiences that support knowledge and strategies that will in turn equip and empower students to value, seek, give, and use constructive feedback. Learning to seek, give, use, and share feedback with others equips and empowers students to increase self-assessment and then use self-regulation skills to adapt learning practices that impact their learning and equip them to be able to handle challenging learning experiences in the future.

Setting Learning Goals

The goals for the professional development, Equipping Community College Instructors with Constructive Feedback Practices to Impact Learning for All Students (Appendix A), are that participants will be equipped to be practitioners of constructive feedback in their own learning environments to maximize student learning. The success criteria or evidence of participant learning from the professional development training are demonstrated by each participant's ability to create constructive feedback practices for his or her own personal professional environments.

The professional development training is divided into 3 full learning days, 1 day a week over 3 weeks totaling 12 90-minute sessions or 18 hours of total learning time (See Appendix A). Each learning day will consist of four 90-minute sessions with breaks and a networking lunch provided for the participants. The training aligns with the themes that have come from the research findings. Each session is designed to include learning experiences: (a) informed by how the brain learns; (b) connected to prior knowledge; (c) led by participants; (d) that provide opportunities for practice through collaborative, interactive, multimodal experiences; (e) that lead to practical applications; and (f) that finish with response and reflection to learning that builds both participant and facilitator self-assessment and self-regulation skills. The target audience is all college instructors, especially those who teach developmental education courses. The learning experiences are designed to be models of how the learning can be executed within the courses and curriculums currently being taught by the participating college instructors.

Rationale

A professional development training is the best avenue to address the gap between the college instructors' current understanding of feedback practices and the constructive feedback practices that are supported by current research. My research data and findings did not support a program evaluation or policy evaluation. Developing a new curriculum would not equip instructors with best constructive feedback practices to embed into current courses to maximize self-regulated student learning. The most applicable project study to align with the findings from this research is a faculty professional development training focused on active learning experiences with constructive feedback strategies to increase the instructors' knowledge and understanding of how to embed the practices into current courses to increase learning for all of their students.

Instructors at this college were not equipped with an understanding of the constructive feedback process needed to maximize self-regulated student learning, especially for students in developmental courses. There was a need to strengthen the instructors' understandings of the reciprocal, iterative feedback process between instructors and students along with the need for instructors to see the importance of seeking and using feedback from students. The area of greatest need found in the research was the college instructors' understanding of how to equip and empower students to seek and use feedback to evaluate and guide their own learning. This professional development training will include knowledge and strategies for equipping and empowering instructors and students with constructive feedback practices to increase self-regulated student learning while developing a culture of care and continuous improvement.

Student retention and completion for all incoming students is of importance and concern to the stakeholders of this large, urban community college. This concern about school success is especially focused on students who enroll in college unprepared or underprepared to successfully complete college level courses. Many of these first-time college students are required to take developmental courses in English, reading, or math to overcome the deficits between the academic knowledge and skill levels of the students at enrollment and what is necessary to succeed and complete goals to attain a college degree or certification. It is important for college instructors to learn practices that are the most impactful for learning for students in developmental education courses.

At this college, the most at risk students are those who are mandated to pass developmental education courses before enrolling into the college level courses required for degree completion. Constructive feedback practices that intentionally support a growth mindset while connecting to students' personal learning goals equips and empowers students in developmental courses and all students to develop self-assessment and self-regulation skills that help them to succeed, not only in current courses, but in future learning and life challenges.

Equipping college instructors, especially those who teach developmental education courses, with knowledge and skill in valuing, seeking, giving, and using constructive feedback practices through professional development training is a cost effective strategy to maximize learning for all students and address stakeholders' concerns for student completion and retention. Designing this professional development training to align the findings from this research study with the most impactful research

based strategies for transforming college instructor practices would have an impact on student learning in the courses that are being taught by the participants.

Review of the Literature

Researchers from a variety of disciplines have shed light on how instructors can learn to value, seek, give, and use constructive feedback practices to maximize self-regulated student learning. The most impactful strategies to implement transformative learning experiences through professional development trainings to equip and empower college instructors with constructive feedback practices were gleaned from current research. The focus was on the most effective research-based professional development strategies informed by how the brain learns to support transformation of instructors' current thinking and teaching practices into new understandings and personal applications in the college courses they teach. The following databases were used to find literature: ERIC, Educational Research Complete, Sage, Taylor & Francis Online, EBSCOhost and ProQuest. The search terms included *feedback; effective feedback; constructive feedback; visible learning; self-regulated learning; seeking feedback; using feedback; faculty professional development; culture of care; culture of continuous improvement; growth mindset; student engagement; neuroscience of learning; how the brain learns; professional learning communities; active learning; mind, brain and education science; and adult learning.*

This literature review includes an analysis of how theory and research support the project and connect to the data analysis findings. The areas considered will be Effective Professional Development Training, Building a Culture of Care and Continuous Improvement with Constructive Feedback, Developing the Instructors' Growth Mindset

with Constructive Feedback, Aligning Constructive Feedback with how the Adult Brain Learns, Constructive Feedback for Metacognition and Reflection, Transforming Future Instructional Practices to include Constructive Feedback, and a Literature Review Summary.

Effective Professional Development Training

Impactful and transformative professional development training is an “indispensable factor in any efforts to aid in education reform” (Sanders, 2014, p. 37). The planning and design of the professional development is very important for the experience to improve instructor practices that will maximize self-regulated student learning. Without “thoughtfully planned and well implemented professional development”, improvements in learning or instructor practices will not be seen (Guskey & Yoon, 2009, p. 497). The most effective high impact professional development trainings transform, improve, and sustain the implementation of teaching practices that increase student learning.

According to Reeves, (2010, location 288), “High impact professional development has three essential characteristics:” (a) student learning is the most important thing, (b) adult decisions are valued and weighed for the impact on student learning, (c) people and practices are more important than programs. The focus of this research and the resulting project study is on increasing student learning through constructive feedback practices that result in course and degree success and increased completion rates. This professional development training was designed so every learning experience would equip college instructors with an understanding of the process and evaluation of constructive feedback strategies that could be taken back to the courses they

teach so those strategies could be adapted, modeled, shared and used to maximize self-regulated learning for all students.

Solving educational problems like those concerning student learning in developmental education courses “requires transformative rather than additive change to teaching practice” (Timperley, 2011, p. 5). According to Timperley (2011) and colleagues (Timperley, Wilson, Barrar & Fung, 2007) what instructors need to learn through professional development training and the conditions that they need to learn it in make a difference for student learning. The necessary conditions include: (1) instructors must be engaged and invested in the professional development to meet personal desires to learn and grow rather than just participating in the activities, (2) in order to transfer to personal learning environments and make a significant difference in student learning, instructors’ learning and practice must start with the professional development training and be ongoing and in depth, (3) maximizing student learning must be the focus of the professional development training so the instructors must learn through involvement in all the learning activities while making personal meaning and relevancy from the experiences that they can apply in future learning experiences for students, (4) the instructors must see the application of learning for themselves first and then for their students so the focus should be on learning how instructor practices in conjunction with student practices can provide evidence of impact on student learning, and (5) in order for professional development learning to have the maximum impact on student learning, it must involve the entire college system to be on board and involved in the process.

Instructors that are personally engaged in professional development trainings “take more personal responsibility for the learning of all students and do not dismiss

learning difficulties as an inevitable consequence of the home or community environment” so they see themselves as more effective instructors (Timperley, 2008, p. 9). Instructors who seek professional development opportunities and see them as valuable for their personal practices both now and for the future have both higher student scores and higher instructor retention rates than instructors of the same courses who do not attend professional development trainings especially when the professional development experience comes before the students final assessment or testing periods (Fields et al., 2012).

This professional development training is based on the social constructivist theories that support learning collaboratively through social learning experiences while making personal meaning and understanding that aligns with prior knowledge and future practical use. Support and guidance from someone with more experience and expertise scaffolds the learning to take it to the next level and to guide it in the direction of learning goals. Feedback is the process that is often used between a student and an instructor to bridge the gap between the learner’s experience and understanding and the understanding that is necessary to reach the learning goal. This gap is the zone of proximal development (ZPD) or the difference between what a learner understands and can do independently and what they can do supported by a more capable other person like their instructor. Through the reciprocal constructive feedback process, instructors gain greater insight into students’ worlds so changes and adaptations can be made to learning experiences to support students in more complex thinking and learning (Ferrari & Vuletic, 2010).

Professional development training establishes learning experiences that are collaborative, iterative, and meaning making for the instructors in their personal learning

environments. All the learning is guided and supported by a facilitator who is experienced and knowledgeable about increasing student learning through best teaching practices using constructive feedback practices. The facilitator will guide or coach the participants in learning experiences that will be challenging, meaningful, and relevant to them personally and to their areas of teaching responsibilities while increasing learning for all students.

The learning experiences for the college instructors will include direct instruction, active collaborative problem solving, building a learning culture to support constructive feedback, practical experience receiving and using constructive feedback while assessing and evaluating student learning. Student learning can be nested in instructor learning through professional development training. As instructors learn and grow in their understanding and abilities to use constructive feedback practices, they are able to adapt them and share them with their students.

The professional development training provides interactive learning opportunities for college instructors to seek, give, and use constructive feedback to assess learning and direct the next steps in their learning process so they can teach and equip students to value, seek, give, and use constructive feedback also. “Instructor learning about constructive feedback focused on learning leads to setting professional learning goals” (Brookhart & Moss, 2015, p. 25) and setting goals leads to greater change in practice.

The impact on student learning was emphasized as the most important result of the learning experiences offered in the professional development (Reeves, 2010; Timperley, 2011). Student self-regulated learning connects to course and degree completion. This is the opposite of the emphasis being on grades, scores, and class

ranking. To learn and use constructive feedback practices, other factors that are driven by feedback and support student learning must be also be a part of the professional learning experience. Important factors to be considered that are powered by constructive feedback practices include understanding personal learning goals, how to evaluate learning progress in relation to them and how to reach them through the learning process (Hattie, 2012a, 2012b, 2015).

In addition to developing goals, it is also important for instructors' constructive feedback communication to support developing a learning culture of care and continuous improvement, the growth mindset, and valuing, seeking, giving, using and evaluating feedback while supporting metacognitive thinking that leads to self-assessment and self-regulation (Merry, Price, Carless, & Taras, (Eds.), 2013; Nicol, Thomson, & Breslin, 2014). These factors were part of the design of the professional development training so the instructors embrace them and experience actively learning with them so they can facilitate similar types of learning experience in their own courses to impact student learning. The learning experiences are purposefully structured to provide for meaningful conversation, collegial dialogue, and opportunities to self-assess and reflect on the new learning and the learning experience (Knight, 2011).

Constructive feedback is only valuable when it maximizes student learning and results in positive change and growth. There are important factors that influence the results for learning of any feedback. Feedback that is caring, respectful, specific, and aligned with the learner's goals is most likely to be valued, sought after, given, and used to improve learning (Wiliam, 2012b). These are general guidelines for constructive feedback that will make it impactful for students; however it is also important to

recognize each unique student's diverse experiences and needs. These same guidelines make the learning in the professional development impactful for instructor self-regulated learning. Constructive feedback can be adapted to best meet the needs of students who are just beginning to understand the learning, those in the process with some understanding and then for those who have a strong learning base are now learning to evaluate and apply the knowledge to new practical situations on their own (Hattie, 2012c).

The focus of feedback must change from the teacher centered feedback given to students to correct work and give advice on what should be done to student centered feedback that equips and empowers the student with information to guide what they should keep doing, stop doing, or start doing to reach their learning goals. "The fundamental justification of feedback must be to change what students can do" (Boud & Molloy, 2012, p. 6). The transfer of the power of feedback starts with the instructor modeling and sharing the value of seeking, giving, and using feedback so that eventually students see the value of seeking, giving, and using feedback independently to increase their own learning (Crommelinck & Anseel, 2013; Stone & Heen, 2014). The instructor gives feedback to students about their performance but also seeks feedback about their own practices and methods to gain information to improve teaching practices that will impact student learning (Hattie, 2012b). The learner is seen as an actively involved and very important part of the feedback process rather than a passive recipient of information from their instructor.

According to Boud and Molloy (2012, p. 12) there are two distinct characteristics to feedback with the first being "a noticeable change in the learner" and the second is that

feedback is an integrated important part of the course curriculum to equip and empower students to use feedback to increase learning in any content or course. The value of feedback cannot be evaluated on the behavior of the instructor but rather on the students' response to the feedback and the next action steps that lead to improved and higher quality subsequent work.

Constructive feedback should be adapted to best meet the needs of various levels of learners (Hattie & Timperley, 2007; Hattie, 2009; Hattie & Gan, 2013; Hattie & Yates, 2014). The professional development training is designed to illuminate and integrate all three levels of feedback into the learning experiences for the instructors. The level of feedback is important to support the student in transforming and using the feedback to support improvement in subsequent learning (Hattie, 2012c). Timely constructive feedback to guide acquisition of correct knowledge is task focused and best for new learning because it confirms what is known and understood for the students. Feedback for new learning should also lead to correction of mistakes or to clarify understandings while introducing questioning to cause the students to begin to learn to ask themselves questions to get information that will take them to the next step in the learning process.

The second level of feedback is best for students with some initial understanding of the learning and more content knowledge. These students need time to process and figure out on their own before getting constructive feedback. The feedback, mostly through questions, should support how to value, seek, give and use feedback to get to the next step on the learning journey. Giving the students time to think before giving feedback allows them to begin to use metacognition and self-assessment in the learning process.

More advanced and complex learning requires even more time for the students to consider and think about their own learning so they can take the lead in the evaluation process. Constructive feedback that asks compelling questions and gives enough processing time equips more advanced learners to develop metacognitive skills to ask themselves questions so they learn to self-assess and determine what they do and do not understand which will lead to the next steps in the learning journey. The students can then determine and request the feedback that is needed and from whom in order to move the learning forward. Advanced learners use level three constructive feedback to apply their learning to new practical situations developing and using self-regulation skills.

Instructors' feedback should come at the time the student is ready for it and be the simplest guidance to support the student's learning and abilities to solve the problem and evaluate and determine the next steps in the learning experiences. Instructors who learn to value, model, and teach others to use constructive feedback practices recognize the importance of the level of the student learning for the type and timing of the feedback. In addition, the instructors also value utilizing constructive feedback to support a caring learning culture where the growth mindset is influenced and students are equipped and empowered to self-assess and develop self-regulation skills that maximize their learning.

Research shows that making learning visible so that instructors see learning through the eyes of the students in conjunction with the students being equipped and empowered to be their own teachers results in the most impactful learning for all students (Hattie & Yates, 2014). Constructive feedback practices are the tools that power visible learning. It is the communication of information that moves learning toward learning

goals and equips and empowers both instructors and students to be visible learners (Sutton, Hornsey, & Douglas, 2011). This is a new way of understanding feedback.

The constructive feedback process is more than improving the information that is shared by the instructor to students. It is about focusing on shared communication between students and instructors to develop a culture of care, continuous improvement and a growth mindset. Then focusing the mutual constructive feedback on supporting the learner to acquire the needed knowledge to progress toward their learning goals. Finally, focusing on what the learner needs after the learning experiences to clarify and become confident of the new learning while developing self-assessment and self-regulation skills so they can use the new learning in more challenging situations. Equipping the students to use the constructive feedback process to self-assess and develop self-regulations skills supports their ability to determine their own next steps in the learning journey and to independently tackle future learning challenges.

Professional development training should give participants experience in connecting all feedback to students' learning goals. That connection between learning goals and feedback is the most important aspect to understanding the task and being prepared to use feedback to move the instruction toward the learning goals (Brookhart, 2012; Hattie, 2015, Moss & Brookhart, 2012). Instructors need to learn to connect feedback to the questions: "1. Where am I going?" "2. Where am I now?" and "3. Where do I go next to reach my learning goals?" To help figure out where to go instructors guide students to consider: What should I keep doing, stop doing or remodel or start doing to keep moving my learning forward? (123KSS). Then instructors are equipped to model and teach students to ask themselves the same questions within specific course learning.

Constructive feedback should provide support, guidance, and information to answer these questions all along the way to the learning goal (Hattie, 2012b, 2012c, 2015).

In addition, constructive feedback is a reciprocal, iterative process where students' feedback to instructors can be more powerful than the feedback instructors give to students (Tovani, 2012, p. 48) because it powers change in teaching that impacts student learning and seeing learning from the eyes of the students. The more students know and understand about the learning goals and the learning task the more likely they are to seek and use feedback (Sadler, 2010). Feedback comments are only important in connection with student engagement and "evidence of its effects on student learning is imperative to support its impact or even that it occurred at all" (Boud & Molloy, 2013a, p.2). This professional learning training provides learning experiences for instructors to learn how to equip and empower students to value, seek, and use constructive feedback to evaluate and increase their own learning.

The research data showed that instructors need to equip and empower students to be assessment capable learners. The data analysis showed there is a disconnect between the expectations instructors have for students to direct and regulate their own learning and a lack of learning experiences and direct instruction that instructors embed into their courses to teach students to be able to do that on their own. When students are equipped to be active participants in the feedback process, then instructors need to spend less time and effort on feedback because students are able to interpret it and use it more effectively, reducing feedback cognitive load (Paas, Van Gog, & Sweller, 2010), and increasing the certainty for them, predicting what the feedback will contain (Shute, 2008) which is precursor for being equipped to self-assess and build self-regulation skills. Instructors

who are equipped and empowered with constructive feedback skills through professional development experiences can see the importance of learning, modeling and teaching those skills to students so students become equipped and empowered to use constructive feedback practices to increase their own learning in the present learning experience and in the future.

The data analysis from this research showed college instructors do not always understand that feedback can impact student learning destructively or constructively. Both educators and students agree that feedback is impactful for student learning (Boud & Molloy, 2013a). “Feedback is an essential element in a student’s learning process” (Merry et al., 2013). Destructive feedback causes learning to diminish, to be turned off, or be ignored while constructive feedback moves learning forward, engages the student in the learning, and supports equipping and empowering self-regulated student learning. The research showed that college educators bring assumptions about the impact and practice of feedback on student learning into all student interactions through a combination of both destructive and constructive feedback practices. This professional development training includes learning experiences for participants to learn to discriminate, evaluate, and exchange destructive feedback practices for constructive feedback practices in situations similar to those they will experience in their own courses.

The research data showed that instructor emphasis is often on the inputting of information by the instructor through feedback to the student rather than on receiving of information from and by the student to improve practices by both parties that increase student learning. Feedback conversations need to change from one about the delivery of feedback to one of how constructive feedback can change what students can do. The

dynamic, reciprocal, iterative process of constructive feedback is not entirely understood and displayed in the professional practices of college instructors. The professional development training gives opportunities for educators to experience and evaluate the entire dynamic, reciprocal, iterative feedback process so that it can be modeled and shared with students.

Hattie (2015, p. 37) supports that “effective instructional leaders don’t just focus on student learning. They relentlessly search out and interrogate evidence of that learning.” Instructors who have participated in a professional development training on constructive feedback practices should be able to show evidence that their feedback practices are having an impact on student learning and be able to identify the next steps to take as a consequence of the evidence of the student learning that they found. Timperley et al. (2007) in the *Best Evidence Synthesis Iteration (BES)* shared the *Teacher Inquiry and Knowledge-building Cycle to Promote Valued Student Outcomes* which includes the following steps beginning with asking the question “What are the students’ learning needs?” followed by “What are the instructor’s needs in order to meet the students’ learning needs?” then designing the professional development training around those needs, and then, after the professional development training, asking the final question, “What has been the impact on student learning of the changed actions?”

This professional development has been designed by determining college students’ learning needs which are to learn to take ownership and responsibility for evaluating their own learning so they become self-assessing and self-regulated learners. The needs of the college instructors in order to be able to equip and empower self-regulated students was considered next. The college instructors need to learn to

understand the process of valuing, seeking, using, and giving constructive feedback so they can model and share that with their students. Finally, college instructors need to know how to recognize and collect evidence of the impact of constructive feedback on student learning to be able to determine the next steps to take in their instructional practices to guide students toward their learning goals.

In the International Bureau of Education's 2008 synthesis of research based evidence of international importance, Timperley(2008) named ten key principles of teacher professional learning and development that could be condensed into these four important understandings: (a) teachers' content and style impacts student learning; (b) teaching is a complex process influenced by many factors; (c) professional learning experiences must be set up in response to how teachers learn including engaging prior knowledge, developing factual and conceptual knowledge, facilitating retrieval and application of new learning, promoting metacognition, reflection and self-regulatory processes that connect to and monitor progress towards learning goals; (d) professional learning is influenced by the context where the instructor practices including the classroom and the wider college culture.

