Transitioning to Student-centered Learning in Kazakhstan: Undergraduate Student Experiences

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Abstract
Karaganda State Medical University has been transitioning and practicing active methods of teaching and learning since 2011. Faculty members are encouraged to lead their courses with diverse activities designed to increase student learning. Unfortunately, there is limited evidence regarding the extent of faculty members who evaluate their own courses. With this in mind, this paper aims to explore and share undergraduate students' learning experiences and the teaching of Philosophy at a medical university. The course, which ran from February to May in 2017, was taught in English. The class was divided into four groups of international students and two groups of local students. Using a qualitative method, a total of 63 students responded to open ended questions. Additionally, 23 students, comprising four students from each group, were engaged in focus group discussions. Students' participation and performance in classes were also observed over the period of the course. This presentation will focus on the outcomes of the study within the wider context of the discussion about ways in which Kazakhstani universities are opening up to educational changes in the context of globalization. Feedback from other conference participants is most welcome.

Keywords: active methods of teaching, learning experiences, philosophy, undergraduate students

Introduction

Since 2011, Karaganda State Medical University has been introducing new methods of learning into the curriculum. University leaders invite experts, underpin current research projects, and organize workshops and seminars for university administrators and faculty members. Currently, within the scope of international projects, several experimental groups are practicing problem-based learning. However, this study has uncovered that teacher-centered learning practices are still being experienced by students.

The twenty-first century requires that universities and policies educate active citizens, who are able to contribute to economic and social development following graduation. This has brought about changes in education; namely, with the alteration of the approach to teaching and learning. The previous method of rote learning has been replaced with small group discussions and independent learning. However, it is not enough to imitate active learning, as there also needs to be a method to assess the ways in which students are growing within this process in order to allow them to respond and adapt to global changes. The issues related to student learning remains significant among scholars across the world (Carpenter & Tain, 2001; Pintrich, 2004; Yilmaz, 2009; McCarthy & Anderson, 2010).

One of the ways to assess student learning, is to conduct a course evaluation. Varying results might be attributed to a variety of reasons, such as; teachers assessing their own professionalism through student feedback, or conversely, student learning may be the focal point of the evaluation. This has been pointed out by Golding & Adam (2014), who concluded that teaching methods have to improve students' learning experiences and academic achievements in ways that will demonstrate student learning. Through course evaluation, this study aims to explore the experiences of students who are transitioning from teacher-centered to student-centered learning.

Teacher-centered learning possesses clear criteria in order to assess gained knowledge. In comparison, it is difficult to gauge the level of knowledge and skill that students have gained through student-centered learning, which is a process where all students are actively involved and demonstrate a high level of contribution to discussions. In order to research common experiences of student learning, it is possible to use online surveys. However, a study conducted by Goos & Salomons (2017) found that an online survey, which was responded to by 28,000 students, resulted in biases and an overestimation of the course evaluation.

Another approach to exploring students' learning is to scrutinize students' preferred learning styles. Interestingly, research conducted by Hativa & Birenbaum (2000), identified that students who preferred to complete university courses indicate elements of teacher-centered learning, and those who preferred to complete courses with deep learning, suggested to expand student-centered learning. Hence, examining students' preferences provides evidence about their attitudes towards learning rather than learning per se.

Taking into account the advantages and disadvantages of two previous inquiries, this study decided to use paper-based evaluations, which increase the credibility and reliability of student responses, and are oriented in examining the students' descriptions of

their learning experiences. For instance, a study conducted by MacLellan & Soden (2004), analyzed students' open ended responses utilizing the criteria suggested by King & Kitchener's reasoning stages; 'pre-reflective,' 'quasi-reflective' and 'reflective thinking.' This method helped to identify that most of the students in their study showed quasi-reflective thinking, and referred to reading books, and discussions with group mates, as elements of learning. For this study, it is also important to examine how students reflect on the learner role and what kind of teaching approaches enforced their learning.

Student-centered learning not only concentrates on students, but on faculty members' role as facilitator as well. Faculty members are aware of the methods to use to facilitate student learning in related topics. However, the learning process is reciprocal, which means that students also need to strive for knowledge and actively take part in their learning. They need to spend additional hours researching materials and exploring the issue deeper. A study conducted by Carpenter & Tait (2001) at Queensland University of Technology (Australia), highlighted the need for student involvement in learning. This may become an issue in this study mainly because students were used to following teacher-centered standards of learning. In this mode, their role is to answer questions rather than question themselves regarding the concepts of learning.

