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Revisiting Constructivist Teaching Methods in Ontario Colleges Preparing for Accreditation

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Abstract

At the time of writing, the first community colleges in Ontario were preparing for transition to an accreditation model from an audit system. This paper revisits constructivist literature, arguing that a more pragmatic definition of constructivism effectively blends positivist and interactionist philosophies to achieve both student centred learning and predetermined outcomes. Relevant Ontario College Quality Assurance Service (OCQAS) and College Quality Assurance Process (CQAAP) standards and requirements are presented along with their implications for college policy and constructivist teaching methods. This paper provides practical suggestions for integrating both constructivist philosophies and policies translated from accreditation standards into instructional methods.

Introduction

Community colleges provide educational pathways for diverse groups of adult learners, including some who may be described as under-prepared or at-risk (Mulvey, 2009). Harbour and Ebie (2011) note that community college populations over represent traditionally marginalized demographics such as students requiring accessibility services accommodations, mature students, and English Language Learners. According to Harbour and Ebie, these students may have chosen college instead of university because of the perceived acceptance of diversity and commitment to democratic learning—values reflected in the constructivist learner-centered teaching methods pioneered by Dewey, Vygotsky, and Piaget (Karagiorgi & Symeou, 2005; Palinscar, 1998).

Some of these constructivist instructional methods, however, are in conflict with standardized institutional policies influenced by the shift to an accreditation model in Ontario colleges. In fact, institutions may be sending implicit messages about the value they place on constructivism (Palinscar, 1998) through ongoing attempts to standardize best practices. To be fair, a purely constructivist approach to curriculum design cannot be accountable and is difficult to enact (Karagiorgi & Symeou, 2005), but to what extent can unified standardization across course offerings support individual students and programs?

A review of the literature suggests that there are very few studies examining the relationship between standardization and student-centered teaching methods in community colleges. Current research into the effects of standardized curriculum on constructivist teaching methods focuses primarily on teacher education programs (see Hains & Smith, 2012; Lucey & Lorsbach, 2012; and Murray, 2009), not post-secondary education in general. In light of the recent switch to an accreditation system in Ontario colleges and lack of literature on the topic, this paper will answer the question “How are constructivist teaching methods affected by quality

assurance protocols, specifically accreditation standards, at colleges in Ontario?" In short, this paper revisits a more practical definition of constructivism, explores relevant accreditation standards, addresses which student-centered instructional methods must be adapted or retired, and concludes by presenting constructivist teaching options that partner well with the new standards.

Constructivism

Each definition of constructivism reflects the philosophical zeitgeist at the time and, as such, must constantly evolve with new educational research. Generally, constructivism "demands active participation and shifts responsibility from teachers to learners … the approach allows learners to form their own representations of knowledge as well as take more responsibility for their own learning" (Keengwe, Onchwari & Agamba, 2014, p. 893, Table 1). Karagiorgi and Symeou (2005) further explain that "non-radical or social or moderate constructivists…believe that shared reality grows out of social constraints placed on the constructive process of the individual" (p. 18). Both founders of constructivism and those who followed value this role of culture, context, and socialization in learning (Carter, 2008), an increasingly important component of education in globalized institutions.

It may seem advantageous to use purely constructivist methods to achieve course outcomes, but Boghossian (2006) points out that, under this philosophy, "helping students arrive at the truth is impossible, and therefore it cannot be the purpose of education. Constructivist learning theory is about the process of learning and helping people discover their truths." (p. 719, italics in original). More radical forms of constructivism imply that whatever students believe must be the real truth or reality (Boghossian, 2006; Karagiorgi & Symeou, 2005), even if it is in conflict with agreed-upon truths that exist, for example, in the form of content objectives. Because of the impracticalities of these more radical interpretations of constructivism, such as the impossibility of evaluating objective industry standards in a skilled trades program, it is important to revisit a practical and realistic definition of constructivism for the purposes of this paper.

Golding (2011) describes a spectrum of teaching methods with constructivism on one end and purely transmissive methods on the other; educators may be able to balance between the two as in the case of having students explore a course outcome from different perspectives. This paper assumes that the same spectrum analogy appropriately describes the subsets of constructivism. Kotzee (2010) points out that constructivism is a philosophy of knowledge, not a pedagogy, and is unrealistic to use as an effective teaching method in its more radical forms. Kotzee (2010) argues against using pure constructivism as a pedagogy, contending that "if all opinions are indeed deemed equally valid, students are left entirely free to hold a range of opinions that work against the very possibility of educating them" (p. 181), and that a wide range of acceptable truths negates a teacher's ability to declare answers incorrect on assessments. In short, Kotzee (2010) effectively argues that while an educator can hold constructivist philosophies about the nature of knowledge, in order to teach one must believe to some degree in objective truths.

