

Students' motivation and subjective task value of participating in online and blended learning environments



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ABSTRACT

Online and blended learning (OBL) is intended for individualising education. However, while OBL attracts a diverse range of students, teachers lack insight into this diversity, which hinders them in anticipating students' individual needs. The present mixed methods' study examines the reasons and values that students in a teacher training programme in higher education attribute to their participation in OBL. Firstly, three motivational profiles were distinguished. Furthermore, the students value the flexibility and the face-to-face moments in OBL. However, based upon students' current experiences, costs - seen as negative aspects of OBL - seem to emerge. While students mainly mention costs regarding education in general (e.g. a high workload), they also indicate specific costs concerning OBL (e.g. harder to organise group work). A cost-value balance affects students' decisions to persist. Therefore, this study provides the values and costs that teachers should bear in mind for each profile.

1. Introduction

Online and blended learning (OBL) is increasingly used (Graham, Woodfield & Harrison, 2013) because it creates more flexible learning opportunities for students. The fully online instruction or the combination of online and face-to-face instruction (i.e. blended learning) (Boelens, Van Laer, De Wever & Elen, 2015), allows students to engage in learning at their own time, pace and place. However, the high student dropout rates in these environments raise concerns (Deschacht & Goeman, 2015; Rekenhof aan het Vlaamse Parlement, 2013). This elicited research into student factors that influence student persistence. One line of research indicates that it is important to understand students' motivation because it accounts for their engagement and success at school (Guay, Ratelle & Chanal, 2008; Lopéz-Pérez, Pérez-López & Rodríguez-Ariza, 2011). Since OBL environments provide independent learning with less face-to-face human support, motivational problems can cause students to be at risk of dropping out more easily (Cho & Jonassen, 2009; Fryer & Bovee, 2016).

Teachers and institutions should target the dropout by promoting students' motivation. This can be done by designing the pedagogy and the OBL environment in a way that aligns with students' needs and interests (Hegarty, 2011). Therefore, teachers need a clear understanding of, for instance, students' motivation why to participate in online or blended education (Fryer, Bovee & Nakao, 2014). According

to the expectancy-value theory of Wigfield and Eccles (2000), the subjective values students attribute to a task is a factor that shapes motivation. For example, attributing a low value to learning in an OBL environment could denote that the student is not convinced of the effectiveness of OBL and will be less motivated to learn and persist (Fryer, Bovee & Nakao, 2014). In a preliminary study, the authors (Vanslambrouck, Zhu, Tondeur, & Lombaerts, 2016) examined students' perceptions of the OBL environment and concluded that students mention freedom as a positive aspect and (lack of) interaction during distance moments as a negative aspect of OBL. The current research aims to explore these perceptions in more depth by examining the value they represent.

The open nature of OBL allows people with diverse previous work, life and educational experiences, to engage in education. This results in a heterogeneous group of online or blended learning students with a diversity of goals, motivations and expectations (Hegarty, 2011). This makes understanding the motivation and values of students a challenging task and may cause teachers to lack a clear view and knowledge of the diversity of students. Research is required that focuses on the diversity of students in the unique OBL environment, thereby addressing a gap in the current examined literature. Therefore, this study aims to explore the main motives of students to enrol in education in general, and the value they attribute to learning in online or blended education. The results of this study may assist teachers in the adjustment of their

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pedagogy and the OBL environment, to meet the needs of the students.

2. Theoretical background

2.1. Motivation to participate: self-determination theory

Motivation is the driving force of students' choices and the extent of their engagement, effort and persistence in their learning process (Dörnye & Ushioda, 2011). In their self-determination theory (SDT), Deci and Ryan (2000) show that students can be motivated in different ways. The continuum of different kinds of motivations in the self-determination theory represents: (1) intrinsic motivation, which means that people learn for the pleasure they get out of it; (2) identified regulation, where individuals learn because it is personally relevant to them; (3) introjected regulation where people learn because they want to avoid shame or guilt; (4) external regulation, where people learn to obtain positive outcomes or avoid negative ones and (5) amotivation, where people lack motivation to learn or persist.

