Curricular Change: Deepening Professional Community

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Abstract:

Five faculty members and one educational developer met regularly in support of a major curriculum change process to a clinical presentation model in an Athletic Therapy Program. What developed was a community of practice around professional practice in athletic therapy, which then in turn supported the implementation of the curriculum change. This qualitative self-study explores the aspects which emerged throughout this discussion process: curriculum and pedagogy, theory-to-practice, and building a professional community. We argue that a developing a community of practice amongst colleagues, enhancing their appreciation of one another as professional practitioners, is essential to supporting the process of curricular change, since such a change requires complex new learning for faculty members..

Key Words:

community of practice, professional practice, curricular change, theory-to-practice, professional community

Introduction

This inquiry is a qualitative self-study of five faculty members and one faculty developer involved in a curriculum change process, through which we demonstrate that a community of practice emerged from our work. The context of this study is an Athletic

Therapy Program, which is a highly specialized content area. However, we argue that the process of curricular change supported by the development of a community of practice, is applicable across higher education contexts, particularly professional programs.

In fall of 2014, the Athletic Therapy Program at Mount Royal University implemented a curricular and pedagogical change simultaneous to launching its new four-year degree program. Consistent with current, evidence-based practice in medical education and allied health professions (Carraccio, Wolfsthal, Englander, Ferentz, & Martin, 2002; Potteiger, Brown, & Kahanov, 2012), the program shifted the approach in first-year courses to a competency-based model, which "uses a scenario or a clinical case as a foundation to both teach and measure a student's knowledge, skill, or ability" (Lafave et al., in press). This approach has become accepted as commonplace in medical education (Frank et al., 2010; Wangler, 2009; Lafave & Bergeron, 2014), but is only now gaining traction in athletic therapy education in Canada. Instructors teaching these courses were asked to reframe the curriculum within these courses from a more traditional deductive approach. A traditional approach tends to start with basic underlying theory such as teaching anatomy prior to introducing more complex orthopedic assessment strategies, for example. In contrast, the inductive approach starts with the complex orthopedic assessment skills and poses questions to students about the underlying theory that would be important to know to fully understand the more complex concepts. The new method of teaching is more representative of a good balance between inductive and deductive reasoning commonly employed by AT experts in clinical practice.

The five faculty members teaching within this program agreed to meet regularly during the fall semester to discuss their experience with the changed model, and we noticed that these meetings became a meaningful community of practice for faculty members as athletic therapists. Two of the faculty members were actively teaching within this model in the first year, while the others were teaching other courses in the original program as it transitioned and would be making the change at a later date. Additionally, an educational developer with curriculum and qualitative research expertise was asked to participate in these meetings. This research represents a self-study of the process engaged in by the group, and offers insights to such a curricular and pedagogical change process within the context of a professional program. We came to appreciate that what developed was a multi-faceted community of practice that was key to the curricular change process, despite it being often focused on other elements beyond curriculum, specifically, on the practice and identity of the faculty members *as* athletic therapists.

Towards Curricular Change

We locate this inquiry within both the competency-based medical education literature as well as curriculum change more broadly. The literature within competency-based medical education emphasizes the need for professional development support for faculty members undertaking the shift to competency-based education (Dath & Iobst, 2010), as this change is highly dynamic, complex, and non-linear (Jippes et al., 2012). According to Schwartz, Hover, Kinney, and McCoy (2012), it requires "changes in

philosophy and instructional strategies, thereby creating a significant culture shift and steep learning curve for faculty" (p. 109). Rentschler and Spegman (1996) suggest "perhaps because most faculty have only experienced education in a traditional paradigm, faculty cannot draw from personal knowledge as a guide for other ways to teach" (p. 391). They also speculate that these traditional paradigms may by their nature limit creativity and risk-taking in faculty members' teaching practice, hence the need to make significant change in a supported environment.

Walkington (2002) outlines seven principles of successful curriculum change process more broadly, representing a synthesis of the literature and her own research data. These are:

1. Change is a journey, not a blueprint. It is non-linear, loaded with uncertainty.
2. Both individualism and collectivism have their place within the process.
3. Both 'top-down' and 'bottom-up' strategies of organization are required.
4. Sustained success is obtainable only through connection with a wide community.
5. Every person involved is a change agent with a variety of contributions.
6. Curriculum changes require contextual change for them to be accepted and sustained.
7. Evaluation is a necessary component of change. (p. 134)

Walkington (2002) describes an iterative four-stage process to curriculum change that includes establishment (background and setting of the change); refining the nature of the change; design and development; and finally implementation and evaluation (p. 135). Within this framework, the first three stages had been accomplished prior to the self-study, and the current study explores the implementation phase. The evaluation of the curricular changes is planned for the subsequent academic year.

