

Connecting Critical Reflection and Group Development in Online Adult Education Classrooms

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This qualitative multi-case study explored the space where critical reflection and group development met within the online environment for the adult learner. Using critical reflection with adult learners through their responses to Stephen Brookfield's (1995) Critical Incident Questionnaire (CIQ) in the online environment precipitated instructional effectiveness by unearthing reactions to the online environment and provided a consistent framework for assessing group development. The study context included two sixteen-week, online, asynchronous graduate courses on adult teaching strategies at a research-intensive university located in Midwestern United States. The findings reflected evidence of Tuckman's (1965) and Tuckman and Jensen's (1977) group development sequence of forming, storming, norming, performing, and adjourning within both courses. The analysis and implications were related to critical reflection, group development, the online environment, and adult learning.

Critical reflection is valuable when working with adult professionals (Mezirow, 1990) and is especially important in the online environment (Brookfield, 2006). Through courses that include interaction and building productive online communities (Palloff & Pratt, 2005; Salmon, 2002), adult learners receive a meaningful and long lasting experience. If they contribute to the construction or adaptation of the course they will stay more involved and focused with the materials. A "conscious community" is formed when in the online environment there is "a discussion about goals, ethics, liabilities, and communication styles, that is, norms" (Palloff & Pratt, 1999). This negotiation of norms sets the foundation for other activities within the online community, including critical reflection about the course.

Critical reflection in online environments is an effective way to glean feedback for instructional purposes (Conrad & Donaldson, 2004; Hanna, Glowacki-Dudka, & Conceição-Runlee, 2000) or to make course adaptations (Valentine, 1997). It also is "an effective way to track individual experiences" within the course (Conrad & Donaldson, 2004, p. 73). This study contends those reflections can unearth evidence of group development as defined by Tuckman (1965) and Tuckman and Jensen (1977). Brookfield's (1995) Critical Incident Questionnaire (CIQ) is the tool this study used to test for evidence of group development in the online environment.

Background of Study

Reflective Practice and Critical Reflection

Reflective practice is a popular topic among educators when examining their work in the classroom. Many books and articles center around the concepts of "helping teachers understand, question, investigate, and take seriously their own learning and practice"

(Brookfield, 1995, p. 215). Donald Schön (1983; 1987) is probably best known by educators for his writing about the reflective practitioner and how to engage in reflective practice. Schön developed the notions of reflection-in-action and reflection-on-action as he considered the ways that practitioners could improve their work through understanding their response to daily situations. Through this reflective practice:

The practitioner allows himself to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him, and on the prior understandings which have been implicit in his behaviour. He carries out an experiment which serves to generate both a new understanding of the phenomenon and a change in the situation. (Schön 1983, p. 68)

Reflective practice is not only useful for individuals, but it becomes critical when it is applied within organizations and communities to examine the collective assumptions and consequences of the work. Merriam, Caffarella, and Baumgartner (2006) highlight several elements of reflective practice. Reflective practice involves a "deliberate slowing down to consider multiple perspectives [while] maintaining an open perspective.... [It also requires] active and conscious processing of thoughts.... to achieve a broader context for understanding" (p. 173). Through the examination of beliefs, goals, and practice, further insights and understanding are gained, and more consistent actions can be taken.

Schön's (1987) reflection-in-action, essentially the thinking and reflecting taking place in the midst of practice, can be applied to both face-to-face classroom environments and to online environments where interactions are asynchronous and are often delayed. Since the online environment is still unfolding for adult

educators and adult learners, the opportunity for reflection-in-action is ideal to capture immediate feedback. Conrad and Donaldson (2004) suggest that “reflection can provide insight for instructors on their teaching and for the students in their learning” (p. 73) through evaluation of the experience and responses of the students from a variety of sources like journals or questionnaires. Stein (2000) reminds us that “through the process of critical reflection, adults come to interpret and create new knowledge and actions from their ordinary and sometimes extraordinary experiences” (p. 2).

Critical reflection, as advanced by Mezirow (1990), coincides well with adult learning and the online environment since critical reflection does not just involve adults generally thinking and reflecting during practice, but it refers specifically to reflecting back on prior learning experiences under specific circumstances. In the online environment, adult educators have the opportunity to expand the possibility of reflection through collaborative techniques with other learners.