Although students' reciprocity is a necessary part of the learning process, a positive learning environment fostered by faculty members is significant too. This means students need to be able to express their thoughts and ideas, build their own conceptual understanding, argue, and accept constructive critique towards their own stance. All of these require a respectful and supportive environment that can be nurtured by qualified faculty members. Umbach &Wawrzynski (2005), in the USA, analyzed 22,033 freshman and 20,226 senior students' responses from the National Survey of Student Engagement (NSSE), which emphasized that faculty members are vital in creating a positive learning environment.

The faculty's role is also important in bringing about change at an institutional level. They are very often practice changes and, at their level, they can provide feedback regarding implemented changes. Therefore, in order to increase their academic integrity, it is imperative to consider their views. Their opinion might even improve existing systems. A study conducted by Moscal, Stein, & Golding (2015) in New Zealand, found that survey structures on course evaluations were modified due to faculty members' requests to obtain more accurate responses. At the university where this study took place, students also completed a course evaluation survey annually; unfortunately, faculty members lacked interest in the results. However, the results of this study might interest other faculty members, because the study contains students' insights, and encourage them to discuss the results of the survey.

As student-centered learning has been practiced around the world, there should be a common and shared understanding of this concept. It seems that active methods of learning that encourage student-centered learning, can be interpreted differently by practitioners. For instance, research conducted in Korea by Kang, Choi, & Chang (2007), suggests that student-centered learning has been embedded under the constructivist approach. These scholars examined 385 Korean and international journal articles published between 1990 and 2006, and have indicated that there was a lack of theoretical discussion regarding the constructivist approach in Korean journals, in

contrast to international practices. In contrast, at a Turkish Institute, faculty members hesitated to exercise student-centered learning because of cultural incommensurability. This issue raised by Yilmaz (2009), stated that student-centered learning relies on the readiness of students to become independent learners, which is, however, unfamiliar to their learning culture. Issues related to cultural readiness and the rush to implement the practical aspect might exist in the Kazakhstani context as well.

A review of the literature shows how the student-centered approach has been cultivated in different parts of the world. The focus flits from students to faculty, from constructivist approach to cultural heritages. These experiences suggest that the concept of student-centered learning is still developing and adapting. The results of this study indicate how student-centered learning is being employed in the Kazakhstani context. The study aims to explore undergraduate medical students' experiences of transitioning from teacher-centered to student-centered learning. The remaining sections discuss methodology, data collection processes and research results. In the conclusion, findings of the study have been discussed in relation to existing knowledge.

Methodology

This is qualitative research. It aims to examine medical students' learning experiences and their perceptions of the Philosophy course in Kazakhstan; which has previously been under researched (Creswell, 2012). The study employed qualitative methods such as, observation, document analysis, a survey with open-ended questions, and focus group discussions with students. In practical classes, students worked in small groups creating mind maps, writing reflection papers, presenting topics, and analyzing articles. The purpose of each task during practical classes was to provide a space for students to explore the topics on their own. Therefore, this study examines how students perceived their new role of learner wherein they are at the center of the learning process.

Data Collection and Participants

The philosophy course was taught over a four-month period (February to May, 2017). A total of 63 out of 65 students took part in the study - one student was absent, whereas the other was expelled from the university. Twenty-three students participated in focus group discussions. The ages of the respondents ranged from 18 to 25 years of age; comprising 41% of 19 year olds, and 28% of 20 years old. With regards to gender, 73% of the study was male, and 27% female.. With 83% of international students from India and 17% local students that were provided with English language instructions. Data accumulation was undertaken at the end of the semester during the last few practical classes.

Regarding IRB (Institutional Review Board), here at KSMU there is an ethics committee entitled 'Bioethics Committee' (see http://www.kgmu.kz/ru/contents/view/356). Prior to launching any research, every researcher, faculty member and student has to submit his or her application for approval. This committee reviews research projects related to medicine rather than education; and therefore, because this study was aimed at course evaluation, there was no need to submit an application. Nevertheless, I have followed the ethics of research and at the beginning of my research explained the purpose of the survey to the students. The survey contained 14 open-ended ques-

tions; three of which were related to students' age, course dates, and tuition. The rest of the 11 questions aimed to explore students' learning experiences. Each student that participated in focus group discussion received an informed consent form. Prior to joining a focus group discussion, students were informed about its risks. While interpreting the data, students' names were coded to ensure their anonymity. Data have been analyzed in MS Excel, where the responses of all the students have been coded and merged into categories.

