Contextual attributes fostering self-regulated learning in a teacher-centered culture

Valorization

Relevance

The results of this research have significant social and economic implications. Although the internationalization of medical education is progressing, there are still some areas of medical schools that emphasize teacher-centered learning, with lecture-type classes and teacher-led practical training taking center stage. Until now, the evidence for medical education has originated mainly in the West, and the shift to student-centered learning in medical education has been promoted mainly in the West. East Asia, including Japan, where this study was conducted, have attempted to address the shift to student-centered learning by "transplanting" learning methods, and have thus dismissed institutions' "rejection" of it as due to cultural differences alone. Of course, the cost paid simply for the "transplantation" of new learning methods is enormous.

In this study, we first examined how teacher-centered learning actually affects students' learning behavior in Chapters 2 and 3 in an area in which teacher-centered learning has traditionally been dominant. Results showed that the elements included in a teacher-centered learning context make students passive learners, but that they become active self-regulating learners if they leave the teacher-centered curriculum and are placed in a different learning context. Being able to verbalize a learning context in which students currently engaged in teacher-centered learning can in future become self-regulated learners without having to leave their cultural sphere will lead to more effective curriculum development, and the social significance of this study will become clear. In addition, Chapters 4 and 5 examined the effectiveness of educational interventions formatted on contextual attributes promoting self-regulated learning (SRL). We believe that this represents a shift from theory to practice and offers a framework for new curriculum development in regions traditionally considered to be teacher-centered learning cultures. Given the cost-effectiveness of curriculum development from evidence within a culture compared to the cost-effectiveness of partial "transplantation" of educational methods across cultures, this study might also be economically meaningful.

Target groups

The ultimate target of this study's results is the patient. SRL, the basis of the study theme, is the cornerstone of lifelong professional development. More than anyone else, it is in the best interest of the patient that physicians update their skills and techniques in a self-regulating manner without neglecting to keep up with advances in medical education. A second underlying theme, improving professional identity formation (PIF), also benefits patients. The general public reading this paper may have been surprised to learn that in a teacher-centered learning culture, learners who enter medical school after a fierce examination war lacked a vision of their future in becoming a doctor. Nevertheless, this is the reality of the teacher-centered learning culture, at

least in medical schools in Japan, and if this study, which shows that improving PIF is the trigger for the aforementioned lifelong enhancement power, is the driving force behind a shift in university curricula, then the ultimate target is indeed the patient.

The next target audience for this study is medical school faculty. In particular, these are teachers in a teacher-centered curriculum. It is difficult for teachers in a teacher-centered educational culture to understand the trends in medical education around the world as they practice education as part of their educational culture. In particular, the current state of evidence for medical education, emanating mainly from the West, had stopped the discussion with the simplistic response that student-centered learning was "culturally different from our own." Against this, we hope that the research in Chapters 2 to 5 helps them realize that the education they take for granted is turning students into passive learners. The message is that they need to move away from their preconceived notions of culture. The results of Chapter 5 show that the students are more active than they thought. In other words, in order to shape their own future vision, students tried to visit medical sites where they might work in the future and meet senior doctors during long vacations outside of the curriculum. These results show that the proper role of teachers in teacher-centered learning is indeed nothing short of bold reform of the curriculum.

Activities/Products

Based on the PIF-based SRL theory established based on Chapters 2 and 3, Chapters 4 and 5 developed forms of educational interventions. The studies in these chapters tested these interventions in the actual curriculum. Although there is much room for improvement and further multi-center validation is needed, an online dialogue platform for educational interventions in clinical practice (Chapter 4) and pre-clinical PBL (Chapter 5), as well as manuals for instructors conducting the educational interventions, are available from the author by request.

Innovation

The results of this study are innovative because few studies have examined in detail why passive learning behaviors occur in teacher-centered educational cultures. Chapters 2 and 3 offer one explanation for the mechanism. Second, the study directly tested the causal relationship between the concept of PIF and SRL theory; the results of Chapters 2 and 3 offered the hypothesis that improved PIF leads to improved SRL, and the intervention studies in Chapters 4 and 5 tested this hypothesis deductively. Although not all of the hypotheses were correct, a certain cause-and-effect relationship could be explained. Thus, this is an innovative study in the sense that it combines two concepts that until now have been difficult to discuss directly in medical education.

Schedule & Implementation

The format of the educational intervention based on the PIF-based SRL theory shown in Chapters 4 and 5 is currently being improved for the next verification studies. Regarding the rural community-based clinical clerkship at JMU in Chapter 4, we are currently improving e-learning contents for faculty development guidance by enriching the manual to support the conduct of PIF-oriented educational interventions. For the PIF-oriented educational intervention for hybrid PBL conducted in Chapter 5, we are planning to start an empirical study next year after improving not only the method of PIF development but also various factors such as the scenario used for PBL, and the environment, frequency, and schedule for PBL learning. In addition, none of the studies has been validated at multiple sites. We have now obtained consent to cooperate with two institutions in Japan and plan to introduce an educational intervention based on PIF-based SRL theory in these institutions in two years.

Although it will take several years, we would like to work on reforming the overall curriculum based on the PIF-based SRL theory, albeit in a teacher-centered learning culture.