According to Timperley (2008, 2011), the professional development learning design must start with recognizing the knowledge and skills needed by the students, then determining what knowledge and skills the instructors need to meet the student needs, followed by what professional development training can equip the instructors with the necessary knowledge, skill refinement and interactive, pragmatic learning experiences that will maximize student learning. Next the instructors must know how to share those new strategies to engage their students in new learning experiences and finally to collect

evidence on the impact of the changed actions on self-regulated student learning. “The foundation of teacher quality is pedagogical capacity—teachers’ repertoire of teaching strategies and ability to form partnerships with students” (Fullan & Langworthy, 2014, p. 3). In order to collect evidence of student learning the instructors must be able to recognize what constitutes evidence of student learning.

The direction of professional development has been changing because often professional development has not significantly influenced change in participant practices that impact student learning. “Through ongoing cycles of inquiry and building knowledge, teachers develop the adaptive expertise required to retrieve, organize, and apply professional knowledge when old problems persist or new problems arise” (Timperley, 2011, p.11). Students, rather than instructors, are the focus on the beginning and the end of the inquiry process. Instructors learn to evaluate which feedback practices impact student learning and which feedback practices do not and then are able to seek out new different approaches that will impact student learning while meeting individual student learning needs.

Observing, practicing, and evaluating instructor practices are as important as balancing them with measuring student results. All of the professional development design focuses on instructors and students and the practices that impact student learning. The sweet spot is “when its [professional development] content integrates student learning standards and performance standards at the precise level of learning educators need, then professional learning has the greatest potential to support educators in changing practices to increase student learning” (Killion & Kennedy, 2012, p. 16).

The goal of this professional development training is for the instructors to experiment with constructive feedback practices and then begin to adapt and implement them into the courses that they teach while learning to collect evidence of student learning (Guskey, 2012; Hirsh, 2012). Through the application of intentional, new, and adapted constructive feedback practices experienced in the professional development training, college instructors can evaluate their impact on student learning and then make more adjustments to equip and empower the students to experience and implement constructive feedback practices that increase self-regulated learning.

Individual instructor capacity building is also a focus of this professional development training. According to Hall (2014), this means building the participating instructors' abilities, skills, and expertise about how the constructive feedback process can be used and shared to maximize learning for all students in the college courses that they teach. This includes the instructors' understanding and implementation of constructive feedback and most importantly learning to reflect on each learning experience to make the needed adaptations and changes to continue to improve and increase student learning. The thinking behind the actions and the reflective growth of every instructor is supported through this professional development training. Highly reflective educators are aware of their instructional reality, intentional in all of their actions while assessing the effectiveness of their actions on student learning, then adjusting accordingly while constantly reflecting on student learning (Hall, 2014, p. 2). Learning experiences requiring reflection on personal practices while learning to evaluate and adapt teaching practices to best meet the learning needs of individual students is an important part of this professional development training.

According to Barragan et al. (2012), a three-part framework for professional learning clearly aligns the purpose, the learning experiences, and the venue for the learning. This framework has been found to be the most successful to implement instructional changes in developmental education. The purpose of this professional development training is for college instructors to think about and use constructive feedback practices through various practical, interactive, and collegial experiences. These learning experiences are designed to equip and maximize the college instructors' feedback abilities through collegial, collaborative practice and experimentation to increase the likelihood that the practices will be used by the college instructors in current courses, especially developmental education courses, after the professional development training is completed.

This professional development learning could be shared online through a webinar, video series, or in an online campus management system, in a hybrid or through a face to face learning experience. In order for college instructors to have learning experiences using constructive feedback practices that most closely relate to the way their students will be using them and to experience the reciprocal, iterative process of using constructive feedback, this professional development is designed as a face to face learning experience. Through face to face personal learning experiences, collegial learning relationships can be established and learning can be facilitated through active, group collaboration. Instructors who learn collaboratively with colleagues “experiment with new teaching strategies, consult with colleagues about the outcomes, and return to the classroom with specific actions to improve pedagogical approaches” (Bickerstaff & Edgecomb, 2012, p. 2). Adult learners benefit the most when learning in social situations

with other people who have similar learning goals so they have the opportunity to learn with and from each other (Zepeda, 2012). Adaptations can be made to apply the learning from this professional development into courses that are hybrid or totally online.

Face to face professional learning experiences benefit participants through participation in collegial conversational learning. Learning conversations about teaching practices and student learning are important and are often lacking between colleagues in higher education. Collaborative learning allows for many perspectives and ideas to be shared as well as relationships to be developed so that the learning will be supported and will be more likely to continue after the professional development training has ended. Many college instructors have not had training or experience talking about or reflecting on current teaching practices between colleagues which makes it more difficult to embrace and support these practices within the courses that they teach (Bickerstaff & Edgecomb, 2012). This professional development training is designed to build learning relationships between instructor participants.

College instructors are subject matter and content experts, but they might not have had much education in best teaching practices especially specifically concerning constructive feedback strategies that support student learning. Most college instructors learn feedback practices from mentors or modeling after other educators. Most do not know the research behind constructive feedback practices. Instructors exert influence not only on students but also on each other. It is not a title or level of responsibility that affects this influence but rather in collaboratively sharing and learning with other instructors “ the observation of the impact of specific teaching practices on student achievement and the continuous sharing of those observation with colleagues” (Reeves,

2010, location 935). The face to face venue best supports building relationships, learning collaboratively, practicing together reciprocal positions involved in constructive feedback, participating in conversations about student learning and improving constructive feedback practices, in addition to reflecting on how personal teaching practices impact self-regulated student learning.

Most professional development trainings focus only on instructor practices however this professional development focuses on student learning and the instructors' feedback practices that support it. Learning experiences for the professional development training were developed from rigorous, refereed research based strategies that are “most likely to impact the student learning outcomes that we want” (Guskey, 2014 , p. 14) and maximize the impact of self-regulated student learning. Nine instructional strategies, divided into three broad categories that have the highest correlation with increased student achievement were considered in the design of this professional development. They were developed through meta-analysis research done by Beesley and Aporp (2010), then adapted and shared in (Antonetti & Garver, 2015, p. 98):

1. Creating the environment for learning
 - Setting objectives and providing feedback
 - Reinforcing effort and recognition
 - Cooperative learning experiences
2. Helping students to develop content understanding
 - Cues, questions and advance organizers
 - Non-linguistic representations
 - Summarizing and note taking

- Assigning homework and providing practice
3. Helping students to extend and apply knowledge
 - Identifying similarities and differences
 - Generating and testing hypotheses (p.98)

The impact of these nine strategies depend on them being used “intentionally, consistently and correctly” (Antonetti & Garver, 2015, p. 98). The strategies should be used for a specific purpose or outcome and be experienced through several learning experiences over time to become familiar with them while understanding how to use them. Using them correctly refers to making sure that the strategies are sufficiently challenging and learner directed.

The principles, tenets, and instructional guidelines derived from the seminal research in Mind, Brain and Education Science (MBES) were streamlined into a list of characteristics of learning experiences that most impact learning, and have also been embedded into the design of the learning experiences for this professional development training. The 13 MBES characteristics of the most impactful learning experiences include: “(a) student-centered, (b) challenging, (c) authentic, (d) active, (e) holistic, (f) cognitive, (g) constructivist, (h) reflective, (i) expressive, (j) developmental, (k) social, (l) democratic, and (m) collaborative” (Tokuhama-Espinosa, 2014, p. 169).

Additionally, the learning experiences for the professional development training have been designed to support recent neuroscience research which outlines the best study and learning techniques to increase instructor and student learning that leads to long term remembering for use in the future. Embedding these strategies into the professional development training equips instructors to know how to use these strategies so they can

be modeled and shared with students. Both the learning experiences and the constructive feedback messages support the best techniques for new learning and studying to remember and use new learning.

Neuroscience research has confirmed three of the most impactful strategies to study, learn, remember, and retrieve new learning for use in the future. Embedding these strategies into the professional development training equips instructors to know how to use these strategies so they can be modeled and shared with students. According to Brown, Roediger, and McDaniel (2014) and Carey (2014), these important learning strategies are retrieval learning, learner generation of answers, and reflection on the connections between prior knowledge and new learning. All of these strategies are learner centered and cause the brain to go through a period of frustrating effort to remember and use the new learning. The experience of struggle and forgetting before remembering consolidates the learning while building strong, neural networks for future connected learning (Tough, 2011, 2013).

Retrieval learning is when the learner attempts to remember after a period of time by retrieving the new learning only from their own memory what was learned and then to be able to explain and use it. This makes remembering new learning effortful and frustrating at first and then after several practices with error correction aligned with constructive feedback, the learning becomes more efficient and proficient (Roediger, Agarwal, & McDermott, 2011). It is important for professional development training to equip college instructors to understand and experience the best ways to study and learn while working through frustration and struggle so they can equip and empower their students through constructive feedback with these same learning and remembering skills.

The learning experiences in the professional development are designed to give experience with the most impactful ways for the adult brain to learn.

Self-generation of learning is embedded into the design of the professional development. Generation is when the learner remembers a part or all of an explanation of learning or makes a correction with only a hint or a choice rather than being given the total correct answer. It includes fill-in-the-blanks, some missing letters or choosing the best or most likely answer from choices. It often takes effort and time; however it causes greater retention of the learning than being given the entire correct answers to fix errors or to remember learning. Finally, instructor and student reflection includes “retrieving learning from memory, making connections to prior learning, mentally rehearsing what you might do differently next time” and then planning the next steps to take on the learning journey (Brown, Roediger and McDaniel, 2014, p.27.)

Reflection also includes self-assessment practices that support the learner’s ability to verbalize what they know and understand, what they do not know and understand, and what next steps will help to fill the gap between what they want to know and what they do know. Metacognitive practices cause professional development participants to think about their own learning to answer these questions: What do I want to keep doing that is helpful to myself?, What do I want to stop doing or remodel so it is more helpful for reaching my learning goal?, and finally Where do I go next to get to my learning goal? Retrieval learning, generation of learning, and reflection have the most impact on learning and remembering when there is spaced timing between exposure to the learning, and the learning is interleaved and practiced in different ways. Varied and

multiple constructive feedback learning experiences with memory retrieval, generation, and reflection practice are included in the professional development training.

This professional learning training has research-based constructive feedback practices embedded into it for modeling, practice, and examples for the instructors of how to use them in their own learning environments along with opportunities to seek, give, and use feedback to improve personal practices. The way to learn constructive feedback practices is to collaboratively seek, give, and use constructive feedback practices in a safe environment through simulated and real experiences while beginning to self-assess and seek evidence of learning that will lead to the next steps in the learning journey.

The learning activities will give the instructors opportunities to practice using constructive feedback to connect to learning goals, experience peer to peer feedback experiences, evaluate and change destructive practices into constructive feedback practices, design learning experiences that provide constructive feedback to both students and instructors, and learn to use feedback to increase personal self-regulation skills (Hattie & Gan, 2012). For college instructors, it is important to view and practice feedback as a reciprocal, iterative process between instructors and students and between students and students (Svinicki & McKeachie, 2011). Opportunities were designed to give the instructors time to practice the process of reciprocal, constructive feedback in real life scenarios common to their own learning environments. It is the purpose of this professional development training to positively affect what the participants will do after this experience in the courses that they teach.

The professional development training design included research based principles of learning specifically designed to meet the learning needs of college students. Seven research-based principles for college teaching that are domain-independent, experience independent, and cross-culturally relevant are embedded into the design of the professional development project study. The seven principles are: (a) relate and connect learning to student's accurate prior knowledge, (b) help students organize and connect knowledge to maximize learning and equip them to be able to use the learning, (c) motivate learning through helping students find positive value in a learning goal or experience, (d) provide opportunities for students to develop mastery of learning through acquiring skills, applying the new skills through practice, and learning how to use the skills in the future, (e) ensure quality student learning by aligning it to a learning goal supported by constructive feedback, (f) influence learning through the students' personal development supported by the social, emotional and intellectual learning culture, and (g) build self-directed learners who develop skills from learning experiences to monitor and adjust approaches to new learning (Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010, p. 4-8).

Sustaining the newly learned practices that are experienced in the professional development training is of utmost importance to maximize self-regulated learning for the college students in the instructors' courses. After the professional learning experience is over, it is ultimately in the hands of the instructors who participated in the professional development training to continue the learning, implement more practice, and modify the learning within college courses and through collaborating with others to continue to grow and learn. "It's about connecting people with purpose and finding new ways to learn.

Then ideas can spread quickly, efficiently, and with fervor” (Swanson, 2012, p. 39). If the instructors feel that the professional development learning experiences were meaningful to them while their personal needs and experiences are valued and respected, it increases the chances that the instructors will continue to collaborate and what they learned will be valued, practiced, applied, and sustained through use in their current courses.

The professional development training was designed to be experienced in one day periods occurring three times over at least three weeks. The entire professional training includes twelve 90-minute sessions which totals 18 hours of instructional time. Research shows that the time for focused professional development to have the greatest effect on student learning requires a large commitment of time and attention spread out over time to practice and reflect while “professional development experiences of 14 or less hours showed no effect on student learning” (Darling- Hammond & Richardson, 2009, p. 49). Instructors need time to learn collaboratively with support with job-embedded professional learning activities in order to really understand and take on new practices that will transform their instruction and have a great impact on self-regulated student learning.

The professional development training was designed to reflect the current research-based best practices that impact student learning including making learning visible, interactive, collaborative learning experiences, empowering and equipping self-regulated student learning, developing a culture of care and continuous improvement, using retrieval practice through generation of new learning including self-reflection, and self-assessment to determine the next steps to take to reach specific learning goals.

An impactful project study is designed to align with themes and findings from the research and to be shared through iterative, active learning experiences that include many, varied experiences to deepen the participants' understanding and give opportunities to practice new learning according to Walden University's Marydee Spillett (personal communication, December 11, 2011). This professional development training aligns with the themes that connect to the data collected and analyzed from this research study. Many varied and iterative learning experiences were designed for instructor participation using research-based constructive feedback practices with opportunities to learn to make adaptations to those practices to meet specific student needs in participants' personal content areas.

Assessment and evaluation of the professional development training experience involves getting information to all the stakeholders about how the instructor training and implementation of constructive feedback practices affected self-regulated student learning which affects course and degree completion. It is important to know how the learning experiences in professional development training motivated, equipped, and empowered the participants to experiment, adapt, and use new constructive feedback practices in their own learning environments and to provide evidence of the impact it had on student learning. Evaluations and assessments done on the final day of the professional development only give evidence of the participants' feelings about the experience, usually as a reflection if they enjoyed the experience or were inspired by the presenter or facilitator. It is not possible to evaluate or assess if the professional development experience has been transformational in teacher practices of constructive feedback that positively impact student learning. One of the most important signs that the

learning from the professional development training has been sustained and extended into the real life teaching practices is equipping the participants to recognize, collect, and share evidence of improved self-regulated student learning.

Gathering evidence on the outcomes of the professional development training on student learning requires input over time from the participants so they have time to consider and practice the new learning they gained from the professional development along with the time to collect and evaluate evidence of the student learning to share with the college stakeholders. According to Guskey (2012, pp. 13-16), these points must be considered in order to attain valuable assessment and evaluation of professional development trainings: First, begin the planning and design with the outcomes in mind, making sure that the outcomes desired are the learning goals that the professional training is aligned with from the beginning of the design stage. Second, take into consideration that different stakeholders judge different types of evidence as valid and believable and that different groups may interpret the same evidence differently also. The types of evidence collected should be aligned with specific stakeholder's reflections on what is the best evidence of self-regulated student learning so multiple forms of evidence of student learning must be collected and considered.

Third, it is important to design instructor learning experiences that lead to specific evidence of student learning to collect when they take the practices back to their own courses. Several different kinds of evidence must be considered to assess and evaluate the effectiveness of professional development trainings. Instructors value formative assessments, student participation, authentic portfolios of student work along with affective signs of student involvement such as motivation, initiation of problem solving

strategies and asking questions to further learning in addition to course completion and academic success shown in grades and scores. Testimonials from participants and students of participants collected after several experiences with constructive feedback practices can be the most subjective form of evaluation along with being one of the most influential because they are personal, emotional, and compelling. Instructors can also document student learning through anecdotal records of student and student group feedback practices or requests for feedback and examples of student use of the feedback.

Data already being collected by the college from local, state, and national assessments can be compared before and after the training. Administrators often look to those scores as evidence of success. Student surveys, reflection experiences, and student designed life plans can measure students' perceptions of the learning connected to a specific course, instructor, fellow students, and themselves as a learner. Many types of evidence of learning collected over time and after opportunities to share, adapt, and practice skills learned in the professional development into course learning must be evaluated and considered that connect to specific stakeholders when designing a professional development training.

Fourth, the evidence gathered should be transparent and explicit so that everyone involved knows and understands the evidence that is valued and how it will be collected. When possible the instructors should have input on the types of evidence and how it is collected and shared with stakeholders. A conversation about collecting evidence of student learning is part of the professional development training. Fifth, the evidence that has been collected should be valid and reliable. The best way to assure a higher level of validity and reliability is to include a comparison group. This would mean collecting

similar evidence from a group of similar instructors teaching similar courses not participating in the professional development training to be compared to the evidence collected from the participating instructors. “This allows for greater confidence in attributing the results attained to the particular program or activity being considered” (Guskey, 2012, p. 43).

College collected data comparing course completion and retention rates for the semester before the professional development and the semester after the training for the courses taught by the participating instructors in comparison to similar courses taught by instructors not participating in the professional development training was collected. College data that shows evidence of student learning that connects to course and degree completion rates, grades, scores, or retention rates can be compared to data collected previously to the professional development for the same courses and the same instructors.

Participating instructors will collect and share examples of evidence of student learning and then share their next steps connected to the evidence they found through an online survey to be completed two months after the professional development training ends. Evidence of self-regulated student learning that instructors could share include anonymous student examples of learning performance, understanding, mastery, asking questions to further learning, showing compassion or empathy for others and their ideas, application of learning to new problems or in real life situations, making connections to prior learning, or to new areas of learning, examples of students valuing, seeking, giving, or using feedback, examples of increased self-efficacy and of using self-regulation skills (Guskey, 2012). The evidence could come from examples of course work, mastery of learning, anecdotal records, repeating of conversations or feedback or situations that

came up in the courses, specific questions that were asked, student examples of overcoming challenges and setbacks, and examples of influencing or exhibiting a growth mindset. The online assessment and evaluation results will be shared with interested shareholders through a written report.

An optional event near the end of the school semester for all participants in the professional development training will be provided for everyone to come back together to showcase and celebrate student learning. It will offer opportunities to learn collaboratively through sharing instructor and student challenges, mistakes and successes and the new learning that came from them. Additionally, all instructors will have the opportunity to share and celebrate evidence of self-regulated student learning. Instructors continue to develop professional skills through reflection and figuring out the next steps to take on the learning journey to impact student learning by continuous improvement of their constructive feedback practices through in depth and ongoing collaborative learning.

Professional development training where instructors who voluntarily participate in relevant, flexible, and personalized learning experiences and where they learn collaboratively how to implement new strategies into the courses they teach has the most impact on student learning. Instructors must be learners and practice the new learning alongside their students to support deep learning for students. The implementation must be on what I need to try today rather than what I might try someday (Hurley, 2015). Focus needs to be on the students' learning, well-being, and engagement. Given knowledge, time, and practice through collegial learning relationships, college instructors within carefully constructed professional development training can learn, embrace, share,

and develop confidence in using new constructive feedback strategies that will maximize self-regulated learning for all students.

Building a Culture of Care and Continuous Improvement with Constructive Feedback

When designing the learning experiences within the professional development that impacts student learning, the diverse characteristics and cultural considerations of all the instructors and learners in college courses were considered. An important area of focus for the professional development was orchestrating a culture of care and continuous improvement where constructive feedback would be valued, sought after, and used through learning relationships. The students at this college come from a variety of cultures and backgrounds in addition to being in a variety of life stages and life places including having multiple responsibilities outside of the college courses.

To optimize learning and innovation, it is important to integrate different perspectives. Edmondson (2012) calls it teaming when people from diverse backgrounds, experiences, and understandings work together toward a joint goal. It includes developing relationships, listening to each other, learning together, and making joint decisions while being aware of the needs, roles, and perspectives of each member of the team. It is important to bring together students and instructors to learn how to learn interactively on a team from the many diverse perspectives that are brought to the learning experience.

Within safe environments, learning teams or groups can practice, make mistakes, and learn from them, ask questions without judgment, reflect on the learning and the mistakes, and develop confidence through a culture of trust and respect to try again. Establishing robust student learning teams requires leadership and support from

instructors who know how to use feedback to support and encourage team learning (Edmondson, 2012). Equipping college instructors with skills to recognize and value the diversity of every college student in the courses they teach, while getting to know their individual needs and goals within a culture of care and continuous improvement was embedded into the professional development learning experiences and aligned with constructive feedback practices that built respect and dignity for all learners.