An extensive range of previous research on students' motivation to learn suggests that motivation is important for several student outcomes. For example, some researchers indicate that it explains students' performances (Hegarty, 2010; López-Pérez, Pérez-López & Rodríguez-Ariza, 2011; Yli-piipari & Kokkonen, 2014), predicts the persistence of students (Hegarty, 2011), or influences students' satisfaction with the course (Svanum & Aigner, 2011). Based upon the SDT, intrinsically motivated students seem to persist more and gain higher qualifications (Guay, Ratelle & Chanal, 2008; Rothes, Lemos & Gonçalves, 2014). In line with this, Fryer, Bovee and Nakao (2014) argue that students who are amotivated are more at risk of dropping out. Another example is the review of Reeve, Deci and Ryan (2004) in which a great deal of literature shows a link between autonomous regulation and positive outcomes like persistence and higher grades.

Some researchers go even further and prove that students can have a wide range of reasons to participate in education (e.g. Gorges, 2016) and can even have multiple motivations at once. Based on the aforementioned motivation types of Deci and Ryan (2000), Boiché and Stephan (2014) developed five motivational profiles of students, explored from a person-oriented approach: (1) the additive profile with high levels of intrinsic motivation, identified, introjected and external regulation; (2) the self-determined profile with above average levels of intrinsic motivation and identified regulation; (3) the moderate profile with above average levels of identified and external regulations; (4) the low profile with a mean score for amotivation and (5) the non-self-determined profile with above average scores for introjected regulation and high scores for external regulation and amotivation. They further state that these profiles have significant relevance with the grades of students, meaning that the motivation is an important aspect for success in an educational programme (Boiché & Stephan, 2014). The preliminary research of Vanslambrouck et al. (2016) showed that students are mostly motivated for controlled reasons but at the same time have multiple motives to enrol in education. Therefore, the current study uses motivational profiles, based on the SDT, to explore students' motivations.

2.2. Motivation in OBL: expectancy-value theory

The above-mentioned results for the influence of motivation on dropout and success in education raise awareness of the importance of motivation for OBL environments where dropout rates are considered high. Furthermore, motivation is especially important in OBL environments, where students get autonomy to learn independently with less teacher regulation or less face-to-face human support and interaction (Cho & Jonassen, 2009; Fryer & Bovee, 2016; Fryer, Bovee & Kaori, 2014).

The benefit of OBL is that teachers can personalise learning by adjusting their pedagogy and online environment to the motivation of the

students, which helps them perform at more personal levels (Hegarty, 2011). However, it is already complicated as students can have multiple motivations, but the heterogeneity of students in these OBL environments (Stavredes, 2011) poses an even bigger challenge for teachers, to clearly grasp the motivations of their students. Furthermore, teachers need to know more than just the reason or motivation why students learn. Hence, more research is needed that provides information about how students' motivation is shaped.

The expectancy-value theory of Wigfield and Eccles (2000) can provide a basis regarding how students' motivation is shaped and is therefore used in this study as the main theory. While the self-determination theory describes the motivations that affect the behavior of students, motivation itself is shaped by mental processes (Dörnye & Ushioda, 2011) which are conceptualised in the expectancy-value theory as the self-efficacy and the subjective task value of students. In this way, the expectancy-value theory and the SDT are linked, whereas the motivation of the SDT is considered as a reaction to the expectations of students and the value they attribute to their tasks (Eccles & Wigfield, 2002).

This is confirmed in the study of Lopéz-Pérez, Pérez-López and Rodríguez-Ariza (2011) who indicate that the perceptions of the students about the utility of e-learning are correlated with their motivation to attend classes. Furthermore, Deci and Ryan (2000) confirm this, by stating that self-efficacy is necessary for all sorts of motivation. Subsequently, Fryer, Bovee and Nakao (2014) argue that students who are amotivated are characterised with low self-efficacy and low task value.

The component of the subjective task value is composed of four kinds of values (Eccles et al., 1983). Applied to the current study, the 'task' of students is regarded as their participation in an online or blended course. Firstly, there is intrinsic value. This refers to the pleasure one has in participating or the subjective interest they have in their education and can be matched with intrinsic motivation. Secondly, if students find it personally important to do well during their participation, it refers to attainment value. This includes among other things the will to demonstrate their competences and to keep their dignity by avoiding shame and guilt. Thirdly, the utility value refers to the usefulness of participating; for instance, because it helps to attain future goals. This refers to extrinsic motivation. Fourthly, costs are also considered as values and refer to the negative aspects of participating in online or blended education (e.g. technology issues) (Vanslambrouck et al., 2016).