Brookfield (1995) offers six reasons that critical reflection is important. Specifically, critical reflection about our teaching (a) helps us make informed actions with a better chance of achieving desired outcomes; (b) helps us develop a rationale for practice, and the underlying principles behind our practice; (c) helps us keep perspective about limits to our abilities in the classroom; (d) helps us to ground ourselves emotionally; (e) enlivens our classrooms; and (f) increases democratic trust enabling students to feel safe in their own opinions and beliefs. This study investigated the use and value of critical reflection and reflective practice through student responses when teaching in the online environment.

Critical Reflection in the Online Environment

Research on critical reflection provides little attention to the online environment. Proponents of critical reflection in the online environment (Conrad & Donaldson, 2004; Hanna, Glowacki-Dudka, & Conceição-Runlee, 2000) primarily cite the evaluation of instructional effectiveness as one of the benefits of critical reflection for online groups. Conrad and Donaldson (2005) state that “reflective feedback allows instructors to evaluate the effectiveness of the students’ experiences in the course” (p. 73). The information gleaned from those reflections can support formative evaluation of the course, and modifications can occur to better meet the learning objectives for the course and also meet the needs of the individual adult learners.

Hanna, Glowacki-Dudka and Conceição-Runlee (2000) support and expand this notion by stating that “this [reflective] approach to evaluating instructional effectiveness offers a great opportunity to get learners’

perspectives about how well the course materials work and how interesting the materials are. As a result, learners become involved in reflecting on their own learning and what helps them learn best” (p. 48).

Instructional effectiveness is not the only advantage of critical reflection in the online environment. Palloff and Pratt (2005) cite transformative learning promoted by reflective practice as valuable elements of online community and in their model of online collaboration. Yet, they do not describe how such transformative learning is achieved in the online environment, nor if it is achieved only for the individual, the group, or both. Other research demonstrates that reflection tools can be applied to engage the online learner. Conrad and Donaldson (2004) claim that “reflection and self-assessment are important components for empowerment in any learner-focused environment” (p. 31) and that requiring students to provide reflective entries online also encourages “participants to make sense of the online process and their position within the learning community” (p. 31).

In order to support reflective practice in an online environment, Conrad and Donaldson (2004) provide a variety of synchronous and asynchronous, anonymous, and self-declaring reflective options for the online learner. These reflective activities require students to share a “synthesis of the learning experience” (p. 74). However, those activities are designed for the individual online learner without recognizing the need of assessing groups or group development.

Therefore, a gap exists in the literature related to critical reflection in the online environment within groups, group development, and collaboration. While research on face-to-face groups, group development, and collaborative learning are plentiful, R. Smith (2005) contends that “there is scant research to enable an understanding of the group dynamics within online collaborative groups” (p. 185).

Critical Incident Questionnaire (CIQ)

Brookfield (1995) designed the CIQ to help “embed our teaching in accurate information about students’ learning that is regularly solicited and anonymously given” (p. 114). Brookfield (1995) explains that “its purpose is not to determine what students liked or didn’t like about the class. Instead, it gets them to focus on specific, concrete happenings that were significant to them” (p. 114). Brookfield’s CIQ was designed as a single-page form that could be handed out to students at the end of a face-to-face class.

The students would complete the CIQ anonymously, taking between five to ten minutes to answer the following five questions:

1. At what moment in the class this week did you feel most engaged with what was happening?
2. At what moment in the class this week did you feel most distanced from what was happening?
3. What action that anyone (teacher or student) took in class this week did you find most affirming and helpful?
4. What action that anyone (teacher or student) took in class this week did you find most puzzling or confusing?
5. What about the class this week surprised you the most? (This could be something about your own reactions to what went on, or something that someone did, or anything else that occurs to you). (Brookfield, 1995, p. 115)

After the CIQ's were collected, the responses were analyzed for themes and brought back to the class in a form of reflective discussion. Time was allocated at the beginning of the next class to review the prior class responses.

In reviewing the literature related to Brookfield's Critical Incident Questionnaire (1995), it was found that many articles apply the CIQ in face-to-face classrooms or in other traditional settings (Adams, 2001; Brookfield, 1996; Lupton, 2004). Although this tool is recommended for practical application for accessing critical reflection in the classroom, the authors (Adams, 2001; Brookfield, 1996; Lupton, 2004) do not examine it more deeply. The CIQ has not been studied in order to test its validity or reliability. As an informal tool for evaluation and reflection on classroom dynamics, Adams (2001) and Brookfield (1995) agree that CIQs provide "alerts to disaster" in the classroom by requiring public feedback, they "promote learner reflection," they "legitimize diverse teaching practices," they "build trust," and they provide a "unique window into our own development" (pp. 5-6).