Building a collegial culture into the professional development training develops and models a culture of care, respect, and trust, where instructors' learning challenges and obstacles can be shared through reciprocal dialogues while constructive feedback strategies are developed collaboratively to meet the learning challenges. Embedding opportunities to get to know each other through sharing names and personal connections, establishing mutually important goals in addition to collaboratively applying new learning strategies to personal challenges seen in the courses the instructors teach builds a foundation of trust and respect while building collegial friendships. Without trust, it is difficult for instructors or students to be vulnerable and open to learning from mistakes collaboratively with others (Carless, 2012). Instructors in the professional development need to feel safe to make errors, actively seek feedback to reflect on, and correct the errors so future learning behavior is changed. The learning culture should "encourage students to actively seek feedback and it is demonstrated in what students do when they confront an error. Do they see these errors as opportunities for learning or do errors simply stop them in their tracks" (Hattie, 2015, p. 39) and halt any further learning?

Learning from and drawing on the expertise of other instructors supports and grows the learning for the instructors in the professional development training and

extends it into real-life application. Positive, meaningful, reciprocal collegial conversations with give and take, sharing, and learning build energy that makes the learning valuable, connected, and more likely to be used (Knight, 2011). Dialogue has the most potential for growth when it is comfortable to share partial understandings and mistakes (Carless, Salter, Yang, & Lam, 2011). Training on how to participate in meaningful, collaborative dialogue utilizing non-evaluative feedback is necessary for instructors and students (Ladyshefsky, 2012). “The power of words should dignify people and their ideas” (Tomlinson, 2015, p. 91). Instructors in the professional development training experience ways to train students to maximize their learning through peer to peer feedback processes. Creating a climate for achievement that includes collaborative, constructive feedback to set learning goals, build relationships, and pay attention to social-emotional goals, gives all students the best chance to improve learning and succeed in school (Brennan, 2015). It talks practice and collaboration to learn reciprocal feedback practices for both instructors and students.

Diversity within learning groups builds creativity which lead to considering perspectives of others, deeper learning, better problem-solving, and decision-making (Phillips, 2014). Learning experiences in professional development training working in diverse, collaborative groups equip college instructors with constructive feedback practices that support students in communicating effectively in diverse, collaborative groups. Recognizing and developing a respect for different cultures and the positive contributions that can be shared between students from different cultural backgrounds deepens learning and builds empathy and compassion for others and their differing

perspectives. Instructor and student efficacy is built and promoted in a culture of care and continuous improvement (Goddard & Steele, 2014).

Feedback principles that enhance the willingness of all students to be open to seeking and using feedback were a part of the design of the professional development training. According to Piff and Mendoza-Denton (2012, p. 98), “wise critical feedback” given by an instructor to a student of a different minority race includes sharing corrective information with high standards for performance and assurance of student’s personal ability increases students’ likelihood of valuing and using the feedback to improve their learning. Helping students to realize that there could be triggers that block their ability to receive and use feedback such as from feedback that is not thought to be true or meaningful by the receiver, when the relationship with the person giving the feedback is not valued, or when the feedback has affected the student’s self-identity in a negative way (Stone & Heen, 2014).

The professional development collaborative, learning groups were designed to nurture a sense of belonging for all participants through including a diverse combination of genders, level of experience with constructive feedback practices, areas of expertise, race, and ethnicity because members of diverse groups are more innovative than homogenous groups according to Phillips (2014, p. 43). Instructors who nurture a sense of belonging and value the contributions from everyone support the development of trust and building of relationships which in turn leads to learning cultures that value continuous improvement and learning from mistakes through constructive feedback shared in a culture of care (MacFarlane, Glynn, Cavanagh, & Bateman, 2007).

Safe learning environments support the value and use of feedback to improve learning. Peer relationships can influence goal commitment and goal performance through pressure, competition, and modeling (Hattie, 2012a, 2012b). Building trust is especially important for students who are minority group members or who view themselves as being a part of a stigmatized group to feel safe and belong (Piff & Mendoza-Denton, 2012). Instructors who collaborate and discuss errors in teaching practices in safe environments are more likely to learn from the errors and make changes to improve practices that increase student learning (Jordan & Audia, 2012). Professional development training must allow instructors to learn from mistakes and from working together with other instructors.

Students relate to instructors who develop safe learning environments and are willing to share errors on their own personal learning journeys that emphasize learning from mistakes and then making changes to do things differently (Murphy & Dweck, 2010). Using feedback to guide change in future learning requires the learners to perceive the comments to be valued, nonjudgmental, and given with their best interest in mind (Boud & Molloy, 2012). The cultural considerations are so important because emotions and self-esteem hinge on feedback for both instructors and students (Sutton et al., 2012). This professional development values the use of diverse collaborative groups to build a culture of care and continuous improvement where empathy and compassion for different perspectives is developed, modeled, and experienced so the instructors will adapt and use them within their own learning environments.

Developing Instructors' Growth Mindsets with Constructive Feedback

This professional development training models the constructive feedback practices that support the development and influence of a growth mindset. The importance of instructors' understanding and modeling a growth mindset is influential for the students' development of a growth mindset. The growth mindset is driven by intrapersonal and interpersonal feedback. The growth mindset enables instructors and students to seek competency and mastery in hard subjects, to redouble efforts even when facing setbacks and obstacles, and to feel confident about meeting their personal goals regardless of the challenges that might arise (Burnette, Boyle, VanEpps, Pollack, & Finkel, 2013). Most importantly, instructors and students who have a growth mindset are more likely to seek out feedback and use it to improve their own learning and to build self-regulation skills (Educational Horizons, 2013).

Self-assessment and self-regulation abilities arise from a growth mindset. The ability to recognize a fixed mindset and exchange it for a growth mindset equips and empowers instructors to impact students to be successful in school and in life. Welcoming, seeking, and using constructive feedback powers instructors' and students' growth mindsets.

It is important for this professional development training to equip instructors to realize the importance of growth mindsets and how feedback practices influence the students' mindset. Research shows that students with growth mindsets set approach-oriented learning goals to reach desired goals and approach avoidant learning goals to avoid undesirable outcomes (Chen & Pajares, 2010). After learning goals are set and the learning is attempted, the goals must be monitored using self-regulation skills so students

can determine Where am I going?, Where am I now?, and Where do I go next? Both intrapersonal and interpersonal constructive feedback give the information to answer those questions and directs the actions necessary to move the student forward toward the learning goals.

After suffering a setback or ego threat in the process of reaching goals, students with a growth mindset are “more likely to adopt challenging strategies that require increased effort” (Burnette et al., 2013). The growth mindset supported by constructive feedback helps struggling students to face challenges like stereotypical threats (Aronson, Fried, & Good, 2002; Carr & Steele, 2009, Cohen & Garcia, 2005; Good, Aronson, & Inzlicht, 2003), low expectations for success from others (Davis, Burnette, Allison, & Stone, 2011; Shapiro & Williams, 2011), and rebounding from mistakes while adjusting strategies after errors (Moser, Schroder, Heeter, Moran, & Lee, 2011; Schroder, Moran, Moser, & Altmann, 2012; Schroder, Moran, Donnellan, & Moser, 2014). It is important for instructors to know and understand the impact of feedback on mindsets.

Murphy and Dweck (2010) have shown evidence that a groups’ implied theory of intelligence, whether it is fixed or growth, influences the beliefs of the members of that group. Instructors that develop a culture that supports a growth mindset can influence a growth mindset in their students. Research supports the importance of constructive feedback practices that support a growth mindset rather than a fixed mindset to impact student learning especially for those students who are starting out without prior knowledge, skills, experiences, or support to be successful college learners. Students placed into developmental courses have greater obstacles of time, effort, energy, and cost to complete a course or degree goal than college students starting out in college level

courses. They often have a history of past learning struggles due to many varied challenges. A growth mindset is necessary for students in developmental courses to overcome and persist through those challenges. Instructors who influence a growth mindset through constructive feedback practices can strongly impact student learning.

Students who have growth mindsets or have instructors with growth mindsets make more learning progress and improve more than students who have a fixed mindset or have instructors with fixed mindsets (Dweck, 2015). Educating both instructors and students about the impact of mindsets on learning empowers them as learners.

Understanding and embracing the growth mindset enables instructors and students to exhibit perseverance and resilience in the face of challenge and change.

Subtle language variations can influence the receiver's interpretation of the feedback as well as the relationship between the giver and receiver of the feedback (Cimpian, Arce, Markham, & Dweck, 2007; Douglas & Skipper, 2012; Reitsma-van Rooijen, Semin, & Van Leeuwen, 2007). These variations in feedback can influence either a fixed mindset or a growth mindset in students as well as affect their performance, affect, and persistence (Hattie, 2009, 2012; Douglas & Skipper, 2012; Dweck, 2007a, 2010). These variations in the influences of feedback can result from the students' understandings and beliefs about intelligence and ability. Fixed mindsets are influenced by abstract comments about performance especially past performances, by empty or undeserved praise, and by personal descriptions of themselves such as "You are....." (Skipper & Douglas, 2012). They are also influenced by destructive feedback which labels a student's natural abilities, refers to past performance or compares it to others, belittles effort and practice, or gives general, vague praise.

Growth mindsets are influenced by constructive feedback that specifically confirms student learning progress and processes, corrects, and redirects errors without punitive consequences, is specific and sincere, supports effort, practice and persistence, directs questions and conversations to guide students to learn for themselves and assess their own learning. Recognizing that a growth mindset can be developed and grown through both intrapersonal and interpersonal constructive feedback practices is impactful for all learners within all learning experiences (Dweck, 2015; Dweck, Walton & Cohen, 2014). The growth mindset is a person's set of inner beliefs that survey circumstances for learning then make an evaluation of the level of personal ability plus the resources that are possible and available to meet the challenges and obstacles on the way to making their learning goals. College instructors who understand, value, and personally develop and model a growth mindset influence a growth mindset in their students.

An instructor's mindset influences the mindset that they influence in their students when the students are facing obstacles, challenges, and changes (Dweck, 2015). If an instructor sees intelligence as fixed and there is no possibility to change or improve abilities, then the person with a fixed mindset will want to look smart at all costs and will not want to exert effort, try new challenging strategies, practice while learning from mistakes, or see others as inspirations and models to reach their personal dreams and goals. Instructors with fixed mindsets also influence their students to have fixed mindsets by believing that students' abilities are not capable of changing. Students with a fixed mindset often quit, disappear, or lose hope when obstacles, challenges, or change affect their personal learning goals. It is important to learn to recognize a fixed mindset so that specific constructive feedback strategies can be implemented to change the fixed mindset

behaviors into growth mindset behaviors that will support and fuel the learning through the challenges, obstacles, and changes to accomplish the targeted learning goals.

Constructive feedback that drives and supports a growth mindset is an impactful way for instructors to equip and empower their students, including those who are enrolled in developmental courses, to stick it out, persevere, and get through the struggle and frustration that comes with new, challenging learning. Instructors who model a growth mindset influence students to develop a growth mindsets (Dweck, 2015). The students with growth mindsets in developmental education courses are enabled to complete challenging courses in developmental education and continue on to more challenging college level courses using constructive feedback practices that empower self-assessment and build self-regulation skills. This professional development training provides opportunities for college instructors to learn how to experience and create classroom environments that foster a growth mindset through constructive feedback strategies that equip students to take ownership and responsibility for their own learning (Farrington et al., 2012).

Feedback practices strongly impact mindsets and can either influence a fixed mindset or a growth mindset (Dweck, 2010; Dweck, Walton & Cohen, 2014). Embedding learning and knowledge for instructors about how to recognize a fixed mindset and change it to a growth mindset within the professional development training equips and empowers instructors to take ownership for their own mindset and use it to influence a growth mindset in students through constructive feedback practices (Dweck, 2015). Learning to evaluate destructive feedback practices that influence a fixed mindset and adapt them to constructive feedback practices that influence a growth mindset is an

important part of the professional development training. In addition, instructors learn about how learning experiences cause the brain to change and adapt through practice and struggle so they can teach students how a growth mindset is developed and influenced by an understanding of how the brain learns.

Aligning Constructive Feedback with How the Adult Brain Learns

Understanding how the adult brain learns and values feedback enables both instructors and students to see the possibilities for improving learning through using strategies that will improve the neural connections for learning in the brain (Doidge, 2007, 2015). Instructors and students who know that the brain is neuroplastic and malleable as it changes and adapts to new circumstances value that it takes time, practice, and effort to build the important efficient and proficient neural networks that become strong learning pathways (Dweck, 2012, 2015). Instructors and students who understand how the brain learns are more likely to exhibit a growth mindset and to invest effort, practice, and persistence into challenging learning experiences.

The growth mindset builds instructors' and students' resilience to persevere despite struggle and frustration through challenges, setbacks, and changes to increase student learning. In order to learn and to apply new information in trusting, challenging environments that are similar to everyday environments, instructors need several opportunities to practice and reflect on those practice sessions (Timperley, 2008, 2011). The professional development design enables participants to experience learning in the way the brain learns best so that it will be most likely be remembered and be able to be applied in future learning experiences.

There are ways that are now substantiated by science to support learning that can be remembered and used in future learning experiences. They include self-testing, distributed practice over time, elaborative interrogation asking question such as “Why does it make sense...?”, self-generating answers to self-explain learning which is more powerful than being given the answer or a few choices to choose from, and interleaved practice with several dissimilar things to learn at once before grasping any one of them individually (Brown, Roediger & McDaniel, 2014; Carey, 2014; Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013). Neuroscience has confirmed that our brains learn and remember things in ways that often are not aligned with how we study (Carey, 2014; Hartwig & Dunlosky, 2012). Instructors must know and understand these best practices for learning and remembering in order to model and share that information with students.

Understanding the brain’s sensitivity to corrective feedback and its propensity to become defensive and turn off to learning preventing feedback from being valued and used is important for knowing how to give constructive corrective feedback as well as to how to support and build learning environments that invite and value mistakes and feedback that help people learn from them (Nowack, 2014, Stone & Heen, 2014). Instructors need to know how to avoid the three triggers that block seeking, evaluating, and using feedback which are a.) when the substance of the feedback is somehow off, unhelpful or untrue, b.) when there is lack of a supportive relationship between giver and receiver of feedback, and finally c.) when something about the feedback has caused the receiver’s identity to be challenged (Stone & Heen, 2014). They can learn to avoid the triggers and guide others to value even corrective feedback by helping all feedback participants to engage in meaningful, respectful dialogue within learning relationships in

cultures of care utilizing subtle cues in communication words and behaviors that positively influence the ability of another person's brain to accept and consider feedback (Douglas & Skipper, 2012, Klatt & Kinney, 2012). Understanding how the brain interprets certain feedback can help instructors to support and encourage constructive feedback practices.

Learning the cues to avoid and learning to use the cues that drive student learning is an important part of the professional development training. Subtle cues in communication can influence the brain's perceptions and interpretations of feedback (Douglas, 2012). Feedback when perceived as negative affects peoples' learning and their health. It is important to learn to give feedback that is valued, sought after, and will be used by the receiver (Nowack, 2014). Knowing how and when to give praise is important to motivate learning and drive a growth mindset (Dweck, 2007; Skipper & Douglas, 2012).

Constructive Feedback for Metacognition and Reflection

The importance of learning constructive feedback practices are two-fold: to improve instructor and student learning and performance on immediate tasks and then to build capacity to seek and use feedback independently in new learning experiences and in the world of work (Boud & Molloy, 2013a). Seeking and using constructive feedback gives students information about what they know and understand and what they do not yet know so they can make decisions on where they need to go next to get to their learning goals equipping them to self-assess their own learning and self-regulate how to use the learning for in the future. Seeking and using feedback gives instructors the ability to see learning through the eyes of the students and to adapt feedback to best meet that

students' learning needs and to support the next steps in the learning journey (Carless, 2013).

The language and learning experiences valued and used by instructors strongly impacts student motivation and effort for new and challenging learning (Dweck, 2013). This professional development training provides experiences for instructors to learn how to seek, give, and use feedback through opportunities to practice constructive feedback strategies with colleagues in learning experiences similar to the ones they might experience in their own courses. Most importantly these learning experiences equip instructors to use constructive feedback practices to guide and equip students to value, seek, give, and use constructive feedback practices to increase their own learning so they successfully complete their courses and degrees.

The ability to use feedback independently requires students to learn self-regulation skills that include “the ability to plan and manage performance, monitor themselves and utilize all manner of persons and processes” to generate what they need to be effective practitioners of constructive feedback (Boud & Molloy, 2013a, p. 3). Farrington et al. (2012) refer to them not as self-regulation skills but as noncognitive factors because they include attitudes, behaviors, strategies, and skills that are imperative for successful academic achievement and success later in the world of work. Constructive feedback powers metacognition which is the foundation for students being able to self-assess their own learning and learning challenges so they can figure out the necessary steps to meet learning goals independently (Sanders, Mazzucchelli, & Ralph, 2012). Self-assessment is seeking feedback and then using it to improve learning. Self-regulation is

the ability to take the actions recognized through the self-assessment to improve and increase learning.

There are at least six aspects of feedback that are important for the focus to be on self-regulation (Jolly and Boud, (2012). The development of self-regulated learning according to Jolly & Boud, 2012, (p.112) comes from the learner's "capacity to create internal feedback, the ability to self-assess, and the willingness to put effort into seeking and using feedback". In addition self-regulated learning is developed through the timing of the learner's realization that information is needed because when the learner is surprised that responses are not correct they are most likely to use the feedback, their ability to attribute their performance to internal factors rather than external factors and finally receiving only hints to the way to go instead of full answers. In addition, learners need time to use feedback and to apply it to the learning task while there is still time to show improved learning and performance. Instructors need to learn how to support the development of student self-regulation through professional development experiences and collaborative, collegial learning with other instructors.

Transforming Future Instructional Practices to include Constructive Feedback

Constructive feedback practices have been embedded into the professional development training so the instructors experience the process and see the value of the use of constructive feedback for future learning experiences. In order for feedback to be impactful for student learning so students learn to value, seek, give, and use feedback to improve their own learning and develop self-regulation skills, constructive feedback must be embedded into the design of the course (Boud & Molloy, 2012). The modeling of and practice using constructive feedback practices within the professional development

training will equip the instructors to use them to impart the course learning while equipping and empowering students to take these skills into subsequent learning experiences and into the world of work. Experiences and examples of how to embed constructive feedback practices into current course design are part of this professional development training.

Feedback impacts student learning. It can have a negative or positive impact so it is important to learn the most effective and constructive ways to use feedback to equip and empower self-regulated learning when teaching college courses and especially developmental education courses. This project study which is a professional development training enables college instructors to learn to recognize and evaluate evidence of constructive feedback's impact on student learning, to share constructive feedback purposes and principles with students, to experience many ways to use constructive feedback in the courses that they teach as well as how to embed feedback practices into the design of future courses.

Literature Review Summary

It is important for colleges to offer training on the strongest evidenced based strategies that support and strongly impact all learning for all students in all courses. A plethora of research supports that feedback that drives making learning visible is one of the most impactful factors for student learning. Carefully planned professional development experiences equip instructors to value, model, and share constructive feedback practices with their students so the students can be equipped and empowered to use them independently in future learning and work experiences. "Feedback conversations with and between instructors and students should be centered on "knowing

my impact should become a normal part of how things are done” at this college (Hattie, 2015).

The research findings support the need for instructors at this college to increase and improve their knowledge, expertise, and skills about the constructive feedback process in order to maximize learning for all the students in the courses that they teach especially for students that are enrolled in developmental education courses. To increase the course and degree completion rates for all students at this college, this research confirms the importance for a professional development training where instructors can learn to value and use the constructive feedback process to see learning through the eyes of their students and support students to see themselves as their own teachers so self-regulated learning is maximized for every college student.

Project Description

The most efficient cost effective way to equip and empower community college educators to value, seek, give, and use constructive feedback practices in the college courses that they teach is through a highly impactful professional development training experience. The professional development must share evidence-based constructive feedback through collaborative, interactive learning experiences that can transfer to the instructors’ own learning environments to transform their learning into actions and motivate them to apply it in the college courses they teach. The evidence of the impact of the professional development must be exhibited in the instructors’ willingness to embed constructive feedback practices into their existing teaching practices and share the constructive feedback practices with their students so the students become equipped and empowered as self-regulated learners. Instructors can support the impact of the use of

constructive feedback strategies through collecting and sharing evidence of student learning from their own courses in the months after the professional development training. Students who learn to value, seek, give, and use constructive feedback practices to self-assess and self-regulate will persist and complete course and degree goals.

The purpose of the project is to educate, equip, and empower community college instructors in specific knowledge, skills, and strategies for using constructive feedback practices to positively impact self-regulated learning for all students. The project goal is to improve course and degree completion rates through improving student learning for all community college courses, especially for developmental education courses, through improving faculty feedback practices.