Additionally, prior research shows that expectancies (de Fátima Goulão, 2014; Fryer & Bovee, 2016) and values (Chiu & Wang, 2008) are significant predictors of students' intentions to persist in e-learning. However, Bandura (1986) states that students can have a high self-efficacy standard but still drop out, if they believe that their learning process is of low value and/or has too high costs. Nevertheless, research related to values in online and blended learning is scarce in comparison to that of self-efficacy. Therefore, this study focuses on the value students attribute to their learning process in the specific context of OBL. Furthermore, since studies that focus on value mostly ignore costs (Wigfield & Cambria, 2010); this study also considers costs that are attributed to the specific context of OBL.

3. Present research

Understanding the motivation of students with the aim of personalising their education is a challenging task in OBL environments, as students in OBL environments are very diverse. However, it is regarded as a first step towards reducing dropout rates, which can arise from a lack of success for students. Therefore, the current study has the aim of tackling this problem by firstly using the SDT for preliminary quantitative research on the diversity among students' motivations to participate in education. This is done by analysing the motivational profiles of students. Thus, the first research question in this study is:

What kind of motivational profiles can be identified among students

in an OBL programme?

Secondly, the present study explores qualitatively more in-depth which different values students attribute to their learning in the specific context of OBL. Therefore, we use the expectancy-value theory. In this way, a second research question is developed:

What specific values do the students attribute to their participation in an OBL teacher training programme?

Thirdly, this study divides the values students mention in (1) values attributed to the specific OBL environment, or (2) values attributed to their participation in education in general. Sequentially, it is examined as to what extent the specific values attributed to the OBL environment dominate the general value of students to participate in education. This will give an indication about whether OBL itself plays a big role in the decision of students to enrol in education or to persist. This leads to a third research question:

Which role do the specific values to learn in OBL play in the general value of participating in education?

Finally, previous literature (e.g. Chiu & Wang, 2008) states that the motivation types of the SDT can be linked to the values of students in the following way: intrinsic motivation represents the intrinsic value; introjected regulation represents attainment value; identified and external regulation represents utility value. Hence, it can be assumed that people with different motivations, defined by the SDT, also attribute different values to their OBL education. Therefore, the following research question is explored:

Is there a link between student motivational profiles and their subjective values?

4. Method

This study is conducted using a mixed-method approach (Johnson & Onwuegbuzie, 2004). Firstly, quantitative data were collected to answer the first research question by developing motivational profiles. Results of this phase informed the development of the second phase by serving as a selection tool. This means a development mixed-method approach is applied (Greene, Caracelli & Graham, 1989). A selection of participants from each motivational profile were contacted again to participate in an interview regarding the values they attribute to their participation in online or blended education. This second, qualitative phase provided an answer to the second and third research question. A complementarity mixed-method approach with both qualitative and quantitative phases was used to measure overlapping but also different facets of a phenomenon (Greene, Caracelli & Graham, 1989), yielding an answer to the fourth research question. By doing so, we could explore whether the values represent the different motivational profiles and provide elaboration, illustration and clarification of the profiles with quotes from the interviews (Greene, Caracelli, & Graham, 1989).

4.1. Procedure and instruments

Firstly, a survey was distributed to gather information on students' (1) socio-demographic characteristics (age and gender), and (2) motivation to learn. The motivation to learn was measured using the Academic Motivation Scale (AMS) of Vallerand et al. (1992). The scale includes 20 items probing students' motivations to participate in education. Items are rated on a 5-point Likert scale anchored between 1 (= totally disagree) and 5 (= totally agree).

Since the AMS was translated into Dutch, a confirmatory factor analysis (CFA) was conducted with Lavaan (Rosseel, 2012) to test the validity and reliability. Furthermore, we explored the extent to which the theoretical model - in this case, a five-factor model corresponding to the five kinds of motivation of the SDT - is adequately represented by the data. The Satorra-Bentler test was used in the CFA to correct for the high Kurtosis of the motivation subscales. The fitness index of the original model with the five factors was not satisfactory ($\chi^2(160) = 0.000$,

$p < 0.01$; CFI = 0.871; TLI = 0.847; RMSEA = 0.070 and SRMR = 0.086). Based on bivariate correlations, the item "Because I want to have the good life later on" from the subscale 'external regulation' was deleted. The fit indices for the model without this item were acceptable ($\chi^2(142) = 0.000$, $p < 0.01$; CFI = 0.905; TLI = 0.886; RMSEA = 0.061 and SRMR = 0.081). All subscales appear to display adequate levels of internal consistency with Cronbach alphas ranging from 0.70 to 0.89.

