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Exploring the potential role of educational developers in facilitating curriculum review processes

Derek Thurber and Karen Bossen

Abstract

Despite its many benefits, curriculum review has yet to become a widespread practice in many areas of higher education. Previous research suggests that this is because of a lack of faculty time and expertise to conduct curriculum reviews independently. As such, this action research study builds on the existing literature to explore the utility of educational developers at a large research university in developing faculty communities of practice around the continuous improvement of their curriculum by facilitating a curriculum review process. The findings suggest opportunities for educational developers to partner with faculty to support this substantial work.

Keywords: curriculum mapping, higher education, communities of practice, faculty development

There is a growing focus on program curriculum design and coherence within higher education institutions. Pressure for curriculum reform often comes from external influences such as increased globalization and for-profit competition, which have led to significant market opposition as students shop around for the "best" program (Kezar, 2018). As the public's trust in higher education institutions has eroded (Willness & Bruni-Bossio, 2017), accreditation agencies, government bodies, and

policy organizations now require an increased level of accountability to show evidence of program quality (Alexander & Hjortsø, 2019; Kezar, 2018; Willness & Bruni-Bossio, 2017). For example, in the United States, the Higher Learning Commission (2020), which is responsible for the accreditation of the program in this study, requires that "the institution demonstrates responsibility for the quality of its educational programs, learning environments, and support services, and it evaluates their effectiveness for student learning through processes designed to promote continuous improvement."

Faculty have historically enjoyed a high level of autonomy in their curricula, but with increased external accountability pressures, faculty purview over the curriculum has eroded in recent decades (Kezar, 2018). As such, the clear lines of ownership and responsibility for curriculum are increasingly muddled. There is often confusion regarding whose privilege and duty it is to engage in the work (Annala & Mäkinen, 2017), and curriculum design often goes unrewarded and unrecognized within academic workload models (Bajada et al., 2019; McGrath et al., 2019). Faculty have numerous responsibilities as teachers, researchers, and active participants in university shared governance. As such, they often report concerns about the time and effort required for curriculum review and design (McGrath et al., 2019; Wijngaards-de Meij & Merx, 2018).

Building from the vital recognition that faculty should own their curriculum, this action research study aimed to consider the role and impact of educational developers in facilitating a curriculum review process in our context. More recently, others have also started to explore this question as well. The most notable example is from Daniel Reinholz and colleagues at the University of Colorado Boulder, who implemented what they called "Departmental Action Teams" as "externally-facilitated" teams to enact curriculum change at the departmental level (Reinholz et al., 2019). Our ultimate goal was similar to theirs. We wanted to identify strategies to empower our faculty to engage in curriculum decisions without the burdens of time and expertise required to independently conduct a curriculum review.

As educational developers in our context, we felt it was important to focus on adopting a role as independent facilitators aimed at supporting the establishment of a community of practice that centered faculty voices in curriculum discussion. That is, if educational developers can share the load in facilitating the curriculum review process, does that provide adequate opportunities for the faculty in our context to create communities of practice to improve their curriculum?

Theoretical Framework

This study is grounded in communities of practice (CoPs) theory. While the ideas behind CoPs have existed for a long time, Jean Lave first coined the term in 1991. The term was then further elaborated in 1998 by Etienne Wenger when studying apprenticeships as a learning model. Wenger defined CoPs as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger-Trayner & Wenger-Trayner, 2015). As such, Wenger (1998) differentiated CoPs from other types of communities by their focus on the improvement of process and product related to specific interests that results from the engagement within the community. More specifically, Wenger (1998) asserted that CoPs have three crucial characteristics: (1) the domain, (2) the community, and (3) the practice.

The *domain* is a shared identity around a collective interest that brings the community together. This shared interest also implies that members have particular expertise in that area that distinguishes them from others who do not belong to that community. The *community* is formed by members' engagement in joint activities and discussions to build relationships that enable them to learn from one another. Simply sharing an interest does not create a CoP; acting on that interest collaboratively with others who also share that interest forms a community around that domain. Finally, the *practice* extends the collaborative activities of the community members toward a particular outcome. That is, CoPs are communities of practitioners who work together to

develop a shared repertoire of resources (e.g., stories, tools, methods of addressing problems).