Research Results

According to research results, student-learning experiences are categorized into two domains. The ***first domain*** is 'challenges' and the ***second domain*** is 'perceptions.' Each category was integrated with daily class observations, and extracts from focus group discussions.

First category: 'very challenging, despite this fact it is good'

In order to gain a broader perspective of the issue, survey questions were triangulated with results of focus group discussions and daily observations of practical classes. Analysis of the survey questions identified **four major categories of challenges** in students learning, which were:

1) finding the main idea of the article
2) providing their own views and ideas
3) working in groups
4) border control and manifestation of SIWT (Student Individual Work with Teacher)

The first challenge was "finding the main idea of the article." According to my first week's experience of practical classes, students prepared by reading small parts of the text from the internet - some even read those small sections during class. I decided to use journal articles instead of text. The plan was to read two articles per class; unfortunately, I realized that the number of students, who were prepared, had decreased. Instead of grading them zero, I provided extra time for students to read the articles in class. Moreover, in order to keep them focused and in order to research particular information, I gave them eight questions related to the articles. During class, it seemed to me that everybody undertook the task with enthusiasm; however, the survey results suggest that 24% of the 63 students had difficulty in finding the main idea of the article. Here is one of the quotes that pointed out this:

Many articles, I did not get main ideas about the topic. It was challenging for me (Student_2, Male_19).

This quote could be interpreted as either a lack of experience reading articles in English, or in having insufficient time to find the answers. This issue was raised by participants of focus group discussions as well. In contrast to reading texts from internet sources, where they can understand small sections or subsections, reading articles requires following a main point throughout the paper. In this regard, it is difficult to identify the main concept from reading a couple of sentences, unless clearly indicated. One of the participants of the focus group discussion explained the issue in this way:

Regarding articles, they are long. Sometimes I force myself to read all 11 pages without understanding. Nevertheless, I have spent my time reading it. I have to understand something. I have to force myself to understand it (Student_4, Female, Focus Group_1).

This is related to philosophy, where concepts can be difficult to understand in the first instance. This issue signals the challenge of transitioning to student-centered learning. The respondent tried to force themselves to understand the text; whereas, understanding comes when one reads with holistic vision to build a conceptual understanding. In order to enhance the students' awareness of their own learning, at the end of each practical class, local students were provided with a reflective paper where they had to identify what they had learned so far, and explain how these concepts were related to previous class topics. As students were used to reproducing what was said in the text without analyzing the learned information, it was challenging to formulate their own opinion.

The second challenge was "expressing own thoughts." Twenty-one per cent of students mentioned difficulties in expressing their ideas. Some of them were afraid to speak because their ideas were similar to others; meanwhile, others were afraid to express their ideas because other students did not listen to them. In particular, when they were asked to provide precise answers, they tried to read what was written in the text rather than synthesize learned materials. From the observer's point of view, it seemed that they were not taking the task seriously; however, in reality it was pointed out that:

The most challenging part in Philosophy is to express our own thoughts (Student_1, Male_19)

Despite this fact, some students identified positive implications of this practice during focus group discussions. It seems that this challenge emerged due to a lack of experience during previous stages of learning. Although students faced challenges, they grew within this process - as pointed out by this respondent:

Second point, is very good group discussion. I will not mention their name, but at the beginning of the semester, they were afraid of speaking. I know of one teacher who sometimes let us do such a thing, now they are capable of speaking because the first of study I saw they were very afraid of speaking when they spoke, they knew but were afraid to talk in public. However, now their condition is better, maybe because you involve us in such group discussion, and we are able to speak (International Student_3, Female, Focus Group_2).

To some extent, all of the students found it challenging when discussing homework. Whenever they were asked to explain, they struggled because they did not understand what they were saying - this is one of the constraints of rote learning. Students were merged into groups and each member was required to participate in the presentation. As a result, most of the silent students became active, regardless of their previous experience. Nevertheless, this also contained a problem that instigated the next challenge.