Secondly, semi-structured interviews were conducted by the researcher, preceded by signing an informed consent. The interviews lasted about 60 min and included questions on topics such as the personal background of the students, their reasons and values attributed for participation in education and the perceptions and values they attribute to learning in the specific context of online and blended education.

4.2. Participants

The participants were students in higher education who enrolled in a teacher education programme. Teacher education programmes are provided by universities, university colleges and adult education centres (AEC's). This study focuses on AEC's, since modules in a teacher education programme in AEC's are often offered in an OBL mode, for the convenience of their target audience. In the first phase, after checking for both univariate and multivariate outliers, the sample consisted of 166 participants from three different AEC's. The ages ranged from 20 to 56 years old. There were 73% female and 27% male participants.

In terms of motivation, results from the AMS indicated that the students score high on intrinsic motivation (mean = 3.84, SD = 0.92) and identified regulation (mean = 3.98, SD = 0.75). In other words, they are autonomously motivated to learn. Furthermore, they score average on external regulation (mean = 3, SD = 1.15), slightly low on introjected regulation (mean = 2.64, SD = 1.03) and low on amotivation (mean = 1.59, SD = 0.66).

For the second phase, students who had participated in the first phase and indicated in the survey that they would like to participate in further research were randomly contacted until we had students from every profile. This led to a diverse group of nine students (five males, four females) who participated in an interview, whose ages ranged from 23 to 53 years old. The participants were diverse as regards (1) their family situation (some still living with their parents, while others already have their own family with children), (2) their education level (one participant had no prior degree, while others had a secondary, bachelor's or master's degree), and (3) their employment status (both unemployed and fulltime employed people participated). Four of the participants were already working as teachers.

4.3. Data-analysis

In the quantitative phase, the data were firstly checked for normality and outliers to avoid distortion in the cluster formation. Second, cluster analysis was conducted using SPSS 23 to identify motivational profiles. A two-step procedure was used with firstly, a hierarchical cluster analysis with Ward's method and squared Euclidean distance, to explore the number of clusters that emerge naturally, and secondly, a k-means procedure to assign the students to their profile.

In the qualitative phase, content analysis (Patton, 2015) is used, after transcribing and anonymising the interviews, to adequately reflect the students' subjective task value of participation in education and OBL. A first step in the analysis was to subdivide the data in pre-determined deductive categories, identified from the expectancy-value theory (Wigfield & Eccles, 2000). The categories were: intrinsic value, attainment value, utility value and costs. Additionally, these categories were further inductively differentiated, which means that smaller categories were constructed, based on the inductive codes used during the

analysis of the data. This was done to enrich the deductive derived categories and was done twice; once for the general values and once for the specific value of OBL.

As regards the trustworthiness of the current study, Lincoln and Guba's criteria for qualitative research (1985) were taken into account. Triangulation of qualitative and quantitative analysis helped to sustain credibility. In addition, by thoroughly recording thoughts, methods and decisions in a research diary, the principal investigators aimed to enhance dependability. To monitor the study's confirmability, biweekly debriefing meetings were organised with the project steering group, teachers and experts in OBL. During these meetings, analysis methods and findings were discussed from different perspectives, which aimed at preventing researcher bias and enhancing the neutral positionality of the principal researcher.

5. Key findings and discussion

5.1. Motivational profiles

Based on the quantitative data, the motivational profiles of the students were analysed to address research question one. The cluster analysis results, based on the academic motivation subscales (Vallerand et al., 1992), revealed three motivational profiles. The naming of the labels was based on the terminology of Boiché and Stephan (2014). The profile with the most students (52%) is referred to as the additive profile. It shows high scores on intrinsic motivation and identified regulation, above neutral scores for introjected and external regulation and low scores for amotivation. This means that students in this profile have a variety of both autonomous and controlled motives to enrol. The next profile is characterised by high intrinsic motivation, above neutral scores on identified regulation and low levels of introjected and external regulation and amotivation. This profile is called the 'self-determined' profile and concerned 27% of the respondents. Finally, the last profile includes 21% of the respondents and is denoted as the 'moderate profile'. Respondents score above neutral on identified and external regulation, below neutral on intrinsic motivation and low on introjected regulation and amotivation (See Fig. 1). These results are in accordance with the study of Boeren (2011), suggesting that students do not participate for one specific motive but rather for a diversity of different motivations.

