Identifying the influence of factors on the quality of critical reflection: Framing, frequency, and feedback

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Abstract

In this study, we sought to identify the factors contributing to the quality of student critical reflections. Prior analyses of institutional assessment and evaluation data, including student reflection scores and experience with critical reflection pedagogies, had shown us that student experience and faculty experience with particular pedagogies were not adequate predictors of students' ability to articulate their learning through reflective practices. Moreover, we suspected that instructor familiarity with critical reflection would have a much stronger impact than student's prior experiences. After conducting two focus groups faculty from the University of North Carolina Wilmington (UNCW) and bolstering our existing literature review, however, we found that instructor and student experience with critical reflection may not impact the quality of a student's critical reflection as strongly as the way in which reflective prompts were framed. Following subsequent qualitative analyses, the themes of framing, frequency, and feedback emerged, which were then used as a framework to guide the direction of future quantitative analyses. We discuss the implications for the implementation of critical reflection pedagogy and the improvement of student learning outcomes.

Introduction

There is an increasingly common critique leveled against institutions of higher education, suggesting that the knowledge and experiences students acquire are not easily transferrable beyond academia. If this were the case, then student learning outcomes would appear to have little, if any, impact on career readiness. The former president of the University of North Carolina system, Margaret Spellings, addressed this critique by emphasizing the importance of institutions of higher education in accounting for meaningful student learning, stating:

> As a lifetime public policymaker, I can tell you in no uncertain terms: Our aversion to meaningful, reasonable accountability and transparency in student outcomes has hurt us. Our collective reluctance to define measurable learning – to come up with transparent ways of owning our success and shortcomings – has undermined public confidence and emboldened a less effective, more ideological attitude of disruption (The News & Observer, 2017).

Academic outcomes and career success are not as divorced from each other as Spellings argues, as universities employ high-impact practices (HIPs) and critical reflection as tools that integrate academic learning to life beyond the academy. According to a Hart Research Associates and The Association of American Colleges and Universities (AAC&U) study (2015), 80% of employers regard critical thinking and the student's ability to apply knowledge to real world settings as very important, while 88% value applied/experiential learning experiences in college.

Experiential education is an effective, high-impact practice with the potential to increase student retention, encourage student engagement, and enhance student-learning outcomes (Brownell & Swaner, 2010). In experiential learning pedagogies, reflection is the central mechanism linking a student's experience to the learning process and facilitating meaningful learning outcomes (Eyler, Giles, & Schmiede, 1996; Hatcher & Bringle, 1997).

As both a pedagogy and a process, critical reflection often forms the cornerstone of experiential projects across disciplines. The National Society for Experiential Learning (NSEE) regards reflection as a crucial element in experiential education because not only has it been linked to deeper student learning but because it also produces actionable assessment artifacts in the reflections themselves. Furthermore, when students connect their experiences back to their learning, the knowledge gained becomes more salient (Woods, Willis, Wright, & Knapp, 2013).

The scope and scale of the impact that critical reflection has on students varies significantly across projects and even among individual students. We consider reflections to be of a higher quality when they have a greater impact on student learning outcomes, pushing students to think critically about their own learning and helping to solidify the concepts and ideas they gain through their coursework. Conversely, we consider student reflections that tend not to necessitate deep, lasting critical thought as superficial

by nature as they may not have the intended benefits on student learning. If college students wish to optimize their educational experiences to compete in the global economy, it is important that they participate in HIPs that employ the critical reflection process.

Despite the demonstrable importance of critical reflection to both applied learning and the wider scope of experiential education, few studies have focused on understanding specific factors influencing the quality of reflections. To address this, we examined the extent to which student applied learning experiences, faculty training, and other factors influenced student critical reflection and the benefits students receive. Beginning with an assessment dataset constructed at UNCW that tracks faculty and student experience with critical reflection pedagogy, we took a closer look at evaluator-assigned reflection scores, which are designed with the AAC&U rubric in mind. Due to limitations in the existing data, our initial models could not explain any significant amount of variability among critical reflection scores and, at first glance, it appeared that neither faculty nor student experience with critical reflection pedagogy had much bearing on how well students reflected.

