

Research Insights
Исследовательски проникновения

FLIPPED CLASSROOM EXPERIENCE IN A HIGHER EDUCATION CONTEXT

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Abstract. Student-centred education has come to the focus of attention in the Hungarian higher education as well. In the student-centred higher education online and offline components are combined. One is part of the other and they create a unit together. Following the synthesis of professional literature the experience of a personal teaching initiative is going to be introduced, the basis of which was offered by the teaching organization method called „Flipped Classroom Model”. The purpose of this case study is to support non-traditional students in active learning. The phases of the case study are preliminary online questionnaire about learning from each other – mapping, getting to know earlier experience. Satisfaction survey after involvement, testing, the results of which were completed by oral, group interviews. The case study verified that the more successful the students think the collaboration and the collective reflection are with other group members, the more satisfied they are with the content of the accomplished product. The knowledge sharing and learning support effect of learning from each other were strengthened.

Keywords: higher education; student-centred learning; flipped classroom; non-traditional students; active learning

Introduction

Nowadays, as opposed to the teaching-centred approach, the student-centred education has come to the focus of attention in the Hungarian higher education as well, which can also be explained with the training of the more and more heterogeneous composition of students, among others. (Biggs & Tang, 2011; Brame, 2013; Henard & Leprince-Ringuet ; Kennedy, 2007; Kopp, 2013). In certain studies, for example, students who apply to higher education in their adulthood or learn beside working etc. are defined as “non-traditional students” (see adult students, lifelong learners, older students etc.) (Chung, et. al., 2014).

In the field of the Hungarian higher education three main approaches can be found concerning the methodological reform and support of learning: placing the students into focus; writings focusing on quality and quality assurance; and the direction connected to learning outcomes. These are also in harmony with each

other (Kopp, 2013). The student-centred higher education is “characterised by innovative methods of teaching which aim to promote learning in communication with teachers and other learners, which take students seriously as active participants in their own learning, fostering transferable skills, such as problem-solving, critical thinking and reflective thinking.” (European Students’ Union, 2015, p. 3). The student-centred education means that the learning activity of participants gets into focus during every phase of the education process (planning, organizing, accomplishment, evaluation). Learning is an active, activity-based, constructive process (Attard, et al, 2010; Biggs & Tang, 2011; Fry, et al., 2009; Kopp, 2013).

The pillars of student-centred education are formed by (European Students’ Union, 2015):

- building individual life experience and preliminary knowledge of the students;
- practice-oriented courses;
- diverse learning organization;
- problem-based learning;
- continuous and personal feedback;
- more formative assessment etc.

The student-centered education involves more formative assessment and less summative assessment than teacher-centered education. The problem-based learning can be interpreted as an educational strategy that builds the education process around looking for solutions for a particular problem. During learning, it does not offer ready-made solutions to students, it only supports learning: for example it gives orientation in professional literature, getting into contact with external experts, asks helping questions etc. Another task of it is the development of evaluation that helps during the process as well as the evaluation of results, solution of the problems. The students usually identify the problem in group work, collect their preliminary information and identify the areas where further learning is needed. The orientation, the acquisition of further information happen individually, then the elaboration, testing and introduction of solutions happen again in group works. The received results are evaluated also by the students. (O’Donoghue et al., 2011)

There are arguments for the student-centred approach and the approach focusing on learning outcomes, listed by the expectations of the labour market, too. With the change of the world of economy and labour, more and more needs are formulated towards the labour force. The labour market puts the emphasis mainly on practical competences. (cf. Ramsden, 2003; Tynjälä et al. 2006). “The learning outcomes are statements of what the individual knows, understands and is able to do on completion of a learning process” (European Commission, 2015, p. 10.) It focuses on the learning outcomes of students: the practice-oriented learning situations requesting and supporting active participation are appreciated. For example, writing case studies, participation in project work etc. The main competences expected by the economy are (cf. key competences):

- Flexibility and adaptability;
- Ability to learn individually and in a team;
- Ability to solve problems;
- Creativity;
- Reliability and predictability;
- Cooperation and communicational abilities, social competences;
- Ability to apply information and telecommunication technology etc.