The results from comparisons using ANOVA showed that the mean scores on the different kinds of motivation - intrinsic motivation $F(2, 165) = 90.771, p < 0.001, \eta^2 = 0.53$, identified regulation $F(2, 165) = 20.840, p < 0.001, \eta^2 = 0.20$, introjected regulation $F(2, 165) = 59.945, p < 0.001, \eta^2 = 0.42$, external regulation $F(2, 165) = 101,446, p < 0.001, \eta^2 = 0.55$ and amotivation $F(2, 165) = 7.183, p < 0.05, \eta^2 = 0.08$ - varied significantly between the motivational profiles. Furthermore, a multivariate analysis of variance (MANOVA) was used to explore whether the scores on the different motivation types together differed across the clusters. We used MANOVA instead of a series of ANOVA's to reduce the Type I errors and keep the relationship between the dependent variables intact. A significant Wilks's lambda, $F(10, 318) = 50,806, p < 0.01, \text{partial } \eta^2 = 0.615$, indicated

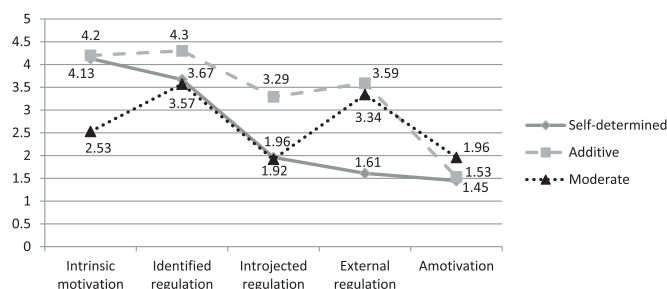


Fig. 1. Mean scores of motivation for each profile.

Table 1
Categories of values attributed to participation in OBL education.

Deductively derived categories	Inductively derived categories for general participation	Inductively derived categories for the value of OBL
Intrinsic value	Learning pleasure Content interest	Self-study Working with technology
Attainment value	Job performing pleasure Self-esteem Social affirmation	Social contact Independent learning Social motivation
Utility value	Satisfying old needs Teaching job Financially Time	Flexible learning Face-to-face moments New skills
Costs	Feel good Workload Relationship risks Mental issues	Personal sacrifices High effort in distance moments High effort for social help Technology

differences in motivation between clusters. In this way, this supports the distinctiveness of the motivational profiles.

Lastly, chi square tests of association were used to examine whether the membership in the profiles varied corresponding to gender or age. All of the results revealed no significant age-related ($\chi^2(4) = 3.486; p > 0.05$) nor gender-related ($\chi^2(2) = 5.341; p > 0.05$) differences between the clusters.

5.2. Subjective values of participation in education and in OBL

Based on the interview data, students' subjective values for learning in OBL environments were analysed. As mentioned in Section 4.3 (Data-analysis), the deductive categories were pre-determined categories derived from the expectancy-value theory (Wigfield & Eccles, 2000). The inductive categories were derived from the qualitative analysis. Table 1 gives an overview on the final set of categories for both the value attributed to their participation in education in general and their specific participation in OBL. Furthermore, as an answer to research question two, results are presented for every kind of value by using quotes of the students who are referred to with pseudo names.

5.2.1. Intrinsic value

As regards the intrinsic value, results showed that the greater part of the students indicated that they find learning a pleasant activity (cf. Gorges, 2016). They stated that they are studious and participation in education "is useful because I keep learning and studying will not become strange to me in this way". Another aspect that refers to the intrinsic value is that students see the content of the course as interesting and relevant for them. A quote from Inge illustrates this:

I don't know anything about teaching, I would not know how to do that, so I think it's interesting to learn aspects like: how to behave in front of a class, the class management, the group dynamics, how to know the initial situation of your students, ... I think it is really interesting what I learn in class.

Furthermore, the students valued the job-related actions they perform during their education. They sometimes had to teach mini-courses to each other, which Jeroen experienced as "particularly pleasant because I can put some of my energy in it". They find it enjoyable to transfer their specific knowledge to each other.