Realizing the limits of our existing dataset and the limits of our quantitative inquiry into this subject, we revisited the literature and then conducted two separate focus groups, consisting of faculty who had extensive experience with critical reflection pedagogy. The factors thought to influence students' performance in critical reflections guided both discussions. In approaching the focus groups, we explored faculty perceptions of student performance in critical reflection and then addressed the factors they felt were significant determinants of critical reflection, performance, and quality. Framing, frequency, and feedback emerged as salient themes through our qualitative analysis. We then returned to our quantitative dataset and incorporated faculty members' feedback into our final regression model.

Literature Review

Applied learning differs from traditional lecture in that students in applied learning settings are placed directly "in touch with the realities being studied. It is contrasted with the learner who only reads about, hears about, talks about, or writes about these realities but never comes into contact with them as part of the learning process" (Keeton & Tate, 1978, p. 2). Learning, however, does not occur through exposure to an experience alone but must be coupled with critical reflection exercises to maximize learning (Smith, 2011; Brooks, Harris, & Clayton, 2010; Ash & Clayton, 2009). Reflection, as defined by Lew and Schmidt (2011), is the process:

> that a learner undergoes to look back on his past learning experiences and what he did to enable learning to occur (i.e. self-reflection on how learning took place), and the exploration of connections between the knowledge that was taught and the learner's own ideas about them (i.e. self-reflection on what was learned) (p. 530).

Critical reflection is the central mechanism linking a student's experience to course curriculum (Ash & Clayton 2009; Brooks et al., 2010; Eyler, 2009). It is the medium through which students connect theory to practice. Creating meaning from applied learning experiences requires critical self-reflection; without it, these experiences may lack value and opportunities for student learning are missed or minimized (Vickers, Harris, & McCarthy, 2004). Therefore, it is important that applied learning be paired with critical reflection so that students fully integrate experiences into their learning. Ash and Clayton's (2009) Describe, Explain, Articulate Learning (DEAL) model is a common tool designed to foster deeper meaning from applied learning experiences. The DEAL model guides practitioners in creating reflections that should be effective, but this model does not necessarily address all areas of critical reflection. The model utilizes both broad-scale guiding ideologies and specific classroom practices that aid reflection practitioners in addressing student-learning outcomes through critical reflection (Ash and Clayton, 2009). While both these ideologies and practices are helpful in their own right, there is a noticeable gap between the more theoretical concepts and practical applications and there is not always a clear path from one to the other.

The positive impact critical reflection has on academic outcomes is well established. Ash and Clayton (2009) report that well-designed reflection exercises promote higher order reasoning, critical thinking, and problem-solving skills. Similarly, Chang and Chou (2011) found that reflection enhanced students' ability to learn, attitude towards learning, and application of knowledge, while Eyler and Giles (1999) suggested that positive learning outcomes, like deeper understanding, application of knowledge, and increased critical thinking skills were correlated with the rigorousness of critical reflection exercises. Scholars have focused primarily on *why* critical reflection is important, but we know very little about *how* critical reflection produces positive outcomes. That is to say, without a clear understanding of the mechanisms at play, optimizing the role of critical reflection will remain an unmet opportunity.

Research suggests that critical reflection exercises must be intentionally designed to target specific learning objectives for meaningful learning to occur (Ash & Clayton, 2009; Watson & Kenny, 2014; Hatcher & Bringle, 1997; Hatcher et al., 2004). Because critical reflection is often a foreign practice for students, faculty guidance is crucial in helping students make connections between experience and course content (Ash & Clayton, 2004). Sturgill and Motley (2014) found that students produced more meaningful reflections when given prompts designed to guide them into reflective thought. "Free" reflections, or reflection exercises without student prompts, were more descriptive, less analytical, less integrative, and more likely to be off-topic than guided reflection exercises. A similar study by Callens and Elen (2011) found that students achieved higher scores on critical reflection when they reflected using a linear approach versus a non-linear approach. Ash and Clayton (2009) posited that students "need structure and guidance to help them derive meaningful learning when they are outside the traditional classroom setting; otherwise reflection tends to be [little] more than descriptive accounts of experiences or venting

of personal feelings" (p. 28). When students were guided through reflection processes, provided with multiple rounds of feedback, and given the opportunity to incorporate feedback into a final draft, the depth and quality of critical thinking improved across revisions (Ash, Clayton, & Atkinson, 2005). Thus, it appears as though instructor guidance and the framing of critical reflection influence learning outcomes.