Within higher education, some have described these types of communities of faculty practitioners as faculty learning communities (FLCs) (Cox, 2004). FLCs and CoPs share a foundational premise that learning is socially situated (Cox, 2004; Galle & Domizi, 2021). FLCs are characterized by interdisciplinary collaboration to facilitate the production, dissemination, and use of evidence-based practice. In this way, FLCs can be described as a specific type of CoP that provides a platform for faculty to pursue projects that are germane to the institution concerning student success, teaching, and learning (Cox, 2004; Galle & Domizi, 2021).

The role and value of CoPs and FLCs in enabling curriculum reform have been well established (e.g., Annala & Mäkinen, 2017; Oliver & Hyun, 2011; Salmona & Smart, 2017). Previous research has explored the role of CoPs as part of curriculum review and change processes to enable continuous improvement (Kalu & Dyjur, 2018; Metzler et al., 2017; Wolf, 2007). For example, Price et al. (2021) found that online FLCs supported the adoption of a new research-based curriculum by providing space for faculty to collaboratively troubleshoot, idea share, and receive encouragement through challenges.

Some researchers have even suggested that the only way to improve curriculum coherence is through collaboration in CoPs (Knight, 2001). From this tradition, studies have investigated the role of faculty CoPs in supporting curriculum reform (Salmona & Smart, 2017) and curriculum mapping (Uchiyama & Radin, 2009). For example, in their study of one curriculum reform effort to improve applied learning outcomes at an institution in the United States, Salmona and Smart (2017) found that CoPs effectively enabled change since they offered space for faculty to rethink their practice. However, they also had some implementation challenges related to different levels of knowledge and expertise among the faculty participants. Others have found additional factors that impede successful curriculum reform efforts, including a lack of faculty ownership over curriculum decisions (Anakin et al., 2018; Bolden et al., 2015), the absence of adequate time or resources devoted to

the work (Bajada et al., 2019; McGrath et al., 2019; Salmona & Smart, 2017), and traditional disciplinary boundaries that hinder collaboration (Annala & Mäkinen, 2017; Oliver & Hyun, 2011). As such, all of these are essential factors that limit the ability of faculty to form and engage with CoPs or FLCs around curriculum improvement.

These are the critical challenges this study sought to address in our context. By removing some of these barriers around time and expertise, we sought to find a role for educational developers in establishing a CoP through a partnership with the program's faculty. To do so, we sought specifically to bring a group of faculty together to engage in an active, collaborative experience structured to provide encouragement, support, and reflection. This community focused on a specific set of questions, as described in the next section, and members deepened their knowledge and expertise by interacting on an ongoing basis.

Methods

This qualitative action research study was conducted at Mary Lou Fulton Teachers College (MLFTC) at Arizona State University (ASU) during the Spring 2021 semester. At the time of this study, MLFTC was the largest school of education in the United States, offering undergraduate and graduate degree programs to more than 7,000 face-to-face and online students. The program in this study volunteered to participate in the curriculum review process following a college-wide presentation by the authors offering this service to any interested departments. The program was a small 2-year master's degree offered face-to-face at ASU's main campus in Tempe, Arizona, that graduated 10 to 20 students each year. Three full-time, tenured faculty members were responsible for the program's leadership and teaching. All three faculty members were involved in all parts of the curriculum review process and data collection. This was important for ensuring that all faculty voices were involved in the CoP.

While this was a small group for a CoP and data collection, it was an ideal setting for conducting this study because it represented

one common type of master's degree program in size and structure that might be found at many higher education institutions. That is, it was a small program run by a few dedicated faculty who taught all of the courses. Additionally, Wenger-Trayner and Wenger-Trayner (2015) did not specify a required group size for a CoP. Nor is there a required length or frequency of meetings. For this study, we facilitate four meetings with the three faculty members over the course of the semester to address a common concern of interest. While this may be a more limited CoP, and therefore limits the outcomes of what can be claimed from such a small group, this meets the definition of a CoP. Furthermore, as with any qualitative study, the aim was not to generalize the findings; however, the curriculum review process and interview methods are documented here to aid transferability to other contexts.

Curriculum Review Process

Action research is a process that involves a systematic approach to solving problems or improving practices within a specific context (Mertler, 2020). One of the key characteristics of action research is the involvement of researchers embedded in the study context. In this approach, researchers work closely with practitioners to identify, implement, and evaluate changes in practice or policies that are aimed at improving outcomes. In this case, the authors were the educational developers facilitating the curriculum review process. There is no central center for teaching and learning at ASU. Instead, each college and unit is responsible for providing educational development services for their faculty. Within MLFTC, educational development work is largely conducted out of the Office of Digital Learning, where the authors of this study were employed as senior learning designers.

