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The Critical Incident Questionnaire (CIQ): From Research to Practice and Back Again

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Abstract: This paper reviews ways the Critical Incident Questionnaire (CIQ) has been used, adapted, and developed over four years of near continual organizational and academic use. It explores how the tool is implemented, the issues that led to its adaptation, and the current working version. Future research areas are also suggested.

Keywords: Critical Incident Questionnaire, CIQ, reflective practice

Introduction

Has Stephen Brookfield's Critical Incident Questionnaire (CIQ), so widely used as a post-class formative assessment tool, ever been critically evaluated itself? You may know this instrument that Brookfield introduced in his 1995 work, *Becoming a Critically Reflective Teacher*. On a single page, it seeks to capture the critical moments, experiences, or "vivid happenings" (Brookfield, 1995) that occur in a learning episode for the purpose of informing the class instructor or facilitator about how the learning experience is proceeding.

Originally intended for use with carbon paper so the student can keep a copy with another being submitted at the very end of class to the instructor, there are basic instructions on the top of the form (see Table 1). The questionnaire is comprised of five questions, with space between each for the responses (see Table 2). After its submission at the end of class, the instructor reads the responses and looks for common themes that indicate problems or confusions. The main themes are hand coded, with the major responses presented to the class at the beginning of the next session. This is intended to demonstrate to the learners that the responses were read and taken seriously. The process seeks to be transparent, promote trust, and encourage ongoing self-reflection and reflective practice.

In many ways, the CIQ seems to thread throughout everything Stephen speaks about in his research and teaching. He uses it in all his classes, and having studied with him on more than one occasion, I have experienced it both as a learner and as a scholar-practitioner. I use it with my own classes, and even introduced and implemented its use in the organizations where I work. While Brookfield has further detailed the how's and why's of using the CIQ with his students in more recent works (2006), there is little evidence that the tool itself and its use has received some of the same attention that the class experiences have had.

Problem

There is evidence that the CIQ is widely used in various levels of education, yet there is more limited evidence for how the tool itself is assessed. How much have the questions in the CIQ been reviewed or revised? Is there evidence that the process of receiving this ongoing formative evaluation and assessment translates to improved learning outcomes and, ultimately, more critically reflective and satisfied learners? Do the feedback mechanisms work in all situations? How about if there is suspicion that the use of the tool can be manipulated by the learners for their own perceived purposes, an internal power struggle? Do the results always capture an honest snapshot of the learning experience, and in the process promote participatory learning and feedback? What role does trust and transparency play, especially if the class facilitator (or other

learners themselves) gets unpleasant or outright negative feedback? All of these questions have been faced by this researcher over the four years since incorporating the CIQ with the doctoral, graduate, undergraduate, continuing, contact hour, organizational, corporate, and professional populations and environments. With so much use, there has been an increasing need to critically evaluate and assess the CIQ itself. How can the CIQ develop along with its audiences?

The Literature

How much do we really know about the CIQ in the literature? While the tool is familiar with any of Brookfield's students, readers, and colleagues, and while the use of the tool may have spread widely, there is surprisingly little research examining, using, measuring, or assessing the tool itself. Using ProQuest, EBSCOhost, WilsonWeb, Sage, Emerald, Informaworld, and Google Scholar, a literature review was conducted to explore how much research exists on the CIQ. The search phrase used was "critical incident questionnaire," and the results were reviewed to omit any use of the term outside of its use in conjunction with Brookfield's emphasis (namely something that referenced his five questions in some capacity). The result included fewer than two dozen applicable pieces of literature. References to works within practice were located, though they were excluded from consideration as there was little basis to consider they would add anything to a theoretical inquiry.

It is clear that Brookfield's Critical Incident Questionnaire has been used around the world as a qualitative instrument within a variety of research and classroom projects, both face-to-face and online, where learner reflection and feedback were sought (Adams, 2001; Buchy, 2004; Glowacki-Dudka & Barnett, 2007; Hedberg, 2009; Nicol & Boyle, 2003). Many of these studies used the CIQ within the context of exploring how and what learners perceive as significant in learning episodes, and how students critically reflect on the process itself (Gilstrap & Dupree, 2008). While not an extensive research base for using the CIQ, there is sufficient evidence that the tool is used and the results increasingly inform research findings and teaching.

There is, however, less in the literature to suggest that the tool itself has received its own critical evaluation, nor has there been a great amount of acknowledgement or addressing of some of the issues and problems raised in the practice of using the CIQ. For a tool that seeks to find out "how students are experiencing their learning and your teaching" (Brookfield, 2006, p 41), there is little research exploring the adaptation (Gilstrap & Dupree, 2008; Oxford Learning Institute, undated; Taylor, 2008, undated) and challenges around the tool's implementation.

