BUILDING ASSISTIVE COMMUNITIES: THE POTENTIAL OF LIBERATING STRUCTURES FOR IN-CLASS PEER MENTORSHIP

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Peer mentorship programs have mostly emphasized formal structures, wherein a more experienced student guides a less experienced student. However, these practices are hierarchical and require substantive resources to organize and implement. Searching for alternatives, we research the effectiveness of an informal teaching technique that facilitates active learning and peer-mentorship from everyday classroom settings and processes. Drawing on formative feedback from students enrolled in a lower-level Sociology course over a term, this paper analyzes how a "Liberating Structures" (LS) technique called Five Whys (an adaptation of the Nine Whys of LS) can promote in-class collaboration, peer mentorship, and increased engagement without training and the need to design a formal peer-mentorship program. Students identified many benefits, including that Five Whys promoted community, reflective learning, and deepened engagement with course content. However, the structuring of interactions was seen to be stifling to natural group processes. Broader implications for LS and in-class mentorship are discussed.

Peer mentorship programs have mostly emphasized formal structures, wherein a more experienced student guides a less experienced student. This requires administrative action to design, select, and send trained peer-mentors to support classes (Collier, 2017; Reid, 2008). Traditional programs also tend to be hierarchically structured in a mentor-mentee relationship with a primary giver, and a primary receiver (Colvin & Ashman, 2010). However, peer-relationships can also be fostered in horizontal, collaborative ways. Toppings (2005) posits that non-hierarchical student-led activities such as collaborative projects, cooperative learning, and peer assessments are important ways of fostering mentorship. These relationships have been shown to facilitate the exchange of knowledge, ideas, and experience between participants, and improve academic performance (Boud, 2001). Implementing informal mentorship, however, poses serious practical problems, especially in classroom environments (Reid, 2008). In addition to major constraints such as large class sizes, short teaching times, and inflexible class or lecture spaces, there is also a paucity of straightforward strategies to implement peer-mentorship without institutional support. This translates into the lack of research and utilization of existing in-class peer-mentorship strategies. This is a significant oversight because it means that the peer-mentoring resources already in the classroom are neglected, depriving students and educators of their benefits. In this paper, we argue for an understanding of peer-mentorship that includes natural classroom settings and processes.

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Towards a Pedagogy of In-class Peer Mentorship

Classrooms are physical or online places where students from diverse backgrounds, experiences, and knowledge spend significant time together (usually a few hours 8per week for at least three months). This means that effective peer-mentorship can exist between students that are *already* in the class. Drawing on Budge's (2006) definition of peer mentorship as assistive relationships aimed at meeting emotional, social, and academic needs, we argue that classroom peer mentorship can include activities that enable students to reflect on their feelings, perceptions, experiences, and offer and receive feedback. Activities such as routine check-ins on our students' feelings, reflections/sharing about current events, and lived experiences are foundational to the creation of assistive learning and the development of horizontal learning networks. In recognition of the potential of these approaches, we propose the intentional use of informal in-class mentorship methods to facilitate the sharing of emotional, social, and academic experiences between students.

The Potential of Liberating Structures for In-Class Peer Mentorship

Liberating Structures (LS), have recently arisen as a collection of simple strategies that structure flexible but focused interaction (Lipmanowicz & McCandless, 2014). The key advantage of LS is that they require all participants to engage in the creation of solutions, promoting inclusive academic communities. LS are promising pedagogical tools for fostering in-class peer relationships as they aim to facilitate active, inclusive, reflective, and collaborative work. Designed to replace the conventional top-down format of business meetings (the presentation, status report, managed discussion, etc.), LS are a collection of 33 strategies aimed at structuring interaction, expanding course content, fostering creativity, sparking individual brilliance, and tapping into collective wisdom (Lipmanowicz & McCandless, 2014).