Within the context of the specific OBL environment and its role in the intrinsic value of students, few aspects contributed to this value. Self-study, interpreted as independently searching for more information or autonomously going through the course material, was mentioned only by Laurent as something that he likes. In OBL courses, this is somewhat expected from students but he would do it on his own

initiative, even if he is not in an OBL course. So, it is an aspect of OBL that raises pleasure for him, next to using the internet. He stated: “I like doing things through the internet, making assignments through the internet. I’m good at it”. Furthermore, the social contact that is still present in OBL was appreciated and a must for social interactions (Akkoyunlu & Soylu, 2008). To illustrate, Conny mentioned she could choose to do her teacher training fully online, but that she did not do that because she liked the social contact. Also, Lucas said: “Fully on-line... hmmm, I would miss personal contact”.

None of the other participants mentioned that they experienced pleasure from the self-study, the use of technology or social contact. Some of them even clearly stated that “this [participation in education] is really for my job and not for fun, believe me”. However, they did indicate the importance of technology, social contact or self-study, which are discussed in the sections about attainment value and utility value.

5.2.2. Attainment value

For two participants, achieving their teaching diploma is something they had always wanted to do. They had not done it back then and regret it now. So, for them, participating in their education to satisfy an old need is personally valuable.

Furthermore, eight participants referred to the importance of their education for their self-esteem. Of these participants, five mentioned that they wanted to ‘show’ themselves and make themselves or others proud. This was illustrated by Frauke who said: “I like to be able to say to others: look I’m doing it”. Also, Laurent mentioned that his participation in education is personally important because:

I know I can do it and I know that it is my thing and I want to show that. It’s a kind of self-expression, of self-realization. Doing things of which you know you can do it, that you realize that you can do something and wanting to show this to yourself but also to others.

Five participants referred to their self-esteem by saying that they would feel ashamed if they should quit their education before graduating. Frauke even said she would “see it as a failure”. Lucas had one experience where he had not succeeded in his module. He stated: “It hurt. It felt like a failure but you have to get back on your feet”.

The last aspect that students valued in their participation is the social affirmation they got from peers or family. It is “useful and motivating”, according to Angela.

With respect to the attainment value of the specific OBL environment, again the environment had not much personal value for the students. Two participants indicated that they valued OBL because they learned to work independently and this is important because they were adults and “they are supposed to do it to some extent”. Furthermore, they valued the few social contacts they had in OBL because it motivated them (cf. Brown, 2003; Lopéz-Pérez, Pérez-López & Rodríguez-Ariza, 2011). Laurent referred to peers and indicated that “the social aspect, to vent, also informal, that is important”. The social contacts with the educational staff were also valued, as Frauke said: “I have the feeling that those people, who guide you, you don’t see them a lot but they stimulate you to progress”. However, teachers should be aware that the preference for the amount of face-to-face moments differs for each student (Owston, York & Murtha, 2013).

5.2.3. Utility value

This value is the most extensively mentioned value attributed to participating in education. More specifically, the value mentioned most as regards to the utility of their participation in education, can be linked to the teaching job. Whether it is to be able to perform the job after they graduate, to keep their current job as a teacher or to have a job alternative, they indicated that they wanted the diploma because, as Jeroen said: “If you are applying for a teaching job, you have to be able to show your diploma, so it is useful to have it”. As in the study of Roness and

Smith (2010), about a quarter of the students take the course to have more options in the labour market. They see teaching as an alternative job and are not yet sure if they will actually perform it. This can be linked to their employment status. Participants, who have a job related to their diploma, see their education as a means to obtain an alternative job. The other participants take the course to keep their current job as a teacher or to no longer be unemployed and obtain a job as a teacher.

The goal of graduating from teacher training and possibly become a teacher, holds other utility values too. The financial benefit when becoming a teacher was valued by four participants. The time benefits were also valued. Lucas valued his participation because, with the diploma, he can work as a teacher. As for him, this will give him more time with his children. He stated: “I was [in his former job] a lot on the way so my children nearly never saw me, even at the weekend”. The ‘feel good’ they got while performing a job as a teacher was also mentioned as a utility value. In this respect, Laurent said: “For me it’s even important to feel good, the self-realization, making a job out of your hobby”. Thijs mentioned that he did not feel good at his former job. He said: “I should have done it a long time ago [enrolling in teacher education] because I felt I was different [at his former job], I didn’t fit in there”.