Another means of conceptualizing curricular change is described by Louvel (2013), utilizing a concept out of the organizational change theory of *bricolage.* This is defined as "a regime of activity in which change and innovation are both creative and highly constrained, and where individuals or groups create something new out of the resources they have at hand" (p. 670). This is an interesting conceptualization, as it emphasizes faculty agency and resourcefulness but within institutional constraints. In the case of athletic therapy education, there are also professional constraints that are tightly regulated by the competencies set by the Canadian Athletic Therapists Association (see CATA home page: http://www.athletictherapy.org). Louvel describes the typical mix of strategies that characterize French academics' engagement in curriculum change as "conformity with norms and standards, alignment with institutional strategies, negotiation with various stakeholders, and proactivity in pursuing professional interests" (p. 674). These strategies are readily apparent in this self-study in our Canadian context. Louvel's work is in the context of engineering education, and thus the relevance of professional education as a constant is also evident.

Louvel's (2013) study reveals curriculum change to be a complex negotiation of expectations within the institution, department, and profession. Combined with Walkington's (2002) principles, the richness of the process is exposed. Indeed, McRoy

and Gibbs (2009) address the complexity of endemic change in higher education and point out that "there is growing interest in the development that addresses the challenges of reaching new levels of effectiveness in creating and sharing tacit knowledge in organizations" (p. 689). McRoy and Gibbs also recognize growing trends in communities of practice, as originally conceptualized by Wenger, McDermott, and Snyder (2002), and defined as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an on-going basis" (p.4). We suggest that this self-study process became just such a community, with both "deliberate" and "emergent" outcomes, including "storytelling for more effective knowledge sharing" (McRoy & Gibbs, 2009, p. 689).

The Study

This is a qualitative self-study, whereby all of the participants in the research are also co-researchers as a means to promote reflective teaching (Dinkelman, 2003). Dinkelman defines self-study as "intentional and systematic inquiry into one's own practice" (p. 8). The definition can include both individuals as well as, "groups working collaboratively to understand problems of practice" (p. 8). In this way, all participants have full knowledge of the aims of the process, access to the literature, input into the themes discovered in the data, and are co-negotiators of meaning. Loughran (2007) writes that self-study is a means for studying professional practice and points out that there is no single way of conducting a self-study, but rather:

> *How a self-study might be 'done' depends on what is sought to be better understood. Therefore, in considering how to approach doing self-study it is important to be cognizant of the continual interplay between research and practice within the practice setting. (p. 15)*

The key feature then of self-study is how it is embedded in practice, and this study was conducted by recording working meetings of a teaching group implementing curricular change as described below. The group includes the five instructional faculty members from the Athletic Therapy Program, along with the primary investigator for this aspect of the study, who is an educational developer and qualitative educational researcher. This self-study is part of a research project that includes a quantitative content validation of athletic therapy presentations in Canada (Authors, in press), as well as a mixed method study on student outcomes and experience planned for the next academic year.

The six co-researchers and participants met seven times during the fall semester of 2014. The meetings were led by the program coordinator and facilitated by the educational developer where appropriate, but in general the agenda was an open one and participants were free to discuss anything top-of-mind regarding the curriculum change and their practice. The meetings were approximately 90 minutes in length. All meetings were audio recorded and transcribed. The transcripts were analyzed for themes by the primary investigator and compared with themes and processes identified in the literature. These themes were then discussed and negotiated with the group, with further insights emerging. Quotations are noted with participant numbers (e.g. Voice 1, Voice 2) to maintain individual confidentiality of group members.

Self-studies are intrinsically subjective in nature, but it is through this overt subjectivity that insight into experience can be gleaned with the benefit of reflection upon transcripts at a later date. Pinnegar and Hamilton (2009) describe a process whereby self-study "rigorously tak[es] into account the researchers' position as both the researcher and the researched and as having a central role in the practice being studied" (p. v). This approach is well established in teacher education as a means of inquiry (Russell & Berry, 2014), and thus we contend it is appropriate for this group of co-researchers in the context of a different, yet also professional education program within higher education.