Growing instructors' awareness that the impact of feedback can be either constructive or destructive for student learning will raise their desire to be intentional about constructive feedback practices. Practicing and experiencing constructive feedback in scenarios similar to the ones they will experience in their own courses will equip the instructors with skills to model and teach the same constructive feedback principles to their students to equip and empower them to learn to assess and regulate their own learning. Facilitating instructors' understanding of how to discriminate between constructive and destructive feedback and designing personal feedback practices that support self-regulated learning for all students through modeling and active engaged learning is the goal of this professional development training.

The professional development training will be a comprehensive learning experience consisting of 12 90-minute sessions occurring one day a week for a three week period. The training will follow the framework set by the themes that came from

this research. The eight themes that evolved from the data were Perceptions of Feedback, Constructive Feedback, Destructive Feedback, Multiple Person Feedback, Instructors Receiving Feedback, Culture for Feedback, Learning to Give, Use and Value Feedback, and Feedback Challenges. The intended participants in the professional development training are community college instructors of developmental education courses, community college faculty from all disciplines, administrators, counselors, student affairs personnel, and anyone who interacts with students.

The most impactful format for this professional development on constructive feedback practices to meet the stated purpose and goals needs to be based on the principles of andragogy. These include the participants must see the meaningfulness and relevancy of the training to their own personal practices, and they must be actively involved through choice and sharing of ideas and opinions. Their experiences and skills need to be validated and connected to the new learning. Autonomy and respect for their interests and expertise need to be exhibited. The learning needs to be collaborative and conversational respecting different viewpoints and perspectives. All the experiences in the professional development training must be directly applicable to the college classroom and to equipping students with feedback skills that will maximize their learning.

Resources, Supports, and Barriers

In order for the professional development training to have the greatest impact on the transformation of instructional practices that will impact student learning support needs to come from all levels of administration, faculty, and staff. The use of the college facilities and the funds to plan and carry out the professional development must be

supported by the college. The resources needed for the professional development include: a facilitator who is trained, experienced, and passionate about using constructive feedback practices in community college courses, a spacious meeting room with tables, presentation equipment, materials, handouts, and resources for the participants.

It is necessary and important to have the support of the college to advertise the professional development training and educate the faculty, staff, and administration to the value of attending and participating in the professional development. An existing facility at this college is a large meeting room in the Student Union often used for professional development trainings. The Center for Learning and Teaching Engagement (CTLE) is already equipped to advertise events, register participants, and compile evaluation results for learning events. There is also already a faculty development arm of the community college district that includes this college that designs, supports, and advertises the most innovative learning experiences for the faculty and staff of all the colleges in this district. They could possibly support and fund the constructive feedback professional development training for this college.

Potential barriers are the lack of monetary resources due to budget cuts and reductions in state support monies so there are only a limited number of events that get funded each year. Another potential barrier is getting support from the administration of the college. They need to understand and realize the benefit to student learning of the professional development training. The present administration may not understand or have experience in the new conceptualization of feedback and the importance of its impact on student learning. It would be imperative to take the time to share the vision and get their support for the professional development training.

Time is always the biggest barrier to college professionals committing to professional development training that lasts for more than one session and requires an investment of time and effort after the training. Sharing the impressive impact of constructive feedback practices on student learning through advertising and personal examples could influence the instructors and others to invest their time and attention in a professional development training experience on constructive feedback practices because of its impact on student learning for all students.

Implementation and Timetable

The professional development training is proposed to take place in the Fall Semester of 2015 at the college where the research study took place. To space out the learning to maximize the probability that it will be remembered and used, the professional development will be held in one seven hour day per week over a three week period. Each day will have four 90 minute sessions with a 15 minute break in the morning and the afternoon and a thirty minute networking lunch provided by the college.

The goals for the professional development training will be accomplished through participation in learning experiences that: (a) reflect the most impactful instructor practices on student learning which includes the two-fold purpose of instructors who see learning through the eyes of their students and students who see themselves as their own teacher called Visible Learning (Hattie, 2009, 2012, 2012a, 2012b; Hattie & Gan, 2012, Hattie & Yates, 2014), (b) give guidance and direction to the next steps for students to take to reach learning goals, (c) model and encourage a culture of care and continuous improvement where reciprocal learning relationships support constructive feedback that is valued, shared, used, and sought to increase learning toward goals and where mistakes

and challenges are seen as stepping stones to better learning, (d) support a Growth Mindset in the instructor so they can influence a growth mindset in students, (e) build students' self-assessment and self-regulation skills so students are equipped and empowered to carry out the necessary steps to continue on the learning journey to meet specific learning goals and to use them in future learning experiences, (f) seek out, receive, and use constructive feedback for self-assessment, evaluating, and reflecting on learning to improve teaching practices that drive both personal and student learning, (g) recognize evidence of instructor impact on student learning, (h) provide constructive feedback learning experiences for students that simulate or connect to real world applications.

The professional development will include connections to prior learning, establishing relevancy and meaningfulness to participants' personal learning environments, building of a knowledge base and big picture of the constructive feedback process, connecting constructive feedback strategies to learning goals, collaborative, interactive learning experiences in scenarios similar to those the participants might experience in their own courses to practice and apply constructive feedback practices, and opportunities for review and reflection of learning. Participants will receive support activities and handouts to apply constructive feedback strategies into the courses they teach in the weeks between the professional development trainings. Reflections on the experiences of applying the constructive feedback practices into current courses will be part of the next week's professional development trainings.

Every learning session in the professional development will end with an individual, small group and large group reflection experience to think about the learning,

make personal application, and ask new questions that have come from the learning. The end of each professional development day will end with participation in a learning experience that supports reflection and self-assessment along with giving information about participant learning to the facilitator to use to adapt future learning experiences. On the final third day, participants will have reflection learning experience along with being asked to fill out an evaluation/assessment of the professional learning training.

In addition, the participants will be asked to set learning goals to implement constructive feedback practices into the current courses they teach and to collect evidence of student learning to support the impact of the new practices for the two months following the professional development. They will receive an e-mail evaluation to complete and return two months following the last day of the professional development about the learning goals and the evidences of student learning. The purpose of the final evaluation assessment is to give enough time to see the impact of the professional development on transforming teacher practices that are impacting student learning.

Roles and Responsibilities

For the initial professional development, I will be the facilitator and design the training to meet the parameters outlined here for the professional development training. I will submit a proposal to the CTLE and to the college district faculty development department to obtain permission and approval to hold and facilitate the professional development training. I will develop and design the plan for the professional development, and it will need to be approved by the Faculty Professional Growth Committee for the district first, and then at my college. The facilities personnel will approve the rooms to use and the CTLE will then advertise and promote the event,

register the participants, provide the materials and resources needed, and support me as the facilitator in hosting the event.

As the facilitator, it will be my role initially to interview and talk with faculty, staff, and the stakeholders in the community to find out what they see that students need to know to be successful in college and in the world of work after college. Then my role will be to determine the practices that instructors and others need to equip students with the necessary knowledge, skills, and abilities. It will also be my responsibility to share with the instructors different ways to collect evidence that the new practices are positively impacting student learning. Finally, my role will be to facilitate the professional development training to meet the needs of the participants and the students through interactive, collaborative learning experiences that easily transfer and connect to the community college classroom. I will share needed resources, design technology tools necessary like You Tube videos, Prezi slides, music, or videos to support the instructors' learning, and finally I will design the assessment and evaluation of learning experiences that will measure the effect of the professional development experience on teacher practices that impact student learning.

Between meeting days, it will be my responsibility to evaluate the responses from the participants about the learning experiences from the preceding week, including the participants' new interests, needs, and questions. The final evaluation assessments will be jointly evaluated by me, the director of the CTLE, and the director of the faculty learning department to see if the training was meaningful and applicable to the learning environments of the participating instructors along with determining if it transformed instructor practices to maximize student learning.

It will also be important to collect evidences of student learning from the participating instructors and to be ready to find out how to support them in the next steps they want to take in this learning journey. I will work with the research department of the college to follow the completion rates for the courses taught by participating instructors compared to completion rates by the same instructors for the same course in different semesters to see if participating in the professional development training improved the course completion rates.

I will also design and implement an online professional learning community (PLC) to provide an avenue to continue the learning and the conversation about constructive feedback practices through an interactive blog with any interested participants from the professional development training. It will be my responsibility to keep the PLC updated and to contribute to the learning materials, resources, and continue the conversation about constructive feedback. I will also e-mail the participants of the professional development training to connect with them within six weeks of the training to continue and strengthen the collegial connection and to see if they are in need of any support, resources, or more information to continue their learning and understanding of constructive feedback practices.

Project Evaluation

Moving from intention to implementing transformative constructive feedback practices within the courses taught by the participants is the important focus of this professional development training. Evaluating the implementation of transformative constructive feedback practices in community college courses connects to four implications (Reeves, 2010). The first one is when instructors know the evidence of

student learning is more than test scores and passing or failing courses. They recognize and value broad factors of evidence of student learning. These evidences include examples of students' abilities to explain, interpret, apply new learning, see different perspectives, show empathy for the views of others, and self-assess. Additionally, examples of evidence could also include students' displays of their own understandings, misunderstandings, questions, areas that need adjustment and initiation of actions to move the learning forward.

The second implication is that the purpose of assessment is more than just to evaluate student performance but to empower students and help them to evaluate and teach themselves. Feedback is not just to point out errors or show that improvement is needed but rather to support and confirm learning and growth while giving direction on where to go next in the learning process to improve performance. It is using feedback questioning to nudge the student to construct their own questions and use the answers to direct the next steps in the learning process.

The third implication is recognizing that assessment is more effective as a preventative measure to set up more impactful learning than it is a remediating or punitive result of the learning experience. Learning to assess and check understanding before the learning is complete and while the learning is in process can alleviate mistakes in the learning. Formative assessment experiences give learners the opportunity to learn from their mistakes in time to correct them and demonstrate new learning. A learning culture of continuous improvement supports improving and increasing learning from embracing and evaluating mistakes

Finally, the fourth implication is that the purpose of constructive feedback is not only the improvement of student learning but as importantly to equip and empower instructors to improve their practices that support student learning. Instructors need to learn to value seeking and using student feedback to improve their teaching practices just as much as they desire their students to seek and use feedback to improve their learning. All of these implications focus the design of this professional development training on the transformation of instructors' behaviors into intentional actions practiced within their current courses that influence student behaviors to maximize learning and the ability to evaluate that learning. The evaluation of the professional development should include opportunities to practice, apply in the courses they teach and then demonstrate improvement in student learning connected to these four principles.

The evaluation should effectively inform the stakeholders if the professional development training met the intended goals to transform instructional practices that impact student learning and improve course completion rates. The key stakeholders for this research project are the administrators of the college, the administrators of the community college district that includes this college, the college students, the college residential and adjunct faculty, the college staff, and the community. The evaluation should illuminate if the professional development results were worth the time, effort, and money that the college invested in the training to the instructors, students, and stakeholders of the college as well as determining if the college will support further professional development training and educational experiences connected to constructive feedback practices in the future.

Professional development evaluation should include these 5 areas: (1) The participants' level of satisfaction with the experience based on the value they see to use and implement the strategies experienced, (2.) The acquisition of new knowledge and skills that have personal application to the participants, (3.) The college's willingness to support the professional development and implementation of the new instructor practices, (4.) The participants' actual use of the new skills in personal practices, and finally (5.) The impact of the learning in the professional development on student learning (Guskey, 2002).

The formative assessment of participant understanding, learning, and application of constructive feedback practices will be embedded into each session. Opportunities will be given to collaboratively work through the application of the principles and to make changes along the way to improve practices, allowing for time for every participant to reflect on and evaluate their own learning in relation to their personal learning goals. At the end of each professional development training day every participant will have the opportunity to reflect and evaluate the day's learning individually in small groups and with the large group.

The final written evaluation and assessment of the entire professional development training will involve each participant answering questions about their personal learning from the professional development in addition to sharing their personal plans and goals for applying that learning in the courses they teach. Learning goals and commitments will be made and shared with others, and a learning partner will be identified to collaborate and support the implementation of the new learning after the professional development training. In addition, another evaluation will be e-mailed to the

participants two months after the professional development to follow up on the experience implementing the new skills into the college courses and the evidence collected that connects to student learning.

The results that are shared by the participants will be evaluated by the facilitator and the director of the CTLE and the Faculty Development department and then shared with the stakeholders through personal meetings or e-mails.

Implications

The findings from this research study support existing research that constructive feedback practices drive self-regulated student learning and that students who take ownership and responsibility for their own learning have higher course and degree completion rates. They are successful after college in the world of work because they initiate and seek constructive feedback to solve new and challenging problems. Additionally, it is important and necessary for instructors to create learning environments that intentionally use constructive feedback practices to equip and empower students to initiate self-assessment and to evaluate their own learning while maintaining a growth mindset to overcome obstacles and setbacks to reach their personal learning goals. The question this study sought to ask was what do college instructors know about how to equip and empower students to use constructive feedback practices to impact their own learning?

The research supported that college instructors do value using intentional feedback practices to drive student learning; however they do not always know how to evaluate and discriminate between feedback practices that are destructive or constructive to student learning. The project designed from the research results was a 12 session

professional development training designed to provide collaborative, interactive learning experiences to college faculty, staff, and administration so they are equipped and empowered with knowledge, skills, and actions to create learning environments within college courses that support the use of constructive feedback practices to maximize student learning and lead to increased course and degree completion rates.

The stakeholders at this large urban community college in the southwest have focused administration, faculty, and staff efforts to determine which research-based practices make the most difference in the success of students placed into developmental courses and how they can be implemented immediately at a reasonable cost to improve retention and degree completion. Professional development training experiences that equip instructors to value, seek, give, and use feedback while equipping and empowering their students to do the same can impact the course learning and course and degree completion rates for developmental students.

This project has the potential to create change in the college culture as well as the communication that is used by instructors, staff, administrators, and students at this community college. As the value and understanding of the importance of feedback spreads on this college campus and as people use constructive feedback practices in their college responsibilities, the impact could be felt not only on this campus, but on other college campuses and in personal relationships and families, out in the community, and even spread to the world. The ability to communicate to ourselves and to others in ways that positively impact learning can only make the world a better place.

Local Impact

The ultimate goal of this project is to transform community college educators' knowledge and skills about constructive feedback practices so they would maximize their impact on self-regulated learning and achievement for all students. Collegial conversations at this college often focus on concerns for student success for all students and especially for those students who are most at risk for failure. Many instructors at this college are life-long learners and welcome offerings by the college to extend their understanding and expertise of instructional practices that have a big impact on student learning. A few instructors that find success in modifying instructional practices to include constructive feedback practices can start positive conversations and build energy that is contagious to other instructors and staff on campus and in the community college district. Data driven, evidence based instructional practices that maximize student learning and success are sought after, carefully considered, and enthusiastically shared among the college faculty and administration.

A three week professional development training plus a follow-up two month time period with support to implement and practice the new strategies within college courses, in addition to the opportunity to participate in an optional PLC to continue the learning and conversation, has the potential to begin to change the learning culture of the college and to equip and empower the students as self-regulated learners capable of solving real world problems when they graduate. The impact of 25 instructors who participate in the professional development training could influence 2,500- 3,000 students in a semester plus the additional impact they will have when they are sharing with colleagues and staff about the impact of constructive feedback practices on student learning. Improving

constructive feedback practices within college courses will not only have a positive impact on student learning, but also positively impacts the college learning culture and improves the communication between all persons on the college campus.

Reaching Beyond This College Campus

College administrators and instructors all over this country and in other countries are seeking research-based instructional practices that maximize learning for all students. The incredible impact on student learning of making learning visible so instructors see learning through the eyes of their students and where students become assessors of their own learning through constructive feedback practices is not widely known. In countries like New Zealand and Australia, where visible learning is valued and implemented, constructive feedback practices are having a tremendous impact on entire schools and maximizing self-regulated student learning. The influence of the communication between instructors and students through feedback to destroy or build visible learning needs to be shared with all instructors everywhere in the world. Students who leave college as assessment capable learners who have skills and abilities to self-regulate and monitor their own learning while problem solving never before seen challenges will be successful out in the world of work, in relationships and families and in solving world problems.

This professional development can be adjusted to meet the needs of instructors and students of any age and in any country in the world. More facilitators can be developed from community college instructors who are implementing the constructive feedback strategies into their courses and continuing to learn and grow in their expertise and experiences. “Specific student learning outcomes should directly influence the practices and policies that we implement. High quality professional learning is the

foundation on which any improvement effort in education must build” (Guskey, 2014, p. 16). The message about equipping and empowering students to take ownership and responsibility for their own learning through constructive feedback practices can impact educational programs worldwide.

Conclusion

This professional development training will equip college instructors to value, seek, receive, give, and use feedback in ways that will strongly impact the learning of all their students. In addition, it will emphasize the importance of modeling and supporting for students’ constructive feedback practices so they will become equipped and empowered to use them on their own in future learning experiences. The professional development training will be collaborative, interactive and applicable to the instructors’ personal learning situations. It will provide resources and support for practice and reflection of the new practices during the professional development training and afterwards as they embed them into the courses that they are presently teaching. Collaborative learning teams will build collegial friendships to support the new learning after the professional development training is over. The facilitator will continue to connect with the participants after the professional development to support the transformation of instructional practices.

Constructive feedback practices valued, sought after, given, and embedded into all learning experiences increase learning and achieving learning goals for instructors and students. The professional development training experiences engages and equips the participating instructors in research-based constructional feedback practices that maximize learning for all students. Visible learning driven by constructive feedback

positively impacts academic success for all students and especially for those who are at the greatest risk for failure, dropping out, or giving up on educational goals, while increasing course and degree completion rates.

Instructors' effectiveness has a large influence on the academic success of students (Hall, 2009, Hattie & Yates, 2014). An instructors' constructive feedback practices can maximize student learning. This is a new conceptualization of feedback that is a different perspective on feedback practices than simply focusing on the information coming from the instructor to the student to make a judgment on what is correct and what needs to be corrected in the students' work. Courses where instructors' feedback seeks to understand learning through the eyes of their students and guide students to view themselves as their own teachers achieve the greatest growth in self-regulated student learning. Instructors who are equipped to empower students to be assessment capable learners through constructive feedback significantly impact their own learning and the learning of their students.

Section 4: Reflections and Conclusions

Introduction

Data were gathered through 17 interviews of college instructors who taught at least one developmental education course for this qualitative instrumental case study. The purpose was to find out community college reading, math, or English instructors' perceptions of feedback in the courses that they were teaching. The research was based on the foundation of constructivism and social constructivism theories, particularly the work of Vygotsky (1978) and Bandura (2001), which support that learning is constructed by the learner through social, collaborative learning experiences set up and supported by a more experienced other.

According to Hattie's (2009, 2015; Hattie & Gann, 2011) visible learning research, the most impactful factor for student learning and achievement is for instructors to see learning from the eyes of their students and for students to see themselves as their own teacher. It also emphasizes the importance of instructors collecting evidence of self-regulated student learning connected to constructive feedback practices. This research also included the work of Dweck (2006) and Dweck, Walton, and Cohen (2014) on mindsets which emphasizes the importance of developing a growth mindset that is a set of beliefs that intelligence in any particular area can be developed and grown through deliberate strategic practice with effort in spite of the presence of obstacles, challenges, or setbacks. Mindsets are influenced by intrapersonal and interpersonal feedback.

The work on mindsets is supported by the neuroscience research that the brain is neuroplastic and can change. A person can change his or her long-time thinking,

behaviors, attitudes, and actions, and after new ones are practiced over time, the brain networks will physically change and the new behaviors will become more automatic and can replace old ones. College instructors can choose to learn and change their thinking and integrate into their college courses new thinking about instructional practices using constructive feedback that will maximize learning for all students. Instructors and students who learn about how the brain learns are more likely to exhibit a growth mindset and influence a growth mindset in others through their feedback practices. Understanding the influence of feedback practices on mindsets and self-regulated student learning is the foundation for college instructors valuing, seeking, giving, and using constructive feedback practices. Section 4 provides an analysis of the strengths and limitations, a discussion of alternative approaches; a discussion of scholarship; project development, leadership, and change; reflections on the importance of the work; recommendations for future research; and ending with a summary conclusion.