The main features and differences of teaching- and student-centred approaches from the teacher and student side, as well as on the basis of the focus of planning and evaluation, are summarized in Table 1.

Table 1. Teaching-and Student-Centred Approaches in Higher Education

Features	Teaching-centred planning	Student-centred planning
Basic questions of the instructor	What to teach? How to teach it?	What kind of preparedness does a student have to cope with after the training?
Basic questions of the student	What to learn? What do I know?	Why do I learn it? How to learn it? What do I know?
Starting point and logics of planning	Starting from the supposed knowledge of the incoming student, it goes step by step to reach the aim.	Building from the outcome: defining learning results and then breaking them down concerning the students
Focus of planning	Syllabus content, teaching methodology, teacher activity	Competences, development process, student activity, organizing learning
Feature of evaluation	Summative	Formative, diagnostic and summative

Source: Vámos (2012, p. 2) (own translation)

The student-centred approach pays more attention to the individual higher education experience of the students. For example, how the students with different preliminary experience live the world of higher education, especially the first year students, since the higher education environment requires orientation in a completely new situation (Kopp, 2013).

During the study, the particular courses, the preparation for the career, the career socialization are becoming more and more defining, significant, that is, the process

of acquisition of behaviour ways, techniques, values and roles necessary for practicing the given profession get into the focus of attention even more dominantly.

In 2015, in the framework of an experience exchange addressing teachers (main organizer: TKA-EKF) we were wondering, among others, what kind of experience the teachers we asked have about the learning-centred approach. From the results of this experience exchange we can deduct that concerning the accepting of initiatives, the picture is very miscellaneous and it draws an arc: from “the indulgent smile”, through “the careful wait and see”, “the theoretical openness”, to “the use in everyday work”, the particular comments show the varied approaches well. The second half of the paper shows a teaching experience, a case study.

Methods

The purpose of this article is to know how the students get by the preparation for the lessons and the work during the lessons. The basis of the case study was offered by the „flipped classroom”. One of its advantages is that it can strengthen student participation, commitment and motivation, among others; it can support the development of the problem solving ability of the participants; it can reduce the early leaving of the institute and can increase the effectiveness of learning. “Flipping the classroom means that students gain first exposure to new material outside of class, usually via reading or lecture videos, and then use class time to do the harder work of assimilating that knowledge, perhaps through problem-solving, discussion, or debates.” (Brame, 2013: 1).

During the study, the students were asked to prepare for the next seminar together, in collaboration with one another: the contact lessons organized for the part-time students were held twice, with a 7 or 8-week difference. The learning from each other makes it possible that the students can get into contact and can share their experience and opinions (Crouch & Masur, 2001).

The students got some recommended literature and learning aids for starting the work and preparing for the next lesson. Solving and implementing one part of the task were consigned to the creativity and inventiveness of the students, since they had to agree together on what kind of common product they are going to make in relation to the received task and how they are going to present it.

Closed groups were created on Facebook to complete the study. The Facebook community site was a familiar surface for every participant, and it significantly facilitated the work. The number of closed groups was: 4 in case of the part-time students with Community Culture teacher major, the number of participants by groups was: 9-13 (altogether 48 participants). The average age was about 40 (the youngest participant was under 26, the oldest one above 55). The community site mainly aimed at facilitating contacting students, having the opportunity to contact each other directly. Those students can also cooperate who do not know each other well (students from other grades also enrolled the subject). To avoid spatial distance to be an obstacle of collective work, that is, to make the common

product to be created as simple as possible, in the framework of the “Methodology of adult education” teaching unit, participating students got the task to elaborate particular learner-centered teaching methods in a way that they make a presentation together for the other participants of the seminar. For example, they had to make a presentation about the situational method group in which they were going to present the theoretical basis. After that, they had the possibility to try the method in practice as well. In connection with the method above, they created different case plays, situations with the active involvement of peer students.