We followed a modified version of Yonnie Chyung's (2018) 10-step evaluation procedure to implement and evaluate a solution to the identified need for facilitators for a curriculum review process. Chyung's procedure includes three evaluation phases with 10 micro-steps and three macro tasks to produce three deliverables (see Figure 1). In

total, we met with the program faculty four times over the course of 3 months. Following the principles of CoPs (Wenger, 1998), we spent time in our initial meetings to establish a shared purpose and understanding of the curriculum review. We also defined expectations for when and how the faculty would engage collaboratively with one another to support the review.

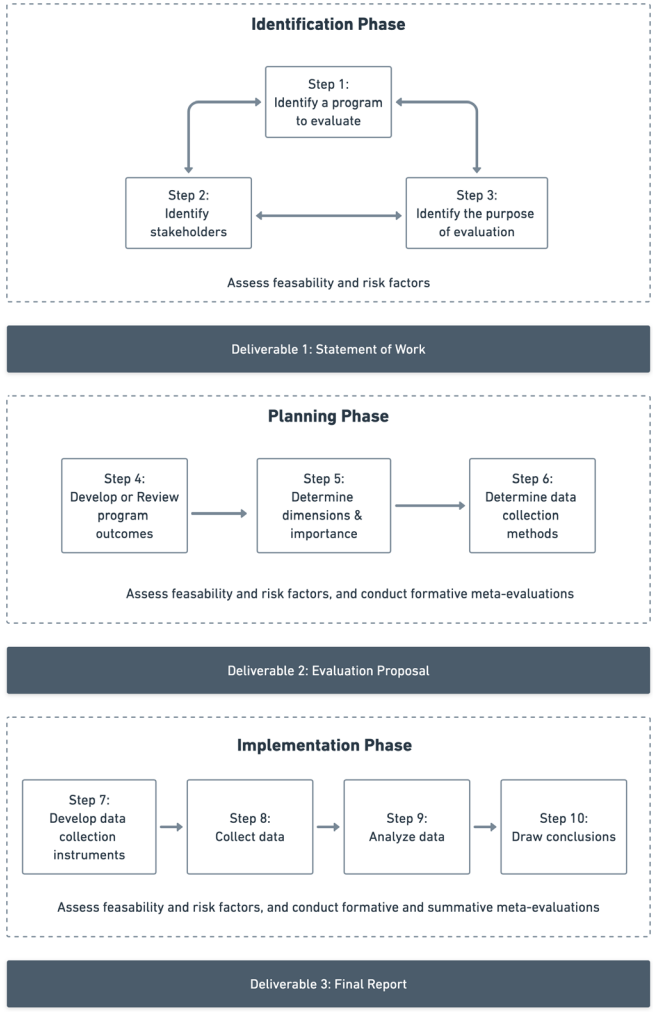

Figure 1. Curriculum Review Process Adapted From Yonnie Chyung (2018)

In the identification phase, the authors met with the program faculty to discuss what they were interested in reviewing about their program. From this conversation, the faculty identified three areas of priority: (1) exploring their students' sense of belongingness in the program, (2) identifying opportunities for increasing curriculum coherence across the program, and (3) examining where program graduates were employed. The identification phase from Chyung's (2018) evaluation procedure is depicted as a cyclical process because adjustments are often made related to the program being evaluated, the stakeholders involved, and the purpose of the evaluation as new information becomes available during this phase.

In the planning phase, the authors then identified the best strategy to answer these areas of interest. To explore students' sense of belongingness, we modified Malone et al.'s (2012) general belongingness scale to make the language specific to belongingness within an academic program. That is, we added "in/with this program" to each item from the original scale to narrow the scope of the statements to only belongingness related to the degree program in question. To identify opportunities for increased curriculum coherence, we created a curriculum map following Veltri et al.'s (2011) methodology to identify and score several coherence indicators. Finally, to examine where program graduates were employed, we identified several existing survey instruments used by ASU to collect this information. We then shared our data collection plans with the program faculty and allowed them to comment on and revise them before moving on to the implementation phase.

