Web-Based Comment Banks
as Support for the Online Grading Feedback Process

Jennifer Schneider
The Community College of Philadelphia, USA
jschneider@ccp.edu

This action research study describes how a web-based, feedback comment bank impacts online instructor efficacy as well as attitudes and perceptions associated with the online grading feedback process. The study adopted a mixed-methods action research design. Study participants included 18 instructors at a private university that serves a global student population. Quantitative data was collected via pre- and post-intervention surveys. Qualitative data was collected via open-ended survey questions as well as through informal interviews, conversations, and document analysis. While study results indicated statistically significant changes in Educators' Sense of Online Teaching Efficacy and Online Grading Efficacy (evaluated on an exploratory basis only), no statistically significant changes were observed in Collective Efficacy in Instructional Strategies. Analysis of qualitative data yielded eight emerging themes, including positive feelings, expanded visions of feedback, mitigation of inconsistencies, increased personalization, efficiencies, appreciation for support, desire for collaboration, and desire for ongoing professional learning and personal development.

Keywords: Comments Bank, Feedback Bank, Instructor Efficacy, Online Grading, Online Teaching

Introduction

A fundamental and primary goal of all instructional experiences within the classroom setting, whether face to face or online, is student growth and learning. While there are many variations on what learning means, and no single, universally accepted definition, there are several guiding themes. Hattie (2013) defined learning as "the process of developing sufficient surface knowledge to then move to deep or conceptual understanding" (p. 26). For Lane (2015), learning is typically characterized as "a complex process (multidimensional) that requires effort, is frequently delayed, is contextual, and occurs only when relatively permanent changes in behavior result from reinforced practice" (p. 511). Irrespective of one's adopted definition for the term, educators and researchers generally agree that learning should be a primary emphasis and focus of all instructional efforts and communications (Elkins, 2016). One especially important instructional effort is the provision of explanatory feedback on student work. Providing grades and associated feedback comments explaining a numerical or letter grade should similarly focus on student learning (Elkins, 2016). However, despite extensive research on instructional best practices, the acts of grading and providing students explanatory grading feedback have received comparatively less attention versus other important factors and experiences influencing the student learning process (Elkins, 2016).

Closely related to grading, research suggests that feedback is one of the most critical factors in terms of how deeply students learn and grow. Hattie and Clarke (2019) suggested that feedback is specific information about a particular task that narrows or completes perceived gaps between what a performer should have understood and what the performer actually understood. Similarly, Nicol (2008) has written on the importance of quality feedback providing opportunities for learners to close existing gaps between current and desired performance levels. Importantly, students require feedback for both learning and positive learning experiences (Bajaj, Kaur, Arora, & Singh, 2018). Further, feedback helps students appreciate and understand what they have accomplished, what they have learned, and what else they need to do in order to achieve their learning goals (Bajaj et al., 2018). More generally, Bajaj et al. (2018) suggested that feedback guides students to narrow and ultimately eliminate gaps in skill and knowledge demonstrations.

Feedback often serves a variety of functions including error correction, positive reinforcement, and clarification of unwarranted assumptions and preconceived conceptions (Hattie & Clarke, 2019). Feedback can also serve to promote ongoing improvement, guide future performance, modify undesired behaviors, and praise positive actions (Hattie & Clarke, 2019). Notwithstanding feedback's many important functions, Hattie & Clarke (2019) have noted that, in reality, the ultimate impact of feedback often varies greatly. Despite the importance of feedback (and perhaps a consequence of its variability), the impact and associated consequences of feedback are often ambiguous and complicated

(Vollmeyer & Rheinberg, 2005). The complexity of feedback's impact depends, in part, upon the timing and quality of the feedback, learner motivations and desires, the consequences of learner performance, and the context in which the learning takes place (Vollmeyer & Rheinberg, 2005).

The importance and complexity of feedback persist with interesting nuances in the online learning environment. As the number of learners studying online grows, educators and researchers can look to online learning science as well as student performance and experience data to help inform pedagogy and feedback practices in the online classroom experience (Li, Marsh, & Rienties, 2016). Opportunities to strengthen and improve online teaching and instruction extend to and include the online grading feedback process.

Providing quality and impactful feedback is not without its challenges. A 2015 survey of almost 300 college students found that students received no feedback at all on a significant percentage of all assignment submissions (Elkins, 2016). Further, although students believed feedback was an important component of successfully achieving course and learning objectives, students often failed to understand how to apply general feedback comments received on one assignment to subsequent assignments (Elkins, 2016). Not only did the learning transfer pose challenges, but motivation was also lacking. Students expressed a lack of motivation to apply feedback that was not received in a timely manner and/or with sufficient clarity as to how it might be applied in the future (Elkins, 2016). Hattie, Fisher, and Frey (2016) have also written on the challenges of bias and the processing of feedback. Students are not unique in that they "seek feedback that boosts their self-image" and selectively focus on positive comments that are often non-actionable (Hattie, Fisher, & Frey, 2016, p. 17). Mandernach and Holbeck (2016) argued that with an increasing number of faculty trying to manage an ever-increasing mix of responsibilities, it is now more important than ever to "work smarter, not harder" (p. 15). Rather than simply encouraging faculty to log on and demonstrate presence in their online classrooms, institutions must do more to offer faculty support as well as specific and actionable guidance and resources that can help optimize time spent providing online instruction (Mandernach & Holbeck, 2016). Relatedly, institutions should provide online faculty additional guidance and direction on how to augment and enhance the educational impact of their time spent instructing (Mandernach & Holbeck, 2016). Institutions should consider the online grading feedback experience as an explicit and critical component of online instruction.

Looking for ways to provide additional instructor and student support, more quality feedback, and grading efficiencies, scholars have explored a variety of options. Some have explored the use of feedback banks (sometimes referred to as comment banks, statement banks, or TurnitIn Quickmarks; Bray, n.d.; Hornby, 2004). Others have explored electronic marking tools and the use of macros (Neal, 2013). Nicol (2010) has suggested that in addition to their own comments, students have access to all of the feedback comments provided for an individual assignment. In this way, students are encouraged to be both proactive and reflective as they evaluate and assess comments for relevance and applicability to their own work and learning (Nicol, 2008). Tools that incorporate statement banks have become increasingly prevalent within higher education (Denton & Rowe, 2014). Some scholars have developed comment banks for purchase and sharing (Moxley, n.d.). Google has also introduced a tool that provides comments to instructors (Schaffhauser, 2018). An early tester indicated that users found this feature "very useful" and that comments added to the bank could be "easily reused over and over or edited to make feedback more personal" (Schaffauser, 2018, p.1). A Google Docs Add-on called JoeZoo comes pre-loaded with 93 commonly used teacher comments (JoeZoo, 2018). GradeScope is another proprietary tool that provides additional options for streamlining the grading process (GradeScope, 2018). Another method that may be beneficial is an open, web-accessible resource that shares categories and examples of possible feedback comments, all of which can be customized and personalized.