It is clear that the specific OBL environments are mainly valued for their utility, since this value was, in contrast with the other values, mentioned a lot. More specifically, OBL was considered as especially useful in its flexibility in time, space and pace of learning. The participants all mentioned that “you do it [distance education] whenever you want, in the order you want and how long you want” and “you can do your own thing, at your own pace”. The latter was especially important since two participants said that the classical courses went too slowly; one participant said the classical courses went too fast and another participant said she went faster over contents that were less interesting for her. This flexibility of OBL made their education feasible. Six participants stated that “it would not be feasible with my job” if it were not OBL. This is in line with the research of Styer (2009) and Ruffalo Noel Levitz (2016), who mentioned that the convenience and flexible pacing are enrolment factors for online programmes. This indicates that students want their education to fit into their situation and that OBL is valued for it.

The less flexible, face-to-face moments in blended learning were the second aspect participants valued, as these seem beneficial for learning and achieving their goal to succeed. Respectively, participants indicated that in face-to-face moments “everyone asks questions, even about things you did not think of and then you discuss and learn from each other”. Additionally, the teacher will also tell more anecdotes from his or her own experiences during face-to-face moments. Furthermore, two participants stated that some content, like for example, learning how to deal with bad-news-conversations, need practical exercises, and can only be achieved in face-to-face moments. Four participants valued these face-to-face moments in OBL because they think they can more easily succeed in their education if they have these moments.

In this respect, the question arises as to why the students enrol in OBL, when they value face-to-face moments that much. Next to the fact that they mostly did not have the choice but to enrol in OBL, students indicated that they would not be able to participate if there were no distance moments. The face-to-face moments need to be alternated with distance moments to make it possible to combine it with a family and a job. This in turn relates to the convenience and flexibility that is valuable to students who have multiple responsibilities (Xu & Jaggars, 2013). Therefore, distance moments should complement, and not replace, the face-to-face moments, and a good balance should be pursued (Lopéz-Pérez, Pérez-López & Rodríguez-Ariza, 2011).

Lastly, most participants valued that they had learned new skills, thanks to OBL. They think it was useful to learn in OBL environments because they learned to work more self-regulated. Lucas said: “You learn to plan your work more effectively”, while Laurent said: “You learn to process the content autonomously and also make syntheses.

You learn to manage your learning process on your own”.

Overall, as an answer to research question three, the students in this study mainly referred to the value of their education and less to the specific value of the OBL environment itself. In other words, they attribute more value to their participation in education than to the way they receive their education, namely through OBL. This can be attributed to the fact that some institutions only provide OBL and, in this way, most students automatically enrolled in OBL, even without knowing it. So, the fact that they follow a programme in OBL did not play a big role in students' decision to enrol. It was the programme itself and the opportunities they get in their lives when they successfully complete the programme.

5.2.4. Costs

As previously mentioned, costs are considered as negative aspects of education or the environment that students experience and are important in order to make positive changes to the environment. It makes teachers aware of the difficulties that students experience while studying in OBL environments and informs about how the environment can be adjusted to lower the costs and improve the values. The participants mentioned a few negative aspects of participating in education, in general. Firstly, they indicated that it takes a lot of work. Three participants indicated that they sometimes had to work at night to get their tasks done. Secondly, participating in education was not always good for relationships. Two participants said they sometimes argued with their partners because they had not got much time for their family. Another participant (Jelle) had a risky relationship with his current employer. He stated that:

I have waited a year to enrol in an education programme because when I applied for my current job, my boss told me that, if I wanted to do a training soon, he wanted me to look for another job. So, I enrolled without my boss knowing it.

Both the workload and the relationship issues, sometimes raised doubts in persisting. Some participants indicated that they have “constant doubts of persisting” or that their persistence was against their will. This in turn can raise mental issues and demotivation.

A notable result from this study is that students still mentioned a lot of ‘costs’ regarding the specific OBL environment. The least mentioned are the technological issues. Computers do have technical problems and some restrictions, as Lucas mentioned, “The first thing I do is print my courses and write notes on them. You cannot do that digitally. Yes, you can but it is not the same”. In this respect, the participants mentioned that for students to succeed in OBL environments, some computer skills and the ICT infrastructure are needed.