In Brookfield's new edition of *The Skillful Teacher* (2006), he includes a chapter of how to implement the CIQ in an online classroom, but he does not elaborate on how to analyze the data collected. Valentine (1997) used the CIQ to assess the online learning environment and the student nurses' perceptions of the behaviors of hospital staff. This study demonstrated that unearthing reflections in the online environment was helpful for the development of the individual and for instructional effectiveness, yet the assessment of group development was absent. However, it is important to note that Valentine's (1997) study was the only study found utilizing the CIQ, originally developed for on-campus classrooms, in the online environment to document group dynamics.

Group Development

This study examined whether evidence of group development can be found in the reflective responses of the CIQ in an online environment. While there are many models of group development, Bruce Tuckman's (1965) and Tuckman and Jensen's (1977) model of group development sequencing was chosen. It is a highly recognized theory on group development, thus a good place to begin this investigation of the use of critical reflection to unearth group development theory.

Group development sequencing as defined by Tuckman (1965) includes the four progressive stages of forming, storming, norming, and performing. The *forming stage* involves testing boundaries of both interpersonal and task behaviors. It also establishes the dependency relationship on leaders, other group members, or pre-existing standards. The *storming stage* is characterized by conflict and polarization around interpersonal issues creating resistance to group influence and task requirements. In the *norming stage*, group cohesiveness develops, new standards evolve, and new roles are adopted. Group members begin to trust one another, and intimate or personal opinions become easily expressed. Finally, in the *performing stage*, the group is ready to accomplish its task. Roles adapt to the task and are functional, with energy channeled to the group's goals.

While not one of the original four stages, Tuckman and Jensen (1977) added the stage of adjourning stage to the model. The *adjourning stage* completes the tasks, dissolves the group, and terminates the roles. Sometimes mourning and stress are a part of this stage when the group adjourns prematurely (Smith, M. K., 2005).

Vroman and Kovacich (2002) applied Tuckman's (1965) and Tuckman and Jensen's (1977) model to their work with computer-mediated teams and found that it to be an accurate fit for what happened in their study. In the forming stage, the participants "brought their pre-existing social and professional constructs of interdisciplinary practice to the project" (p. 163). They found tentative posts and non-specific opinions shared in order to test the waters. Leadership played a very strong role in these early stages.

During the storming phase, Vroman and Kovacich (2002) found a "perceptible shift of dynamics ... one of assertion, power, and disciplinary boundaries" (p. 165). Individuality still remained dominant; however, the groups' sense of productivity and commitment led to conflict. The groups matured into teams that were norming and performing at a strong level. They were able to "link threads as a strategy to facilitate collective

understanding and progress” (p. 167). They were comfortable enough to ask each other questions, brainstorm together, and offer critique.

Summary

Reflective practice is beneficial for individuals and is useful within organizations and communities. Critical reflection has value and importance when teaching adult learners in both the traditional classroom and the online environment. The use of reflection in the online environment is primarily focused on instructional effectiveness and benefits for the individual, not usually pointed toward group development.

This study applied critical reflection within the online environment in order to assess group development. One specific reflective tool, the Critical Incident Questionnaire (CIQ) designed by Stephen Brookfield (1995), combined with Tuckman’s (1965) and Tuckman and Jensen’s (1977) group development sequence, is the option used here to assess group development. The present research is guided by the following research question: What evidence of Tuckman’s (1965) and Tuckman and Jensen’s (1977) group development sequence can be found in the CIQ responses of online adult learners?

Method

A qualitative multi-case study was used for this research. Multi-case studies are described by Bogdan and Biklen (2003) as “two or more subjects, settings, or depositories of data” (p. 63). Stake (2000) calls this design a collective case study and refers to Herriott and Firestone’s (1983) multi-site qualitative research in defining the term. The use of the multi-case study approach allowed for the opportunity to compare the findings in one setting with another, as will be expressed in the data analysis and findings sections.