In the implementation phase, the authors collected the data identified during the planning phase. We first asked the program faculty to send the sense of belongingness survey to their students. We then collected data on the alignment of courses from faculty using an online survey. Before the study, the program faculty had already articulated three program outcomes and a sequence of five core courses all students take to address those outcomes. In the survey, faculty were asked to identify how course-level objectives and learning activities for each of these five courses aligned to the three program outcomes based

on dimensions of communication, saturation, and engagement. These mapping dimensions were used to construct the curriculum map and calculate coherence indicators. Finally, we gathered data from existing alumni surveys offered by ASU. We compiled all data into a 15-page report that summarized the key findings (e.g., "Data from both the curriculum maps and a student survey suggest that students may be expected to apply concepts before they fully understand them," and "Student survey data suggest that students have both a strong sense of connection and belongingness with the program and their classmates and that students identify as with the program").

The authors then shared the final report with the program faculty and scheduled a 2-hour discussion to give them the time and space to discuss the findings as a group. During the 2-hour review session, we facilitated a discussion among faculty regarding the report of findings. We began with a 15-minute overview of the report and a brief Q&A session to clarify any of the findings. Following this, we tried to speak as little as possible to allow for an open-ended and freeform discussion among the faculty. We only engaged in the conversation to help prompt and guide the discussion to ensure that all of the key findings from the report were covered and to discuss the next steps. For example, when there was a lull in the conversation, we would ask questions to prompt them to discuss another of the key findings. In total, we spoke for less than 10% of the meeting time.

Data Collection Methods

After engaging with the curriculum review process and obtaining IRB approval, the authors invited each faculty member to participate in a semi-structured interview. The role of embedded researchers is critical in action research as they bring a unique perspective to the study (Mertler, 2020). Embedded researchers have a deep understanding of the context, the people, and the processes involved, which allows them to identify potential challenges and opportunities for improvement. Embedded researchers also have the ability to build

relationships with stakeholders and gain their trust, which was essential for the success of this study. As such, the authors conducted the interviews in a semi-structured manner based on their knowledge of the context and processes involved. Instead of asking a standard set of questions, the interviews followed a more personalized flow that focused on how each faculty member perceived their program's coherence, how the curriculum review evolved that perception, how the curriculum review developed their thinking about program design and coherence, and how the curriculum review supported their collaboration in a CoP.

Faculty were asked to verbally consent to the interviews, including being audio recorded prior to beginning the interview. Audio recordings from the interviews were transcribed verbatim and then coded by the authors using Atlas.ti to identify themes across the study participants. Thematic coding analysis is a qualitative data analysis method that involves the identification of patterns and themes within the data (Saldaña, 2021). To conduct the thematic analysis for this study, the authors followed a systematic approach that involved several steps. In the first step, the first author read through the data multiple times to gain a general understanding of the content. Next, the first author applied descriptive and in vivo codes to the data to identify the most prominent themes based on the participants' voices and experiences as authentically as possible (e.g., *having a collective conversation* or *enfranchising connectedness*). Once the descriptive and in vivo codes had been identified, both authors reviewed the list of codes together to group them into mutually exclusive themes that captured the essence of the participants' experiences over the course of several discussions. Finally, to ensure that the themes accurately reflect the content and that there were no missing themes, both authors reviewed the interview transcripts using the identified themes to find supporting and contradicting evidence. The identified themes resulting from this analysis are detailed in the following section.

Results

All three program faculty members participated in the semi-structured interviews about their experience engaging with the curriculum review process. From these interviews, several themes emerged related to the study's purpose (i.e., exploring the use of a curriculum review process facilitated by educational developers in forming a CoP). These themes are described here with quotes highlighting the perspectives of the participants. Participants are identified by pseudonyms assigned by the authors.

Fostering a Community of Practice Around Curriculum Improvement

Interview participants found that engaging with the curriculum review process helped them develop and foster a sense of community. For example, Will stated:

> I'm very optimistic that our program is going to be better moving forward after this review process because I think that we are going to definitely have more conversations like the one we had the other day, which I found to be very, very fruitful.

All three participants also emphasized the value of having a "point-at-able object" (i.e., the curriculum map and report) to help foster and guide collective discussions. For example, Ryan stated that "the report was powerful but perhaps as powerful, if not more powerful than the report, was the conditions that it created and enabled."