Curriculum and Pedagogy

Discussions about the curricular and pedagogical change, while the explicit purpose of the meetings, were less of a focus initially. As the semester progressed, discussions about the clinical presentation model became more prominent. This is, in part, because those participants who had implemented a clinical presentation model now had sufficient experience with it to reflect upon, ask questions of the group, and raise issues, problems, and successes. For example, after an in-depth discussion about one participant's experience in implementing the new approach in a later meeting, another participant summarized:

> *Voice 2: So what I hear you saying is you need to really front-end load more time for the process? If you were to do it all over again, front-end load the process and go slowly at the front-end, and then at the back end give them more? Or sorry, don't give them as much, but allow them to work through more on their own and develop a process that allows them to work through it? (Meeting 5)*

Here we can see how the meetings served an important function for those implementing to compare notes and approaches. But it also allowed other instructors to ask questions and check assumptions, and to prepare for their own implementation.

However, beyond the curriculum change being implemented, particularly in the early meetings, what comes forward were discussions about what concepts and content were currently being taught in different courses, and what *should* be taught. For example, in discussing which presentations to include:

> *Voice 1: And so that is the decision I think has been hard for us, like which ones do we include? Do we include them all? Or by frequency that you see in practice, or by the urgency you see in the field when it does happen?*
>
> *…*
>
> *Voice 3: It makes a difference for me because I don't teach them how to rehab all thirty-eight, I get them to clump like things together, right? So sprains, dislocations and fractures will all rehab the same way. So … you are teaching them something that I am not touching on at all and I probably should know that. (Meeting #2)*

Later, in Meeting #5, content that had been eliminated came back to the table for discussion:

Voice 2: Okay, so I guess part of my question is, this is where we have to head to, but can we cover all of these clinical presentations? Is it reasonable? Because we started to say that it is not reasonable, and that is … why I created an elimination list.

Voice 5: But I want … I actually want to put more in.

Voice 2: Right. You want to put stuff back in.

Voice 5: I have a list.

Voice 2: You actually have a whole list of stuff what you want to put back in? From the elimination list?

Voice 5: …I went over the list and a lot of the things we threw out I actually go over in Prevention and Care, so they have already been introduced to it, right? . . . And then one of the ousted ones was osteitis pubis and I thought that was interesting. (Meeting #5)

We can see here detailed negotiation of what should be taught in the program. In day-to-day operations within a department, individual instructors often have only a superficial knowledge of what is taught in other courses, unless they have had the opportunity to teach it themselves, or if they have a broader role such as a program coordinator. It was striking how much of the meeting time involved discussions regarding what individuals were teaching within the envelope of individual courses, not only in terms of content but in terms of scope and approach. The instructors discussed this as an important conversation:

Voice 1: Neuro-dynamics is a great topic that is complex and I am trying to get to the bare bones and simplify it. Sometimes I wonder if I am losing the authenticity of the topic all together and if you are having to back-track, or if I build on it more then you wouldn't have to spend time doing a remedial portion? So I don't know if these meetings are a forum for that?

Voice 2: I hope so, yeah…

Voice 3: Well that is good because right now we don't have any discussion on what is taught in other courses. (Meeting #3)

This appeared to build important understanding within the program and the transcripts demonstrate a growing appreciation for one another. This is often seen at points in the transcript where laughter occurs:

Voice 2: Yeah, that is the million dollar question and see, now, I have seen the list and I wouldn't eliminate anything because I like most things in there even though some of them are obscure; most everyone to a tee wants to get rid of keloid syndrome, which I don't understand …

Voice 3: That is your favourite!

Voice 2: ... because it is so common but it is not in the literature, right?

Voice 3: But then I kept going back, because I think I saw it and I think I laughed because I know it is your thing, and … yeah, but then it is a question of basic or

> *not basic knowledge, right? Is it assessable or not? So I always have this problem with joint mobilizations, like how do I really assess someone actually moving the joint?*
>
> *Voice 2: Unless you are willing to have them touch you!*
>
> *Voice 3: Yes, I am so not!*
>
> *[Laughter]* (Meeting #5)

Because of the way the list of clinical presentations was built by consulting nationally, there was a realization of the possibility that, *"Wow, whatever decisions are made out of this will then actually shape the profession for ten to twenty years to come" (Voice 3, Meeting #5).* While directly in relation to the sequencing of the content and concepts of the program, this process from a broader perspective helped to build mutual understanding and a community of educators all working towards the same goals. Additionally, Gerrish, King-Heiden, Sanderfoot, Abler, and Perez (2015) found that even faculty members in the same field are not always using terminology consistently, and that meeting to discuss curriculum initiatives can help to unify understanding of disciplinary terms and how they are used with students. As in our analysis, Gerrish et al. (2015) contend that a curriculum change process has "the unforeseen benefit for co-instructors of addressing discrepancies in content coverage within their shared courses and for the department as a whole to discuss coordination of the curriculum across all courses, while respecting individuals' academic freedom" (p. 33).