Echoing Kotzee's (2010) ideas, this paper sees the value of using the

terms *pragmatic* or *moderate* constructivism (Karagiorgi & Symeou, 2005) and *constructivist realism* (Cupchik, 2001) which blends positivism with social interactionism in a way that leads to more practical educational applications of constructivist principles. In fact, pragmatic constructivism aligns with the "explicitly employment-led mandate" (Randall, McQuay & Blanco, 2010, p. 7) of colleges, with the purpose of helping students find and maintain jobs in an evolving workplace.

There is strong evidence that these pragmatic constructivist teaching methods are well suited for college demographics, especially for the large cohort of students born between 1982-2002, the Millennial Generation, who expect more student-centered teaching methods (Carter, 2008). Carter (2008) describes how technology has facilitated collaboration in this large cohort and cites multiple sources that suggest Millennials value diversity, human connection, and the importance of having a positive impact on others. These values are reflected in constructivist learning environments where expertise and perspective is collected from every member of the class instead of being centered with the instructor (Carter, 2008).

Kasworm (2005) agrees that diverse adult learners' student identities could be appreciated in a constructivist classroom that places value on the past experiences of all students while meaningfully contextualizing knowledge, and Alt (2015) notes that this type of genuine care and concern in a classroom increases adults' academic outcomes and abilities. Mature, first-generation, international, and neurologically diverse students, for example, would all benefit from sharing their own experiences and learning from others. Teachers using student-centered instruction such as peer evaluation, small group learning, and a community of inquiry saw increased participation, creativity, and retention (Vega & Tayler, 2005). It is clear that using *cognitive* constructivist instruction provides a rich context for students to explore multiple pathways to "learn how to learn" by using their higher order thinking skills (Keengwe et al., 2014, p. 889).

Hains and Smith (2012) state that "educators involved in student-centered classes need to be comfortable with a reasonable amount of ambiguity and flexibility" (p. 370), a skill which takes time and effort to develop over an educator's career. However, the extensive paperwork and reviews required by quality assurance initiatives leave very little time for instructors to do anything else, including training on new standards (Keil & Haughton, 2007) or developing their practice. This is especially true during transitional phases leading to more intensive accountability standards and considering that constructivist teaching methods may require more instructor preparation or more time than a 12-15 week college term allows.

Accreditation Standards for Ontario Colleges

Born in 2005 as the Credentials Validation Service (CVS), the Ontario College Quality Assurance Service's (OCQAS) development plan continues to evolve through ongoing external evaluations (Randall et al., 2010). In September 2015, the existing OCQAS Program Quality Assurance Process Audit (PQAPA) (OCQAS, 2015b) will be replaced by the College Quality Assurance Accreditation Process (CQAAP) (OCQAS, 2015a), while CVS will continue to validate program design. As of 2010, OQCAS workload included "24 colleges with which to deal, 5 PQAPA reviews to organise each year, and a little under 200 CVS applications submitted annually"

(Randall et al., 2010). The shift to CQAAP mirrors interest in moving to the kind of post-secondary accreditation models now in place in British Columbia (British Columbia Ministry of Advanced Education, 2013) and follows through on Ontario colleges' recent inquiries about institutional accreditation (Randall et al., 2010). Since requirements and timelines are evolving on an ongoing basis, this process will hopefully yield the first accredited colleges in Canada in 2017-2018. This paper recognizes that quality assurance practices are a necessary component of the Ontario college system. OQCAS quality assurance requirements rely on expert panels and reiterative dialogue with the colleges themselves, promoting team building, shared practice, reflection stimuli, and feedback loops (Randall et al., 2010), thereby using constructivist elements to design standards.

CQAAP (2015) standards note that "teaching staff are encouraged to engage in regular experimentation with new methods of teaching and learning that are consistent with best practices and research as found in current literature" (p. 4). Presently, many professional development workshops and much of the recent literature encourage student-centered teaching methods and other innovative instructional techniques, some of which may not align with a more prescriptive approach to curricula. As positive as quality assurance may be, Huisman and Currie (2004) caution that "if institutional leaders do not 'translate' the policies into institutional mechanisms, then nothing changes" (p. 549). This raises the need to analyze the effect of accreditation standards and constructivist teaching methods to synthesize practical classroom applications.