There has been little pedagogical research on LS as teaching strategies and to our knowledge none has examined it in the context of peer mentorship. Among the research on LS is the work of Singhal et al. (2020), who conducted a pilot study of several classes in a mid-sized Norwegian University, found that LS enhanced student feedback and relational mutuality for instructors. This resulted in a more engaged, democratic learning community for students. They noted that LS (1) are easy to implement in classrooms; (2) facilitated rich engagement; (3) deepened the learning experience; and (4) are an effective pedagogical practice (Singhal et al., 2020, p. 48). Similarly, Mallette and Rykert (2018) found that LS were an effective pedagogical tool for promoting dialogue, debates, and negotiation. Other studies reiterate LS's effectiveness in active and inclusive pedagogy (Bieraugel, 2017; Holskey & Rivera, 2020; Singhal, 2016). Yet, despite these early signs, the utility of LS on educational processes remains under-studied. Because classrooms (physically and virtually) are spaces where students can authentically and complexly engage with each other, and where simple strategies of engagement can push students to articulate themselves to each other (leading them to express their voices, and share their identities), we proffer that LS might be a useful pedagogical tool for in-class peer mentorship strategy.

Methods and Procedure

This paper is informed by formative feedback (two-minute memos) from students enrolled in a 200-level Sociology of Families course at the University of British Columbia (class size = 100 students) over the Fall term of 2019. The course offers an introduction to contemporary family forms, including continuities, change, and diversity. Course objectives include: promoting critical thinking, autonomous learning and collaborative practices. Over the term, we implemented a modified version of the *Nine Whys* LS in each lesson. The original *Nine Whys* activity requires participants to formulate an opinion on an issue, which is then probed nine times by colleagues. By answering why questions, participants identify issues that are important to them, clarify their reasoning, and enhance their communications skills. This translates into learning outcomes such as enhanced critical reasoning and evaluation skills. We hoped students would improve their ability to connect theory and content, think critically, and offer support for one another. Due to the fact that the course was offered in 50 minutes time slots, we adapted the *Nine Whys* LS to *Five Whys* to ensure sufficient class time for the activity to be completed.

Our *Five Whys* classroom activity used four steps. First, we invited students to form an opinion on an aspect of the lesson (e.g., how would they decolonize Canadian families to reflect more equitable values?). Second, we configured seating for optimal engagement (e.g., inviting students to face each other or sit in close proximity to each other). Third, we limited responses to two minutes per speaker to ensure that each speaker had an equal opportunity to challenge and be challenged about their opinion, with the purpose of expressing at least five "whys" for every opinion (four less than the original LS, *Nine Whys* but to optimize our time and classroom engagement). Fourth, we arranged students into pairs, then into four, and finally to speak with the entire class.

We administered formative feedback to ascertain whether the course objectives were being realized and to determine LS's potential as a pedagogical tool for in-class mentorship. Participation in providing formative feedback was voluntary and was collected by means of anonymized two-minute memos comprising two open-ended questions: (1) Describe your experience with the *Five Whys* liberating structure activity, and (2) How did the structured approach to group activities impact your learning? We consulted with our institution's Behavioural Research Ethics Board and were advised that institutional ethics review was not required given that the intent was to evaluate pedagogy, which is a quality assurance activity. Notwithstanding, ethical principles were followed to the highest standards. Memo forms with the questions were printed and distributed in class twice after the *Five Whys* activity was completed. Students were encouraged to complete the memo forms and deposit them in a box by the door as they exited class. No incentives were offered for providing formative feedback. The instructor remained at the front of the class until every student left. A total of 118 responses were collected (indicating a response rate of 59%) for use in the analysis.

The project was guided by the scholarship of teaching and learning (SOTL) theoretical framework (Miller-Young & Yeo, 2015). Theoretically, SOTL aims to deepen our understanding of student learning, explore the effectiveness of pedagogy and evaluate the functionality and "desirability" of higher education practices (Kreber, 2013, p. 858). This involves treating our educational practices as empirical sources of data. Hence, we analyzed formative feedback by first transcribing them in a word document. They were read several times by each of this paper's authors, and emerging themes were documented. Analysis occurred inductively via open-coding with the goal of teasing out explicit links between the theory of pedagogical practices (peer-

mentorship strategies) and the reported effect on student learning. In each subsequent read, we refined themes and identified relationships between LS and learning outcomes, with the purpose of answering two questions: 1) What is the potential of LS as a pedagogical tool to facilitate in-class peer mentorship? And 2) How do students evaluate their experiences with *Five Whys* as a pedagogical strategy? This led to a network of three main themes and many sub-themes. Quotes are highlighted verbatim to indicate these main themes.

