

Learning in outcome based education – does it lead to student engagement?

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Summary

Outcome based education (OBE) has been at the centre of European higher education reforms since the Bologna process in 1999 and has been implemented in Estonia since 2009. The knowledge, skills and attitudes expressed in the learning outcomes are key tools in supporting the implementation of student-centred learning. Although, the aim of the learning outcomes is to maximise support for students' individual development, it has emerged that OBE in Estonia is not fully practiced or implemented in the expected ways (Pilli & Vanari, 2013; Tammets & Pata, 2013; Udam et al., 2015). Moreover, learning outcomes are often seen as a bureaucratic burden that fulfils the aims of managerial and auditing processes, but not the actual needs of students (Hussey & Smith, 2008). Most of the research within this topic is focusing on the challenges at the institutional levels, but there is little research that would reveal how students and teachers are experiencing the changes in the higher education area (Hadjianastasis, 2016) and whether these changes fulfil teachers aims in supporting students' personal development.

The research conducted in Estonian higher education show that there are problems, but also positive examples in implementing OBE. Pilli and Vanari (2013) acknowledged that the transition to the OBE has not been easy, but over the years, a positive trend in the alignment of learning outcomes, assessment tasks and learning assignments has emerged. Moreover, the external quality assessors' evaluations of the higher education institutions have pointed out that the challenge in today's Estonian higher education resides in transforming the teaching and learning paradigm into student-centered learning (Udam et al., 2015).

Although there are many positive steps taken towards student-centred OBE we have to acknowledge that the changes in learning and teaching paradigm take time (Rutiku et al., 2009). Recent studies show that active, self-regulated learning is not so common among Estonian students (Kumpas-Lenk, *in review*; Pilli et al., 2013; Roosalu et al., 2013; Vadi et al., 2014). Overall, students are

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satisfied with their learning experiences, the lack of major obstacles in achieving the intended learning outcomes (Kumpas-Lenk, *in review*), and their educational comfort zone (Vadi et al., 2014). Additionally, they do not feel the need for the implementation of student-centred learning or achieving personal learning goals (Roosalu et al., 2013), nor are they engaged or put any effort into their learning (Kumpas-Lenk et al., 2014). The results also show that students did not have enough opportunities to choose how to learn and to take responsibility of their learning. The research regarding Estonian students' learning illustrates how the changes have been put into practice and accepted.

The results of previous investigations based on the eVALUate student survey show that changes towards student-centred learning are not apparent in the latest surveys, because the agreement percentages of student engagement items are the lowest (Kumpas-Lenk et al., 2014). Research has shown that student engagement is the key between student-centred learning and achieving learning outcomes (Carini et al., 2006; Zepke et al., 2014) that are one of the universities quality assessment measures (Kahu, 2013). According to Kuh (2009), student engagement is mostly used when we talk about the quality of the students' time, the effort that they invest in reaching their goals, and the universities time and effort devoted in creating productive and engaging learning experiences (Kuh, 2001, 2009). Although, student engagement has been extensively studied, there is still confusion on how to clarify the construct of engagement. Kahu (2013) has systemised the research regarding student engagement approaches, which are: the behavioural perspective; the psychological perspective; the socio-cultural perspective and a holistic perspective. The proposed conceptual framework of student engagement acknowledges the importance of the student and the institution while recognising the critical influence of the socio-cultural context. In this study, we use Kahu's (2013) conceptual framework as the basis of characterising student engagement. In detail, we look at the aspects of the behavioural and psychological perspectives in the context of OBE.

In order to find out how OBE has been practiced, we need to understand how study processes have been planned and how students perceive these processes. Next to this, we cannot forget those who are at the centre of these processes – how motivated and ready are students for student-centred learning. The aim of this paper is to find out how students and teachers perceive the implementation of OBE by determining the factors, which aid the students' achievement of the intended learning outcomes. This study seeks answers to the following research questions:

1. According to students and teachers perceptions, how are the factors of learning process, student motivation, engagement and satisfaction supporting students in achieving the intended learning outcomes?

2. What patterns emerge in students' and teachers' perceptions between student engagement and the components that support students' achievement of the intended learning outcomes?

This study was one part of a larger investigation, where a mixed type student evaluation survey, called eVALUate (Oliver et al., 2008), adapted in the Estonian context, was used to determine students' and teachers' experiences of students learning and achievement of the intended learning outcomes in their unit. The evaluation survey comprises 14 items, which ask students' perceptions on a categorical scale (strongly agree, agree, disagree, strongly disagree and unable to judge) regarding what supported their achievement of unit learning outcomes (Items 1–7), what they bring to their learning in terms of their motivation and engagement (Items 8–10), how satisfied they are with the studied unit (Item 11), what helped and hindered their learning with suggestions for improving the studied unit (Items 12–14) (Kumpas-Lenk et al., 2014). This study focuses on the quantitative section of the student evaluation survey (Items 1–11).

The participants were recruited from eight faculties (fields of economy, arts, health, social sciences) from six Estonian higher education institutions. A total of 1329 student surveys and 94 teaching surveys suitable for analysis were received (students' response rate = 36.2%, teachers' response rate = 83.2%).

To find out student and teacher perceptions about students' achievement of the intended learning outcomes, an aggregated percentage agreement (sum of the percentage of responses "Agree" and "Strongly agree"; "Achieved fully" and "Achieved mostly") was calculated and presented. In further analysis, "Uncertain" responses were eliminated and the analysis was carried out based on the 4-points Likert-type scale from "Strongly disagree" (1) ... "Strongly agree" (4). To determine statistically significant differences among teacher' and student' perceptions a non-parametric Mann-Whitney U-test was calculated by using SPSS Statistics Version 23.0. Average and means were calculated to illustrate the aspects where significant differences emerged. For explaining the results of student engagement items and aspects that support students' achievement of the learning outcomes a regression analysis was performed using the Backward method.

The results show that the components in the learning process (clear learning outcomes, experiences, resources, assessment, feedback, workload, teaching methods), student motivation and satisfaction support students in achieving the intended learning outcomes. However, student and teacher perceptions of the engagement items were much lower, which indicates that OBE is not fulfilling its aims in supporting student-centred learning where students take an active role and responsibility for their learning experiences. The analysis also showed that students and teachers experience students' learning in OBE

similarly, most of the teacher and student responses were not statistically different, except the assessment tasks, motivation and satisfaction items.

In order to explain the low agreement of student engagement items a regression analysis was conducted. The aim was to find out which components predict students' best use of the learning experiences (Item 9: *I prepare for the lectures, seminars in order to take the maximum use out of these*) and effective learning (Item 10: *I thought about how to learn more effectively in this unit*). The analysis of teacher responses showed that effective learning, workload and the learning environment predict the results of students' best use of the learning experiences and best use of the learning experiences, motivation and satisfaction predicted the results of effective learning. The analysis of student responses was similar and therefore effective learning, motivation and workload predicted the results of students' best use of the learning experiences. The results of the best use of the learning experiences, motivation and satisfaction items predicted the results of the effective learning.

It is evident that the change in teaching and learning paradigm with the help of OBE has not been fully put into practice. For engaging students, teachers and students should work as partners and focus on creating an environment that fully supports students' self-directed learning, use active and engaging learning methods and to take responsibility for their learning.

Keywords: outcome based education, student engagement, achievement of the intended learning outcomes in higher education, students and teachers' perceptions.