Study Context

The study context was a sample of two sixteen-week online, asynchronous graduate courses on adult teaching strategies. The courses were conducted in Spring 2004 and Spring 2005 at a research-intensive university located in Midwestern United States. The professor is a European-American woman with a strong background in online learning communities and group dynamics. She and her graduate assistant (GA), an African-American woman, were co-researchers on this study.

The course studied is offered annually in an asynchronous format online using the Blackboard™ learning management system (LMS) for delivery, and it is offered every other year face-to-face. The online

course consisted of forums for students to access discussions, post assignments, and respond to inquiries. For much of the course, the students were placed in small groups of four to six people within designated forums with restricted access. Most of the actual discussion about course content occurred in the small groups. The large group convened throughout the course to discuss policies and processes, as well as to report out about the small group discussion and individual projects. Each week members of the small group rotated roles, which were described below by the professor:

1. *Convener/Facilitator*: This person will pose the questions for the week and initiate discussion with a few questions from the reading. As the members respond to the questions, the facilitator moderates and extends the discussion by posing new questions on issues that arise out of the dialogue. Additionally, the facilitator may refer back to the readings to initiate discussion on another aspect of the topic. Facilitators are responsible for keeping an active and involved discussion going throughout the week.
2. *Process Observer*: This person will monitor the group’s dynamics. Process observers are responsible for making sure that everyone is participating in the discussion, that there is evenness in participation, and that the discussion maintains a collegial and helpful tone. In a sense, the process observer also functions as a parliamentarian, suggesting when discussion is off track and bringing a sense of order and consistency at critical moments. At the end of each week, the process observer provides feedback to the group in a short paragraph. This paragraph of process will be posted for the small group and large group to see.
3. *Summarizer*: This person will look for key themes that emerge in the conversation, keeping track of areas of consensus and disagreement among group members. When presenting the summary of the discussion, the summarizer is responsible for tying together the whole discussion and providing the learners with a brief review of the main issues, the key points, and any conclusions to which the group came. This summary will be posted both in the small group and in the large group for everyone to see.

In addition to the regular content work for the courses, the students completed Brookfield’s (1995) CIQ weekly. The professor designed the use of CIQs as

one of the regular assignments that students were required to complete and submit in order for the professor to stay in tune with the students' reflections on the class and their role as participants in the online format. An online, modified version of the CIQ was created, which follows:

In order to facilitate a better learning environment, we will use tools (developed by Stephen Brookfield, 1995) to consistently evaluate this course. The Critical Incident Questionnaire (CIQ) will be completed at end of each week in specific discussion board areas. Please answer questions thoughtfully. Be honest and submit your responses anonymously.

Questions include:

- a. At what moment in the class this week did you feel most engaged with what was happening?
- b. At what moment in the class this week did you feel most distanced from what was happening?
- c. What action that anyone (teacher or student) took in class this week did you find most affirming and helpful?
- d. What action that anyone (teacher or student) took in class this week did you find most puzzling or confusing?
- e. What about the class this week surprised you the most? (This could be something about your own reactions to what went on, or something that someone did, or anything else that occurs to you.) (Brookfield, 1995, p. 115)

All comments are anonymous, but posted for the class to see. The instructor will read all the comments. Themes will be summarized and shared back with the students. Not all suggestions will be acted upon, but all will be considered.

Data Sources

As a source of data, the anonymous CIQ responses were archived in batch file format. The Blackboard LMS has the function of recording the responses of the students if the students selected the *Post message as Anonymous* option, which they were requested to do in the instructions of the CIQ. The anonymous feature on the Blackboard LMS makes identifying the author impossible not only to the users (i.e., students, professors, visitors), but also the

Blackboard administrators. Only the time and date of each response was recorded.

The Participants

The online course conducted in 2004 included ten men and ten women, five of which were doctoral students and fifteen of which were master's degree students. The online course conducted in 2005 included ten men and eleven women, including four doctoral students and sixteen master's degree students. The course was required for all master's degree students and was optional for all doctoral degree students.