Project Strengths and Limitations

The purpose of this research was to learn college instructors' perceptions of feedback and what feedback looks like and is used for in the college courses they are teaching especially for the developmental education courses. The college instructors saw feedback as an important part of their instructional practices however they had mixed responses to the importance that students placed on feedback. Feedback had both negative and positive impact on student learning. There were only slight differences between feedback practices used in developmental courses compared to college level courses. Those differences centered around giving students in developmental courses smaller amounts of feedback at a time, holding students to a higher accountability to use

the feedback, and giving feedback that supports the next steps in the learning process. The instructors were intentional with the feedback practices they used so they would improve and increase student learning. However, not all of the feedback practices that they described were constructive to learning and some were actually destructive to learning and the instructors were unaware of that. The foundation of the project was built on the research that showed that feedback is one of the most impactful factors on learning for all students. However, feedback can both negatively and positively impact student learning. The college instructors do not usually know how to discriminate between feedback practices, intentionally model constructive feedback and know how to teach students how to seek and use constructive feedback practices in the courses that they teach.

When instructors are aware of the impact of feedback on all student learning, they will see the importance of creating learning environments that value seeking, giving, and using constructive feedback practices to equip and empower self-regulated student learning to increase course and degree completion rates. In this project, I addressed low course and degree completion rates for community college courses through creating an in-depth, research-based, interactive, collaborative professional development training that equips college instructors to learn to value and use constructive feedback practices to impact self-regulated student learning.

Administrators and instructors see feedback mostly as information given to students about how to improve and correct learning. This new conceptualization of feedback recognizes that feedback is a dynamic, reciprocal, iterative, process, and that it can be destructive as well as constructive to student learning. Recognizing and using

constructive feedback practices through collaborative communication between instructors and students, where instructors value seeking feedback as much as giving feedback, is the goal of the professional development training.

Most college instructors have had little or no formal training to learn how to use feedback to impact student learning. Most of their learning about feedback practices came from their own experiences in school, from modeling from others, and from trial and error. This was the first time to offer an in-depth learning opportunity to college instructors and staff about understanding and developing constructive feedback practices that will support learning cultures of care and continuous improvement and influence a growth mindset in students so they will persist.

A strength of the project is that it is applicable to every college course and every person that interacts with college students. It is a research-based way to impact learning for all students at a reasonable cost of time, money, and effort that can improve student success and increase course and degree completion rates. It is time to bring instructors, staff, and administration at the college together to collaborate and learn about a mutually important topic, to share academic language, and to build a culture of care and continuous improvement for the entire college campus. Initiating constructive feedback conversations college-wide can positively impact all relationships and all learning both on and off campus.

Many of the limitations of this project focus around a lack of time. Every person involved at a community college has a limited amount of time and energy, and they often feel pulled to the limits with existing responsibilities. The most impactful changes at community colleges occur when the most people buy into and become a collaborative

partner in the change. Many administrators, faculty, and staff do not see that they have enough time in their work week to take advantage of optional and voluntary learning opportunities. Instructors also think that students do not have time to consider and use feedback or to give feedback to instructors unless it is embedded into the course requirements. Finding the time to embed feedback practices into courses that already are crammed with content and requirements is another challenge for college instructors.

College instructors often see feedback as a simple process of giving information to students to improve their learning and performance. Constructive feedback is a complex and ever changing process that involves the instructor and every student collaborating and communicating over the entire learning process for a college course. It is not a simple task of coming and learning and then taking back to the classroom and implementing. Mastering the art and science of constructive feedback takes time and practice and changes with the complexities of different instructors and different students. Embracing the process of learning about feedback and being intentional about using constructive feedback practices takes time, commitment, and passion to do what is necessary to equip and empower students with self-regulation skills through the learning in their courses. It will also be important to advertise creatively to faculty and staff the importance and relevancy of participating in collaborative professional development trainings connected to learning constructive feedback practices.

Many of the possible participants see themselves as adequately using feedback in their practice already so they do not want to spend the time to learn more on that topic. The instructors may be interested in the topic and still not be willing to invest the required time and effort to attend the professional development training over several

weeks, and then to implement and embed the new learning into their practices. It will take even more time and effort to help the administrators to see the value of designating time to participate alongside the college instructors.

Another limitation is the transfer of the learning from the professional development into new and adapted instructional practices in the college courses. Often instructors who value the new learning from the professional development, even with the best of intentions, get overwhelmed with everyday college responsibilities and do not put out the effort and action to implement the new learning into current courses while it is still fresh and current in their minds so then the learning is forgotten and instructor practices go unchanged.

This research was limited by collecting data only on the perceptions of the college instructors. Future researchers should interview and gather data about the perceptions of feedback from students, administrators, and staff. It would also be interesting to interview college instructors who teach only online courses to find out their perceptions of feedback and its impact on student learning.

Recommendations for Alternative Approaches

In order to compensate for the amount of time required to attend an on campus face to face professional learning training, an alternative professional development training could also be offered asynchronously online through webinars, videos, video conferencing, and using collaborative learning teams to share through online discussion boards. Participation might be increased if an incentive was offered to participate in the online professional development through a learn to earn program where for every hour of

learning the participants put in, they could earn points to use towards resources, personal mentoring opportunities, or special learning supplies.

It is often difficult to find a time to hold the professional development training that fits the schedules of all the interested faculty and staff. Another alternative approach could be to make the time period for the professional learning training more flexible through taking a vote from the interested participants so it could be extended over a few more weeks or shortened to be held over a three consecutive day period to best fit their particular needs and schedules. To support and encourage the learning from the professional development to be adapted, implemented and embedded into the instructors' courses, the facilitator could connect with the instructors through e-mail or phone several times throughout the rest of the semester to answer questions and provide more resources and give feedback on the implementation process and its impact on student learning.

Taking the professional development training in small increments directly to existing courses of interested faculty would enable the facilitator to educate and demonstrate applicable ways to embed constructive feedback into the course content for both instructors and students. Both instructors and students in the courses would be learning together and simultaneously.

Professional development training about constructive feedback practices could be offered to other community colleges in this state and around the country to share the transformational information on how feedback practices can maximize self-regulated learning for all students. The professional development could also be offered as a session at some of the large conferences on teaching and learning for community colleges to get instructor interested in learning more about constructive feedback practices.

An interactive blog connected to a Twitter account could be initiated that would bring together interested instructors and educators from around the world to learn and collaborate around the subject of implementing constructive feedback practices into courses currently being taught. Online learning relationships can turn into real friendships as people collaborate and grow in learning and skills about a common topic of interest.

Scholarship, Project Development, Leadership, and Change

Scholarship

I have been an instructor of learning for more than 30 years. I started my career teaching severely multiply handicapped children for many years including children with Downs Syndrome, autism, and visual impairment. Then I taught kindergarten and first grade for 15 years with various special responsibilities from teaching children who were gifted to children with extreme behavioral challenges. I have had the privilege of teaching community college students for the past 8 years. During my public school teaching and now during my college teaching I have also been a faculty developer sharing my love for learning and teaching while inspiring and supporting other instructors to learn and implement new practices that impact student learning. Learning how to equip and empower all of my students to take ownership and responsibility for their own learning and behavior has been a focus of mine for many years. I have always believed it was important for every age and stage of learner, and I did my best to share that concept with parents and teachers in all the schools and trainings that I have taught. I am an avid reader and life-long learner, and I have always been very interested and concerned about the impact of our words and communication on student learning. I have been intentional

about taking any opportunity to learn from attending conferences, to learning from webinars, to watching Ted Talks, initiating collegial discussions, and reading research and books to improve my instructional practices.

I have been strongly impacted and challenged by reading the work of Stanford's Carol Dweck, first through her book, *Mindset: The new psychology of success (2006)*. It connected to my passions about communication that drives attitudes and actions while impacting personal learning and influencing the learning of others. It answered so many of my questions and made so much sense to me that I searched for anything that I could find about Dweck and her research. I saw that my students' mindsets strongly influenced their success in learning hard or new things. I also saw that I could influence their mindset through my choice of words and actions especially in response to their mistakes and learning gaps. That connected me to the immense amount of research on feedback and began my journey to learn about how feedback impacts learning. I wanted to know what feedback is most impactful, what should be avoided, how to use it to equip and empower students to take responsibility for their own learning and how use feedback to build confidence and competence as a learners in my students.

I entered the doctoral learning journey to learn more about how the brain learns and how it uses and evaluates feedback. As my understanding of the constructive feedback process has increased, I have also been intentional to implement those practices into the courses that I teach, into my mentoring responsibilities, and into my professional and personal relationships while sharing them with others who are also interested in impacting student learning. Through this personal learning process, I have seen how hard it is to change communication practices that have become habits and attached to specific

emotions and to value and embrace making mistakes and learning from them so I can try again differently. I have also realized the fluctuating impact of my intrapersonal and interpersonal feedback on my own mindset and influencing a growth mindset in others. I have also witnessed how learning about this new concept of constructive feedback practices can impact and inspire new passions and interest in teaching and learning in college instructors. Most importantly, I have learned that it is a huge process to embrace, understand and implement constructive feedback practices. It will never end and because it is human beings that interacting in this process it remains ever dynamic and changing. Learning to give constructive feedback will never be finished, but will be a continuous and ongoing life-long process.

Utilizing constructive feedback practices has helped me the most as a doctoral student to be more aware of and to recognize that what I say to myself and to others influences learning, trying when it is really hard even when it seems impossible. I never knew that there was so much I did not know and needed to learn until I began this program. Having a growth mindset and utilizing constructive feedback practices has enabled me to persevere and to stick it out through obstacles and setbacks in my own learning journey so that I completed the courses and earned the degree on which I set my goals when I entered the program.

My greatest learning from this doctoral process has been about evaluating research methods and materials to know if the findings are supported be valid, trustworthy research. Before this doctoral program I did not know how to evaluate research or to read and understand detailed methodology and findings. I would skim the articles and think that I was getting the most important information from them. I also did

not know how to be a scholarly writer using the appropriate APA citations and references or scholarly vocabulary and thoughts to make connections and describe meaningful ideas and learning. I did not know how to search all the available resources to find out the most recent and respected research about instructional practices that impact student learning. Now I am constantly searching for research to improve my practices, to share with others and with my students about how to improve learning for all students. The Walden Library has helped me to learn how to search the vast online resources for specific information. The Walden Writing Center has helped me to learn to put the new learning into my own voice to share it with others through scholarly writing.

The Walden residences helped me to learn collaboratively with other scholar practitioners from all over the world with all different interests and backgrounds about the many parameters that must be achieved in order to earn the doctorate degree. It gave me a face to face opportunity to learn with and from the Walden faculty and the people in the Walden Writing Center. It was by taking one little step at a time to always move forward on my doctoral learning journey through the encouragement and support of other students and my instructors that I kept moving forward toward my goal of graduating. This is my only educational experience where I kept my focus on my own learning journey and did not compare my journey to anyone else in my class or in my residency. I only worked on moving forward and increasing my learning and my skill set every day. I used what I knew and learned about having a growth mindset and carefully crafting the feedback I gave myself in addition to seeking out and carefully considering feedback from experts and those ahead of me on the journey.

At every Walden residency, I learned from some of the best instructors who truly cared about me and were invested in my success, and I was challenged to stretch even further in my learning and understanding and to overcome obstacles and challenges. In every experience, I was able to experience and observe how the feedback process either was destructive or constructive to my learning and the learning of others. I noticed the interactions between instructors and students and between students and students. I was observant of the communication interactions in the collaborative learning cohorts in which I participated. I actively sought out feedback both in person and on paper from my instructors and my committee members.

I learned so much from the feedback that I sought and used as well as from opportunities to share feedback with others. I learned to appreciate the collaborative, reciprocal learning process of improving my writing each time I got feedback indicating what to change, where to go next, or what to expand on to improve the writing and move along in the process. I will share what I learned in this program with my students to encourage them to become better, more skilled learners through the reciprocal, constructive feedback process. I am a better learner, deeper thinker, and more reflective evaluator because of the experience of moving through the doctoral process valuing, seeking, and using constructive feedback.

Project Developer

I have a lot of experience designing and facilitating professional development trainings; however this one was a real challenge to become educated about the best research practices for professional development training, aligning the design to meet those criteria and to include the research-based constructive feedback practices. It was a

complex process to determine the best ways to design the learning experiences so that the participants experienced them in a way that they could transfer and use in the courses that they teach. It made me think about what knowledge, skills, and abilities that the students needed first and then determining what the instructors needed to be able to equip and empower the students with those skills. Finally I had to determine which learning experiences in the professional development training will clearly exemplify that information to the instructors. Providing models of instructional practice based on how the adult brain learns and remembers along with best practices for transformational professional development experiences using interactive collaborative learning proved to be a new challenge and one that will change and drive my thinking and planning for all future professional development trainings.

Weaving in the most important factors to build a culture of care, influence the growth mindset, model constructive feedback practices, and provide time for reflection and practical applications while taking into consideration the learning needs of this particular group of participants within every aspect of the professional learning experience took effort, time, and persistence through many iterative revisions. Even so, before the planning and designing, I learned the value of taking the time to research, learn, reflect, and collaborate with others who also facilitate professional development training so that my efforts are directed towards the most impactful learning experiences for the participants and for the students they interact with at the college. Reflecting on the past professional development experiences that I have facilitated or participated in that have been transformational for me along with seeking out ideas from other people, I have used that learning to guide changes so that I can continue to learn and improve

professional development experiences for participants in all future trainings that I facilitate.

I have learned that professional development trainings do not always impact the transformation of instructor practices that influence student learning. Many of the assessments and evaluations used at the end of a professional development day or training only measure the participants' opinion of whether they liked the learning experience, felt it was applicable to their work, or if the facilitator was effective. Those parameters do not help me as a facilitator to know if the learning experiences will transfer to the participants' own teaching environments. It takes time to try out new methods and practices and to reflect and evaluate if they are making a difference for student learning.

It is only by reconnecting with participants after a significant amount of time after the end of the professional development training that I can adequately begin to answer some of the questions about the effectiveness of the professional development training in transforming instructor practices that impact student learning. By communicating with the participants through e-mail, evaluations, phone conversations, or in person, I can find out what constructive feedback practices that they have actually tried out in the courses that they teach and what evidence they found of the impact of those practices on student learning. I have grown in my thinking and understanding of how to evaluate the learning in professional development through this project study, and I want to continue to seek out research that supports new ways of measuring the effectiveness of professional development.

Leadership and Change

In the beginning stages of the writing process, my focus initially was on learning how instructor feedback practices were perceived by students. Later I realized that the instructors' understanding of this process and its impact on student learning would be the most valuable to bring about change because students have limited influence on instructor practices; however instructor practices have great influence on student learning. Through impacting instructors' thinking by participating in an in depth interactive professional development, it is also possible to influence many students.

A huge concern for me when I began this doctoral process was how I was going to prioritize my time and energy to meet the multiple responsibilities that I already had with my college teaching, faculty development, my family obligations, and successfully completing a doctoral program. I tried just doing what I thought was important each day, and at the end of the day I had so many important things left to do and no time to do them. I eventually learned to type out a list of my personal values and the order of what was important to me to use as a guide as I planned each day. I did the same thing for each week so that I could plan ahead. That way I did my best to use my 24 hours responsibly and without guilt or building extra stress. I started fresh with my priorities the next day. Looking back on the journey, it has taken longer than I ever expected and cost more in terms of money, time, and resources; however I am thankful to be at the end of the process and still have been true to my other responsibilities to the best of my abilities.

I have learned a lot about myself as a scholar. I have a voracious appetite for learning and trying to understand many angles and perspectives about a topic. This has been helpful to stay motivated and excited about the process and for acquiring the

learning about the big picture that is necessary for each step of this learning journey; however it has been overwhelming to digest so much information and to integrate it into new thinking and practices. I am so thankful for the internet and online search tools and the ability to obtain new, updated, and current information from around the world while sitting at my desk in my home. This has been awe inspiring to me in comparison to when I was studying for my master's degree. Because of the plethora of information on any topic available, it is has become apparent to me that it is necessary to narrow down the focus and concentrate on specific aspects and areas of my interest. That in itself has been challenging for me. I found that the feedback process is complex, complicated, and dynamic so it will take a life time to fully understand and try to implement all the aspects and perspectives that need to be considered; however I am excited to continue on this learning journey long after I graduate from this program.

My focus as a college instructor continues to be on how to support, influence, and maximize learning for all of the students and faculty that I teach so they see themselves as competent and confident learners, evaluators, and directors of their own learning. I want to continue to learn ways to equip and empower students to take ownership and responsibility for their own learning and learning challenges. I want to continually grow and learn how to model a growth mindset through the feedback that I seek from my students and give back to them as they work through mistakes and challenges in the courses that I teach.

Learning the most effective ways to equip and empower my students to value, seek, give and use feedback is also important to me. I am even more conscious about making every learning experience meaningful and relevant to the students and to give

them many opportunities to guide and direct their own learning. I am intentional about sharing with my students the importance of both intrapersonal and interpersonal feedback to develop a growth mindset. In addition, I am intentional in teaching my students to use learning and study skills that align with how the brain learns, and in addition to valuing, seeking and using feedback to improve learning and performance. I emphasize the purpose and relevancy of becoming equipped with skills to reflect and evaluate their own learning experiences and so they can independently determine the next steps in their learning journey. I will continue to make changes and adaptations every new semester to make the learning experiences that I facilitate more meaningful, relevant and impactful learning for all of my students.

As the project director for this professional learning training, I was challenged to share my research findings and the large amount of current research while implementing the best professional development practices, incorporating active learning experiences while effectively evaluating the impact of the professional development on student learning. I integrated the impactful practices I have used in the past with all the new learning that I have learned through this doctoral process to design an impactful, captivating, and pragmatic learning experience for the professional development participants. I studied about new ways to provide active learning experiences that provide formative assessment information for the participants to be able to evaluate their own learning and evidence of the participants' learning for me so that I can determine how to adapt and direct the next learning experience to meet the specific needs of the participants.

I learned that finding out what the students need to be successful learners is the most important thing, followed by figuring out what the instructors needed to provide those skills to the students. Finally, I learned how I can design the professional learning training to equip the instructors to meet the needs of the students. I also learned that the organization is important and it is most effective to build learning relationships around breaks, networking lunches, and ample time for reflection and sharing of how the learning can be implemented into the participants' learning environments. Considering how the brain learns best influenced the design of every learning experiences.

My biggest challenge in planning the professional development training was in using the time wisely so that participants got the right amount of important information and experiences to understand and implement constructive feedback practices without rushing or frustrating participants in the learning process. Because it is important to adapt to the specific needs of the participants as they are revealed and to make time to reflect on the new learning, it is challenging to fit everything in within the time limits for the professional development. In the future, I will continue to learn how to adapt the schedule, learning experiences, participants' needs, and reflections to comfortably fit within the time parameters when designing professional development trainings. Every time I learn with a group of students or professionals, I am challenged to continually adapt and improve my own practices to better meet their needs and to improve the future learning experiences that I will facilitate.

Reflection on the Importance of the Work

I have grown in my understanding about the extraordinary importance of knowing about the new conceptualization of feedback for everyone in education. Educators everywhere are searching for ways to increase self-regulated student learning using the limited resources that are available. Communication through constructive feedback drives visible learning, a growth mindset, and development of a learning culture of care and continuous improvement. All of those things are some of the most impactful factors for self-regulated learning.

I want all my students to be successful learners and to be equipped and empowered to take ownership and responsibility for their own learning so when they leave my course they will not only know and embrace the course content but in addition they will leave better prepared and skilled to solve problems and handle challenges and setbacks than they were when they started my course. I want for them to leave college with knowledge and tools to self-assess and self-regulate their own learning and to be able to figure out what to do when they do not know what to do. Then they will be healthy, happy adults who are positively contributing to our society through their work, their families, and their service.

Constructive feedback practices power all learning through the development of a growth mindset and developing a culture of care and continuous improvement for learning. Those are aspects of learning that students will take with them and they will continue to influence their learning and their success. Instructors need to know the impact their feedback practices have on student learning so they can be intentional about striving

to use constructive feedback rather than destructive feedback in the courses they teach and also in their relationships and all communication interactions.

The first step to changing and embracing constructive practices is to recognize destructive practices. Then we need to know what to do that is the best for learning and to exchange the destructive practices with constructive practices. Finally we must take the constructive actions and actually make them happen in the courses that we teach. We can know what to do and never do it, and it will not change lives and learning. It is important to take the time and effort to be thoughtful about feedback practices and then to be intentional about making sure they are constructive feedback practices that will maximize learning for all students. Constructive feedback practices are not successful in only particular educational settings or with particular student populations, but they are one of the most impactful factors on student learning regardless of age, stage of learning, experience, race, economic status, first language, abilities or challenges, or past failures. All instructors or any person who interacts with students needs to know about, embrace, and value the impact of feedback on student learning.

Implications, Applications, and Directions for Future Research

Implications and Applications

The more that I read and the more that I learned about constructive feedback practices the more dynamic, complex and integrated I found them in every aspect of my life. Everything and everyone is affected by the communication of feedback and most instructors and other people in education are not aware of the tremendous influence it has on learning. I have become more aware of the research applications that are possible in so many educational settings and the effects of the changes in constructive feedback

practices on every area of our lives. That supports the huge impact of knowing and using constructive feedback practices not only in educational settings but also in our families, marriages, work settings, neighborhoods, and everywhere that people interact with each other.