To date, there appears to be limited research that has explored whether such a resource might increase instructor teaching efficacy and/or improve instructor attitudes and perceptions of the grading feedback process.

Problem of Practice

The problem of practice examined in this action research study involved the challenges online instructors and students encountered in connection with the grading feedback process. Instructors and students alike expressed persistent challenges that impacted self-efficacy and confidence in their abilities to achieve instructional and learning goals. The researcher also experienced similar frustrations in both teaching and learning experiences.

Hattie (2012a) described feedback as one of the most salient and potentially most profound factors in an individual's learning process. However, for many instructors, the most difficult and frustrating part of teaching has been the grading feedback process (Nilson, 2015; Tierney, 2013). Beyond the practical challenges of time and utility, there have been concerns for equity and bias, as well. Research has consistently found that grading practices vary significantly from school to school, program to program, and teacher to teacher (Feldman, 2018; Kohn, 1999).

Online programs and online learning continue to soar in popularity (Seaman, Allen, & Seaman, 2018). Teaching and learning in online environments have introduced further complexities to the grading feedback process. Challenges include primarily text-based communications and larger class sizes (Crisp, 2007; Laflen & Smith, 2017; Nicol & Macfarlane-Dick, 2006). Despite the challenges, there exists little consensus for how online instructors might most effectively approach the online grading process (Laflen & Smith, 2017).

Research Questions

To further understand this problem of practice and how to improve online instructor efficacy as well as attitudes and perceptions associated with the grading feedback process, this action research mixed-methods study explored the following research questions:

> Research Question 1: How does the use of a web-based grading feedback comment bank impact online instructor's teaching efficacy?

> Research Question 2: How does the use of a web-based grading feedback comment bank impact collective teacher efficacy within an online university?

> Research Question 3: How does the use of a web-based grading feedback comment bank impact online instructors' attitudes and perceptions of the grading process?

These research questions were designed to generate feedback and data on issues of instructor online teaching efficacy, collective teaching efficacy, and perceptions and attitudes surrounding the online grading feedback process.

Theoretical Framework

The theoretical framework that guided this research and its exploration of the online grading feedback process rested on a multi-part, interconnected analysis. In particular, the theoretical framework relied upon the work of efficacy, collective efficacy, and grading feedback theorists. Literature in these areas offered the framework by which the researcher evaluated the impact of a web-based, feedback comment bank on instructor online teaching efficacy, instructor collective efficacy, and instructor perspectives on online grading and online grading feedback. Each area is explored in more detail, below.

Self-Efficacy

Bandura (n.d.) wrote on an individual's beliefs in their efficacy to impact and influence events in their own lives as some of the most pervasive and most powerful mechanisms of human agency. Teacher efficacy describes a teacher's

evaluation of his or her ability to achieve desired educational results, including for students who might lack motivation and/or demonstrate related barriers to learning (Tschannen-Moran & Hoy, 2001). Tschannen-Moran and Hoy (2001) wrote extensively on the ways teachers' beliefs about efficacy also influence and impact their classroom interactions, in both positive and negative ways. In general, instructors must first believe that they can influence the grading feedback process in positive ways in order to fully embrace and engage with the experience of sharing grading feedback with students.

Collective Efficacy

Collective teacher efficacy refers to teachers' collective beliefs that their work impacts students over and above the impact of the students themselves, their homes, and their communities (Tschannen-Moran & Barr, 2004). Related research and collective efficacy theorists also influenced this research study and the researcher's related thinking on the relationship between shared learning experiences and perceptions of instructional impact. Hattie (2012b) and other scholars have long highlighted the importance of collective teacher efficacy on student achievement, with Hattie suggesting that collective teacher efficacy is the single most important influence on student achievement (Visible-Learning, 2018). Research has also revealed that for many online instructors that majority of instructional time is spent both grading and providing grading feedback (Mandernach & Holbeck, 2016). Recognizing the time spent providing grading feedback on the part of instructors, it is critically important that instructors believe that these efforts are valuable and meaningfully support student achievement. In particular, it is important that all stakeholders in the feedback process, including the increasing number of instructors who work online and often in remote capacities, collectively believe in both their and their institution's potential to influence student outcomes in positive ways.

Impact and Characteristics of Quality Feedback

Finally, at the level of constructing, sharing, and receiving online feedback as a tangible construct, the work of Wiggins and Hattie also served as both a fundamental underpinning of this action research study and a critical influence on the author's thinking with respect to both the characteristic of, and need for, quality online grading feedback. Hattie and Clarke (2019) described feedback as not only an important and influential force, but also one of the most variable of influences on student learning. While the characteristic of quality feedback include traits such as transparency, personalization, timeliness, and consistency (Wiggins, 2012), the reality is that the quality of provided feedback varies and can have both potentially positive as well as potentially negative influences and impacts (Hattie & Clarke, 2019).

Each element of this theoretical framework connected closely with key characteristics of the researcher's problem of practice and the online student and instructor experiences with the grading feedback process reflected therein. Scholarly work in these areas provided a unified framework through which the researcher studied the potential for a web-based, collaborative feedback comment bank to (a) support the efficient creation of personalized grading feedback as a tool for further learning and (b) positively impact online instructor efficacy and perspectives on grading in the online classroom setting.

Purpose of the Study

Recognizing both the value of helpful feedback and the simultaneous challenges of providing quality feedback, the researcher wondered about interventions that could support online instructors (referred to interchangeably as faculty and instructors throughout this paper) in providing quality student feedback in an efficient manner. This action research study explored the impact of one such intervention on instructor online teacher efficacy (individual and collective) and instructor attitudes and perceptions of the online grading feedback process.

Dewey (1933) has written eloquently and persuasively on the importance of awareness and the teaching process. This action research study raised awareness about both challenges and potential enhancements to the grading feedback process for online instructors. While some might argue the challenges of grading feedback are unavoidable, this study examined how administrators and schools can work to better support their online instructors, their experiences providing online grading feedback, and the online classrooms and students they lead.