Data Analysis Process

Two Microsoft Excel spreadsheets were created to house the raw data from the classes, and each was organized independently. Process codes, "words and phrases that facilitated categorizing sequences of events, changes over time, or passages from one kind of status to another" (Bogdan & Biklen, 2003, p.164), for each portion of Tuckman's (1965) and Tuckman and Jensen's (1977) group development sequence were created and a respective color assigned to each portion of sequence for easy of coding. Each depository of data was printed and assembled into large paper documents. Each question's response was then compared to the group development sequence, and the process codes were developed and subjected to an immediate sort by the assigning of a color code. Although initial, this data interpretation began "explaining and framing...ideas in relation to [the group development sequence] theory, other scholarship, and action, as well as showing why...findings are important and making them understandable" (Bogdan & Biklen, 2003, p.147). This immediate sort unearthed evidence of the group development sequence. This "initial or emerging theory [was] tested against [all] data that [was] systematically collected, [applying what] has been called the constant comparative method" (Mertens, 1998, p. 171). Multiple other sorts narrowed and winnowed the data to provide a clear sense of the group development sequence. The data were reviewed by both researchers, and selections of representative statements were made.

Findings and Analysis

The CIQs reflected evidence of Tuckman's (1965) and Tuckman and Jensen's (1977) group development sequence. Each portion of the sequence was clearly evident in both courses.

Forming

The first portion of the sequence, forming, involved a testing of boundaries of both interpersonal and task behaviors. Forming occurred during weeks 1-3 for both courses, and the reflections were a result of responses to questions 1 and 3 of the CIQ. Issues and themes that emerged within this stage included: feeling intimidated, acclimating to the course, developing roles, developing ground rules, becoming oriented to the software, understanding the syllabus, being affirmed by the professor, and shaping leadership within the group. This portion of the sequence was evident in the 2004 course by a participant who stated:

One of my group members and I were volleying an attachment back and forth. We were trying to develop a group rotation schedule so that we would all know our roles in advance and could prepare. As anything, it took a few tries to get it right and I found his willingness to collaborate very affirming.

In this response, the participant discussed specific task behaviors required for the course, sending and receiving attachments in an online environment, and the establishment of a group schedule, both of which are evidence of forming in Tuckman's (1965) group development sequence. The participant wanted to develop and test boundaries with not only the task behavior of sending the attachment, but with the new interpersonal relationship with a group member.

While testing boundaries of both interpersonal and task behaviors in the forming stage was paramount, forming also established the dependency relationship on a leader, in this case, the professor. Two participants in the 2004 course stated:

I think the group as a whole and [the professor] in particular were helpful this week. The group was really engaged.

I found most affirming and helpful [the professor's] interactions with our small group discussion. I felt that she was truly engaging with what we were discussing.

The forming stage of the group development sequence also included dependence on other group members or pre-existing standards. For example, two participants in the 2005 course reflected:

Opening the discussion board and finding that someone else had taken the lead for the group. [sic] sounds strange, but over the last year I have assumed this role several times in 'group work' and found it to be very distracting to what I wanted to

learn from the class. I breathed a sigh of relief because I felt like this will be a great opportunity to really learn from this class.

I felt the action most affirming and helpful was when a person in our small group took the lead in getting us organized. As a couple other people have commented, this is sometimes a role I find myself in, and although I like leading a discussion group, when it is with a new group I am unfamiliar with [,] I feel uncomfortable charging in and taking over. It is nice to have someone who is not uncomfortable with that kind of task!

The forming stage was highly developed in the online environment for both of the courses. The participants tested boundaries on tasks and interpersonal relationships. They also demonstrated their dependence not only on the professor of the course, but on one another.

Storming

The storming stage was characterized by conflict and polarization around interpersonal issues. Interestingly, storming occurred throughout the full course session, weeks 1-16, although it did diminish toward the end of the semester for both courses. The storming reflections were mainly a result of responses to questions 2 and 4 of the CIQ that deal with being distanced, puzzled, or confused. Themes that emerged in this stage were related to family conflicts, work conflicts, issues of purchasing the textbooks, accessibility issues, the time demands, not having timely feedback from group members, misunderstanding the syllabus, time management, and group roles. CIQs which captured the storming stage occurred in both courses. A participant in the 2004 course noted:

I was very surprised at how many of the students were stressed, frustrated, and out of sorts because the books had not arrived. In life, things often go awry, but it is definitely not a showstopper. In teaching adults, flexibility is the operative word. You may come in prepared to follow an outline that is totally out of sync with the class. What happens when life throws you a curve? I think the class just had a practical application of teaching adults. It was interesting how some solved the problem by purchasing books online, elsewhere. It was great that one student shared that a teacher discount could be a possibility.