Research also suggests that the quality of student reflections may improve over time if critical reflection is viewed as an iterative process rather than an isolated assignment. Ash and Clayton (2004) argue that critical reflection is not an innate skill for students but rather a process requiring multiple iterations of practice and revision. The more frequently a student engaged in critical reflection, the greater the quality of the reflection. Similarly, Lew and Schmidt (2011) found that students who engaged in reflective journal writing daily showed evidence of improved academic performance, though only to a minimal extent. While Hatcher et al., (2004) did not find a significant association between the number of reflections and student learning outcomes, the study did find that students who engaged in both ongoing journal reflections and a summative reflection showed greater gains than those participating in one form of reflection.

A number of studies suggested that providing students with feedback on critical reflection influences performance. Molee, Henry, Sessa and McKinney-Prupis (2010) found that when given the opportunity to incorporate feedback into future work, student's scores across various dimensions improved with each revision. These findings suggest that instructor feedback has the potential to improve student critical reflection skills (Quinton & Smallbone, 2010; Ash et al., 2005).

While the literature on critical reflection's impact on student learning outcomes is abundant, studies focusing specifically on the quality of critical reflection remain uncommon. There is no clear consensus on which factors most significantly impact the quality of critical reflection and student learning. This study attempts to fill this gap by exploring the factors that may influence student performance on critical reflection.

Methodology

Existing Assessment Data

Our investigation began with an existing set of assessment data collected over the course of three academic years from August 2013 through May of 2016. The ETEAL (Experiencing Transformative Education through Applied Learning) program provides funding for applied learning projects as part of UNCW's quality enhancement plan and all students involved in such projects complete critical reflections that are then assessed by a group of faculty evaluators. Initially, students were only required to complete summative, final critical reflections but beginning in August 2014, students participating in these funded projects were all required to complete both an initial intention and a summative final reflection. In light of our findings, this change was more

significant than we initially suspected, and we will discuss this at length further on.

While this dataset contains a wealth of information about student and faculty experience with critical reflection along with student performance scores based on common learning outcomes, our preliminary regression models could not reach any substantial level of predictive power using the variables already captured. Our next step, then, was to develop and conduct focus groups with experienced faculty to determine what variables, and by extension concepts, we might be missing.

Research Design

Given the limitations of our quantitative model and the restrictions inherent in a pre-existing data set originally collected for separate, internal evaluation purposes, we shifted the focus of our project to include qualitative methodologies for two focus groups with faculty possessing extensive experience with critical reflection pedagogy. 17 faculty members were chosen from a group of instructors who had previously received awards that required their students to complete critical reflections on their applied learning courses. We did not factor the scores of any of these instructors' students when creating our sample frame, only whether or not their students had completed critical reflections that had been previously scored in an annual evaluation. We did this to ensure a base level of faculty experience with reflective practices and, in our final sample, we had both relatively new faculty who had only utilized reflective assignments in one or two projects and tenured full professors who had regularly implemented reflection in multiple courses over the past eight years. The focus groups had representatives from all four colleges within the university, including those from Business, Education, the College of Health & Human Services, STEM fields, Social Sciences, the Humanities, and others. Our sample also included lecturers through tenured full professors, and all of the faculty contacted signed and agreed to the consent process approved by our Institutional Review Board. Our initial goal was to choose the first 16 volunteers for the focus groups and due to high response volume, we accepted a 17th participant volunteer to provide additional perspectives from other areas of campus. The final selection of participants was made to intentionally include as many representatives from different disciplines and career levels as possible with the primary common factor being their experience with critical reflection and applied learning pedagogies.

Three of the authors acted as facilitators for the focus groups with a total of 24 discussion questions. To find out which additional variables we needed to measure, questions focused on exploring student factors, faculty factors, and organizational factors that might influence the quality of critical reflections. Each focus group lasted 90 minutes with additional time for discussion. We saw a high degree of participation irrespective of participant position, title, or tenure. After the audio recordings of each focus group were transcribed, we used MaxQDA to assist in our coding and qualitative analyses.

Findings

After thoroughly exploring the information we gathered from our focus groups, we revisited our regression models with two very important insights: First, we had a better idea of which variables might explain a larger part of the variation in student scores, and second, our existing surveys and assessment tools had gathered almost nothing that could approximate those variables. The closest we came with the existing dataset was with frequency, which as mentioned above, was gathered as a self-reported number of instances in which students said they had engaged in critical reflection at various points in their academic careers. For the areas of framing and instructor feedback, we did not have distant proxy measures.