The social change impact is incalculable for the learning of all students if college instructors everywhere learned to value, seek and communicate with constructive feedback practices that develop cultures of care and continuous improvement, build growth mindsets and impact self-regulated learning. The feedback we give to ourselves, especially when we are faced with challenges and obstacles, determines the success or failure of our own goals along with strongly impacting and influencing student mindsets. That realization should be an epiphany that we have to take responsibility and be intentional in our use of constructive feedback practices both in professional and personal contexts. Constructive feedback practices have the potential to transform how we do education in our country and transform how we do families too.

Directions for Future Research

Many areas for future research have come from the experience of being on this doctoral journey. Research on constructive feedback practices should be initiated that is focused on the community college and university settings to find out the most efficient and proficient ways to get the message to instructors, staff and administrators about the impact of constructive feedback practices and visible learning on student learning. How do we get them to see how very important valuing this information would be for the success of all of their students?

It would be interesting to do research to compare different constructive learning experiences to see which ones produced the most evidence of student learning possibly with several instructors testing several different learning experiences and comparing data with other instructors and by types of learning experiences. Future research could measure the changes in college data concerning course and degree completion rate by following students who have been in courses taught by instructors who have learned to embed certain constructive feedback practices into their courses and compared to the same courses taught by instructors not familiar with constructive feedback practices. Quantitative research could be used to compare college campuses where administrators have been trained and embraced the importance of constructive feedback practices to another comparable college campus that has not administrator buy in to see if there is a difference in student learning measured by course and degree completion rates for similar courses.

Research is needed to see if self-regulated student learning transfers from a course where it is taught and developed through constructive feedback practices to the future courses those students take where they may not have the support to use constructive feedback so they are on their own. Since the ultimate goal is to equip and empower students to take ownership and responsibility for their own learning so that they are self-regulated learners who can be successful in the world after graduation it would be valuable to follow them to see if they maintain and grow in their abilities to self-assess and then to use the information they learn to guide the next steps in their learning journey and to solve problems they encounter along the way. More research could be conducted

to see more effective ways to use specific constructive feedback to develop self-regulated learning skills.

More in depth research into cultural considerations to ensure that the feedback is respectful, constructive and valuable to students who come from varied cultures and countries is needed. Using research to better understand how constructive feedback can overcome stereotypical threats and increase learning would be valuable. The areas of how the brain learns need to be studied in more depth and the most impactful practices embedded into the constructive feedback conversations and modeled through the setup of the learning experiences. In addition, there needs to be more neuroscience research to support how the brain develops metacognitive and self-regulation skills through constructive feedback and how instructors can use specific constructive feedback practices to support the development of the students' most effective metacognitive and self-regulation skills.

Conclusion

This study examined the perceptions of instructors about feedback practices within the courses they currently teach at a community college in the southwestern United States. The purpose was to find out if how community college instructors who teach developmental education courses are using feedback and to determine what knowledge, skills, and abilities the instructors needed to embrace that would impact their students' learning so that course and degree completion rates would increase at this college. Section 4 was a review of my reflections in the Walden Doctoral program as scholar, a practitioner and as project developer and to share what I perceived as the strengths and limitations and importance of my project. I also shared ideas for future

research along with the project's potentials for social change. Appendix A describes the details of the project.

Feedback practices are important to instructors and instructors believe that they are important to students, too. The interviewees shared that the understanding and implementation of feedback vary between instructors and students. Both instructors and students want all students to successfully achieve their goals of completing the courses necessary for graduating from college equipped to use their learning in the real world within a reasonable time and cost.

In order for all students who enroll in college to have the best chance of graduating at colleges and universities across our country and the world, every college instructor and every college student must become equipped and empowered to use constructive feedback practices. One of the most impactful ways to begin the process of spreading the word about the impact of constructive feedback practices on learning for all students is through providing professional development training opportunities for all college instructors. Through instructors' and students' acquisition of constructive feedback practices, other relationships both within colleges and outside of the colleges will also experience and embrace the impact of constructive feedback practices on self-regulated student learning.

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Appendix A: The Project

Professional Development

in

Developing Constructive Feedback Practices that
Maximize Self-Regulated Learning in Community College Courses

A 12 Session Training Program for
Community College Educators

Developed by Janeth Martin Walker Franklin

“In learning you will teach, and in teaching you will learn.” Phil Collins

“What links all learning moments is there is a change in understanding, a shift in
awareness, a movement of the soul.” Coral Mitchell and Larry Sackney

The Project

The purpose of the project is to educate, equip and empower community college instructors in the knowledge, skills and strategies of using constructive feedback practices to positively impact self-regulated learning for all students. Students who are engaged in their own learning process and learn to take ownership and responsibility for their own learning successfully complete the courses they are taking and go on to reach career and academic goals even when faced with challenges and setbacks. The project goal is to improve course and degree completion rates through improving student learning for all community college courses, especially for developmental education courses, through improving faculty constructive feedback practices that drive self-regulated learning and growing instructors' awareness that the impact of feedback can be either constructive or destructive for student learning. College instructors believe feedback is important although instructors' do not realize their intentional feedback practices often interfere with student learning.

Facilitating instructors' understanding of how to discriminate between constructive and destructive feedback and designing personal feedback practices that support self-regulated learning for all students through modeling and active engaged learning is the goal of this professional development training. This professional development training will provide participants with learning experiences to use in any content area that supply information about learning for both the student and the instructor. The training will follow the framework set by the themes that came from this research. The 8 themes that evolved from the data were Perceptions of Feedback, Constructive Feedback, Destructive Feedback, Multiple Person Feedback, Instructors

Receiving Feedback, Culture for Feedback, Learning to Value, Seek, Give and Use Feedback, and Feedback Challenges.

The intended participants in the professional development training are community college instructors of developmental education courses, community college faculty and adjunct faculty from all disciplines, administrators, counselors, student affairs personnel and anyone who interacts with college students.

The learning outcomes, materials, modules, timeline and evaluation plan are included below.

Three Day/ Three Week Professional Development Training	Equipping Community College Instructors with Constructive Feedback Practices ©Janeth Franklin 2015	12 sessions/ 90 minutes each
Target Audience	Faculty, Adjunct Faculty, Staff, Administration, District Administration, Counselors, Advisors, Tutors, Anyone who interacts with the students	
OVERALL Learning Goal	Participants will be able to use constructive feedback practices to equip and empower self-regulated learners and demonstrate evidences of their impact on student learning	
Learning Objectives for Professional Development Training	Participants will be equipped to be practitioners of constructive feedback in their own learning environments through participation in learning experiences to: <ol style="list-style-type: none"> 1. Share the definition and purpose of feedback based on Hattie's model of Visible Learning (2012b); Kluger & DeNesi, (1996). 2. Increase student learning and long term retention so that it can be used later in real world situations. 3. Give guidance and direction to the next steps for students to take to reach learning goals using 123KSS. 4. Support, model and encourage a culture of care and continuous improvement where reciprocal feedback is valued, shared, used and sought after to increase learning toward goals and where mistakes and 	

	<p>challenges are seen as stepping stones to better learning.</p> <ol style="list-style-type: none"> 5. Use intrapersonal and interpersonal constructive feedback to develop a Growth Mindset for learning and influence a Growth Mindset in others (Dweck, 2015). 6. Build students' self-assessment and self-regulation skills so students can use them in future learning experiences. 7. Recognize evidence of instructor impact on student learning. 8. Seek out, receive and use feedback for self-assessment, evaluating, and reflecting on learning to improve teaching practices that drive both personal and student learning. 9. Recognize evidences of the impact of constructive feedback practices on student learning 	
<p>Success Criteria for Professional Development Training</p>	<p>Participants will create constructive feedback practices for their own personal professional environments that include these factors:</p> <ol style="list-style-type: none"> 1. Practices that are informed by how the brain learns. 2. Connect constructive feedback with the 3 Compelling questions- 123KSS to model, guide and direct students in the steps to set and reach learning goals. 3. Designing a culture of care and continuous improvement that includes building learning relationships, supporting a Growth Mindset, valuing mistakes that lead to better learning, supporting practices informed by how the brain learns while seeking and giving constructive feedback to improve learning. 4. Embedding specific student self-assessment and self-regulation skills through constructive feedback into current courses. 5. Building a repertoire of evidence that supports the growth of student learning. 6. Creating self-assessment, reflection, and evaluation feedback experiences within learning experiences between instructors and students to improve future learning. 7. Setting personal goals for implementation of feedback practices into current learning 	

	environments.	
Day 1	Day 1: Introducing Feedback, Building Learning Relationships while Developing a Culture of Care and Continuous Improvement	4 sessions-90 minutes each
Learning Objectives for Day 1	<p>Participants will:</p> <ul style="list-style-type: none"> • Build learning relationships with colleagues. • Recreate the Big picture of Constructive feedback. • Explain the 2 parts of Visible Learning and its connection to constructive feedback • Practice recognizing the fixed and growth mindset in ourselves and in others. • Learn how to change from a fixed mindset to a growth mindset. • Learn to reflect on development of personal feedback practices. 	
Success Criteria for Day 1	<p>Participants will:</p> <ul style="list-style-type: none"> • Acquire the name and e-mail of at least one learning partner. • Design personal handout to illustrate the framework for constructive feedback. • Teach small group of 2-3 learning partners the illustrated framework for constructive feedback. • Teach another person the steps to change from a fixed to a growth mindset. 	
Day 1	Session 1: Introduction to Course and Learning Friends	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session-</i> Bob Marley – Don't Worry Be Happy • <i>Inspiring Example-</i> YouTube(YT)- Richie Parker • <i>Name tents</i> with favorite feedback phrase currently used on front and e-mail address and phone number on back- table share- group share • <i>Human Bar Graph-</i> Participants move to point on human bar graph that answers these questions: 1. Where am I now in my knowledge and understanding of constructive feedback? 2. Where do I want to be? 3. Where do I go next to learn more? Short group discussion • <i>Dr. John Hattie and Visible Learning-</i> Introduction to John Hattie's educational research on the most impactful factors influencing student learning • <i>Why Feedback?-</i>Feedback as <i>GPS</i> for Visible 	60 minutes

	<p>Learning</p> <ul style="list-style-type: none"> • <i>Introduction to 123 KSS</i>- aligning feedback with personal learning goals 	
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>SITE map for learning</i>- Personal reflection then begin to fill in 4 quadrants of SITE map-S- Setting the culture of care and continuous improvement, I- Insights into how the brain learning, T-teacher tools for constructive feedback, E- evaluating, exhibiting and evidence of learning 	30 minutes
Refresh and Restore cognitive capacity	BRAIN BREAK	15 minutes

Day 1	Session 2: What is feedback? Why is it important?	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session</i> – One Republic- Good Life • <i>Inspiring Example</i>- AZ Republic article- Athlete from Rwanda • <i>White Board Response</i>- One sentence- Whole Group Share • <i>Overview of the Big Picture of Constructive Feedback</i>- through a Field of Flowers Metaphor • <i>Flower Thinking Map</i>- every learner makes their own thinking map to illustrate Big picture of Constructive Feedback • <i>Table Share</i> – Explain, expand and add to thinking and understanding on thinking maps in collaborative table share 	60 minutes
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Reflection and Practical Application</i>- Organize new learning and thinking on SITE MAP- Using S- setting the culture for learning, I- Insights on How the brain learns and how it uses constructive feedback T- teacher tools for learning E- Evidence, evaluation and exhibition of learning (SITE map)- Three minute personal reflection, Two minute learning with friend share, Two minute Table Shuffle Share • <i>Questions/ AHAs Now</i>- Put questions/ AHAs on sticky notes and place on poster Parking Lot on way out to lunch 	30 minutes

Refresh and Restore cognitive capacity	NETWORKING LUNCH	30 minutes

Day 1	Session 3:Building a Feedback Culture	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session-</i> Pharrell Williams- Happy • <i>Inspiring Example-</i> Introduction to experts through Candy Bar Sort-1.Introduction to Mindsets- YT- Carol Dweck on Effort, 2.Realistic Optimism- YT- You've got Heidi Grant Halvorson, 3.Grit-Thrive- Angela Duckworth and 4. Perseverance-YT- Never Give up by Nick Vujicic • <i>White Board Response-</i> One sentence- Table Share • <i>Building Respect, Dignity and Belonging-</i> Human Line Graph to illustrate different starting points • <i>Feedback to drive a Growth Mindset-</i> Acting out steps 1234- Change- Steps to changing from FM to GM • <i>Acting out Fixed and Growth Mindsets-</i> Mindset diagram with participants' sharing real world examples 	
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Coming back to the SITE map-</i> Two minute personal reflection, Two minute learning partner share, Three minute table share • <i>Reflection and Practical Application-</i> -Write out a "PseudoTweet"-140 characters with 2 content related hashtags connected to today's learning. Share with group and put on a Collaborative Learning Poster with sticky note. 	
Refresh and Restore cognitive capacity	BRAIN BREAK	15 minutes

Day 1	Session 4: Introducing Constructive Feedback	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session - Aretha Franklin- RESPECT</i> • <i>Inspiring Example- Prepare to fail-YT- http://www.upworthy.com/a-buddhist-nun-says-that-at-some-point-your-life-will-fall-apart-then-gives-you-1-way-to-prepare?c=ufb1- 1:36</i> • <i>Building a Culture of Continuous Improvement- Valuing mistakes that lead to learning, teaching practices based on how the brain learns- Label responses to mistakes as DEFINE or REFINE- Large erasers to introduce Mulligans</i> • <i>Active Learning Group Experience- 7Rs (Respond, Repeat, Restate, Rebuttal, Reinforce, and Reflect) to this Question- What are the characteristics of constructive feedback that increase learning? (Learning, Growth Mindset, Becoming, Inviting, Respect, Dignity, Timing. Levels, Self-assessment, and Self-regulation)</i> • <i>White Board Review and Reflection- One Sentence response and share</i> 	60 minutes
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Reflection on learning for the day-One plus One- One Minute Reflection on front only of Index Card and One specific goal to try for next week on back- Take picture of both sides on Smart Phone and text/e-mail to instructor</i> • <i>Ending Story- The Wounded Spirit- The Story of Frank Peretti- An instructor's communication counts</i> • <i>Evaluation of your learning- Questions Now on Sticky Notes and Put on Parking Lot Poster</i> • <i>Add to SITE MAP- Take pictures of SITE map and Front and Back of index card and e-mail/ text to PD instructor as feedback to instructor</i> 	30 minutes
Materials for Day 1	<ul style="list-style-type: none"> • 8.5 X 17 plain white paper/ two per participant • Printed placemats on cardstock with Feedback images on them • Colored markers • Individual white boards, markers and erasers • Large poster easel with poster paper • Presentation system connected to the internet • Prezi to support active learning experiences 	

Day 2	Day 2: Using Constructive Feedback Practices and Equipping and Empowering Students to use them too	4 sessions - 90 minutes each
Learning Objectives for Day 2	Participants will learn: <ul style="list-style-type: none"> • To evaluate and discriminate between destructive and constructive feedback • To build a culture of care and continuous improvement • To use a Feedback Quick Sheet • To equip students to seek, receive and give feedback • To use Student Feedback sheets to guide Feedback conversations 	
Success Criteria for Day 2	Participants will: <ul style="list-style-type: none"> • Evaluate and discriminate between destructive and constructive feedback. • Change destructive feedback practices to constructive feedback practices. • Use a Feedback Quick Sheet to guide constructive feedback practices in simulated and real scenarios. • Create a chart with ideas of learning experiences connected to constructive feedback 	
	Session 5: Recognizing Destructive Feedback	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session - EVERYBODY -Ingrid Michaelson</i> • <i>Inspiring Example-</i> Meet my student and friend, Brandy, a blind child care provider • <i>Mind map-</i> Culture of Care and Continuous Improvement- 3 minute work alone, 3 minute work with learning partner, 3 minute Table share • <i>Evaluating Feedback – Destructive/Constructive Card Sort with learning friend</i> 	60 minutes
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Collaborative Group Share-</i> Comments, Questions, Concerns, Clarification • <i>White Board Response –</i> Personal response, Small group- share one AHA! example 	30 minutes
Refresh and Restore	BRAIN BREAK	15 minutes

cognitive capacity		
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Day 2	Session 6: Discriminating between Constructive and Destructive Feedback	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session - Louie Armstrong- When you're Smiling</i> • <i>Inspiring Example-Team Hoyt-Father and Son Inspirational Race – collaboration</i> • <i>Matching Game-Becoming familiar with the Feedback Quick Sheet- personal, table share</i> • Questions and concerns on sticky note – stand up, move and share together X2 • <i>Role playing Practice using Feedback Quick Sheet- using simulated skeletal scenarios with a learning partner, one person instructor and one student then student and student</i> 	60 minutes
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • White Board-Share 2 examples of destructive vs constructive feedback • New Questions/AHAs on Poster Parking Lot 	
Refresh and Restore cognitive capacity	NETWORKING LUNCH	30 minutes

Day 2	Session 7: Multiple Person Reciprocal Feedback Process	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session - Taylor Swift- Shake it Off</i> • <i>Inspiring Example- YT-Where is the wealthiest place on earth? – What can we do to change this?</i> • <i>Tootsie Pop Match- How the brain learns- each color represents a characteristic of how the brain learns</i> • <i>Captain Crunch/Coach's Oats/ Laundry pods- Props to distinguish between praise and specific, process constructive feedback and destructive feedback</i> • <i>Revisiting our learning- SITE MAP-- Two minute personal reflection, Two minute learning partner share, Two minute table share</i> • <i>Importance of social learning- Video- Dr. Nancy</i> 	60 minutes

	<p>Kanwisher MIT- peer feedback groups</p> <ul style="list-style-type: none"> • <i>Purpose and importance of peer to peer feedback- Standing group discussion</i> • <i>Importance of modeling, equipping and empowering students to give feedback- Standing group discussion</i> • <i>Teaching students how to value, seek, give and use feedback-Modeling and teaching students about constructive feedback practices</i> • <i>What is feedback? Quick Sheet - Quick Sheet for peer to peer feedback</i> 	
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Student Feedback Circle – Reciprocal learning – Each person shares one minute about peer to peer feedback then rotates to new person and another share X 3 then use Feedback Circle to give feedback to each other</i> 	
Refresh and Restore cognitive capacity	BRAIN BREAK	90 minutes

Day 2	Session 8: Receiving Feedback is THE Most Important Thing	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session - Happy Days</i> • <i>Inspiring Example- 15 year old kid in 2014 helps grandfather with a problem –Creates a solution- Why we do what we do</i> • <i>Seeking and Using Feedback to develop self-regulation skills – Who? What? When? Where? How?</i> • <i>Ideas of ways to seek and use feedback- Carousel learning experience around room- make individual, personal chart of idea, rate effectiveness, how to use</i> 	
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Table Share- Circle favorite idea on chart and share how it be will used in personal learning environment</i> • <i>Reflection and Practical Application- Using SITE map-Two minute personal reflection, Two minute learning friend share, Three minute table shuffle share</i> • <i>What's Plus for you? What's a Minus for you? What is your Intentional goal for next week?Now what</i> 	

	<i>Questions do you have? (PMI+Q)</i> -Write them down on Sticky Note and take a picture on Smartphone and e-mail to me.	
Materials for Day 2	<ul style="list-style-type: none"> • 8.5 X 17 in white paper two per participant • Printed cardstock with feedback images on them • Colored markers • Individual white boards, markers and erasers • Large poster easel with poster paper • Presentation system connected to the internet • Prezi to support active learning experiences 	

Day 3	Day 3: Taking Constructive Feedback Practices into our College Courses	4 sessions @ 90 minutes each
Learning Objectives	<p>Participants will:</p> <ul style="list-style-type: none"> • Review and reflect on visual images used to give meaning to many aspects of constructive feedback through an interactive placemat game. • Practice using feedback support materials when giving and receiving feedback. • Experience using constructive feedback practices in simulated educational scenarios. • Participate in simulated scenarios similar to professional teaching situations with other participants to practice using constructive feedback. • Design a plan to implement constructive feedback practices into college courses. • Reflect on their own learning and their students learning 	
Success Criteria	<p>Participants will:</p> <ul style="list-style-type: none"> • Sort and match images with meanings connected to constructive feedback. • Experience using feedback support materials to give feedback to others related to simulated and real-life scenarios. • Experiment with giving, seeking and using constructive feedback to increase student learning • Design one class teaching module for curriculum area that incorporates many constructive feedback strategies including 123KSS, seeking feedback, using feedback for change and reflection. • Commit to 3 goals to implement constructive 	

	feedback practices into college courses	
Day 3	Session 9: Learning to Value, Seek, and Use Constructive Feedback	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session - American Authors- Best Day of My Life</i> • <i>Inspiring Example- YT-The Value of a Coat</i> • <i>Placemat Game- Sort and match images to the meanings connected to constructive feedback -2 minutes alone, then 4 minutes to move around room and share between 2 colleagues separately, finally 4 minutes to review and table share.</i> • <i>Everyone shares- one image and meaning to group</i> • <i>Metacognition and Reflection as self-assessment leading to self-regulation</i> • <i>Stepping Stones- Move around room to see and share examples of activities for daily reflection to seek feedback for both student and instructor</i> • <i>Using Feedback- that comes from daily learning and reflective practices</i> 	
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Choose and commit to sharing one image and its meaning within college course next week</i> • <i>SITE map- Add more learning -Remember images- Two minutes personal, Two minutes with learning friend, 4 minutes with small group, Large Group Share Out</i> 	
	BRAIN BREAK	15 minutes