The third challenge was "working in groups." Another 21% of students mentioned that they had difficulty interacting with others during group work - students were comfortable working with students that they communicated with daily. In addition, during group discussions, they remained in the same position and divided responsibilities according to abilities. Therefore, they were divided via different methods into groups of three, four, or five people respective to the task. I knew that this was going to be a big challenge for them, as the following quote describes:

Challenging part was dealing with group mates with whom we never communicated, working with them in groups, and answering questions (Student_27, Female_20).

However, there emerged another issue, which I observed and tried to resolve within each class. Focus group discussions revealed this challenge of group work as well:

Group discussion is also difficult because not all of them have knowledge of philosophy, I do not have to think for them. Therefore, if we are working in a group, each member should participate in the group discussion. Therefore, if only one or two students participate, the other students are a burden on the shoulders of these two students. How can they manage the whole group discussion? (Student_1, Male, Focus Group_2).

Observation of practical classes noted that some students were less engaged when compared to other students. Students were advised of the significance of contributing, and therefore, sometimes pretended that they were researching and helping. Nevertheless, this did not mean that they received the same grade as their peers. During the assessment, this fact was taken into account in order to motivate students in the next class. Students indicated this challenge because the time to complete each task was limited.

The fourth challenge was "Border Control/SIWT (Students Individual Work with Teacher)." This challenge emerged because students received different additional tasks for SIWT. When they were asked to research material, it was observed that one or two students did the research for everyone. The other students do not want to elaborate and create something of their own. It is worth mentioning here, that local students took tasks more seriously than international students, because they receive state scholarship; whereas, international students study on a payment basis. In other words, local students might lose their scholarship if their grades deteriorate; whereas, students' registered on a payment basis, are only required to complete the course. One of the tasks that took two weeks to submit from international students was finding an article from a credible source. This appeared in a survey where 8% of respondents have mentioned it. It is simply explained by this respondent:

To prepare work in the library for the first time was challenging (Student_14, Male_20).

In contrast to the survey, focus group participants identified the benefits of this task. They acknowledged the significance of being able to identify credible sources and use this skill for further learning. This is an extract from a focus group discussion:

You also taught us to get credible data in the library, which other teachers do not teach us, they gave us only notes, books, that you should study this, they do not teach us how you can get other knowledge from other sources. Like you did, you gave us SRSP [SIWT] task to go to the library, how to talk to the librarian, and ask how to get data, credible data for philosophy, to go to different sites on Google, on kgmu [KSMU] sites, and this is really helpful for us in the future because other teachers do not give us these sites (Student_1, Female, Focus Group_2).

Border control is counted as intermediate control in order to measure students' knowledge. Here students have to revise all of the topics that were discussed during practical classes. For students it is easier to learn specific points than understand holistically. Consequently, they lacked conceptual learning. They rely on someone who will explain and build a comprehensive map for them. This caused a constraint when nurturing student-centered learning. Therefore, it was identified as a challenge to remember all of the required information, as this quote suggests:

Border control because I have to prepare all topics and some find difficult to explain (Student_34, Male_19).

To sum up this section, new methods of learning stemmed from a lot of challenges, although students emphasized their beneficial implications as well. These challenges were mentioned because they were unexpected, and consequently, students were unprepared for these activities. Their previous experiences were based on reproducing reading material without comprehension or being able to form their own concepts. In contrast, the new mode of teaching requires facilitating students' independent learning. Therefore, the role of students has adapted from consuming materials, to creating, building, and elaborating on their own concepts. The ffollowing section analyzes their perceptions of their learning experiences.

Second category: pros and cons of the subject matter

The second category 'perceptions' is divided into two categories; the ***pros***, those who had positive experiences from active methods of learning, and the ***cons***, those who described their experience negatively. The previous section underlined several challenges to student learning. This section looks at these issues from another angle. It also provides student perceptions of active learning methods. The activities were organized to provide a space for student-centered learning when working in teams, preparing charts, and topic presentations. This required the contribution of each member in order to finish the task on time. Most of the students (90.5%) remained satisfied with activities in practical classes and thought that they gained a lot from this type of learning. It seems that such activities are limited in other important medical subjects. In other words, elements of previous teacher-centered learning continues to dominate. Here is one of the quotes that reflects this point:

Usually our system says that we just come to class and retell the homework. If all other classes were as interactive as Philosophy class, we would have wonderful doctors in the future (Student_57, Male_19)

This quote shows that students lacked the space and skills to express their opinions, to feel themselves at the center of learning, and to create and interact with each other.