A grounded theory approach guided the analysis of our focus group data. This inductive method allowed us to uncover factors we had not considered during our initial quantitative analysis. After identifying emergent patterns, the factors faculty reported as influencing student performance on critical reflection were distilled into three primary themes: framing, frequency, and feedback.

Framing

Faculty continually brought up the importance of actively guiding students through the often-unfamiliar practice of critical reflection. One faculty member noted that, "you really can't give them a global-think-about-and-reflect [exercise], because they don't know what to do with that." Another faculty member remarked that, "the students don't necessarily have those reflective skills... and I find the better reflective thought with students when I guide the reflection and give it direction." An instructor who agreed that some students "just didn't have the skill set" addressed this by teaching students how to critically reflect. "...What I've done differently is teach them what reflection is. There's a process you go through to reflect. I model it, and I show examples. This is a reflective statement. This is not a reflective statement." It seems as though the framework through which critical reflection is introduced may affect student performance, possibly the result of students' lack of familiarity with critical reflection. When asked "what sort of framing do you think is most effective?", one faculty member responded:

> I talk about it in class. The first time I've done this I just gave the assignment. I never discussed them during lab or lecture. I found I got much better results if I not only give the assignment, but discussed it at least five, ten minutes before I let them go and work on the assignment.

For the purposes of this study, framing was operationalized as the way in which instructors present the practice of critical reflection. The context in which the reflection exercise is introduced, how the exercise is explained, and the reflection prompts used are all elements of framing. When discussing the evolution of their reflection prompts, faculty noted how, initially, prompts that were too broad or too vague yielded superficial reflections from students. Through experience, faculty found that they were able to target specific learning

outcomes through careful and intentional prompt selection. As one faculty member remarked, crafting prompts that are responsive to "what's happening in the actual application of the project" allows the instructor to probe students into deeper reflective thought and guide students into making connections between practice and theory.

Faculty members also discussed the importance of clearly articulating their expectations to students. One instructor stated, "If we actually compel ourselves to articulate here's what we'd like to see, and here's an example of that, it seems as though we're getting better results." Again, because students are often unfamiliar with critical reflection, it seems as though they are more likely to meet expectations when they are explicitly stated. Very simply, we cannot expect students to reflect critically if they are not taught what elements make a reflection "critical".

Frequency

The frequency by which instructors assigned critical reflection exercises also varied considerably. Some instructors reported assigning reflection activities every week, while others only required an initial intention and final reflection piece. Faculty who assigned multiple exercises reported improvements between reflections. An instructor who taught two different courses noticed marked improvements in critical thinking skills between the class that frequently engaged in reflection exercises and the class that only completed an intention and post-experience reflection. She noted, "It seems like the more times, the more reflections you assign, the better [they are]." One instructor who assigned reflection activities every week thought that as students became accustomed to critical reflection, they began reflecting while engaged in the applied learning experience. She noted that:

> While they're doing the activity, then they're thinking about those questions before you're even asking them, because… they know you're going to ask them anyway, so they might as well just process it while it's happening. They're anticipating your actual probe.

Recall our previous mention of the change made in August 2014 to UNCW's applied learning funding requirements and the fact that prior to that point, students were only required to complete a single, summative reflection at the end of the experience. In institutional reports, student scores improved substantially in several areas and most notably for the learning outcome of Intentionality (UNCW, 2017). While we cannot claim a firm causal link, it does appear that increasing the frequency of required reflections even by only one additional assignment has coincided with a subsequent increase in the quality of student reflections and the faculty participants in our focus groups supported this finding.

We asked instructors if they had "noticed any difference between students with prior critical reflection experiences and those who are new to the practice", and, in both focus groups, the first respondent said he or she did not know which students had encountered critical reflection prior to their course. One instructor did note that students who took multiple classes with her were essentially participating in "the next level of the same assignment" and were getting "better at it." However, it also appears that continually engaging in critical reflection even within a single given course may impact student performance. One instructor reported asking students the same types of questions for each applied learning experience, but, over time, "their answers improve and clean up." Another instructor who required students to complete a minimum of three iterations on a single reflection noted that:

> Doing repetition with an individual reflection…with multiple drafts has a massive impact… [and] it takes multiple rounds of edits before you can really get them to do it [gain control over their own learning]." Multiple iterations may help students better develop reflective skills.