The phases of the case study were the following:

1. Preliminary online questionnaire about learning from each other – mapping, getting to know earlier experience.
2. After the second seminar, there was a satisfaction survey in which the views and opinions of students were measured. (The contact lessons organized for the part-time students were held twice, with a 7 or 8-week difference.)
3. The results of the online questionnaire were supplemented by group interviews, questions and answers.

Results

The “flipped classroom” model was used in 4 groups of part-time students, altogether 48 participants. The case study results show that in the case of part-time students, the supporting attitude of group members can fill an especially strengthening role. It was important to know how typical it is in general that responders use the support of peer students in preparing for an exam or test. The results show that more than nine-tenth of those questioned used it at least once, nearly six-tenth used it more times, mainly those who had the same accommodation during consultations or are friends with each other at the same time.

It is also interesting to understand how the supporting effect of learning from each other is seen by those who have already learnt something with others. One of the most frequent answers was that they could ask for help from each other (23 participants) when they got stuck, they could share note taking (21 participants), as well as they could denote a topic from more points of view, that is, “more eyes see more” (13 participants).

Next time, in the second part of the seminar, and at the end of the course again, an online survey and an oral interview were held.

While the study was being done, it was also noted how the students got by the preparation for the lessons and the work during the lessons. According to the feedback, three fourth of the students found it useful and supporting.

„For me the collective work was useful because our group members already had previous knowledge in the topic, so they could share not only the theory, but also the practice with me.” (M, 38) „Team work, change of experience, good mood, experience-like learning, widening of knowledge.” (F, 29)

Those students who could work together with their peers successfully and those who communicated regularly with each other during the preparation were more satisfied with the content of their accomplished presentations (Table 2).

Table 2. The Results of the Case Study (1-5)

	Without preliminary preparation - generally (n=48)	Preliminary preparation Flipped Classroom Model (n=48)
Collective reflection between students	4,2	4,8
Study effectively	4,3	4,7
Classroom participation	3,9	4,7

It was also asked what worked well and what helped the collective work efficiently according to the participants. They named mainly the cooperation (31 participants) and the simple, easy access to peer students (26 participants).

„Learning faster; cooperation, getting to know each other, the learnt material remains easier.” (F, 28) „It is easier to access everybody, there is no need for agreeing on an appointment, fast questions and answers.”(M, 34).

Naturally, it was also surprising what they thought worked less efficiently on the basis of experience. In one case out of the four groups, the participants thought that the Facebook surface itself did not redeem what they had hoped: „The Facebook learning circle did not work well, but I think it was because you could solve the task without it, too.”(M, 39), “trying of PPT together” (F, 42), some saw it in the cooperation itself: „There was an area where cooperation did not succeed.”(F, 29).

The Facebook is such a community site that is otherwise popular among students. Almost each major or division has its own Facebook group, where they can talk about everything connected to their university studies or they can ask questions from each other. According to their view, its possibility gives a sense of security, since “the problems are common”, they can contact other students anytime (to exchange notes, get information about exam dates, inform each other when somebody could not attend a consultation etc.)

Conclusions

The results of the case study show that the flipped classroom model promotes student-centred learning and collaboration, and the students have more control. The teacher creates possibility for reflective learning and supports the efficient development of abilities. During education, participants can also influence the particular activities and the area of learning. The case study confirms that such a solution strategy that comes from student communities, and exists among students, builds on cohesion between the students.

Regarding the learning from each other among students of different ages, the students emphasized mainly the different experience (24 participants) and the approach of the topic from different points of view (13 participants), which was found especially remarkable when sharing teaching experience in the case of the participants of the teacher training. „Those of my group mates who already teach, beginners or with many years of experience, knew well how to share their experience with each other, and those without teaching experience, could also benefit from it.” (F, 29).