Overview of Methodology

An action research design was used to explore the above-outlined research questions. Action research is defined as research for which data on a specific problem is collected, possible resolutions are explored, and ultimately results are assessed and evaluated (Tuncel & Icen, 2016). Relatedly, action research is a systematic inquiry undertaken by those vested in teaching and learning environments in order to develop, for themselves, a deeper understanding of the teaching and learning experience and associated challenges in an area of focus (Mills, 2018). The action researcher seeks to identify solutions to practical problems in need of resolution (Dana & Yendol-Hoppey, 2014). Typically, the action researcher examines his or her own practices, with the goal of developing a specific plan of action or solution to respond to an identified problem of practice (Mertler, 2017). Tested solutions can be implemented with minimal time delays and address, in unique and tailored ways, the problems exhibited by a particular instructor and student population (Boonchom, Nuchwana, & Amorn, 2012).

The action research study utilized a mixed-methods action research design. Efron and Ravid (2013) wrote that the "mixed-methods approach proposes to cross boundaries between worldviews and blend (or combine) qualitative and quantitative research methods and techniques into a single study" (p. 45). As Efron and Ravid (2013) explained, mixed-methods research strives to draw upon the unique strengths of both qualitative and quantitative research in order to achieve desired goals. Using both qualitative and quantitative approaches in a single study helps the researchers understand multiple and distinct aspects of a particular research question (Creswell & Plano Clark, 2018).

This study combined both quantitative and qualitative research techniques in order to evaluate the impact of the availability and use of a web-based, collaborative feedback comment bank along with supporting professional development on instructor self and collective teacher efficacy as well as perceptions and attitudes associated with the online grading feedback process. Several strategies were used to collect qualitative data for this study. Specifically, open-ended questions obtained through self-administered survey questionnaires, informal interviews, conversations, and document analysis provided insights into feelings and reactions that online instructors associate with their instructional practices and online grading experiences. At the same time, quantitative data in the form of numerical data was collected from self-administered survey questionnaires. As Gay, Airasian, and Mills (2014) explain, multiple strategies yield different types of information and different data sources enhance the researcher's ability to evaluate, compare, and contrast collected information. Associated triangulation helps ensure research validity (Creswell & Plano Clark, 2018).

Study participants included online instructors at a large, private university that serves a global student population and has a primary, physical campus in the United States. Participants were instructors in the university's college of online and continuing education. Three were full-time faculty members. Four taught on a part-time, adjunct faculty member basis. Participants taught both graduate and undergraduate courses. Undergraduate terms ran for eight weeks. Graduate terms ran for ten weeks. Participating instructors had been assigned sections of standard department courses to teach in a given session. All participating instructors had taught their assigned courses before.

In its initial form, the feedback comment bank included four broad categories of comments. The first category of feedback comments addressed written discussion board posts. The second category of comments focused on digital presentations. The third category of feedback comments addressed written assignments. Another category of comments addressed grammar and APA formatting requirements. Each category included a minimum of 100 initial comments (see Table 1.1). Initial comments addressed both content correction as well as feedback nuances regarding tone, bias, perspective, mindset, and other related qualitative feedback characteristics.

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Initial Feedback Bank Content

Discussion Board Posts	Written Assignments	Digital Presentations	Grammar & APA Format
Minimum of 100 initial feedback comments	Minimum of 100 initial feedback comments	Minimum of 100 initial feedback comments	Minimum of 100 initial feedback comments

The intervention was developed based on assignment expectations, available rubrics, and anticipated student questions. The comment bank's content was freely available online and also available for download in a variety of formats (including Google Documents, PDF, RemNote documents, and Word documents). Instructors had the option to download sets of comments for ease of use in grading feedback.

Google Suite tools (Sheets, Docs, Forms, and Sites) were used to host and grow the comment bank. A related open-access website (https://www.thefeedbackbank.com/) was developed to both host the comment bank and provide easy access to users. The web-based spreadsheets and documents supported user comments and questions. The hosting site also included a library of professional development articles and research focused on grading feedback. Faculty were encouraged to share feedback, comments, and questions associated with the comment bank's form, content, design, and use. Users were invited to submit additional comments for inclusion in the bank. A linked Google Form invited comment submissions, by category. As feedback and input were received, the comment bank was continuously updated.

Participants received access to the intervention at the start of a teaching term and had ongoing access to the intervention throughout the term. A pre-term "Call for Participation" email invited faculty to participate in the study. Interested faculty were invited to attend a 30-minute virtual professional development and training webinar on the importance of quality and timely online grading feedback. Prior to the start of the webinar, participating instructors completed an initial, pre-intervention survey. At the conclusion of the initial professional development webinar, a link to feedback bank resources was provided (and emailed) to participants. Participants agreed to use the feedback bank throughout the term and to complete a post-intervention survey at the conclusion of the teaching term (the end of the eight-week term for undergraduate instructors and the conclusion the ten-week term for graduate instructors). Participants were also invited to attend a virtual 30-minute professional development and training webinar during week four of the term as well as a virtual 30-minute professional development webinar near the conclusion of the term (week eight of the term for graduate instructors and week seven for undergraduate instructors). Participants completed a brief, open-ended survey at the conclusion of each virtual professional development webinar. The purpose of this action research study was to better understand how the described combination of professional development exercises and associated use of a web-based feedback bank might be used to improve the online grading feedback process experience and associated teaching efficacy for online instructors.

Researcher Positionality

Herr and Anderson (2015) wrote of the importance of researcher positionality for all research projects. Addressing positionality requires the researcher to reflect on the question of who the researcher is in relation to a study's participants and setting and to be constantly mindful of the "central dilemma unique to action researchers" and their associated relationship with their unique setting and participants (Herr & Anderson, 2015, p. 37). Given the variety of approaches and positions unique to the action researcher and his or her relationship to a study, "sorting out the implications of this unique relationship to one's study is often confusing" (Herr & Anderson, 2015, p. 37).
The researcher's ongoing and evolving relationship to the problem of practice, the study participants, the study setting, and the study's research questions was no exception to this common experience.
In connection with this research, the researcher could be characterized as an insider in collaboration with other insiders. Throughout the entirety of the study the researcher acted not only as a researcher but, in her capacity as an online college instructor, peer coach, and mentor, also a practitioner. Online teaching and virtual peer mentorship and coaching occurred alongside and simultaneously with the associated action research. Like the participants, the researcher

served as an online faculty member (at the same university as the participants) for the duration of the study. The researcher taught in the university's graduate division and criminal justice program. During this same period of time, the researcher also led a team of online faculty (all of whom taught in the university's STEM program) and was responsible for coaching and evaluating this team including with respect to the grading feedback provided to their online students. Several of the study participants taught online courses similar in content and/or structure to those taught by the researcher. Many did not. Throughout the entirety of the study, the practitioner-researcher worked closely in ongoing virtual collaboration with all instructor participants on the bank's development, implementation, and ongoing revision.