Significance of the Problem

Educators who want to cut through the hegemonic influences in adult and organizational learning by promoting democratic education and inclusivity of learner voice and perspective (Brookfield, 2005, 2006; Cervero & Wilson, 2001; Freire, 1998, 2003; Ledwith, 2001; Newman, 2006) need ways to determine if their teaching works. This is an issue I and the organizations where I work struggle to integrate. We want to better understand the experiences and perceptions of the student learners, for the more we can understand them, the more we can teach in ways that may meet their needs. With little to guide how adaptations can be made while still maintaining the integrity of the CIQ tool, where can a scholar-practitioner turn other than critical and reflective practice itself, based on learner and instructor feedback?

Purpose of This Study

If the literature is not present, then a fitting place to begin is through considering problems of practice, how they were addressed, and then possible directions for future research. This study will review ways the Critical Incident Questionnaire has been used, adapted, and developed over four years of near continual organizational and academic use. It will seek to demonstrate that the

tool, its implementation, and its review can develop based on learner and educator feedback and need. Recommendations for future research will be suggested.

Implementation and Problems in Practice

Many educational events have a final evaluation of some sort. It is not always clear when or if the instructors receive them, nor is it clear whether the information contained is useful for improving future learning events. In many ways, it is too late to receive feedback at the end of a class if the needs of the current learners were not met or if ongoing and hidden problems existed. What is the benefit for the current students to provide feedback that could have improved their experiences had it happened earlier? This is one of the reasons for an emphasis on the CIQ.

Within the organizations where I work, there have been concerns that learning about preventable problems at the end of a course was not acceptable. Likewise, in the university classes I teach, I became interested in the same issue—how can I learn more about where the students are along the way so I can better meet their needs as they occur? In both situations, I introduced the Critical Incident Questionnaire into all the learning events with which I was associated. It was a rocky beginning. What happens if the students give poor feedback? How about if they don't seem to respect the instructors? What happens if their grievances are aired to everybody in the department? Feedback is often personal, and here the CIQ makes it public.

Guess what I suggested? The learners are already saying these very things to everybody BUT you! Isn't it better for us to bite the bullet, face what they have to say, and work to improve the learning before the final evaluation? Just because we may think everything is going well (especially if we don't ask the right questions in the right way) does not make it so. Wouldn't we rather know?

After implementing the CIQ, using it, and discussing it with educators and the students themselves for several months, it appeared we were not getting to some of the underlying issues that were there, nor were we adequately giving voice to some of our learners' experiences and needs. This came as a realization during our first implementation of the CIQ, when we learned from a focus group at the end of a course that the learners thought we spent too much time on some topics and too little on others. When examining the CIQ, we realized that spending too long or too short on a topic was not easily answered by any of the five questions. The students were often literal with the questions, so if they were not broad or open enough (or were just the opposite—too broad), experiences remained private and at times unexplored. With countless meetings to discuss, other issues around the original five questions were raised. Many students did not reply to Question 2, as it seemed there was general confusion over the term “distanced.” How do we handle harsh or embarrassing learner criticism if the transparent CIQ is wielded as a reversal of the teacher / learner power relationship? We also learned that team-teaching, guest speakers, and demands for scant time resources meant that while our instructors liked the information they got from the tool, they struggled to find the time for coding the responses. Concerns were even raised around trying to identify some of the more critical learner responses, which could be done if handwriting and ink styles were compared with other documents. This last concern prompted an ongoing request for a neutral party (in this case, the researcher), to handle the coding and the presenting of the feedback the following week directly to the learners. More than anything else, all involved wanted to give voice to the learners' experiences, something we have never been able to do in this manner before. With a neutral coder protecting the anonymity of responses, we are fairly satisfied we have the best we can get. Questions were added. Then changed, edited, and combined. The questions went from five to seven and then back to five (see Table 2). This process continued for six different versions of the CIQ, with the current

version now being used for the past year with relative agreement by all involved that it works. This process occurred using a PDSA (Plan, Do, Study, Act) Cycle for improvement, where we planned our work, implemented it in a small way, studied the results, and then made changes to it as before beginning the process again to see if it would produce the outcomes we wanted (Langley, Nolan, Norman, Provost, & Nolan, 1996).

While the questions changed, the instructions on the form also developed (see Table 1). First longer, then shorter. The same happened with the manner in which the results were presented back to the learners. They were summarized (too brief), then condensed (perhaps something was missed?), and then presented word-for-word literally (a large job every week), and finally hand-coded (trust in the process seems to have been negotiated for this to occur). The instructors analyzed and then stopped doing it due to time constraints, so the neutral researcher, who in many cases did not engage in the teaching and thus was removed enough for all involved to be satisfied that the process was kept honest due to distance. The results at times became problematic (how should responses to guest speakers or class visitors be handled, especially if it were somewhat critical?), or what should be done if learners are perceived as intentionally providing responses to “skew” the results? All of these issues occurred with face to face classes, which then only became more confusing when online classes were introduced and the issue of anonymity and even small class size were raised (the online tool, Survey Monkey, with anonymous tracking and a single weekly url link, was finally selected for this purpose).