Despite this, being highlighted as a challenge in the previous section, students did learn to express their own opinions. For instance, this respondent emphasized their ability to express their point of view regarding learning:

Philosophy is the only subject that was undertaken in a different way. I really liked it and this method is more preferable to me. For SIW [student individual work] and SIWT [student individual work with teacher] teacher asks our own opinion, I learned how to summarize the information and add my view (Student_60, Female_19).

Moreover, working in groups, helping each other, nurturing a sense of teamwork, and the participation of each member during presentations, motivated students to support each other. They began to listen to, and learn from, their group mates, as was pointed out here:

In Philosophy class we discuss in groups, all students have new ideas, and they speak freely in front of the teacher and every student. However, other classes do not have this opportunity (Student_5, Male_19)

Student-centered learning requires the intervention of faculty members (Wohlfarth, Sheras, Bennett, Simon, Pimentel & Gasbel, 2008). In order to start a dialogue with students, teachers asked questions to initiate further discussion among students. This is how they perceived this activity:

Actually, Philosophy classes went on a higher level. Teacher was interested in our understanding of topics and tried to explain some things, which we did not understand while other teachers are just coming to lesson and start to ask the topic (Student_54, Female_18)

In focus group discussions, students mentioned that activities used during practical classes involved all students. This seems important for them, as this respondent says:

The point, which I liked the most, is you take students and make them participate in class. This is what you gave us, very important. ... (Student_3, Female, Focus Group_2)

Although the majority of students liked the activities, 9.5% of students had a different opinion regarding Philosophy classes. I noticed this indifference during class and I thought that students might have needed more encouragement and motivation. However, there was a much deeper reason, as this respondent pointed out:

It is good, but it is not important as other subjects just like Anatomy (Student_39, Male_19)

Some students do not perceive philosophy as a medical subject; therefore, they see no need to learn it. Upon raising this topic in focus group, discussions here was a big debate about it. However, this is how one of the students concluded the point and the rest of the students remained silent at the end of the discussion:

Generally, medical students wonder why we study philosophy. It is not, I also think that it is not useful in our fuller life in future, but this remains in our GK, general

knowledge. If we do not have general knowledge, we are unable to study society. So, learning of Philosophy, History of Kazakhstan, like local subjects, why study this subject is to get general knowledge. After that, we know about different cultures, like Islamic culture, also about Chinese culture, Greek philosophy, or Kazakh philosophy. In philosophy, we did not know about philosophers, but all are remains as general knowledge (Student_6, Male, Focus Group_3)

Overall, students were satisfied with the new methods of learning. Despite challenges, student's transitioning experience to self-regulated learning identified several important skills. In particular, they have learned to express their point of view, to listen to their peers and learn from them, to participate in team work and nurture team spirit, to summarize information, and finally, to present learned information and share it in front of the public. However, some students still question why they need Philosophy in medical school. A lesson learned from this section is that before Philosophy course' students might need an explanation or introduction about the role philosophy plays in their learning.

Conclusion

The aim of employing active methods of learning is not about mastering skills to mobilize your students, rather, to nurture students' accountability for their own learning and motivation, to enhance their capacity to build their own learning trajectory, and to be able to identify their own strengths and weaknesses and improve upon them through life-long learning processes. The purpose of course evaluations aimed at identifying these skills in students is consistent with research conducted by Golding & Adam (2014) that underlined the importance of student learning. The results of this study show that medical students at a Kazakhstani university still need the support of faculty members to understand their philosophy curriculum. This point supports the study conducted by Yilmaz (2009) which highlighted the challenges of cultural incommensurability with the implementation of student-centered learning. In addition, this study supports research undertaken by Umbach &Wawrzynski (2005) and Moscal, Stein, & Golding (2015) that emphasized the significance of the contribution of faculty members in creating a positive learning environment and improving existing systems. Individuals are different, and due to that, their learning practices should be monitored yearly. Finally, this study provides evidence and enhances knowledge by providing fresh perspectives of a group of undergraduate medical students throughout their transition to student-centered learning.

This study was limited as only 8% of the 772 students studying the second course of General Medicine, were sampled, and only 25% of the 253 students who also studied in English. However, based on categories that emerged from this study, new survey questions can be developed in order to gain an understanding of the undergraduate student learning experience.

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