Findings

Our analysis of the data revealed that students explained their engagement with *Five Whys* activities through two major themes: (1) Building community, and (2) Enhancement to the learning process. We also identified a third theme: Constraints of structured peer activities, which highlights the difficulties of using *Five Whys*.

Peer Learning as Community Building

Throughout the term, formative feedback from students consistently highlighted that *Five Whys* facilitate community in the classroom. These were described through sub-themes such as: exchange of ideas, communal learning, forging consensus, making connections, collaboration and having fun together. As the students put it:

> "Five Whys is a good activity for exchanging ideas with each other and being more thorough."
>
> "It helped me dig deeper into the reasons why I selected the factors in the way I did. At the same time, I learnt about my partners' ways of thinking."
>
> "It was interesting to be able to discuss each person's opinion in the group addressing similarities and differences. This expanded my thought process."
>
> "I enjoyed it. It was fun. It allowed me to see the different possibilities and perspectives."
>
> "I like using this structured approach because I hear different perspectives. My group members and I agreed on a lot of points. Finding common solutions was quick."

Teachers have noted that student-led teaching – wherein students work together and at times mentor each other –potentially has a greater impact on learning than instructor-led strategies such as lecturing (Colvin & Ashman, 2010). The testimonies indicate that the structured approach of *Five Whys* created a relaxed environment where students could learn from each other, work collaboratively, and have fun. These low-stakes settings give students agency to dig deep, probe, reflect, and evaluate their peers' ways of thinking. Likewise, these low-stakes settings allowed students to hear perspectives that would not have been shared otherwise, increasing the opportunity for students to divulge information that Budge (2006) considers vital to the peer-mentor relationship; peer-mentor relationships where academic *and* social and emotional concerns can be expressed and acted upon. If teachers can sustain these interactions over time, we posit that authentic peer-mentorship will form within the classroom.

Enhancing the Learning Process

Students indicated that by working together and learning from each other, the course concepts and content was reinforced. Subthemes identified from the data confirm this and include: opportunities to summarize materials, critical reasoning, analysis, seeing new perspectives, learning through disagreements, negotiation, problem solving, debating and the promotion of systematic approaches to tasks. The following quotes demonstrate this learning.

> "Useful as it gave me different points of view which later changed my perspective and answers. It was a good way to catch the things I was not aware of."
>
> "The negotiation portion was essential in us getting the timeline straight...the structured approach allowed for reassessment of my answers."
>
> "It was helpful in being able to talk through solutions and have quick debates."
>
> "This activity allowed me to make connections with what I know and what I just learned. It helped reinforce the ideas and allowed me to verbalize them."
>
> "The conversations were effective because they reinforced my thoughts."
>
> "It gave me different perspectives on my answers, [and was] very useful in that sense. It reinforced the lecture and asked me to go over my answers."
>
> "I think it was useful. It allowed us to reflect and summarize the key concepts of the lecture, but it also gave us the opportunity to hear other perspectives as well."
>
> "It drove me to apply the concepts learned in class and think about the answer through these new concepts from my own perspective."
>
> "After discussing it and hearing my peers' answers, we established that there are so many different answers. You can see it."

The above responses indicate that the traditional lecture and independent learning style leaves a gap in learning: the chance for students to compare their perspective with other learners. By engaging with each other in the *Five Whys* activities, reflecting on their own as well as their peers' ideas, students developed an understanding that was not limited to their initial standpoint of selected facts and opinions. Students indicated that peer learning helped them to develop a range of higher order skills: reflection, analysis, discussion, making connections, and evaluation. They likewise indicated honing lower order skills such as summarizing, discussing, and comparing.