All three participants felt that this CoP helped them think more intentionally about the program's connections across the courses. Will emphasized the "horizontal approach" that the curriculum review fostered:

> [I]t's helpful for all the stakeholders in these various programs to have more of a horizontal structure where, as a collective, we can be like: "ultimately these are the objectives that we want for our students when they graduate from this program."

Jessica also stressed how important it was to converse with colleagues about the learning trajectory related to what students are asked to do in the program. However, the faculty participants also felt that coherence across the program needed to account for more things than were articulated in the curriculum map. Will discussed the importance of holistically thinking about alignment and coherence, arguing that "there are other activities pertaining to the class that aren't assessments per se, but that can absolutely align with some of the program objectives." He also talked about the importance of courses not spreading themselves too thin by trying to align to every program objective.

Alternatively, Jessica focused on the significance of co-teaching to develop better alignment and connection across courses, stating, for example, that "we try to co-teach as often as possible trying to create good strong linkages between the seminar and the history of the learning course and between a case study and the methods course." Ryan further emphasized that certain important concepts might not be captured in the program outcomes or course objectives mapped, arguing that potentially fruitful discussions were excluded from the process by this narrower conception of the curriculum.

Role of Educational Developers

All three participants discussed the value of having a neutral third party in facilitating the review process. For example, Ryan felt that the structure of the process as a facilitated experience by the researchers as a neutral third party was influential in fostering this CoP. He stated, for example, that "nobody perceived this to be one or another one or another faculty member's agenda. It was something more collective."

He then followed up this comment with commentary about the value of the work as a tool for professional development:

> it was an opportunity to bring faculty together to rethink aspects of what we do as much as it was just kind of looking back and taking stock and to me that seems like a really compelling piece of professional development that doesn't often accompany the teaching commitments that faculty have.

Jessica similarly commented on the value of the approach, which brought the faculty together but did not overpower conversation. Instead, she found value in the educational developers opening up the conversation for whatever happened, stating "just sharing the report and stepping back was a really strong move, at least for this group." For all three participants, this structure was a big part of what made it compelling.

Sustaining Engagement

All three participants were interested in regularly revisiting the data and discussing curriculum mapping and coherence. For example, Will stated that "it was a great start and then in subsequent years, it's going to be very helpful for us as we're able to get in touch and survey more of our students and our graduates." Ryan similarly stated that the process should not be a one-semester thing but a regular, yearly opportunity.

However, Jessica and Ryan discussed concerns about follow-through if there are no additional structured opportunities for that to happen. For example, Jessica stated:

> I'm wondering if we're now on our own to make good on the promises we made to each other when we were in that meeting, which I think, if my past experience holds true, is probably a fairly low probability we'll do something.

Ryan was similarly worried about maintaining momentum around the focused discussion, stating that "I think that it's probably going to be hard to bring people back together around that focus."

Discussion

The reported experiences of the faculty suggest that they found the curriculum review exercise worthwhile for professional development and collaboration. The faculty developed a CoP around their engagement with the curriculum review process facilitated by educational developers. Furthermore, the value of the discussions that resulted from that CoP confirms previous research on the value of curriculum mapping in fostering faculty continuous improvement (Uchiyama & Radin, 2009; Wang, 2015). In particular, the curriculum review report as a "point-at-able" artifact was crucial in establishing and defining the CoP, serving as what Wenger (1998) called a boundary object. As such, this study suggests that the curriculum review report itself—and not just a discussion about curriculum coherence—is a valuable object in forming and defining the CoP around curriculum reform. The curriculum review report provided a source of professional learning for the faculty to understand better how courses relate to and develop from one another across their students' experiences.

Additionally, the educational developers played a crucial role in developing the CoP. Not only did having educational developers facilitate the curriculum review process not hinder the formation of a CoP, but the faculty participants also suggested that it was a valuable addition to the overall structure since the educational developers could act as neutral facilitators to enable collaboration without an agenda. This point, in particular, is crucial in understanding the role and value educational developers can play in the process. It should be noted that the curriculum review process undertaken in this study was a genuinely non-political opportunity to explore the curriculum, which is, of course, not always the case. Prior research suggests that many curriculum

review processes are undertaken with a top-down agenda focused on reform (Annala & Mäkinen, 2017; Buller, 2014; Kezar, 2018). In such cases, the benefit from educational developer facilitation may be entirely voided. Indeed, the description of the benefits of the educational developer facilitation on forming a CoP in this study was driven by the open-ended nature of the review process and discussions that resulted from it.