Feedback

Instructor feedback also emerged as a prominent theme in both focus groups, though there was great variability among faculty with regards to providing feedback on student critical reflections. Several instructors provided feedback on every reflection, two instructors stated that they provided no feedback, and one instructor followed up only with students who were not meeting expectations. Some gave oral feedback to the class as a whole or met privately with students, while others offered written feedback on the student's work. Faculty members who provided feedback reported improvements between reflections. Not only offering feedback, but also providing students with the opportunity to incorporate instructor feedback into future reflections, appears to impact student performance on critical reflection.

Many faculty members acknowledged the value of providing individual feedback and expressed a desire to do so but, due to time constraints, felt it was unfeasible. One instructor met this challenge by using class time to reference student reflections, providing group feedback on "less reflective" pieces by integrating it into class discussion. Another instructor noted that, "students also value when you show that you immerse time in it." Providing feedback shows the students that the instructor is paying attention, thereby challenging this idea that critical reflection is just "busy work" and potentially increasing student engagement.

As discussed, our faculty focus groups uncovered three major themes regarding student performance on critical reflection: framing, frequency, and feedback. Instructor framing appears to most significantly influence student performance on critical reflection, with the best results produced when instructors explain the purpose and process of critical reflection, clearly articulate expectations, and connect prompts to course content. Instructors who were able to provide individual feedback on student work reported improvements between reflections, using a modified version of the AAC&U VALUE rubric (http://uncw.edu/eteal/resources/documents/CriticalReflectionScoringRubric.pdf). Faculty noted that reflections improved as the semester progressed, suggesting that the frequency by which students engage in critical reflection may be influencing the quality of reflections.

Discussion and Conclusion

While we initially thought that student and faculty experience might be the major determinants of whether students showed stronger learning outcomes, our analysis of existing assessment data showed that neither student factors such as GPA nor faculty factors such as familiarity with critical reflection pedagogy had a significant impact on the quality of student reflections. This made a qualitative inquiry into the subject more vital than ever, serving to not only inform and test the validity of our hypotheses but to also provide essential guidance for future quantitative data collection plans, analyses, and dissemination.

Nonetheless, our research was subject to several limitations, particularly with regarding to the existing institutional assessment data, which we used in an effort to model the influencing factors that emerged from our focus group discussions. For instance, the existing dataset only contained variables related tangentially to the frequency of reflection within a given project and there were neither variables nor proxy measures that could represent the type and level of feedback provided to students. While this did limit the present study to its qualitative components, it also provides us with a clear direction forward: future research into this topic should focus on improving data collection at the institutional level whenever possible, guided by the themes and insights drawn from these faculty focus groups.

Despite these limitations however, we were able to get a better grasp on the actual experience of faculty members While we were confronted with a number of limitations in our quantitative attempts, we arrived at a deeper understanding of the actual experience of faculty instructors administering reflective assignments to their students. Apart from the obvious goal of furthering our progress toward answering our research question, this also helped us frame our own analysis and interpretations of the data with the lens these faculty members provided us in their own words. In the end, it was neither prior exposure nor student GPA that faculty pointed to but rather a collection of factors, which all fell into one of three emergent themes: framing, frequency, and feedback. While we do not presently have the breadth of data needed to test predictive models using these variables, this has given us both a number of experience-based findings that we can disseminate to potentially foster improvement in teaching practices and a clear direction for our future work. Faculty repeatedly mentioned the importance of feedback, which included guidance, revision, and commentary on either satisfactory or unsatisfactory student reflections. Moreover, as noted by Ash and Clayton (2009), students require structure to cultivate meaning from reflective exercises. As a result, instructor feedback may help students understand what constitutes critical reflection. A report conducted by the National Research Council (2001) states that "providing students with information about particular qualities of their work and what they can do to improve it is crucial for maximizing learning" (Pellegrino, Chudowsky, & Glaser, 2001). Additionally, devoting class time to feedback on critical reflection highlights its importance and promotes student engagement (Quinton & Smallbone, 2005; Higgins, Hartley, & Skelton, 2002).

Frequency stands out as a finding of particular interest, since frequent reflection also results in students with more experience with reflection and as you will recall, this study was formed as a result of the lack of predictive power observed in models containing measures of student experience with critical reflection. It was not so much that our flow of logic was incorrect as incorrectly focused; it isn't that students who have done more reflections in their lifetime have better learning outcomes so much as that students who frequently reflect gain more through the reflection process. Literature suggests that reflection is a learned skill (Ash & Clayton, 2004; Hatcher et al., 2004), and, as our faculty reported, continual practice may improve critical reflection skills. Like all skills, however, frequency alone is not likely to result in greater learning and so it may be that we will only see strong effects in models of frequency that also contain measures of the feedback provided to students throughout their reflective assignments.