Ongoing reflection was used as a vehicle for maintaining a critical perspective and awareness of positionality through-out the study. Active and ongoing reflections helped ensure bias was reduced as much as possible. As noted, the researcher taught online courses similar in structure and form to those taught by participating faculty. In this role, the researcher needed to be aware of implicit biases that could present when comparing instructor feedback across courses. Similarly, the researcher actively monitored personal beliefs regarding what is "quality" or "meaningful" feedback based on personal experiences as a student and on personal interpretations of existing research and literature. The researcher's positionality also evolved overtime, as familiarity with participating instructor courses and the specific assessments employed in those courses increased. To address those concerns, the researcher incorporated an ongoing process of reflection and evaluation of both position and relationship to all study participants.

While the researcher teaches primarily graduate courses at the site university, study participants included both under-graduate and graduate instructors. When working with faculty who teach students at different educational levels, the researcher might be considered an outsider, at least to some degree. However, because the researcher and the study participants all taught, in online capacities, for the same university and served a similar student population, it is the researcher's opinion that similarities were likely greater than differences. As such, the researcher identified primarily as an insider working with other insiders in terms of positionality. However, the researcher also aligned with position-ality as an outsider at various points throughout such a study. For example, most of the study participants taught courses different than those taught by the researcher. Further, the researcher-practitioner had not previously worked with many of the study participants (and the undergraduate instructors, in particular). Although all participants taught in the criminal justice discipline, it is possible that given differences across undergraduate and graduate divisions, as well as different course objectives, student learning outcomes, and course assessments within graduate and/or under-graduate divisions as applicable, associated online teaching and online grading experiences could differ significantly.

It is important for a researcher to both reflect upon positionality as a continuum and to intentionally and activity consider where they might fall on the referenced continuum at each point in a study (Herr & Anderson, 2015). Relat-edly, it is just as important to recognize that positionality often changes throughout the course of the research process (Herr & Anderson, 2015). That is, positionality is not static (and there are risks associated with viewing positionality in a static way). The researcher was no exception as, and as the study and associated term progressed, the researcher's relationship with the participants did, as well. For example, professional development webinars and informal conver-sations led to new types of relationships and interactions. Because the study took place over an extended period of time, relationships with participants whom the researcher did not know personally before the study commenced de-veloped over time. Changes in relationships inevitably impacted the nature, extent, and content of all shared interac-tions and related positionality, as well.

Moreover, Herr and Anderson (2015) set forth varying positionalities (admittedly oversimplified categories) to include insider, insider in collaboration with other insiders, insider(s) in collaboration with outsiders, reciprocal collaboration, outsider(s) in collaboration with insider(s), and outsider(s) studying insider(s). It is also important to remember that "[t]here are other ways to think about positionality that are useful" (Herr & Anderson, 2015, p. 39). For example, Collins referred to an *"outsider within"* to capture the unique experience her race and gender permit (as cited by Herr & Anderson, 2015, p. 39). While the researcher identifies as female, study participants included 14 males and four females. For many of the informal conversations and virtual meetings, the researcher was the only female and, as such, could be considered an *"outsider within"* as described above.

Study Findings

As noted, this study adopted a mixed-methods action research design and the researcher collected data through the use of a pre- and post-intervention survey, three post-professional development webinar open-ended surveys, as well as participant observations, informal interviews, and document analysis throughout the entirety of the study.

The quantitative data collected in this research study derived from a pre- and post-intervention survey shared with participants at the beginning and end of the 12-week study and associated graduate and undergraduate terms at the researcher's site university. The pre- and post-questionnaires consisted of an adapted version of the (a) Sense of Efficacy for Online Teaching Scale (the Michigan Nurse Educator Sense of Efficacy for Online Teaching Scale [MNE-SEOT]; Robinia, 2008) and (b) Collective Teacher Beliefs Tool (six instructional strategies questions only). The MNE-SEOT was initially revised from the Teacher's Sense of Efficacy Teaching Scale (Tschannen-Moran & Hoy, 2001) and, in adapted form, referred to throughout this study as the ESEOT. Both the pre- and post-survey questionnaires included a variety of statements and responses. Participants answered survey questions by selecting from options presented on a Likert or a Likert-type scale.

The ESEOT portion of the pre- and post-intervention surveys included 32 questions. The Collective Efficacy in Instructional Strategies included six questions. Two additional questions, one to measure instructor online grading self-efficacy and one to measure likelihood of use and implementation, were added to the pre-intervention survey. Two analogous questions, one to measure instructor online grading self-efficacy and one to measure likelihood of use and implementation of the comment bank, were also added to the post-intervention survey. In addition, five open-ended questions were included in the post-intervention survey in order to learn more about participant attitudes and perceptions of the intervention and the grading feedback process. Finally, one additional closed-ended question to evaluate time spent interacting with the feedback comment bank throughout the course of the study was added to the post-intervention survey. Both the pre- and the post-intervention survey collected instructor demographic information, as well.

In total, 18 instructors completed the pre-intervention survey and 12 instructors completed the post-intervention survey. One explanation for the comparatively limited response rate to the post-intervention survey might be attributed to the contingent nature of study participants. All but one participant was an adjunct faculty member and, as a result, participants may not have been actively checking university email after the conclusion of the term and at the time the post-intervention study was administered. The post-intervention survey was administered after the teaching term ended and participants who were not scheduled to teach in the following term may have ceased checking electronic university-based communications on a consistent basis.

Notably, participants who did not complete the post-intervention survey were not scheduled to teach in the subsequent term. Another factor that may have impacted limited responses to the post-intervention survey is, as explored throughout the study, the challenges associated with available time and the time-intensive nature of providing grading feedback and end of term grading responsibilities, in particular. Because the post-intervention survey was administered immediately after the close of a teaching term and the associated submission of final grades, challenges such as limited time and fatigue may have impacted response rates. Moreover, the administration of the post-intervention survey coincided with an end of summer break in the university calendar. Finally, the post-intervention survey (like the pre-intervention survey) was long, with over 70 questions (both quantitative and qualitative). Length and associated time to complete may have also hindered completion rates.