Constructivism and Accreditation in Opposition

Accreditation facilitates standardization across college programs at various levels of instruction from overall program development to course outlines. CQAAP standards promote a top-down approach to curriculum design where information is available to students *before* they enroll, so that students and key stakeholders know what to expect from the program. Communication standards also imply that once transmitted or posted publically, program specifics cannot be altered for a particular cohort of students. Faculty involved in annual and major program reviews must wait a full academic year or longer to enact any changes to course outlines or program design, as the revisions must be communicated in course guides and on institutional websites for about a year in order to be specific to the upcoming cohort. This constraint limits instructors' ability to let students take the lead in exploring interesting topics or to add recently updated information to the course outcomes during the term, yet may also limit "mission drift" away from college's vocational goals (Randall et al., 2010, p. 8). Innovative or enthusiastic instructors must be careful not to stray too much from the given course outline or spend too much time on any given topic or they subvert the lengthy planning involved in meeting standards.

Unifying course outlines mirrors the standardization at higher levels of program design, yet while reflecting clear communication of expectations for student learning, it again confines constructivist teaching methods. Although negotiating curriculum outcomes with students could be argued to be a more radical constructivist teaching method, it is important to briefly note the potential benefits of this learning activity. Co-creating curriculum objectives may be appropriate experiential learning in a pre-service

education program, yet other students also experienced success in influencing the outcomes of their program. Hains and Smith (2012) explain that agricultural education students and their faculty guide first experienced hesitation and confusion in their development of a 12-day experimental course, yet eventually became empowered by their ownership of the course. In a more recent international study, Bovill (2014) examined co-created curricula in America, Ireland, and Scotland, finding that students who participated in this process exceeded faculty expectations; had greater confidence, collaboration, and responsibility; and an overall deeper understanding of course content.

Predetermined curriculum and instructional plans also denote assessment requirements, thereby supporting CQAAP requirement 2.3 (OQCAS, 2015a, p. 2). Accreditation ensures that "evaluation methods are aligned with course outcomes; student assessment methods are valid and reliable; the required standards for evaluation are clearly specified for each assessment component of the course and the program" (OQCAS, 2015a, p. 4). However, these new instructional and program design requirements can be at odds with constructivist perspectives because of pre-designated hierarchical outcomes and evaluation criteria, as well as a lack of learner control (Grennon Brooks, 1990; Karagiorgi & Symeou, 2005; Palinscar, 1998). It would likely be a violation of policy to negotiate evaluations or course goals with students under accreditation standards, so educators may need to become more innovative in creating predetermined constructivist evaluations under the structure of accreditation.

In short, students and employers can be more confident in certifications knowing that the program reflects the demands of the career; however, all of this prescribed structured content and learning objectives are in conflict with constructivist teaching methods, which reflect a more organic approach in creating learning environments (Karagiorgi & Symeou, 2005). Alkeaid (2007) suggests that "when community colleges adopt [accountability standards] they should implement [them] in such a way that it does not dictate the entire learning environment" (p. 665). Since only a few, usually full-time, instructors are involved in curriculum design and usually only when conducting annual or major program reviews, it becomes more important for all faculty to focus on constructivist teaching methods and learning activities on a daily basis.

Pragmatic Constructivism for Accredited Colleges

Kotzee (2010) reminds instructors that just because "you have a pretty good idea what you want your students to find out by taking your course… does not mean that your students cannot actually *find it out actively, independently and largely for themselves"* (p. 186, italics in original). Instructional designers using a constructivist framework must purposefully phrase outcomes to "confront students with information and experiences that threaten their 'misconceptions' and offer support to this reflective process," while still drawing on students' experiences (Karagiorgi & Symeou, 2005, p. 19). The changing role of the instructor in accredited colleges requires providing structured, yet flexible environments and activities where students can explore topics with their peers under teacher guidance. In some ways, pragmatic constructivist classrooms reflect a collectivist micro-culture, where students help each other learn in a

supportive environment, much like those described by Rubenstein (2006). Such a micro-culture draws on the Millennial Generation's value that "the whole is truly greater than the sum of its parts," thereby necessitating the need to learn together (Carter, 2008, p. 8).