While it did not come up explicitly in the interviews, the time required to produce the report was substantial and would likely not have been possible without the engagement of the educational developers. By spending that time creating the report, the educational developers created the necessary conditions by which the CoP could be formed and provided a central purpose for the community to focus on for engagement.

Finally, the findings from this study suggest that sustaining ongoing engagement in a CoP requires specific attention. The scope of the review process in this study was limited to a single academic semester; however, the fact that the participants expressed interest in structured opportunities for ongoing engagement in work surfaced during the single final review discussion suggests that this may not have been the optimal structure for the process. Additional research to investigate opportunities for processes that have continued facilitation beyond the delivery of a report of findings is warranted to investigate the possible benefits of ongoing facilitation of faculty CoPs.

Conclusion

It is apparent from this study that the curriculum review process facilitated by educational developers supported the formation of a faculty CoP in our context. Furthermore, that CoP resulted in meaningful collaboration and professional development for all faculty involved. While the goal of this action research study was only to have an impact within our local context, increasing curriculum review practices across more

colleges and programs can only enhance the students' learning experiences within those areas. The findings from this study strongly suggest that educational developers and other third-party staff members within colleges and universities may be able to partner with program faculty to increase that usage. Action research involves small implementation cycles and investigation to make incremental changes over time. This study presents a good first cycle of research exploring this broader topic.

Future research is warranted within the same context and others to determine when, where, and how the process and findings investigated here might be applied more broadly. In doing so, there are several fruitful avenues for further exploration. For example, the program engaged for this study was a very small degree program. As such, it would be worth exploring the utility of such an educational developer–supported curriculum review process with larger degree programs. There is no reason the steps and procedures followed here should not work at a larger scale, but additional challenges around faculty time and engagement across a larger group would come into play. Another consideration would be to further examine the time and expertise of educational developers required to make this type of process successful. In total, we estimate that this curriculum review process involved around 100 hours of our time collectively as educational developers during a single semester. This represents a substantial commitment by our unit to engage in this process. We were also two individuals who collectively had the knowledge and expertise in curriculum development, program evaluation, and facilitation to conduct the curriculum review. However, these time and expertise conditions might differ in other contexts. Therefore, there are still important questions to be answered around the necessary time and experience required for educational developers to successfully facilitate curriculum review processes on behalf of faculty. Assuming units have the expertise and interest in doing this work, identifying the most impactful use of limited educational developer time and resources is still a question. Future research could help to critically examine the relative

impact of this type of program as compared to other services offered by educational developers.

If it turns out that these findings can be replicated and expanded, this partnership could provide valuable opportunities for teaching and learning centers or other educational development units (e.g., office of online or digital learning) to share the time and expertise burden required to engage in curriculum review work. However, it is also essential for anyone engaging in curriculum review work to recognize that curriculum is complex and ever-evolving. The findings from this study suggest that the one-time intervention tested in this initial action research cycle is insufficient to fully support the work of faculty engaging in curriculum reform. As such, subsequent action research cycles should expand on this structure to identify strategies that create and sustain faculty CoPs over time. One suggestion we have for doing this would be to spend time in the final review meeting to identify specific commitment items for follow-up, which could be used as an anchoring tool for ongoing discussions. For example, regular check-ins could be scheduled every semester or year in which this list of commitments is revisited collectively to share progress and identify additional next steps. Obviously, time and resources would need to be devoted to supporting this ongoing commitment. However, in doing so, educational developers may be able to better support faculty to make more informed decisions about their program's curriculum coherence for future students.

Biographies

Derek Thurber is a teaching and learning specialist, instructor, and researcher with expertise in curriculum in higher education, program evaluation, and faculty development. He has worked across multiple institutions to implement curriculum reform and program evaluation processes to continuously improve for-credit and not-for-credit programs and courses at the undergraduate and graduate levels.

Karen Bossen is a learning designer with expertise in curriculum design in higher education, program evaluation, and faculty development. She has experience as a faculty member, faculty developer, and learning designer engaged in graduate and undergraduate curriculum reform programs to ensure continuous improvement in student learning through promoting faculty agency in curriculum design and implementation.

Conflict of Interest Statement

There are no relevant financial or non-financial competing interests to report.

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