Day 3	Session 10: Overcoming Feedback Challenges	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes prior to starting session- Perseverance</i> • <i>Inspiring Example- Meet my Valentina with photos and my story</i> • <i>Group Brainstorm- Challenges to giving constructive feedback, write on sticky notes, table share and share on large poster</i> • <i>Make a 2 column chart of Identified Challenges for Instructors and for Students –number from 1-5 in order of frequency and importance on colored index card</i> • <i>Students' Feedback Challenges/ Solutions – Draw 2</i> 	60 minutes

	<p>column chart- then on back of index card -Instructor Feedback Challenges/ Solutions- Fill out charts by thinking alone, thinking with small group, musical tables share</p> <ul style="list-style-type: none"> • <i>Group discussion</i> and share out with new table 	
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Reflection on learning</i>- Circle one idea and solution for students and one for instructors that you will commit to try- label when? and where? so it will happen- Table Share – Take picture on smartphone and e-mail to instructor 	30 minutes


Day 3	Session 11: Equipping and Empowering Self-regulated Learning with Constructive Feedback	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes before session starts</i>- Happy- Pharrell Williams • <i>Inspiring Examples</i>- The Diane Guerrero Story • <i>Gallery Walk with Four Posters</i>- <ol style="list-style-type: none"> 1. Developing Constructive Feedback Questions for Self-Regulation 2. Learning experiences for self-assessment 3. Constructive feedback for setting up assessments and evaluations 4. Evidences of Student Learning • <i>Develop a personal constructive feedback plan</i>- for one class module/ period for one specific college course 	60 minutes
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>Gallery Walk</i> for personal reflection, pair and group sharing • <i>Feedback on Feedback Plans</i>- Use sticky note to leave written feedback 	30 minutes
	BRAIN BREAK	15 minutes

Day 3	Session 12: Personal and Practical Constructive Feedback Applications	90 minutes
Learning Experiences	<ul style="list-style-type: none"> • <i>Music to play 5 minutes before session starts</i>-Brave- Sara Bareilles • <i>Inspiring Example</i>- YT-Trash that Dress • <i>SITE map</i>- Reflection and Practical Application- Two minute personal reflection, Two minute learning friend share, Three minute table shuffle share • <i>Applying to personal areas of concern</i>- Describe real 	60 minutes

	personal scenario to small group and seek feedback –everyone in small group gets 5 minutes to share ideas through constructive feedback	
Reflection and Assessment of Learning	<ul style="list-style-type: none"> • <i>3 Most important Things on colored index cards- 3 most important things that I learned about Constructive Feedback and 3 Next Steps to implement in my own course- personal reflection, learning friend share and table share</i> 	20 minutes
Transforming teaching practices in college courses	<ul style="list-style-type: none"> • <i>Write a letter to yourself and include: Date, Dear _____ (insert your name), What is constructive feedback? Why is it important? List 5 things you learned about constructive feedback that you want to remember for your personal practices.</i> Describe your personal 123KSS including when and where in the goal and the next step for your learning journey. Write One encouraging Growth Mindset sentence to yourself. Sign it warmly with your name • <i>Take a picture of it and e-mail/text it to PD instructor</i> • <i>Place to keep it- Share out- Take it home and put in a place where it will be seen and remind you to do it.</i> 	10 minutes
Evaluation and Assessment of Professional Development Training	<ul style="list-style-type: none"> • <i>Assessment and Application of Participant Learning</i> • <i>Evaluation of Professional Development Training</i> • <i>Evaluation of Learning and Application of Constructive Feedback Practices in Two months</i> • <i>Take a picture of your Assessment and Evaluation to keep for your future planning and implementation</i> <p>See attached Evaluations and Assessments</p>	
Transforming Practice	<ul style="list-style-type: none"> • <i>Sign up to participate in optional online Professional Learning Community to continue the learning and conversation on Constructive Feedback Practices</i> • <i>Resources-</i> to support new learning and arising questions • <i>Commitment-</i> to call a learning friend to share experiences embedding new learning about constructive feedback practices into current courses • <i>Music to end professional development training- Happy Trails – Roy Rogers</i> 	
Materials for Day 3	<ul style="list-style-type: none"> • 8.5 X 17 in white cardstock- two per participant • Printed cards with Feedback images on them • Colored markers • Individual white boards, markers and erasers 	

	<ul style="list-style-type: none"> • Large poster easel with poster paper • Scenario picture cards • Large colored index cards • Presentation system connected to the internet • Prezi to support active learning experiences • Evaluations 	
Resources	<p>Dweck, C. (2015). Teacher mindsets: “Every student has something to teach me”. <i>Educational Horizons</i>, 93(Dec 2014-Jan 2015). Retrieved from http://pilambda.org/horizons/teachers-mindsets-every-student-has-something-to-teach-me/</p> <p>Dweck, C. (2013). Mindsets: How to motivate students and yourself. <i>Educational Horizons</i>, 91 (Dec. 2012-Jan 2013). Retrieved from http://pilambda.org/horizons/mindsets/</p> <p>Hattie, J. (2012). Feedback in Schools. In R. Sutton, M. Hornsey, & K. Douglas (Eds.), <i>Feedback: The communication of praise, criticism and advice</i> (pp. 265-278). New York, NY: Peter Lang Publishing.</p> <p>Hattie, J., & Gan, M. (2012). Instruction based on feedback. In R. Mayer, & P. Alexander (Eds.), <i>Handbook of research on learning and instruction</i> (pp. 249-271). New York, NY: Routledge.</p> <p>Hattie, J. & Yates, G. (2014). <i>Visible learning and the science of how we learn</i>. New York, NY: Routledge.</p>	

**Equipping Community College
Instructors with Constructive
Feedback Practices to Impact
Learning for All Students**
Week #1



*A Professional Development Training for
College Instructors
by
Janeth Martin Walker Franklin
May 2015*

Learning Intentions Week #1

- *Visible Learning
- *Remodel Understanding of
Feedback
- *Experience Constructive
Feedback BIG Picture
- *Meet Learning Colleagues
- *Introduction to the Growth
Mindset

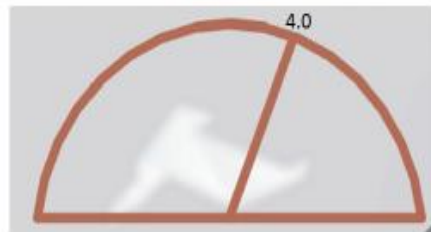
Learning Intentions Week #1

- *Visible Learning
- *Remodel Understanding of Feedback
- *Experience Constructive Feedback BIG Picture
- *Meet Learning Colleagues
- *Introduction to the Growth Mindset

What Works Best to Impact Student Learning?

VISIBLE LEARNING

1. When instructors see learning through the eyes of their students &
2. When Students see themselves as their own teachers Hattie, 2012a



What is feedback? Why is it important?

Actions taken by a person to get information about an aspect of task performance (Kluger & DeNisi, 1996, p235)

GPS

Includes reciprocal information between instructors and students about learning including achievement, attitudes and actions (Hattie, 2012c, p.265)




Learning Goals Human Bar Graph






Learning Goals

123KSS

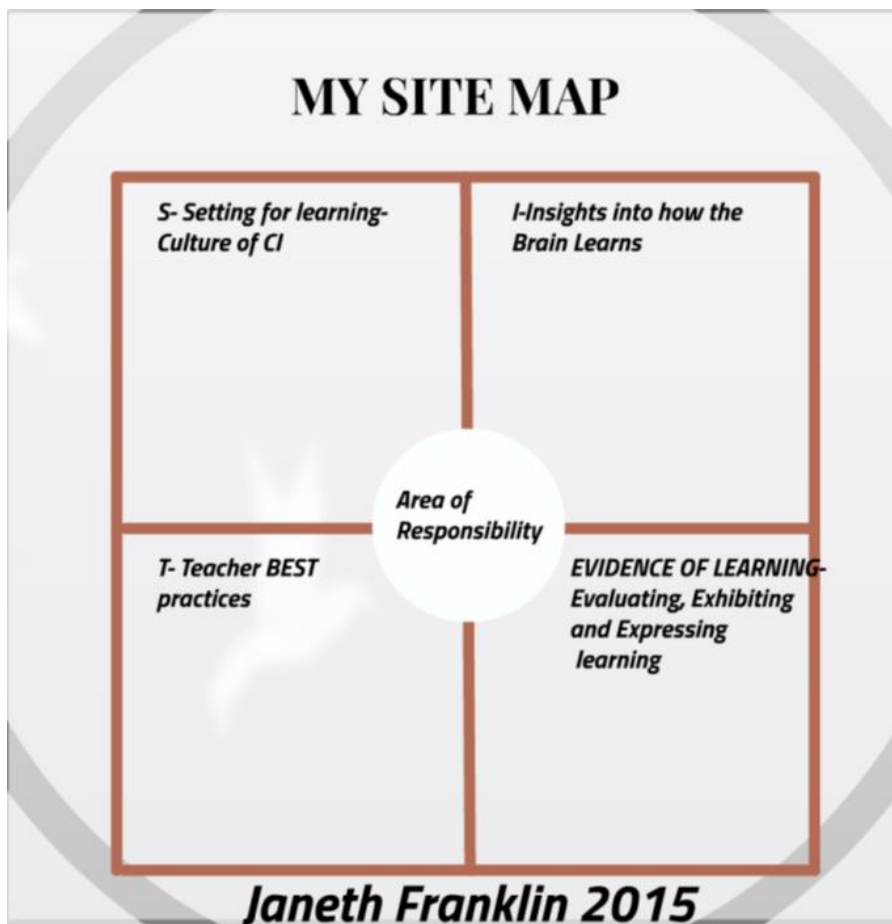
CONSTRUCTIVE FEEDBACK QUESTIONS

1. Where am I going? 
2. Where am I now? 
3. Where do I go next? 

KEEP 
STOP or Recycle 
START 

© 2015 Franklin
Adapted from Jones, 2005
2015 Jan 16 Jan 16 2015





HOW TO CHANGE FROM A **FIXED** TO A **GROWTH**



Step 1. **HEAR** the fixed mindset voice

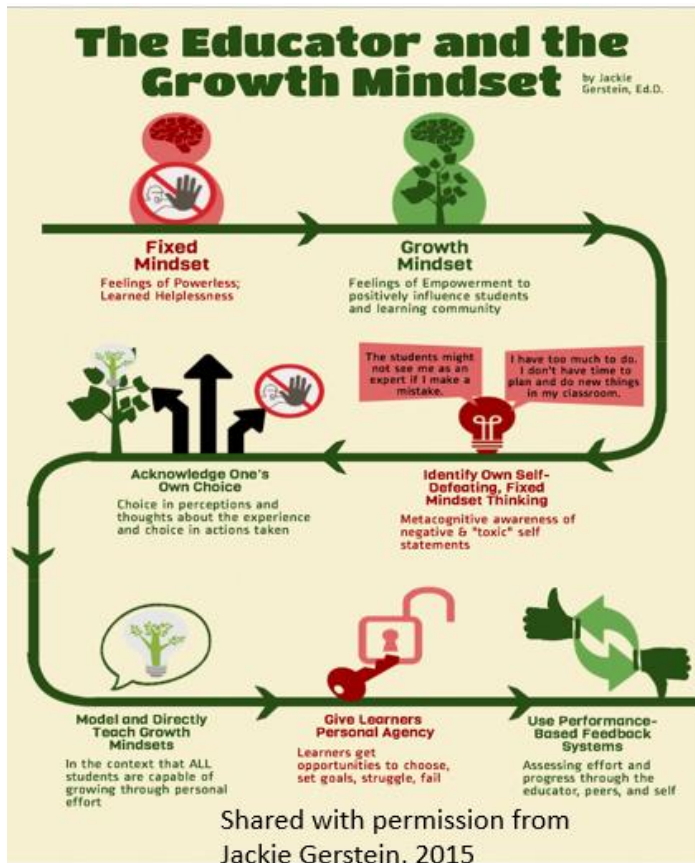
Step 2. **THINK** that you have a choice!

Step 3 **TALK BACK** with a **GROWTH** mindset voice

Step 4. **TAKE** the **GROWTH** mindset action.

Adapted from Carol Dweck-
Janeth Franklin 2012





How do you make a learning culture where constructive feedback is welcomed?

Build a Culture of Care and Continuous Improvement through

- Relationships
- Trust
- Growth Mindsets
- Embracing Mistakes
- Practice
- Persistence
- Effort
- Collaboration

Name _____ Front _____

One minute to sit quietly and reflect
on your learning today and One
minute to write about it on this card-
GO!

Back

Write ONE Constructive
Feedback Learning Goal that
you will commit to trying out
this week in the courses that
you teach.



Take a picture of
both sides of your
index card and text
it to yourself. Turn
the cards into me.



What are your
questions NOW?
Put them on a
sticky note and put
them on the
Parking Lot Poster


INSPIRING EXAMPLE

Frank Peretti's Real Life Story-
The
Wounded
Spirit

Learning Intentions Week #2

- Evaluate Feedback practices
- Build a Culture of Care and Continuous Improvement
- Practice using a Feedback Quick Sheet

**Equipping Community College
Instructors with Constructive
Feedback Practices to Impact
Learning for All Students**
Week #2

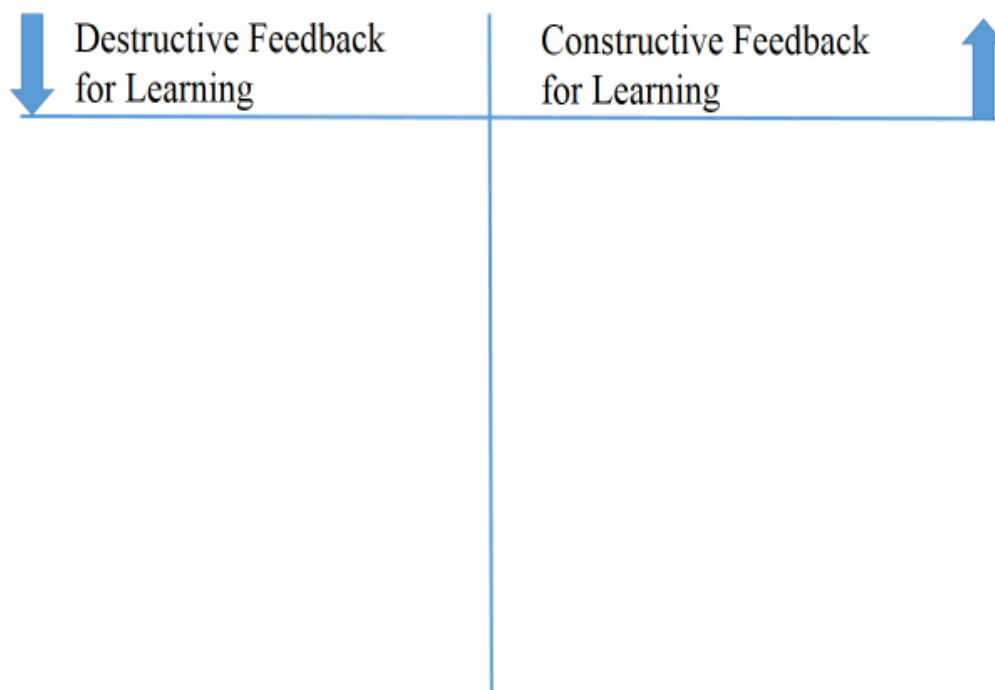
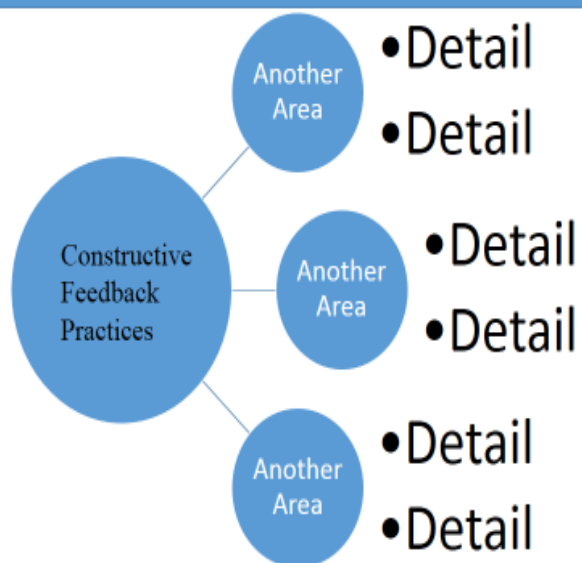


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Learning Intentions Week #2

- *Evaluating Feedback
- *Change from Destructive to Constructive Feedback
- *Practice using Feedback Quick Sheet
- *Rewrite Feedback Quick Sheet for Student Perspective
- *Learning experiences collection that give feedback to both instructors and students

Mind-mapping for Learning



What is Constructive Feedback?

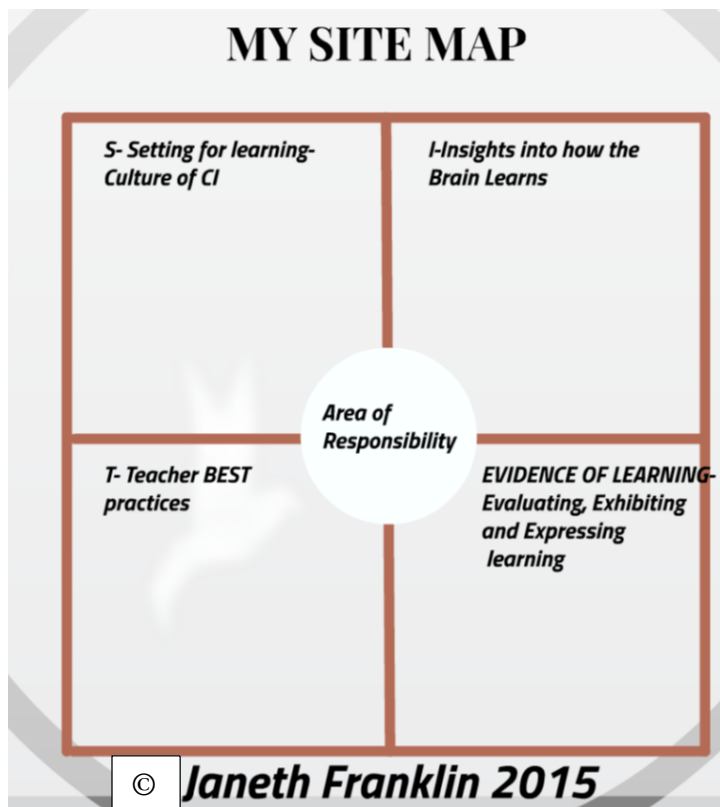
by Janeth Franklin

Confirming	Improving/ Correcting	Questions	Destructive to Learning
It is clear you understand.... I understand _____ because... Your work shows that you....	One idea might be.... Start here to make changes to... Claim a mulligan for	How is it going? What do you need? What can I do to help you? What strategies are you using? What questions do you have?	Good work.... Great job.... I like.....
The first step _____ is correct. Now you know.....	You could add..... It is correct to this point..... What goes next?.....	What could you try....? Why is.....? Which ____ would be best...?	This is easy....
The strongest aspect of your work is _____. You are working hard. That strategy _____ helped you to.....	What can you try now? Next time try this _____ or that _____?	Where is....? Where are you going? Where are you now? Where to next? Where can you get help?	You are smart, talented, brilliant, gifted..... You will never..... You always.....