Table 1 – Critical Incident Questionnaire Instructions	
Original	Current (Revised)
Please take about five minutes to respond to each of the questions below about this week's class(es). Don't put your name on the form - your responses are anonymous. When you have finished writing, put one copy of the form on the table by the door and keep the other copy for yourself. At the start of next week's class, I will be sharing the responses with the group. Thanks for taking the time to do this. What you write will help me make the class more responsive to your concerns.	Please take a few minutes to respond to any of the questions below about today's class. Do not put your name on this paper, as your responses are anonymous. If you do not have a response for any question, feel free to leave it blank. Responses will be shared with the class the next time we meet.. This is intended to help make the class more responsive to your needs and concerns.

The Developing CIQ

With so many changes and developments in the form, it became evident that a new model of the CIQ, an adaptative one, be developed. We were beyond research evidence, and in the arena of improvement work and constant data-gathering. With several years of implementation experience, we started to understand what worked best across the variety of audiences, while maintaining records of implementation in practice. Adapting the CIQ to meet the needs of a wide-range of learners has taken years and numerous versions, yet the current version (Version 6, cf. Table 2) seems to work best across education and population levels without the need for extensive instructions, while still getting results that seem indicative of the learner statuses. It is interesting how small changes in terminology have brought major changes in the results. Version 3 of the CIQ was the most comprehensive, though the length of it became a challenge for the learners to complete at the end of a day of training. Likewise, while it was acknowledged that the original form did not have anything to indicate what, if anything, was too long, Version 3's direct asking about it almost encouraged the learners to think about the length of the education, rather than simply seeking whatever perceptions of the learning that impacted them. Likewise,

asking something about content (question 4, Version 6) enabled the tool to have more of a course-related feel that helped to validate the instructors' desires to understand the *what* that was learned, with the other questions about the *how* it occurred. Five short questions seem to be the maximum for generating results while understanding the student perceptions of their learning and critical reflection. This reflective practice brings the lesson to closure.

Original (Version 1)	Version 3	Version 5	Current (Version 6)
1. At what moment in class this week did you feel most engaged with what was happening ?	1. At what moment in today's class did you feel <u>most engaged</u> ?	1. At what <u>moment</u> in today's class did you feel <u>most engaged</u> and / or <u>least engaged</u> ?	1. At what <u>moment</u> in today's class did you feel <u>most engaged</u> and / or <u>least engaged</u> ?
2. At what moment in class this week did you feel most distanced from what was happening?	2. At what moment in today's class did you feel <u>least engaged</u> ?	2. What <u>action</u> anyone (instructor or student) took did you find <u>most affirming / helpful</u> ?	2. What <u>action</u> (if any) did anybody take that you found <u>most affirming / helpful</u> ?
3. What action that anyone (teacher or student) took in class this week did you find most affirming or helpful ?	3. What action anyone (instructor or student) took did you find <u>most affirming / helpful</u> ?	3. What <u>action</u> anyone (instructor or student) took did you find <u>most puzzling / confusing</u> ?	3. What <u>action</u> (if any) did anybody take that you found <u>most puzzling / confusing</u> ?
4. What action that anyone (teacher or student) took in class this week did you find most puzzling or confusing ?	4. What action anyone (instructor or student) took did you find <u>most puzzling / confusing</u> ?	4. What was the most <u>important thing</u> you <u>learned</u> during today's class?	4. What was the most <u>important information</u> you <u>learned</u> during today's class?
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).	5. Was there anything in today's class that could have been <u>shortened or omitted</u> ?	5. Do you have any <u>questions or suggestions</u> about the class?	5. Do you have any <u>questions or suggestions</u> about today's class?
	6. Are there any <u>recommendations</u> that may improve the class?		
	7. What about the class <u>surprised you the most</u> ? (This could be something about your own reactions to what went on, something that someone did, or anything else that occurs to you).		

Versions 2 and 4 were substantially the same as the previous versions, so were omitted here as adding little. Beginning with Version 3, underlines of key terms were added to the tool to help focus the learners. Coded responses have always been presented on PowerPoint slides for timely learner and instructor review.

Next Steps for Research and Practice

The author hopes that these issues will encourage others to consider their use of the CIQ and test this model in real situations. While the CIQ as Brookfield envisioned it has remained the same, there is evidence in practice that the particulars may need to develop. As the CIQ is a qualitative tool, it seems it should be adaptable based on learner and instructor needs. To what extent this can occur while still maintaining the integrity of the form itself and still being called the Critical Incident Questionnaire, should be explored. Additionally, the effects of the CIQ responses on the instructors, especially their perceptions of their students and their own teaching abilities as

evidenced on the CIQ, would make for interesting research. Finally, it may be useful to compare how the changes initiated by the CIQ responses compare to the final course evaluations, especially if a correlation were explored and demonstrated. Whatever the situation, it is up to each instructor whether she or he would rather know their impact on their students along the way, or merely hope all goes well without any tool to help gather the evidence.

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