Additionally, a participant in the 2005 course noted:

Not to offend, but I was surprised about pre-existing assumptions that I've read in some of the discussions. While I think it's helpful to hear about lessons learned, I'm trying to imagine a student standing up in front of a class and saying, "The last time I took a class like this nobody participated; it was awful." I doubt it would go over well. For me, hearing those kinds of experiences sets a tone and can increase the stress of starting a class.

For the participants in the 2004 course, the participant response seemed to be more of a reprimand toward interpersonal behavior of group members and other students, although the absence of books was the primary issue of concern. Additionally, for the 2005 participant, polarization was described in the reflection with a stern tone of reprimand.

Storming was also characterized by resistance to group influence and task requirements. For example, a participant in the 2004 course stated:

I felt most distanced at the loss of one of our group members. Just as I felt that I understood how the small groups work, we now have to adapt to a new structure. Because we spend all of our time online in the small groups, we have less time and opportunity to interact with the entire class. I would like to possibly do small group work for three weeks and possibly interact as a class for one week. I really like the small group discussions, which has the benefit of allowing everyone to provide input. But I would like to interact as a whole class at least two or three weeks of the remaining class.

In addition, two participants in the 2005 course noted:

A couple of times this week I have been thrown off track by trying to figure out group roles and completely understanding them. Just when I thought I knew everything there was to know I would find something else out. I think I am on track now. I just received my books so I cannot get distracted this weekend because I will need to read, read, read.

Some member(s) of my group puzzled and confused me this week. There seems to be so much negativism (I observe this in our class in general, too!) towards group/team work. I admit that collaborative learning isn't my favored style of learning, either, but...at least I try to keep an open mind.

As can be seen in the storming stage, participants tried to make sense of the online environment while experiencing some difficulty with one another and expressing that frustration in their CIQ reflections. The anonymous nature of the CIQ also provides more opportunity for voicing concerns that they would not comfortably state in a face-to-face class.

Norming

The norming stage was identified for developing group cohesiveness, evolving new standards, and adapting new roles. Norming occurred during weeks 3-7 for both courses, and the reflections were a result of responses to questions 1, 3, and 4 of the CIQ, referring to the level of engagement in the class, affirming and helpful actions, and actions that were puzzling or confusing.

At this stage, the themes included: developing trust, getting involved, establishing things in common with other classmates, feeling connected and comfortable, replying to posts, and offering suggestions and comments. Two participants in the 2004 course stated:

I think the groups are becoming more comfortable with each other and are starting to take more time to expand on the postings to better clarify thoughts/ideas.

Not really puzzled or confused. I think as the semester has progressed, we are all much better at expressing ourselves. Sometimes, in the beginning, I think we neglected to realize that we must be very thorough in our explanations on a discussion board because we can't rely on other means of communication (i.e. facial expressions, tone, etc.)

Additionally, a participant in the 2005 course stated:

I felt most affirmed when I took a look at what other groups were doing this first week and feeling like my group was on target. It was very nice to have people respond to or confirm my thoughts when I have written my answers to the small group questions.

The norming stage brought about trust in the group members, and more intimate or personal opinions were more easily expressed. For example, participants in the 2005 course stated:

I was surprised that so many of us have similar interests and connections. It gives me comfort to know this and the personal connection needed to

gain trust with my peers. Knowing a little bit of something about everyone motivates me to explore what is "out there" for me by tapping into their experiences. Thanks to everyone for your intense communication this past week!! :)

It seems that our group is becoming more transparent, or rather we are getting better at knowing each other. It feels like I am having a real discussion rather than just posting stuff online.

Performing

In the performing stage, the groups were ready to accomplish their tasks, and the roles were adapted to the particular tasks as energy was channeled to the groups' goals. By this time, they had successfully formed, stormed, normed, and were now very ready to perform. Performing occurred during weeks 4-16 for both courses. The reflections were a result of responses to question 1 regard engagement in the class and to question 4 concerning puzzlement and confusion. At this stage, the themes included: finishing the assignments, getting into the groove, and finally understanding how to participate in the course. Additionally, many of the responses at this point were non-responses including: "nothing," "nothing this week," or "none". Participants in the 2004 course attested directly to performance by stating:

A group member took time to clear up a concept from our reading that confused me. Not only did I admire the fact that he/she knew concept well enough to help, but that he/she took the time to answer my question and clear up my confusion.