As the focus shifted over time to the clinical presentation model, there was detailed discussion about strategies to make it successful, lessons learned, and much conversation around how to productively cluster concepts so that the content was not overwhelming. An initial challenge for faculty members was how to maintain the integrity of the content without being overwhelmed by detail. Towards the end of the semester, one of the faculty members shared:

> *Voice 1: I was probably in semi-panic mode three weeks ago; I caught us up but at the expense of some of the content I would have otherwise covered. I tried to be thoughtful of the stuff I didn't focus on that wasn't as important… I think I should be fine. I am simply not going to spend as much time delivering the content because… I am giving it to them literally on a platter and so they can read some of [it] and I don't have to go through it in such detail… Because I am staying true to the clinical presentation model… and I saw the value in that… you have to give them an opportunity to try and make some linkages, but staying true to the idea of clinical presentation then yes, it would be by clustering. (Meeting #5)*

This quote from Meeting #5 hearkens back to the earlier one above from Meeting #2, where the notion of clustering content as a strategy of the clinical presentation model first appeared in the discussion. This exemplifies the kind of complex shift in pedagogy noted by Rentschler and Spegman (1996). Moving from content coverage in detail to an inductive model of teaching is very difficult in practice (Dath & Iobst, 2010; Jippes et al., 2012). Having the forum to explore the experience, and for other faculty

members to learn from the experience of others, is critical to successful curricular change.

Theory-to-Practice

A second prominent theme throughout the transcripts was the notion of theory-to-practice. We observe that for professional education, this is a dominating idea that all those engaged with novice professionals struggle with. Within a university program, a strong desire exists to provide students with a theoretical foundation. This always exists in a kind of tension with the equally critical development of practical knowledge in the field. Commonly within a broad range of professional programs that include practicums or clinical placements, students work with practicing professionals in the field who may be dismissive of the theoretical learning done in the university context. Students begin to defer to the authority of the field, given what they see to be the utility of 'practical' knowledge. Several of the participants in this study have experience both as clinical instructors and university classroom instructors. Indeed they spoke often about both the distinction and interrelationship between "book" knowledge and "practical knowledge." Here is one of many examples:

> *Voice 3: I have had clavicular fractures that I have put in slings and sent to the hospital, and so my question is, knowing that – I have a rough idea of what a tubular sling is – but I have never had anyone who can tolerate that position, right? So... we teach you what the book says and we make you all these scenarios and then it happens to you in real life and you realize that no matter what the book said that person is not going into that position of whatever the proper sling is, and so I don't worry about teaching the tubular sling, I worry about teaching "get them into a comfortable position, make sure you can assess their circulation."*
>
> *Voice 2: Yeah because there is not just one you can do, and that is the trick, like you do three or four of them and still be correct. So if someone says, "Is that the right one?" and I can say, "Well there are a number of them you can do so that works," and you have to teach the principle of what is comfortable and make sure you don't go over the clavicle… (Meeting #3)*

The conversation about the intricacies of balancing this tension, strategies to help students value both sides of the equation, and ongoing discussion of how to more productively engage clinical supervisors and work more effectively together was a continuous thread throughout the transcripts: "*I think this discussion should partly be… how are you as a supervisor guiding the students through?" (Voice 4).* There was recognition of the complexity of practice, the *"variance in how people treat, philosophically" (Voice 4).*

Another good example of the tension between practical knowledge and teaching in practical settings became evident when one member recalled her experience as a clinical supervisor prior to becoming a faculty member:

> *Voice 1: Well it is interesting, yes, having been a supervisor outside of being an instructor and then being an instructor because I remember I phoned you one time, 'What are you teaching them?' because [from the students] it was all, 'We didn't learn that. They didn't*

> *teach us that. We didn't cover that,' and … I think that is when I phoned you and [you said], 'Just because they tell you we didn't teach it doesn't mean we didn't spend four hours talking about it… ' so it is interesting to hear the other side. (Meeting #2)*

She goes on to comment that the student perspective seems to be to conclude if "they don't know it…no one taught them!" It can be frustrating to hear that students often communicate they were not taught something in their program when speaking with their practicum supervisors and this could be one of the reasons there may be a wedge between theory and practice. It may be that the professors are teaching students, but students cannot remember at the time and thus, practicum supervisors think the professors are not teaching the 'right stuff.' This is an important reminder that simply because something is taught does not mean that it is effectively learned.

This element of how to dovetail with the field is somewhat specialized to professional education, prominent in such fields as education, nursing, social work, business, journalism, and in this case, athletic therapy.