It is also important to nest these statements in the context of the particular faculty group involved in this study, as all faculty involved in the focus groups had taken part in projects which required their students to complete both initial final, summative reflections. Given this, we cannot disentangle their testimony regarding the usefulness of frequency from the presence of a summative reflection and therefore it may be, as Hatcher et al. (2004) suggest, that students need both continuous reflections and a final, summative exercise to reap their full benefits.

The way in which instructors present critical reflection to students, which we operationalized as framing, was also salient. Instructors who made learning outcomes evident to the students and had clear reflective prompts reported higher quality reflections from their students. Faculty from both focus groups voiced concerns that their students did not always understand the goals, purpose of reflective exercises and consequently produced superficial or disorganized reflective pieces. One faculty member centered their critique on their own preparations:

> I think a lot of the flaw is us. We're saying, wow. That's way too fuzzy. If we actually   compel ourselves to articulate here's what we'd like to see, and here's an example of that, it seems as though we're getting better results.

The consensus in their comments leaves us with a clear outline of an unfinished portrait, one suggesting the need for intentional and clear framing for reflective exercises along with a need for future study on the ways in which we frame reflections for our students.

Ensuring that students will both achieve the intended learning outcomes is one of the primary and consistent challenges facing higher education today. How then do we approach critical reflection critically? How do we make sure that this effective practice is, in fact, being effectively implemented and that all students who engage in reflection are receiving the purported benefits? Moreover, is there a way to further increase the benefit of critical reflection, and what further impact would that have on learning outcomes?

While we do not have a definitive answer just yet, our initial work with existing assessment data and faculty focus groups has given us valuable direction. Student and faculty experience with reflection is important, but it's about more than just a raw count of how many times they have completed or implemented critical reflections in the past. The frequency of reflection within an experience, the depth and structure of framing applied to each reflective experience and activity, and the feedback provided to students to push their reflections beyond superficial responses were all key factors to ensure that students not only produced thoughtful and well-articulated reflections but also that they achieved their intended learning outcomes. While we still lack assessment data quantifying these three aspects, we now have a framework that informs our future assessment of critical reflections, recommendations for faculty implementing critical reflection, and a new perspective on student experience and engagement with critical reflection pedagogy.

While we initially began with the DEAL model as a cognitive framework for critical reflection, we did not strive to understand how faculty could apply the DEAL model at our institution. Instead, our goal was to fill in the gaps of the DEAL model and understand the factors that impacted student critical reflection, student performance, and student learning outcomes. Although the DEAL model (Ash & Clayton, 2009), is an important and influential model, it does not fully address the factors that impact student reflection scores. Through our focus groups we found a way to provide a structured best practice mechanism that can be offered to faculty and practitioners to best help students reach the intended student-learning outcomes through critical reflection. Conducting regular focus groups with practitioners should provide a foundation from which we can unite instructor practice with our broader analyses of assessment data to create new, concrete best practices and recommendations for applied learning instructors. At present, we can already suggest that instructors consider increasing the frequency with which they administer reflective activities, detail and record the techniques they use to frame those activities, and to provide consistent and timely feedback to students for each of those activities.

Future research into critical reflection pedagogy should explore the variables identified in our focus groups as potential factors influencing student performance on critical reflection. Conceptualizing and operationalizing these three predominant variables, framing, frequency, and feedback, will allow future researchers to develop research questions focusing on how these factors potentially impact student performance. Examining the nature of, and possible interplay between, these variables could lead us to a better understanding of how to best approach the practice of critical reflection.

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Appendix A

Focus Group Informed Consent Language

Student Experience, Faculty Expertise, Student Performance in Critical Reflection Assignments

Thank you for taking the time to participate in this focus group today. Our goal is to gather information about your experience with critical reflection pedagogy and the factors that may influence student performance in critical reflection.

If you agree to participate in this focus group you will be asked questions relating to experiences with student reflections, prompts and critical reflection pedagogy. You will be joined by 7-10 other faculty members. The study will last between 60 and 90 minutes. Please note that the study will be recorded for later transcription. Your responses and your participation here today will all remain confidential. Your participation is voluntary and you may leave the focus-group at any time. For participating in this focus group, you will receive a complimentary catered lunch. There are no costs for participating in this study.