Data was analyzed using paired pre- and post-intervention survey results for each of the aforementioned surveys, focusing on the 12 participants who completed both the pre- and post- intervention surveys. Results from the pre- and post-intervention surveys were analyzed using descriptive and inferential statistics, online statistical analysis programs, and in accordance with directions for scoring each of the MNESEOT (and, by extension, the ESEOT) and the Collective Teacher's Efficacy Scale (the Collective Efficacy in Instructional Strategies, in particular). The researcher analyzed all collected quantitative data using descriptive statistics, including measures of central tendency

such as mean, median, and associated standard deviations. The researcher also applied inferential statistics to evaluate significance with respect to the intervention's impact and the meaning of all collected data. The researcher applied inductive analysis to analyze all qualitative data. Overall, the study's results demonstrated statistically significant increases in Overall Online Teaching Efficacy (p = .03) as well as statistically significant increases in instructor Online Grading Efficacy (p = .027). No change was observed in overall Collective Teacher Efficacy; however, movement was observed at the individual level.

Qualitative data analysis indicated that participants found the intervention valuable and beneficial in a variety of ways and for a variety of use cases, needs, and applications. Overall, eight major themes emerged from all collected qualitative data (See Figure 1.1).

Figure 1.1 *Emerging Themes*

Major themes included more positive feelings / less negative feelings; expanded visions of feedback; opportunity for more personalized feedback; efficiencies; desire and appreciation for additional support; desire/need for expanded notions of student-teacher-feedback relationships; collaboration is validating; and desire for ongoing professional development. These themes both verified findings revealed through quantitative data analysis and aligned well with well-documented characteristics of quality feedback. For example, themes such as "more positive feelings" associated with the process of grading, opportunities for more personalization in feedback, desires for more student involvement with feedback, and noted efficiencies are positively associated with well-documented characteristics of quality feedback. Themes on instructor desire for support, collaboration, and professional development align well with well-documented literature on how best to support instructor growth and work. The following explores each identified theme in more detail.

More Positive Feelings / Less Negative Feelings

Participant responses consistently expressed additional enjoyment, joy, and enthusiasm associated with the grading feedback process and availability and use of the feedback comment bank. As an example, responses to post-webinar surveys included comments such as "I am enjoying much better with the availability of the feedback bank!," "I really liked the idea of having a sheet of fun filled images that we could post along with our grading. I believe that would create more fun for us, as well as, the students. Great thought!," and "I am enjoying online grading more since I have been a participant in this study!" The post-intervention survey's open-ended questions included comments such as "I am more confident in providing appropriate feedback," "I really like it. The bank is a useful tool," and "I'm

looking forward to using it as a resource and sharing it with faculty who struggle with Feedback."

Analogously, participants consistently reiterated the often exhausting and stressful nature of the grading feedback process with comments such as "I agree it is exhausting and sometimes frustrating," "It is very time-consuming and sometimes exhausting," "necessary but cumbersome process," "takes too long," and expressed mitigation of such feelings as a result of use of the intervention. For example, one participant stated that "if feedback banks were not used the 'This is Insane...' would be very appropriate" while another noted "Some of it becomes labor intensive, especially after several weeks of feedback that is seemingly ignored as the same issues are still appearing."

Participants also noted associated positive feelings as a result of the tool's ability to alleviate some of the time-intensive aspects of grading as well as associated stress and fatigue. One participant indicated that "using a feedback bank will reduce the time that I spend providing constructive feedback" while another noted that "The online feedback bank is good and universities should actually tailor them to a specific class to facilitate faster grading." Moreover, participants conveyed appreciation for newly implemented features (e.g., "Thanks for incorporating the suggestions thus far!"). Comments on global search functionality, a Chrome extension ("user friendly") and images ("loved the fun images to include in grading") highlighted positive feelings associated with ease of use, responsiveness on, and benefits associated with formatting edits implemented to streamline and enhance overall usability including individual user experiences and readability. Throughout the course of the study, participants shared a wide range of suggestions and recommendations for new features and comment types. Most if not all recommendations and suggestions were implemented the same week a participant shared a suggestion, thereby increasing the possibility that participants could experiment with the updates and share their related experiences. Examples of user-driven updates included kudos-related feedback (and an associated survey comment where a participant shared "The kudos comments are really useful for me, thanks for adding them!," "Thanks for adding the KUDOS category!" and positive, feedback-related images ("I thought the memes links were a great addition").

Participant comments also expressed positive feelings associated with both the implementation and availability of the features for use when grading. New features yielded similar responses. For example, in response to participant desire for search functionality, a global search feature was implemented. A comment later indicated "the search really makes it user friendly." A one-click Chrome extension soon followed. A later participant comment stated: "I think the search feature and then being able to click the comment and it auto copy is very cool!" Another shared that "[t]he Case Brief generator is a great idea. I like the inspirational quote. I think the Generator looks amazing!"

Expanded Visions of Feedback

Multiple, if not most, participants also expressed more awareness and appreciation for both the complexity and range of feedback that might be provided in a particular context. Participants indicated that exposure to new comments (including types, wording, and phrasing) were helpful and also commented on deeper understanding of different types, levels, and examples of feedback as well as on the value of modeling and the importance of consistency. Several instructors expressed value in exposure to comments in areas with relatively less personal expertise is helpful. Sample participant comments included "It is a supportive resource for when I get stuck with the need to respond to an unusual situation and or a rubric element I am uncomfortable with," "Being exposed to how others demonstrate feedback," and "I'm finding the comments on grammar and APA very helpful. It's not my area and I am using them to improve my feedback on student writing." Another participant spoke on the value of the intervention for ideas and options especially when working with a new group of students. For example, an instructor might know they want or need to share feedback that addresses a particular topic, perhaps grammar, writing, or formatting, yet sometimes do not know where to begin. Participants consistently referenced the bank as a source of ideas and inspiration, while another shared "It is nice to read other people's comments."

Participant responses indicated that availability, review, and use of the comment bank supported an expanded vision and understanding of the complexity and breadth of feedback. In many ways, responses suggested an expanded vision of feedback, both what it is and what it has the potential to be. For example, one participant wrote that:

> *It is nice to read other people's comments and to see that you are not along in some of your issues. Other people have the same issues. It takes more of the "What Am I doing Wrong" feeling away. I believe if you really care about what you are doing, there is a tendency to look at yourself first rather than take things in stride as a part of an issue.*

Another wrote "There is a lot of information in there and ideas to help formulate feedback types and feedback levels," while another suggested a ratings or most used feature so that instructors could learn from other instructor use patterns and practices.

Participant feedback, comments, and applications highlighted the multiple and varied uses of the bank. The open access nature spawned ideas such as pre-course videos, course overviews regarding expectations—one participant developed videos using the resources in the bank—and different ways of thinking about feedback as a concept (what it looks like). As such, the intervention also emerged as a tool to expand a vision of feedback and its many forms. The intervention also expanded thinking on when, where, and how to share feedback. Participants also expressed a deeper appreciation of the complexities of feedback as well as just how critical feedback is on the student experience, with comments such as "hands down the most critical issue" in education and "couldn't think of a more important topic to focus on" in education.