Confirming	Improving/ Correcting	Questions	Destructive to Learning
It shows that you put in effort to complete this.	What are you confused by? What don't you get?... Yet!	When do....? When does...? When will.....?	This is A work. This is F work.
You are in the frustrating hard part.	What do you need to understand...? What part needs to be clarified.....?	What do you want me to model for you? What resources can help you?	You are not trying. You are late, irresponsible, not prepared
You clearly and succinctly	Consider changing.....	How do....? How will..." How could you.....?	Some people just aren't writers or _____ or _____.
You answered the question.... You solved the problem..... You learned.....	Better choices might be.....	Did you consider...? Which of these? What are.....? What do.....? What is....? What is the next step.....?	I was never very good at _____. I could never be an artist or _____ or _____.
You showed deep thinking....	Substitute this for	123Keep? Stop/Recycle? Start?	You need to drop this course.
You showed understanding by....	Delete this.....	What did you learn from ...? Will it define you or refine you?	You will fail this course if you do _____ or do not do _____.
You got me thinking about....	Include this.....	Who can help you?	How are you going to be a _____ if you do not know how to _____?
Now I want to know about.....	This answer needs to include	What will you do differently next time? Next time what will you try?	What were you thinking?



Janeth Franklin, 2015 -Adapted from the work of Brookhart (2008); Boud & Molloy,(2012); Carless (2013); Fisher & Frey (2012); Hattie (2012a, 2012b, 2012c, 2015); Dweck (2010, 2015); and Wiliam, (2012a, 2012b).



REFLECTING on LEARNING

- 1. Personal Reflection Time-*** One Minute
- 2. Personal Writing Time on SITE Map-*** Two Minutes
- 3. Learning Friend Share-*** Two Minutes
- 4. Table Share Out-*** Three Minutes



Take a picture of both sides of your index card and text it to yourself. Turn the cards into me.

Name Front

One minute to sit quietly and reflect on your learning today and One minute to write about it on this card-
GO!

Back

Write ONE Constructive Feedback Learning Goal that you will commit to trying out this week in the courses that you teach.




What are your
questions NOW?
Put them on a
sticky note and put
them on the
Parking Lot Poster

INSPIRING EXAMPLE

The True Story of a
15 year old boy
and
his grandfather
who had a ***Big*** problem!

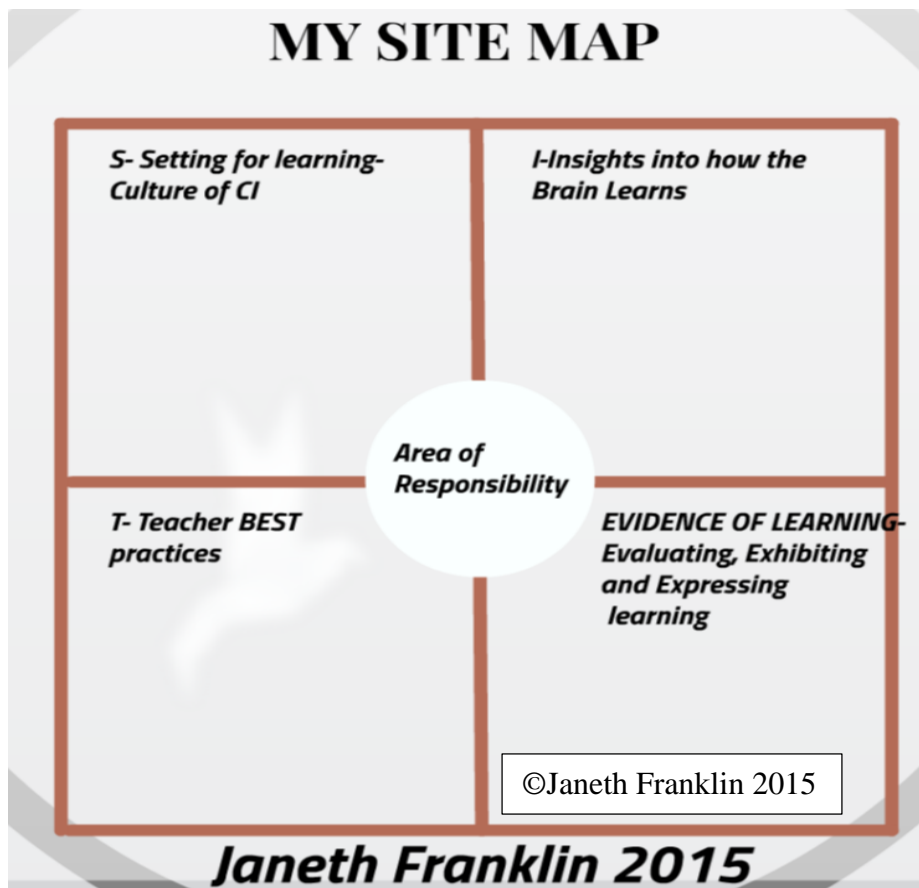
**Equipping Community College
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Week #3



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May 2015

Learning Intentions Week #3

- *Placemat Review with Images
- *More practice using the Feedback Quick Sheets
- *Simulated Educational Role Playing Experiences with Feedback
- * Design a Plan to Embed Constructive Feedback Practices into College Courses
- *Commit to Learning with a Colleague
- *Reflect on Learning and Student Learning



Challenges in seeking and using feedback for Students

Challenges in seeking and using feedback for Instructors

Possible Solutions
and Strategies for Students

Possible Solutions
and Strategies for Instructors

Gallery Walk

Four Posters

10 minutes at each poster #1-4

1. Developing Constructive Feedback Questions for Self-Regulation
2. One learning experience you want to commit to trying out in your college courses
3. One BIG challenge for you personally and one specific strategy you can try to overcome it from a learning friend
4. A list of different types of evidences of student learning
5. Group Share Out of Original Poster – 16 minutes
6. What questions do you have Now? -10 minutes
7. Final Walk Around to take pictures of the posters – 10 minutes

A Letter to Myself

Write a letter to yourself. Date it with today's date.

- Address to yourself using your name- Dear Susie,
- Describe what you know about what constructive feedback is and why it is important.
- List 5 things you learned about constructive feedback that you want to remember
- Using 123KSS Write your personal learning goals for using Constructive Feedback in the courses that you teach
- Give yourself one piece of encouraging Growth Mindset confirming feedback sentence
- Give yourself one piece of feedback for improvement
- Ask yourself one question that will help you develop your own self-regulation skills
- Sign it warmly with your name
- Take a picture of it and text it to me at my email address which is janeth.franklin@
- Take the letter with you and put it in a special place where you are sure to see it and reread it often!

Evaluating and Assessing the Professional Development Training

- Take a picture of your assessment and evaluation after you have thoughtfully shared your thinking about this learning experience so you can use it for future planning and implementation of the constructive feedback practices.
- Make commitment to colleague to meet to communicate and collaborate about using the constructive feedback practices in college courses
- Sign up on list with email address to receive more information, resources and support
- Watch your email for information from me and for a final evaluation after 2 months has passed to share evidence of student learning

Transforming Our Practices

- Collaborative Learning and Sharing
- Committing to our 123KSS Goals
- Evaluating our learning in 2 months time
- Looking for evidence of student learning and sharing it out
- Teaching and sharing with others

Final Inspiring Example

True Story of the Pianist who lost both of his arms at age 11
winning China's Got Talent in 2010
at the age of 22

**Developing Constructive Feedback Practices that
Maximize Self-Regulated Student Learning**

Professional Development Assessment/Evaluation

1. Describe your understanding of constructive feedback at the beginning of the professional development training.

2. Describe your understanding of constructive feedback after participating in the professional development training.

Setting your personal learning goals for the next two months.

3. Where are you going? Write a learning goal connected to constructive feedback practices for a course that you currently teach that you want to achieve and date it for two months from today.

4. Where are you now? What learning, skills, attitudes, actions do you already have that will help you to achieve your learning goal?

5. Where is your next step? Describe the next step you will take on your learning journey to meet your goal within two months? Think about KSS- What will you keep doing? Stop or Remodel? Start doing?

6. Describe 5 examples of evidence of student learning in a course that you teach connected to constructive feedback practices that you will look for to support your learning goals.

7. Write the name of a colleague that you will commit to contact at least once a month for the next two months to collaboratively share and support your constructive feedback learning journey.

8. Please rate this professional development on a scale of 1-10 (1=low and 10 = high) and explain your rating in terms of your learning. Suggestions, questions and constructive feedback are welcomed!

FINAL EVALUATION

Transforming Practices from the Professional Development Training-

Developing Constructive Feedback Practices that

Maximize Self-Regulated Student Learning

Sent out through e-mail immediately after the professional development training and again as a reminder two months after the last day of the professional development training.

Return to janeth.franklin@ _____ .edu by _____

Name/ Number for courses you teach _____ State you teach in _____

Date of last day of professional development training _____

Setting personal goals immediately after the professional development training

Today's date _____

1. Where are you going? Describe your learning goal connected to constructive feedback practices for a course that you currently teach that you want to achieve and date it for two months from the last day of the professional development training.

2. Where are you after the professional development training? What learning, skills, attitudes, actions do you have now that will help you to achieve your learning goal?

3. Where is your next step? Describe the next step you will take on your learning journey to meet your goal within two months? Think about KSS- What will you keep doing? Stop or Remodel? Start doing?

Two months from the last day of the professional development training-

Today's date _____

4. Where are you going now two months after the professional development training? Describe your learning goal now for a course that you currently teach connected to constructive feedback practices that you want to achieve and date it for some time in the future.
5. Where are you two months after the professional development training? What learning, skills, attitudes, and expertise connected to constructive feedback do you have now that will help you to achieve your learning goals?
6. Where is your next step? Describe the next step you will take on your learning journey? Think about KSS- What will you keep doing? Stop or Remodel? Start doing?

7. Explain your experiences implementing constructive feedback practices into the courses that you teach. Give specific examples and the results and what you learned from the experience.

8. Share examples of evidence of anonymous student learning impacted by new constructive feedback practices in your course. You may include attachments, pictures, assignments, data or other examples.

9. What can we do to support and encourage you as expand and improve your constructive feedback practices? (resources, mentoring, workshops, book club, website, other)

10. How has your mindset affected your own and your students' learning? How have you supported a Growth Mindset in yourself and in your students?

11. How many times have you connected with your learning colleague to share your learning journey to improve your constructive feedback practices? How did you meet? How did it help your learning?

Please rate the professional development training now on a scale of 1-10 (1 = low and 10 = high) and explain your rating in terms of your learning. Suggestions, questions and constructive feedback are welcomed.

Appendix B: Permission to do Research at Community College in the Southwest

Greetings Janeth.

Thank you for sharing your research proposal which appears extremely relevant to CC's and (the district's) _____ current initiatives.

Yes, I completely support your moving forward with this research.

Please keep us posted on how you are doing and if we can provide any assistance.

Take care.

Appendix C: Adult Consent Form

CONSENT FORM

You are invited to take part in the research study of Janeth Franklin who is studying how college instructors who teach developmental education courses perceive feedback. The researcher is inviting current instructors of any developmental course (math, reading, or English) to be in the study. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher, Janeth Franklin, who is a doctoral student at Walden University. You may already know the researcher as an adjunct faculty member or a professional developer, but this study is separate from that role.

Background Information:

The purpose of this study is to research how college instructors who teach developmental education courses perceive feedback.

Procedures:

If you agree to be in this study, you will be asked to:

- Reply to this e-mail to include “I consent” and to attach the pre-interview participant information as requested in the document attached to this e-mail taking 5-10 minutes
- Participate in one audio-recorded interview lasting between 30 minutes to one hour

Here are some sample questions:

How do you perceive feedback in your developmental education courses?

Please share examples of how you use feedback

For what purpose(s) do you use feedback?

What are the results from your experiences using feedback?

- Submit three self-selected anonymous examples of written feedback given to students in your developmental education courses. The reason for the selection, the purpose of the feedback and the results from giving the feedback will be discussed in the interview.
- Participate in a follow-up conversation to verify interview information or to clarify the researcher's understanding of your communications lasting between 30 minute to one hour

Voluntary Nature of the Study:

This study is voluntary. Your decision will be respected whether or not you choose to be in the study. No one at _____Community College or _____Community College District will treat you differently if you decide not to be in the study. If the researcher is already known to you, declining or discontinuing to participate in this research will not negatively impact your relationship with the researcher or your access to any services.

If you decide to join the study now, you can still change your mind later. You may stop participating in this project study at any time.

Risks and Benefits of Being in the Study:

All research participation requires some burden on the participants by asking you to volunteer personal information and experiences, volunteer time, and assume risks. Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as such as fatigue, stress, or becoming upset. Being in this

study would not pose risk to your safety or wellbeing. Every precaution is in place to assure confidentiality and alleviate the risk of anyone outside of the principal researcher and the co-principal researcher/doctoral committee chairperson knowing the identities and the contributions of specific participants.

The results of this study may inform and improve future development of feedback practices for community college instructors that will increase learning and academic achievement with minimal cost to the institution or stakeholders.

Payment:

There is no payment for participating in this research.

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure within password secured devices and locked files. Data will be kept for a period of at least 6 years, as required by the university. The data will be securely shredded, deleted and destroyed after 6 years.

Contacts and Questions:

If you have questions at any time, please contact the researcher via e-mail or phone at janeth.franklin@waldenu.edu or 623-330-6302. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is 05-06-14-0224772 and it

expires on May 5, 2015. The researcher will give you a copy of this form to keep at the interview.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By replying to this e-mail with the words, “I consent”, I understand that I am agreeing to the terms described above and I am agreeing to participate in the research. I will include the pre-interview information from the attached document in the reply e-mail.

Appendix D: Pre-Interview Participant Information

Date:

Name of College Instructor (to be replaced with a pseudonym):

Gender: Male or Female

Office Phone Number:

Office E-mail Address:

Teaching Discipline/ Title:

Name and Course number of the Developmental Education Courses you are teaching this semester:

Number of years of college teaching experience:

Number of years of other teaching experience and type of experience:

Number of years at this college:

I am willing to share examples of feedback: YES or NO

Please bring with you to the interview three examples of your anonymous written feedback given to students in your current developmental education courses. You will be asked in the interview to explain the reason you chose the particular examples, the specific purpose for giving the feedback and the results that came from giving the feedback.

Please return to Janeth Franklin, researcher, at janeth.franklin@waldenu.edu by this date

_____.

Appendix E: Interview Questions

One broad question will be posed and then additional probes will be used as needed from the emerging information from the interview process.

Broad overarching question-

For teaching faculty-

1. How do you perceive feedback in teaching your developmental education courses?

Additional supplementary interview questions could include:

- What does feedback mean to you?
- What does feedback look like in your developmental education courses?
- How do you get feedback from your students?
- How do you use the feedback that you receive from students?
- How do students in developmental education use feedback?
- How do you give feedback to students in courses that are not developmental education?
- How do students use the feedback that you give to them?
- How did you learn what feedback practices to use?
- Does the type of feedback depend on the course you are teaching?

According to Kvale and Brinkmann (2009), I will listen to the interviewee respond to the open-ended question with a “curious, persistent and critical attitude” (p. 135). If necessary to extend the information, I will respond with a nod or an “mmm” or a

pause to invite more detail and explanation. I can repeat a significant word used by the interviewee to answer the broad question to lead to more information or a deeper explanation.

If it is still necessary to get to more information and to make meaning of the interviewee's answers, I can ask one or more of the following probes:

- Give me a more detailed description of what happened.
 - Give me further examples.
 - What did you say or do then?
 - What were your thoughts at that time?
 - Take me through that experience.
 - Describe your emotional response to that event.
 - What is your opinion of what happened?
 - What happened next?
 - What was your purpose?
2. Concerning the anonymous self-selected written feedback documents shared with the researcher by each interviewee:
- Explain how you chose these written feedback examples to share with me
 - Explain the circumstances and your thinking when sharing the feedback with the student
 - Explain the student's response to the feedback
 - Explain anything else that will help me to understand how you and your students used these feedback examples.

Appendix F: Peer Debriefing Confidentiality Agreement

Name of Signer: _____

During the course of my activity in collecting data for this research study titled: Community College Instructors' Perceptions of Feedback, I will have access to information as the peer debriefer, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter, or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification, or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: _____ **Date:** _____

Appendix G: Transcriber Confidentiality Agreement

CLIENT NON-DISCLOSURE AGREEMENT

This CLIENT NON-DISCLOSURE AGREEMENT, effective as of the date last set forth below (this "Agreement"), between the undersigned actual or potential client ("Client") and Rev.com, Inc. ("Rev.com") is made to confirm the understanding and agreement of the parties hereto with respect to certain proprietary information being provided to Rev.com for the purpose of performing translation, transcription and other document related services (the "Rev.com Services"). In consideration for the mutual agreements contained herein and the other provisions of this Agreement, the parties hereto agree as follows:

1. Scope of Confidential Information

1.1. "Confidential Information" means, subject to the exceptions set forth in Section 1.2 hereof, any documents or other text supplied by Client to Rev.com for the purpose of performing the Rev.com Services.

1.2. Confidential Information does not include information that: (i) was available to Rev.com prior to disclosure of such information by Client and free of any confidentiality obligation in favor of Client known to Rev.com at the time of disclosure; (ii) is made available to Rev.com from a third party not known by Rev.com at the time of such availability to be subject to a confidentiality obligation in favor of Client; (iii) is made available to third parties by Client without restriction on the disclosure of such information; (iv) is or becomes available to the public other than as a result of disclosure by Rev.com prohibited by this Agreement; or (v) is developed independently by Rev.com or Rev.com's directors, officers, members, partners, employees, consultants, contractors, agents, representatives or affiliated entities (collectively, "Associated Persons").

2. Use and Disclosure of Confidential Information

2.1. Rev.com will keep secret and will not disclose to anyone any of the Confidential Information, other than furnishing the Confidential Information to Associated Persons; provided that such Associated Persons are bound by agreements respecting confidential information. Rev.com will not use any of the Confidential Information for any purpose other than performing the Rev.com Services on Client's behalf. Rev.com will use reasonable care and adequate measures to protect the security of the Confidential Information and to attempt to prevent any Confidential Information from being disclosed or otherwise made available to unauthorized persons or used in violation of the foregoing.

2.2. Notwithstanding anything to the contrary herein, Rev.com is free to make, and this Agreement does not restrict, disclosure of any Confidential Information in a judicial, legislative or administrative investigation or proceeding or to a government or other regulatory agency; provided that, if permitted by law, Rev.com provides to Client prior notice of the intended disclosure and permits Client to intervene

therein to protect its interests in the Confidential Information, and cooperate and assist Client in seeking to obtain such protection.

3. Certain Rights and Limitations

3.1. All Confidential Information will remain the property of Client.

3.2. This Agreement imposes no obligations on either party to purchase, sell, license, transfer or otherwise transact in any products, services or technology.

4. Termination

4.1. Upon Client's written request, Rev.com agrees to use good faith efforts to return promptly to Client any Confidential Information that is in writing and in the possession of Rev.com and to certify the return or destruction of all Confidential Information; provided that Rev.com may retain a summary description of Confidential Information for archival purposes.

4.2. The rights and obligations of the parties hereto contained in Sections 2 (Use and Disclosure of Confidential Information) (subject to Section 2.1), 3 (Certain Rights and Limitations), 4 (Termination), and 5 (Miscellaneous) will survive the return of any tangible embodiments of Confidential Information and any termination of this Agreement.

5. Miscellaneous

5.1. Client and Rev.com are independent contractors and will so represent themselves in all regards. Nothing in this Agreement will be construed to make either party the agent or legal representative of the other or to make the parties partners or joint venturers, and neither party may bind the other in any way. This Agreement will be governed by and construed in accordance with the laws of the State of California governing such agreements, without regard to conflicts-of-law principles. The sole and exclusive jurisdiction and venue for any litigation arising out of this Agreement shall be an appropriate federal or state court located in the State of California, and the parties agree not to raise, and waive, any objections or defenses based upon venue or forum non conveniens. This Agreement (together with any

agreement for the Rev.com Services) contains the complete and exclusive agreement of the parties with respect to the subject matter hereof and supersedes all prior agreements and understandings with respect thereto, whether written or oral, express or implied. If any provision of this Agreement is held invalid, illegal or unenforceable by a court of competent jurisdiction, such will not affect any other provision of this Agreement, which will remain in full force and effect. No amendment or alteration of the terms of this Agreement will be effective unless made in writing and


executed by both parties hereto. A failure or delay in exercising any right in respect to this Agreement will not be presumed to operate as a waiver, and a single or partial exercise of any right will not be presumed to preclude any subsequent or further exercise of that right or the exercise of any other right. Any modification or waiver of any provision of this Agreement will not be effective unless made in writing. Any such waiver will be effective only in the specific instance and for the purpose given.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed below by their duly authorized signatories.

CLIENT

REV.COM, INC.

Print Name: _____



By: _____

By: _____
Name: *David Abrameto*
Title: *CFO*
Date: *6/6/14*

Name:
Title:
Date:

Address for notices to Client:

Address for notices to Rev.com, Inc.:

251 Kearny St. FL 8
San Francisco, CA 94108