Taking part in this focus group is in voluntary and not a part of your University duties, and refusing will not affect your job in any capacity. This focus group does not offer any special job-related consideration.

Again, we thank you for sharing your time and knowledge with us today.

Appendix B

Faculty Focus Group Questions

GUIDING QUESTION: WHAT FACTORS INFLUENCE STUDENTS' PERFORMANCE IN CRITICAL REFLECTIONS?

INTRODUCTION
a) So to start off, let's go around the table and state our names and our department for everyone.
b) [After introductions] And so everyone here has conducted a critical reflection exercise in one of their courses at least once, right?
c) Excellent. Alright, let's start with the first question then…

SECTION 1: STUDENT FACTORS
1) When you give a critical reflection assignment, what do you want students to get out of the critical reflection process?
 - How would you go about improving those outcomes?
 - Do you think critical reflections have any impact on the other learning outcomes for your course? In what ways?
2) How often do you think students should reflect on their learning using a critical reflection assignment during a project?
 - Can you explain in more detail?
 - [If CR was used throughout a project] What strategies have you used to facilitate reflection throughout the project?
3) What do you think an exemplary student reflection looks like?
4) What challenges do you think students face in regards to critical reflection?
5) What do you think could improve the quality of student critical reflections?
6) How well do you feel your students understand the goals and purpose of critical reflection?
7) Have you noticed any difference between students with prior critical reflection experience and those who are new to the practice?
 - [If Yes] What differences have you noticed?
 - Have you noticed any difference between students with prior experience with other applied learning?
 - What about students at different class levels, such as between first years and juniors?
 - Do you notice any differences between students who have had previous coursework in the field, particularly majors, and students who have not?

SECTION 2: FACULTY FACTORS
1) Have you used critical reflection in other courses either before or after being funded by ETEAL?
2) How do you frame critical reflection exercises for you students? What sort of framing do you think is most effective?
 a. For example: do they do this in class? Do you encourage class discussions on students' experiences? How do you explain the process of reflection to your students?
 b. Do they receive feedback on previous reflections?
3) What is the most challenging, or gives you the most difficulty, with regards to critical reflection activities?
4) Do you grade your students' reflections?
 a. If so, what criteria do you use to grade them?
 b. What rubrics (ETEAL or otherwise) do your students have access to before they complete their reflections?
 c. What do you think about making reflection assignments part of a student's grade?
5) If you perform your own assessment of reflections, can you tell us about how you assess your students' performance?
 a. To what extent do you think we can use critical reflections to assess and measure student academic progress?
6) What are your strategies for constructing critical reflection prompts?
 a. What are your main goals when you're designing critical reflection prompts?
7) Have you ever attended any workshops or institutes (Summer Institute, ALTC workshops, etc.) that dealt with critical reflection?
 a. What impact, if any, have these workshops or institutes that you've attended, had on your approach to critical reflection?
8) What do you think would improve your student's experience with critical reflection? What resources, if any, would you need to achieve this?
 a. This is not just in reference to their performance, but their overall experience with the practice of critical reflection.

CONCLUSIONS
1) Does anyone else have any other thoughts about what factors might influence or determine how well students do in their critical reflection assignments? Anything else that you think could help improve the quality of critical reflections? Anything that might limit student performance
2) Thank you all so much for taking the time to speak with us today! We have the room until 1:00pm and feel free to take as much food as you would like until then. If you have any questions please don't hesitate to ask, and thank you again for your help with this Focus Group.

SECTION 3: ADDITIONAL QUESTIONS
1) In what ways if any does critical reflection tie into your individual teaching practices?
 a. If at all, how does it impact your teaching practice?
2) What do you think about the way critical reflection is utilized here at [authors' affiliated university]? In higher education in general?
3) Have you utilized critical reflection pedagogies at previous institutions?
4) What do you think is the most beneficial/detrimental aspect of critical reflection?
 a. How would you enhance/mitigate that effect?
5) Do you think critical reflection is useful for faculty as well?
 a. (Specifically engaging in CR about your teaching)
 b. If so, why?
 c. Your experience in performing critical reflection?
6) What resources do you think could help improve your own experience with critical reflection?
7) Are there any other ways that you utilize critical reflection in your courses?