Mitigation of Inconsistencies

Studies have consistently revealed significant variability in grading practices both across and within schools and programs (Feldman, 2018; Kohn, 1999). In qualitative data collected in this study, participants also frequently indicated that the intervention and resources improved their consistency in grading and, at the same time, helped to mitigate possible bias, both explicit and implicit. For example, comments indicated that the intervention was helpful in terms of "raising the awareness of our own bias in feedback" and also that "I believe the checklists help guide us toward a more objective view." One participant indicated that the intervention and associated resources prompted reflective questioning such as "Am I consistent?" Another participant shared that the intervention served as a "built-in check" that prompt reflections such as "Am I saying/doing the right thing with all students? etc."

Opportunity for More Personalized Feedback

Data also suggested that use of the feedback bank translated into instructors feeling better able to provide more personalized feedback to students. Relatedly, instructors indicated that the bank (and linked resources) strengthened the overall quality and depth of their feedback. Sample comments include, "lets me demonstrate a higher level of instructional presence within feedback," "Allows the instructor to provide meaningful feedback to students on their success and areas of improvement in a timely manner." Other examples include: "I can copy and personalize the feedback responses as needed" and "The bank provides a wide variety of appropriate comments for the given situations as well as provides a model for more individualized comments."

Several comments indicated that participants found the intervention a useful base and a tool that they could further customize for their own unique course and students needs going forward. For example, one participant shared: "The chrome extension helped me give very detailed, student specific comments as I read, in line. Especially helpful for APA and grammar type comments." Other comments provided "It is quite comprehensive and it can be personalized" and "We can be detailed in some of the guidance to help them in corrections."

Efficiencies and Utility

Participant comments overwhelmingly indicated that the intervention led to greater efficiencies in grading. Example comments indicated that the intervention was "such a time saver" and "Good for those errors that occur on a regular basis and allows more time other feedback." Another participant shared that the bank's feedback comments "allow more time for me to engage with my students in discussion boards and virtual meetings (group and individual)" while another wrote "like the linked resources included with the pre-built comments." Related comments shared "Students miss the same issues term over term so there is value in having a feedback bank" and "I have found extreme value in the online bank because there are links to external resources I can provide my students now. I will continue to utilize it" and "I am certain that it helps as a model and as an accelerator." Relatedly, as comments expressed appreciation for the intervention as a time saving tool, the researcher became much more mindful of the importance of usability as new features were added and the intervention was improved. User feedback accelerated and improved the development of the intervention. Moreover, it was of the utmost importance that the intervention be easy to use so as not to overwhelm or contribute to the already significant demands on instructor time. The intervention also contributed to the growth of instructor-developed resources. Several instructors shared that they used the intervention and its resources to improve their own existing feedback banks. For example, one participant wrote: "When I have "time" I want to go back over the newly created personal banks and see where I can improve them—using the online banks as a resource. (Ditto for all my existing banks as well!)".

Desire and Appreciation for Additional Support

Participants repeatedly expressed both a desire and an appreciation for the additional support provided via the study's intervention. Comments such as "great support" and "I like it!," "the content is great!," "I get it and I like it," and

"Awesome tool, I will definitely use it!" are suggestive of value in both emotional and technical contexts. For example, multiple comments highlighted appreciation for specific resources, links, and technical features of the comment bank. Other comments expressed appreciation for instructional and pedagogical support (e.g., instructors are content experts, and often "not an expert on grammar" or "unfamiliar with APA") and understanding (e.g., "good to see what others do"). This is especially important in light of repeated comments that raised concerns associated with student challenges with writing, grammar, and formatting. Comments reiterate that faculty needed and welcomed support tools and resources. One participant wrote that "[s]o many of the students, 20-25%, struggle with basic writing skills, time management, and reading comprehension (or just don't read anything)," while another shared: "instructors know their content, but they desperately need support to combat burnout, fatigue, and exhaustion associated with feedback—the bank is a super resource for that." Related comments shared that: "The amount of time needed to give quality feedback is the hardest part of teaching. Anything can do to help instructors with time to combat burnout is incredibly important."

Participants feedback and requests evolved and flowed with the curve of the semester. For example, as the end of term neared and final papers were due one participant sought comments on citation generating and paper formatting tools. Another was looking for end of term motivation and, in response, the researcher incorporated a new category of comments for end of term feedback. Findings also suggest that instructors would benefit from similar supports, and just-in-time supports in particular, that extend across disciplines and courses in areas such as grammar, writing, and formatting. These findings suggest that there is an enormous opportunity in terms of exploring new ways, tools, and strategies to support instructors in this context. These findings also reiterate many of the challenges noted in earlier research including, for example, with respect to student use and view of feedback as well as writing struggles.

Many comments highlighted appreciation for comments that addressed a commonly shared challenge regarding supporting students with writing and formatting growth. The bank, its resources, and its comments on fundamentals such as writing and formatting were noted in positive ways upwards of 20 times. These findings are suggestive of potential value in a cross-discipline comment bank that can be used to support fundamental student skills such as spelling, grammar, and formatting and, thereby, provide instructors, who are often content experts rather than trained writing coaches, more time to focus on course-specific content.

Desire for Collaboration and Expanded Student-Teacher-Feedback Relationships

Instructor comments also emphasized a desire for a more non uni-directional nature of feedback. Multiple comments express appreciation for the intervention as a tool of value beyond any one individual faculty and as a shareable instructor and student resource. Example comments include: "I am a student and," "share with," "I'm sharing this resource," and "the feedback bank will be a great resource for both me and my students." Many comments reiterated concerns and a desire for additional ways to encourage student collaboration in the feedback process as well as student views of feedback as a dialogue. Example comments included: "biggest frustration is the lack of students who actually read the feedback. They are more concerned on their grade," "My greatest concern is all that we put into feedback, and often our students do not read the feedback," and "I do not feel like most of my students read it."

Research also suggests that quality feedback should be bi-directional and dialogue based (Delva et al., 2013; Laurillard, 2002; Merry & Yorke, 2013; Nicol & Macfarlane-Dick, 2006). Study findings revealed similar themes from the perspective of instructors. This is encouraging and an important reminder that it is short-sighted to focus on feedback from the perspective of faculty alone. Rather, students are inextricably interconnected and intertwined in the complex puzzle that is grading feedback and its impact on the learning process. This theme also offers important lessons and avenues for future research involving the intervention and student populations.