The Constraints of Five Whys

Despite the benefits identified, a few students identified constraints of *Five Whys*. Some students felt that rather than liberating the learning process, *Five Whys* constrained their learning and spontaneous interaction. Students also identified the difficulty of succinctly verbalizing thoughts in a limited timeframe. They also commented on how the timing structure forced them to move on from conversations too soon. While these could be considered to be positive aspects on the undergraduate skills development journey, these were considered to be drawbacks of the activity as is suggested in the following quotes:

> "I found the process of talking through the process a little difficult in that we both knew which factors we thought were most important but struggled to put it into words."
>
> "In terms of the time limits, we don't have enough time to work on a common solution."
>
> "I found it difficult to come up with the 5 whys as the answers were pretty

straightforward and it was clear that there are no right or wrong answers."

"It was difficult to think in a structured way in the class."

"Eliminating ideas was easier than agreeing."

"I think a more fluid discussion would have been better but only if people participated."

"We didn't negotiate and come up with a common solution. It was difficult."

Although the above are identified as weaknesses of the activity, they do shed light on concerns that could be missed in other teaching contexts. For example, students who struggle to verbalize their thoughts are encouraged to practice. Similarly, we can tailor lessons to help develop negotiation skills and inquiry. As instructors, we can also help students develop these vital social skills, which will allow them to cultivate the same in each other. It also highlights the importance of how teaching pedagogy can support students who do not learn well in collaborative, oral, or tightly structured settings.

Discussion

While traditional tutoring and peer mentorship programs are important for supporting students, our findings indicate that fostering assistive relationships within classrooms can also provide similar benefits with substantially less investment. Like Singhal et al. (2020), we found that LS in classrooms promotes the development of a range of higher-order skills essential to learning. These include perspective sharing, reflexivity, and collective problem-solving in addition to fostering respect for diverse opinions and standpoints. Based solely on the expertise that already exists within students, LS encourage the creation of learning communities that can potentially have implications for engagement in future courses and relationships. This indicates that LS and other classroom practices are appropriate foundations for building informal peer tutoring and mentoring relationships.

With the benefits and despite students highlighting some drawbacks of LS in collaborative learning situations, LS and the *Five Whys* can be instructive in how we should structure informal peer relationships in the classroom. Primary among the constraints is that LS structured format takes away from the spontaneity of regular conversations. Students can feel dissatisfaction for not getting the chance to fully express themselves. Nonetheless, LS are flexible. They can be adapted (as we have done) or quickly withdrawn based upon the feedback of students or as is appropriate given the constraints of typical classroom settings (Singhal et al., 2020). Furthermore, students who experience anxiety speaking in class or from sharing their opinions can be encouraged to form smaller groups with students who they are familiar and comfortable with. In addition, other socially-oriented Liberating Structures such as *Impromptu Networking,* could be practiced before utilizing more intense ones. In so doing students get the opportunity to forge relationships and friendships before working on more complex tasks.

The findings shared in this paper only scrape the surface of LS and *Five Whys* potential. While the data has been generated from only one example of LS over a term, making it ungeneralizable, it contains valuable formative feedback. However, the feedback should be considered as "snap shots" relative to time and setting. Nonetheless, the data offers hope for further research and implementation. The students' responses offer important insights into the potential of LS, and show its ability to reinforce course content, elicit a variety of perspectives, and build communities devoted to learning and critical thinking; some of the essential constituents of effective peer-mentorship relationships (Budge, 2006). To alleviate the risk of peer-mentorship either becoming hyper-formal or burdensome to educators, we believe it is vital

that educators use simple strategies to allow students to assist one another. Our findings indicate that LS offers great potential for cognitive skills development, student engagement, and peer mentoring. Areas of inquiry for future research could include method and impact of teaching styles, applicability to course content and desire learning outcomes, mode of delivery and student diversity.

Conclusions

In this paper, we have argued that classrooms are effective spaces for cultivating peer-mentorships by investigating how a LS of *Five Whys* was used to build a learning community, enhance learning, and tap into diverse learning styles (aural, verbal, visual, written). *Five Whys* as a LS is an inexpensive and valuable pedagogical tool for promoting assistive relationships in classroom spaces. The findings shared in this paper can serve as a springboard for further research into this area which could clarify and document: (1) the exact benefits from LS on classroom interactions and learning, (2) the longevity and type of interactions created from LS, and (3) LS's implications for social capital formation on campus.

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