As always, I'm impressed when a fellow group member takes the time to make his/her point more clear by further explanation. Our group is at the point where we are doing this automatically without someone asking us to clarify.

In addition, participants in the 2005 course reflected:

Monday morning. One team member quickly answered all of the discussion questions and it set the stage for the rest of us.

Our group continues to stay involved in discussion throughout the week, with comments that help clarify and express so many different perspectives. The discussion usually takes me back to the readings for things I didn't pick up on at first, so it helps me cover the assignments more thoroughly.

Adjourning

While not one of the original four stages, Tuckman and Jensen (1977) added adjourning to the group development sequence. This stage completed the tasks, dissolved the group, and terminated the roles. Sometimes mourning was part of this stage, and also stress occurred when the group was adjourned prematurely (Smith, M. K., 2005). Adjourning occurred during weeks 12-16 for both courses and the reflections were a result of responses to question 5 of the CIQ. Themes within this stage included: disbelief at the end of the semester, a sigh of relief, feelings of sadness, and a decline of postings. As the courses ended, all the CIQ postings dwindled, and a few and participants in the 2004 course documented reflections such as these to mark the end of the course:

I'm just surprised at how much more I enjoy this course than I did at the beginning of the semester. At first I groaned about having to answer all those questions all the time. It seemed like silly, busy work to me. I've totally changed my mind.

The feeling of sadness surprised me as this class draws to an end. This was a very enjoyable and educational experience. I will miss this and hope future class will be as rewarding.

In addition, participants in the 2005 course had these reflections:

The pace of conversation for our group was much slower, and not nearly as much conversation in total. I can't decide if it's because the topics are more specific so don't generate as much conversation or if we are all getting to the end-of-the-semester-run-out-of-things-to-say mode. :)

Realizing that we are almost complete! Hurrah!

Conclusion

The dynamics and rhythms tracked using Stephen Brookfield's (1995) Critical Incident Questionnaire included each phase of Tuckman's (1965) and Tuckman and Jensen's (1977) group development sequence for both courses. Therefore, the findings answer the research question guiding this study, that yes, there was evidence of Tuckman's (1965) and Tuckman and Jensen's (1977) group development sequence found in the CIQ responses of online adult learners.

There is much applicability for these findings related to critical reflection, group development, online

environment, and adult learning. This study has opened a wide variety of opportunities to compare and contrast the responses to the group development sequence to particular responses of Brookfield's CIQ. For example, which CIQ questions prompted certain portions of the group development sequence? Or, at what point in the course was a specific portion of the group development sequence noted? For example, which week of the course did the group meet certain stages of the group development sequence? Was their progression constant, or was there regression? As simply as Tuckman's (1965) and Tuckman and Jensen's (1977) group development sequence was tested against these data, other group development theories could have been tested against the same data, or similar data, which leaves future possibilities for further studies in the search for other settings and subjects that can be associable.

This study determined that critical reflection was especially important when facilitating adults in the online environment. When students are allowed to provide those reflections, they provide evidence of group development and a feeling of ownership in the class. Since this study intended to investigate the use and value of critical reflection and reflective practice through student responses when teaching in the online environment, we deemed it important to provide examples of those reflections. The use of Brookfield's (1995) CIQ was a useful way to observe group dynamics, and the use of the multi-case study research design assisted in demonstrating and comparing the group development sequence in two depositories of data.

The critical reflection espoused in these online environments was an effective way to glean feedback for instructional purposes, as advanced by Conrad and Donaldson (2004) and Hanna, Glowacki-Dudka, and Conceição-Runlee (2000); to make course adaptations, as advanced by Valentine (1997); and to track experiences within the course as advanced by Conrad and Donaldson (2004). However, as this study contends, those reflections can unearth evidence of group development as defined by Tuckman (1965) and Tuckman and Jensen (1977). What then, does this mean for practitioners?

Critical reflection is particularly important for an online environment. While our knowledge of the online environment continues to grow, so does our need to become familiar with tools to glean feedback from that environment. We have the responsibility to our students to challenge ourselves to be willing to accept critically reflective feedback. Since we are aware that reflection can provide insight on teaching and learning, tools such as the CIQ in the online environment can help to bridge the reflection gap.

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