Participants comments made clear the importance of involving students, and findings effective ways to bring students into, the feedback dialogue (interpreted broadly from use, access, and understanding, to application). Multiple comments highlighted and made visible the notion that feedback and ways to improve feedback experiences should not be approached from the perspective of faculty alone. More work must be done in order to better understand the specific types of tools and resources students would use and need so that instructor provided feedback is both reviewed and used in positive and productive ways. Moreover, informal interviews yielded insights regarding student feedback experiences, as well. One instructor had received an email from a student that expressed thanks for the extensive feedback and resource links to aid in future assignments. The email shared:

> *Thank you for the extensive feedback and links to aid in future assignments. [and] Truly helpful. It has been quite along time since I've had a teacher be so thorough and actually really give me feedback. It means more than you know. Thank you for being a caring and attentive teacher. It is so important to me as this is how I believe a student truly learns and is able to go down a path of success.*

Another instructor used the feedback bank to create an introductory video for students, with the goal of providing proactive feedback regarding expectations. Participants, in this way, demonstrated how the resource might also impact the feedback process beyond the gradebook. For example, several participants used the sample comments as one to many feedback and proactive feedback (i.e., announcements and emailed videos), thereby expanding thinking of when, where, and how feedback might be best delivered. In this way, the intervention served as a tool that not only inspired collaboration and helped expand a vision of feedback and its many forms but also expanded thinking on when, where, and how to share feedback.

Participant comments and applications also highlighted multiple and varied uses of the feedback bank. The open access nature spawned ideas such as pre-course videos, course overviews regarding expectations (one participant developed videos using the resources in the bank) and different ways of thinking about feedback as a concept (what it looks like). Comments also highlighted the power of collaboration on the part of instructors and the validation that emerges from such collaboration. The study intervention was dynamic and constantly updated in response to participant feedback. Participant comments highlighted the value of iterative, flexible tools and strategies for instructor empowerment. For example, "I like how more has been added to it—I've found myself using it often." And "I liked your idea of adding humor."

Dana and Yendol-Hoppey (2020) discussed the potential for instructor collaboration to magnify outcomes, especially "when a group of teachers work together toward a common goal" (p. 83). This study's intervention both supported and encouraged ongoing collaboration and the associated findings suggest that the experience was validating and rewarding. Comments associated with feeling of instructors feeling heard led to positive feelings associated with needs being validated, and associated value that derives from community building. Participants repeatedly expressed gratitude and thanks for responding to their suggestions and developing associated comments. The tool was dynamic, iterative, and responsive to faculty needs. Responsiveness, in turn, was interconnected with positive feelings.

The collaboration process also reiterated some of the persistent challenges associated with grading. For example, when a participant submitted a request for a category of kudos comments, as the primary researcher worked to draft comments she too experienced the challenge of generating varied comments. Collaboration and discussions also led to course improvement feedback (separate from student feedback) that were submitted via formal course design channels. In particular, review of the bank prompted collaboration and reflection on how courses might be improved. The intervention prompted reflections on the challenges of feedback (and areas where repeated feedback is needed, for example) and led to reflections on course design and course improvement suggestions.

Desire for Ongoing Professional Development and Learning.

Findings also suggested wide-spread desire on the part of instructors for ongoing professional development as well as new ways of approaching feedback and associated ongoing learning, exposure to new tools and strategies, and training. Participants consistently expressed appreciation for ongoing learning and sharing (for example, a comment providing that "guidance in developing balanced and fair feedback will be greatly appreciated"). Comments also consistently expressed interest in newly introduced strategies and tools that can improve the practice of both teaching and learning for instructors and students and well as an eagerness to share strategies and the intervention with other faculty, both within the study institution and beyond. Comments such as "when do you plan to share with faculty? I know it would be a great resource when you are ready" and "this resource should be in every instructors' toolkit" highlight an eagerness to share with other faculty, as well. Findings also suggested that faculty were eager and interested in exploring news ways of approaching feedback, for the benefit of both instructors and students. Sample comments include: "I would like to see us try some different aspects to see if it could be easier for us" and "I would like to see feedback come in several different ways, such as, check boxes, just to see if the student would read our comments."

In sum, the active and continuous cycle of reflection that is a critical component of the action research process required the researcher to engage in ongoing critical analysis of both online instruction and associated grading processes. Collected data suggest that the availability and use of a web-based comment bank positively influences instructor attitudes and perceptions of the grading process. Moreover, collected data suggested that a web-based comment bank also positively influences online instructor self-, grading, and collective efficacy.

Recommendations for Policy/Practice

Based on the study's findings, there are a variety of recommendations for both policy and practice. First, observed

value in collaboration leads to several policy and practice recommendations. For example, the feedback bank intervention grew exponentially throughout the course of the study in ways the researcher could never have imagined at the start of the study and the development of the intervention. All updates and revisions to the bank were based on participant feedback. Examples include the addition of specific comment categories (including kudos-related feedback, outreach templates, and formatting categories) as well as specific intervention functions (including a discussion board feedback generator aligned with a department rubric, a case brief feedback generator, a meme maker, a global search, and a favorites tools). Participants were interested in what others were doing with respect to feedback as well as in what others were finding helpful with respect to the feedback bank itself.

Thus, universities might more actively encourage instructors to share best practices and also intentionally create space, time, and tools that support and encourage sharing amongst instructors both within and across departments. Universities might also provide opportunities for instructors to share best practices in easy to explore ways. Participants consistently noted that they found themselves referring to the feedback bank at unexpected times (for example, when a unique student challenge arose and when grading late at night). Programs might consider developing discipline and/or course specific feedback banks, with comments designed for specific assignments and in alignment with specific assignment rubrics.

Usage was consistent throughout the duration of the study, with faculty typically customizing comments to suit individual learners. Access ebbed and flowed with weekly grading submission due dates (the site university operates on a seven-day window for grading with most grades due on Sundays of each week). Additionally, participants expressed value in a combination of tools, including accessible professional development (recording links were valuable for on-demand viewing) and collaborative tools that were iterative and responsive to instructor needs (multiple comments expressed utility in updates to the bank based on instructor requests and input). Webinar feedback was positive and included comments such as "helpful to pause and review"). Participants also expressed appreciation for the iterations to the tool in response to user requests. For example, one participant sought kudos-related comments, while another asked for sample outreach feedback. Other requests included citation generating tools, reference manager feedback, and APA style 7th Edition comments. Curriculum developers might develop banks for instructor use. Comments might be assignment specific and chunked so as to align with individual rubric elements.