The particular group interviews confirmed that the students who prepared for the classes in advance, actively participated on the contact lessons and found the work efficient. It was also well-outlined that the more accustomed the group was to each other, the more efficient they thought the collective work was. Probably, those learning communities of students which are organized voluntarily, encourage each other mutually; the cooperation for the common aim also stimulates their activity. Mostly those closed groups worked where the students knew each other to some extent. Those students who were in more direct relationship with each other, mainly preferred their well-tried channels (friends, mainly through major pairs). The student-centred approach is strengthened also by the expectations of the labour market. The practice-oriented, activity-based learning situations are more and more appreciated, and these promote the harmonization of trainings and labour market needs even more dominantly.

NOTES

1. Brame, C. (2013). Flipping the classroom. Vanderbilt University Center for Teaching. Retrieved November 2, 2016, from <http://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom>
2. European Commission (2015). ECTS Users' Guide. Retrieved December 10, 2017, from http://ec.europa.eu/education/ects/users-guide/index_en.htm
3. European Students' Union (2015). Overview on Student-Centred Learning in Higher Education in Europe. Brussels. Retrieved January 10, 2018, from <https://www.esu-online.org/wp-content/uploads/2016/07/Overview-on-Student-Centred-Learning-in-Higher-Education-in-Europe.pdf>
4. Henard, F. & Leprince-Ringuet, S. (n.d.). The Path to Quality Teaching in Higher Education. Retrieved December 12, 2017, from: <https://www1.oecd.org/edu/imhe/44150246.pdf>
5. Kopp, E. (2013). Tanulásközpontú programfejlesztés. (Learning-centred program development). Felsőoktatási Műhely, 2, 39-56. Retrieved January 21, 2018, from https://www.felvi.hu/pub_bin/dload/felsooktatasisimuhely/FeMu/2013_2/femu2013_2_39-56.pdf

6. Vámos, Á. (2012). Tanulási eredmények. (Learning outcomes). Retrieved December 10, 2017, from http://413.hu/files/Tanulasi_eredmeny_2013_04_10.pdf

REFERENCES

- Attard, A., Di Ioio, E., Geven, K. & Santa, R. (2010). *Student Centered Learning. An Insight into Theory and Practice*. Bucharest: Education International.
- Biggs, J. & Tang, C. (2011). *Teaching for Quality Learning at University*. Open University Press.
- Chung, E., Turnbull, D. & Chur-Hansen, A. (2014). Who Are “Non-Traditional Students”? A systematic review of published definitions in research on mental health of tertiary students. *Educational Research and Reviews*, 9.
- Crouch, C. H. & Mazura, E. (2001). Peer Instruction. Ten years of experience and results. *American Journal of Physics*, (9) 970-977.
- Fry, H., Ketteridge, S. & Marshall, S. (2009). *A Handbook for Teaching and Learning in Higher Education. Enhancing Academic Practice*. Third edition. New York and London: Routledge.
- O'Donoghue, G., McMahon, S., Doody, C., Smith, K. & Cusack, T. (2011). Problem-Based Learning in Professional Entry-Level. Therapy Education. A Review of Controlled Evaluation Studies. *Interdisciplinary Journal of Problem-Based Learning*, 1, 54-73.
- Ramsden, P. (2003). *Learning to Teach in Higher Education*. London: Routledge.
- Tynjälä, P., Slotte, V., Nieminen, J., Lonka, K. & Olkinuora, E. (2006). From University to Working Life. Graduates' Workplace Skills in Practice. (pp. 73-88) In. Tynjälä, P.; Välimaa, J. & Boulton-Lewis, G. (eds). *Higher Education and Working Life – Collaborations, Confrontations and Challenges*, Elsevier Ltd.

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