Building a Professional Community

Striking in the transcripts was the amount of time devoted not to talking about the curriculum change itself, but rather to the theory and professional practice of athletic therapy. Stretches of conversation entailed discussion of the state of the profession, scope of practice, and the participants' direct experience as practicing professionals: their own experience of education and becoming a professional, the lived experience of practice in the field, their own continued learning, and their thinking about what it means to educate novice practitioners. This tendency was initially puzzling. Yet it was so persistent that rather than viewing it as simply getting "off topic," we began to consider that this conversation met a deeper, if unintentional need.

In day-to-day work at a post-secondary institution, there are many meetings that proceed functionally and practically: about students, departmental matters, scheduling, and so forth. However, despite being united by a common discipline, colleagues do not often have an opportunity to speak deeply about their own professional practice. We suggest that a curriculum change of the magnitude discussed here requires risk taking and a leap of faith on the part of the instructors. In order to take such a risk, a sense of professional community is essential. It is our contention that the time spent in these meetings established a community of practice in Wenger et al.'s (2002) terms. Knowledge sharing in this kind of community, as McRoy and Gibbs (2009) point out often involves storytelling, which was evident throughout the transcripts. Instructors told stories from their own student days, their experiences in practice, and their experiences with students. For example:

> *Voice 3: I remember when I got taught the pivot shift in physio school, like oh my God, I don't even know how someone could have done it without eight hands! And then I had someone teaching me who learned from the guy who developed them and it was "Oh, it is like this" [makes sound] and it is like, okay, that I get! (Meeting #3)*

We argue that a community of practice is essential to the process of curricular change, since such a change requires complex new learning for faculty members.

Omidvar and Kislov (2014) explain that "communities of practice are the primary loci of learning, which is seen as collective, relational, and social process… people learn through co-participation in the shared practices of the 'lived-in' world" (p. 266-267).

Our analysis also agrees with the findings of Uchiyama and Radin (2009) in their study of a curriculum mapping process, in which "an unexpected and beneficial outcome emerged: we found that collaboration and collegiality increased" (p. 273). Uchiyama and Radin quote the African proverb: "To go fast, go alone. To go farther, go together" (p. 271). Gerrish et al. (2015) point out the enduring nature of such conversations: "Across the department, the initiative provided common ground for discussion of effective pedagogy… Although… implementation and student learning outcomes will vary across individual instructors, the pedagogical discussions and knowledge shared will remain" (p. 33).

Finally, within the notion of building community, during the meetings affective elements arose, both in terms of students but also for instructors. By this we mean that the students' workload, stress levels, and personal experience in the clinical placements were a topic of concern and conversation. Additionally, topics such as generational differences and cultural were discussed. For example:

> *Voice 3: There is a competency of cultural awareness and power relationships... So it is that idea of leaping on those opportunities when they come because they can't always be taught in a class. . . I mean for me, my example has always been [a student] and the first day of the first class she came up to me and said, you know, "I wear the hijab," . . . and I said, "What do I need to do to make this a safe learning environment for you?" . . . So it was a great teaching moment for all my students. (Meeting #3)*

Finally, instructors discussed their own affective experiences with making the curriculum change, as well as generally their own stress levels and strategies to cope with frustrations. One instructor explained how at least at the beginning they found the approach more time consuming and realized the need to change the approach:

> *Voice 4: Well, I had to act, I guess that was the bottom line, and so for me, having made this changeover to the clinical presentation model and how I was doing it, I knew very early on, 'Oh, this is taking me longer to get through,' and, 'Oh, I will catch up,' … and a month in when I was two weeks behind and I was like, 'Agh!' and panic was setting in so yeah… as the person delivering the material I was stressed and then I am sure that translates onto the students just because, well, they knew we were behind. . . I think I know what I would do to change it – which is good . . . I feel I definitely could do it better next year, I just stressed myself … I have definitely settled down.*
>
> *Voice 2: I was going to ask you: what would you do? (Meeting #5)*

The participant then went on to describe in detail how concepts could be better clustered. This kind of reflective conversation and supportive problem solving appeared more frequently as the semester progressed.

Conclusions

This semester long self-study of meetings supporting a curriculum and pedagogical change process demonstrate the role of professional community in any such complex process. While the conversations in the transcripts appear circular and even off topic, deeper analysis reveals three important themes that iterated throughout the semester. These themes were curriculum and pedagogy, theory to practice, and building a professional community. One of the unanticipated benefits of such conversations was an opportunity to discuss the scope and sequence of concepts that were covered in individual courses, as well as the establishment of a supportive space in which to work through the transition. The importance of establishing a community of practice as athletic therapists within the context of higher education teaching was revealed as an essential component to enabling curricular and pedagogical change.

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