The intervention and sites like it can also be helpful as professional development for instructors. For example, the bank can serve as a tool to help focus instruction on assignment elements (aligned with bank comments and associated course and program outcomes). In contexts where multiple instructors teach a model course or sections of the same course, a comment bank can help ensure more equitable feedback across sections. In sum, university support might develop professional development webinars on both grading feedback and the use of tools such as a collaborative comment bank for instructor staff. The main focus of a learning organization (schools and otherwise) is how can individuals work together in order to perform at their best (Sarder, 2015). Most of all, the researcher plans to continue to raise awareness of the importance of grading feedback and what schools and curriculum leaders – as influencers in learning organizations – can do to support both instructors and students in this context.

Recommendations for Future Research

A variety of intriguing opportunities for future research emerged. For example, a significant majority of the study's participants (all but one) were previously familiar with feedback banks. Future research might be conducted in an environment where instructors are less familiar with the concept. In particular, a similar study might be conducted with instructors who are not familiar with and/or have never used a feedback bank; with instructors who have been identified with a need to improve in connection with feedback; with new online instructors; and/or with new instructors. Similarly, the study was conducted with longtime online instructors in a university that is fully online and has been developing programs and courses for fully online delivery for quite some time. With the increasing shift to online instruction, it might be beneficial to conduct the study at a university shifting to online learning and with new to online teaching instructors.

It is also important to note that there is a possibility that instructors did not feel comfortable answering truthfully

and/or may have overstated comfort levels and/or the detailed nature of current feedback for job security reasons as well as a possible lack of comparisons and applicable benchmarks. Additionally, because the site university operated under a model where course feedback is often reviewed weekly (with additional reviews permitted at any time), it is possible that this instructor population is not representative of others and that the feedback students receive at this university, along with associated feedback requirements and expectations, may significantly differ in both form and substance from that provided at other institutions. Thus, for future research the study might be conducted at a university with neithr minimum feedback requirements and/or spontaneous review of faculty feedback.

All participating instructors had taught their assigned course(s) before. Of those who completed the pre-intervention survey, two had taught their current course more than 20 times, four had taught their course 11-20 times, 11 had taught their current course two-10 times, and one has taught their course once before. No participating instructors were teaching their assigned course(s) for the first time. Future research might explore the impact of the intervention and associated professional development on a cohort of instructors teaching a course for the first time.
Because all study participants had taught their current course before and also had taught online for a while, future research might involve conducting the study with new instructors and/or instructor teaching online and/or a course for first time.

The participant population's holistic composition might also have influenced the study findings. As noted, participants generally were familiar with comment banks at the start of the study. Pre-intervention efficacy levels ranged from moderate-high to high. Additionally, participating faculty were all over 40 years of age, had extensive work experience, and were not "new" to teaching, teaching online, or their current courses. The participant population was, as a general matter, experienced both with respect to their current courses and online instruction. The intervention has the potential to be of even greater use to newer faculty and those with little/no experience online and/or teaching a course for the first time. Thus, Future research might explore findings in this context.

Participants taught both graduate and undergraduate criminal justice courses, as well as a wide range of courses (including introductory courses such as research methods and writing in the criminal justice profession, intermediate level courses such as intelligence and surveillance, ethics-related criminal justice courses, as well as a program capstone course). Future research might focus on instructors teaching a particular course, with feedback comments developed for specific course-assignments and in alignment with course rubrics.

Further, a significant majority of participants expressed high levels of self-efficacy with respect to both online instruction and grading feedback. Future research might focus, specifically, on instructors with previously reported challenges and lower levels of self-efficacy. Tschannen-Moran and Chen (2014) noted that teachers' levels of efficacy influence the manner and degree to which the teachers respond to professional development activities and interventions. This self-selecting, convenience sample was composed primarily of veteran online instructors with relatively high levels of self-efficacy, collective efficacy, and performance. Thus, it might be beneficial, in future work, to conduct the study with instructors who have under-performed on yearly performance evaluations and/or have been identified as desiring or needing additional support with grading.

Future research might also test the intervention with respect to a specific type of comment bank, for example a bank focused on a specific assignment. Additionally, participant comments consistently noted challenges in connection with student review and application of feedback. Future research might share a feedback bank with students and evaluate impact on student coursework and improvement throughout a term. A related inquiry might explore end of term student satisfaction surveys across courses where a feedback bank is and is not used by either/both faculty and/or students. A study might explore student mastery and retention levels in courses with access to the bank compared to those without. Another future path includes sharing the bank with students in ways that push feedback forward, in advance of submission, as a checklist and opportunities for enhanced dialogue. Exploring the impact of a static versus a dynamic comment bank is another area of possible further study.

In addition to future research and training opportunities, there are also opportunities to further improve and refine the comment bank, both features and content. For example, the researcher might explore opportunities to provide

secure access to course-specific and university-specific comments that can be personalized when used. Individual users might also be able to directly upload assignment-specific comments for later personal use (via the <u>Chrome extension</u>) when grading. Future work might also include user-specific log-ins and associated accounts along with more detailed statistics per user overall. Study findings reiterated the need to ensure ease of use for instructors. The Chrome extension responded to this expressed need, as did pre-recorded videos demonstrating how to use the tool. Future opportunities include built-in feedback options for selection within assignment rubrics as well as built-in rubrics that are integrated with comment banks. The intervention might also be made available as a resource through college and university teaching and learning centers.

Results and Conclusion

This mixed-methods action research study explored how the availability of a web-based, collaborative grading feedback comment bank impacts individual instructor's online teaching efficacy, gradingefficacy, and online instructors' collective teacher efficacy as well as online instructors' attitudes and perceptions of the grading process. Quantitative data was analyzed and mean scores from pre- and post- intervention surveys were calculated and then statistically compared so as to examine if the difference between the means was statistically significant (Mertler, 2017). Results were promising, with statistically significant impact seen for both Overall Online Teaching Efficacy and Online Grading Efficacy. Notably, the feedback comment bank was dynamic and customized over time b ased on instructor input. In environments where instructors evaluate similar student work products and submis sions, use of a shared comment bank might be a best practice in such environment.

At the same, it is important to note that these findings are exploratory only, as the study sample size was not large enough to support any final conclusions regarding validity of results. Qualitatively, eight emerging themes were identified. Going forward, the researcher will continue the action research cycle with new teachers, colleagues, and students in the coming months and years. The impact of this action research on the teacher-researcher will extend far beyond the duration of this 14-week mixed-methods action research study. Rather, this research study and related experience will influence all future grading in the researcher's classrooms and potentially that of her colleagues, as well.

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