One recent instructional method that supports both hierarchically predetermined content outcomes and the multiple perspectives inherent in constructivism is Problem Based Learning (PBL) (Karagiorgi & Symeou, 2005). Generally speaking, PBL forms realistic problems using course content, thereby allowing students to use practical critical thinking to provide varying ideas and solutions. Golding (2011) suggests finding balance between simply "seeking 'opinions' where all answers are equally good and seeking 'correct' answers" (p. 481), ultimately choosing the best method for the particular lesson or objective at hand. In theory, PBL is more successful if the classroom environment encourages effective discussions, arguably a core component of any constructivist andragogy.

A class engaged in problem solving through dialogue about course content is sure to practice communication, a Ministry of Training, Colleges and Universities (2015) Essential Skill, which now must be listed on relevant course outlines. Collaborative learning environments where students shared ideas with others had a strong influence on self-efficacy, suggesting that constructivist educators should create a sense of community which encourages dialogue (Alt, 2015). Golding (2011) adds "an educational constructivist discussion [is] a discourse between two or more people, at least one of whom is a student, that involves the student(s) actively constructing their own knowledge" (p. 470); it is active, collaborative, reflective, and can take many forms depending on the goals of the lesson. In a true community of inquiry, "the teacher tends to scaffold the processes and methods of inquiry rather than the content to be understood" (Golding, 2011, p. 480), thereby becoming a more authentic member of the group.

Under accreditation standards, one of the most challenging aspects of constructivist andragogy is evaluation and assessment. Clearly, a constructivist framework is not reflected in objective test questions in which there is one correct answer so there is a need to "structur[e] assignments in such a way that students can respond in a variety of ways" (Keengwe et al., 2014, p. 891). However, Karagiorgi and Symeou (2005) recognize that not all interpretations of course content are equally valid, and suggest evaluations that allow students' thinking processes to be examined across varied assessments. Constructivist classrooms use this advice by providing opportunities for peer-, teacher-, and self-assessment throughout the learning process, which may benefit culturally diverse students who are unaccustomed to asking for help (Rubenstein, 2006). While CQAAP standards could be interpreted to imply that all graded evaluations in a course must be predetermined in terms of type, weighting, and dates, instructors and students can still collaborate to influence the specific content of each assessment.

For example, teacher candidates co-creating midterm exams balanced student-centered learning with course requirements (Ahn & Class, 2011). In this study, students worked in groups to create subsets of questions that would appear on the exam while teachers monitored student understanding

of course concepts. Students were fully engaged, gained a much deeper understanding of course content, and even had fun while studying. It is important to note that in an extended application of a similar activity with science students, teachers needed to provide much more background information and students experienced more challenges, suggesting that instructors must lay a solid foundation before introducing this type of learning experience to more general college populations.

Perhaps one of the best methods of blending accreditation standards and constructivist instructional methods is through the effective use of technology (Karagiorgi & Symeou, 2005). Keengwe et al. (2014) explain how eLearning has the potential to be learner-centered in terms of pacing and accommodating diverse learners if it includes clear expectations about interactive asynchronous collaborative communication, independence, and a focus on content derived from multiple learner-accessible sources. The authors note that “pedagogy determines what tools instructors will use – technology is just a tool that supports learning” (Keengwe et al., 2014, p. 892), reminding us that eLearning is not inherently constructivist. Wang’s (2014) study of constructivist methods in a web design course showed that online courses were still able to provide a forum for multifaceted integration, a range of instructional materials, continual student assessment, and most importantly, a PBL environment, as effectively as in face to face deliveries of the course.

Conclusion

Constructivism, like all teaching methods, occupies a spectrum, with more radically innovative approaches on one end and more practical methods on the other. Policies influenced by accreditation standards rule out the possibility of radical constructivist instruction, as co-created curricula and emergent evaluations may not meet ministry standards and lack accountability and transferability. It is suggested that constructivist realism (Cupchik, 2001) or pragmatic constructivism (Karagiorgi & Symeou, 2005) is an approach that maximizes student-centered learning within the context of predetermined outcomes and assessments. Under a moderate constructivist instructional design philosophy, learning activities, class discussions, evaluation, and use of technology can all be integrated into course outlines and are still relevant instructional methods.

The first colleges may become accredited in 2017, which means that we are currently in an exploratory transition phase, with new policies and research affecting instructional methods on a weekly basis. In light of this, new information is changing rapidly, and it is suggested that constructivist andragogy is reviewed after accredited colleges have had time to acclimatize to the changes in the form of a cross-institutional comparative case study analysis to see how colleges compare and differ in their translations of CQAAP standards into policy, professional development related to accreditation, and how faculty and staff are continuing to use student-centered instructional methods.

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