More important costs that were experienced with OBL have to do with wrong expectations and thus insufficient preparation for this environment (Dabbagh, 2007). Firstly, this was reflected in complains of participants about the fact that the education is not compatible with other responsibilities and lasts longer than expected. Accordingly, the students had to make personal sacrifices. These personal sacrifices of, for example, spending less time with their families, relating to and creating relationship issues. To illustrate, Angela said: “It's totally not combinable. I find that my family has suffered from my education”. Also, Lucas said: “It's a disadvantage to combine it all [work, education and family]. It makes it hard for my family situation; it takes too long [the education]”. The students felt as if they had not received honest information before they started and, in this way, were not appropriately prepared. This stresses the importance of thinking about how and what to communicate to students. Accordingly, the participants nearly all indicated that good planning and organisational skills are necessary to succeed in OBL. Secondly, the participants stated that they put a lot of effort into getting help. They stated that online interaction was sometimes rare and that group work was difficult to organise. Jeroen even said: “It [group work] should be avoided in blended learning because it's really hard to organise it”. *Styer (2009)* also advocates for less or

optional group work, lest they decrease students' perception of freedom (and thus their motivation). For some students, interacting online is a threshold. A quote from Angela illustrates this:

In distance moments, you encounter some questions and at that moment you think “I want to know the answer but if I have to e-mail, when will I receive a reply? Did I send my question to the teacher only or can everyone read this? Isn't my question ridiculous or stupid?” You hold yourself back to ask things and then you let it go and you forget it and you don't come back to it at face-to-face moments because it has been too long.

These students also stated that communication skills and being self-assertive are necessary in OBL.

Lastly, not only social contact required a lot of effort, but also the distance moments. To illustrate, Jelle said: “I think distance education is harder because I am easily distracted at home and I'm a procrastinator. I prefer face-to-face education.” Other students confirmed this. They said they need a “push to begin”. Therefore, a few students indicated that they preferred face-to-face education, because they understand the content more easily when they see and hear it from a teacher. They said that self-discipline is needed to overcome this ‘cost’ in OBL environments.

These above-mentioned costs can cause concern, but *Gorges (2016)* states that people who experience high costs can still succeed in their education, if the value they attribute to their task is strong enough to cope with the costs. The situation of Angela illustrates this. She complained about her OBL education not being compatible with her work and family. Hence, she lacks time with her son and argues with her partner. After a few failures, she keeps on persisting because she wants to keep her job and wage. Furthermore, the contraction of students encountering ‘costs’ while valuing the flexibility, opens the discussion as to whether the students are sufficiently able to handle this flexibility and to what extent teachers are expected to guide and support them in this. However, if the teacher intervenes, the flexibility could be reduced, which, again, is not satisfactory for the student. Institutions also offer these flexible courses to attract students, to receive additional resources and compete with other institutions. They should keep in mind that they need a clear vision on how to guide students in this flexibility, without taking too much control.

5.3. Link between motivation profiles and subjective values to participate

To link the motivation profiles to the values of the students, clarification is needed about which students match the profiles. The nine students represented three profiles. Frauke and Lucas are members of the self-determined profile; Laurent, Inge and Conny represent the additive profile and Thijs, Jeroen, Jelle and Angela are members of the moderate profile.

Both the self-determined students (Frauke and Lucas) and the additive students (Laurent, Inge and Conny) who have high intrinsic motivation to participate, mentioned an intrinsic value to their education. Laurent is the only one who specifically attributed an intrinsic value to the OBL environment. The moderate students (Thijs, Jeroen, Jelle and Angela) literally said that they do not follow their education because it is fun or interesting. Jeroen even said it is boring. They follow it to have a job alternative or to keep their current jobs.

All students mentioned a kind of attainment value, except for Jeroen and Jelle. This corresponds with their profile of moderate students since they have a low introjected regulation and this regulation is in line with the attainment value. The other moderate students and the self-determined students, who are both characterised with low introjected regulation, did mention this value to some extent. They mentioned it a little by saying that they are proud to be enrolled in their education while raising a child or that they would feel guilty if they dropped out. The additive students mentioned the attainment value a lot, which corresponds to their profile, characterised by an above neutral

introjected regulation.

The self-determined students are the only ones with a combination of low external regulation and an above neutral identified regulation. This is somewhat reflected in the values. These students indicated less utility value for their participation in general. Students in other profiles emphasised more that they follow their education because they want to perform the job or get benefits in time or money. The utility value regarding the OBL environment was mentioned as much by every profile.

Finally, no clear link is found between the three profiles and the costs. Independent of the profile, students mentioned the same costs. To illustrate: the difficulty of organising group work is mentioned by Frauke (self-determined profile), Conny (additive profile) as well as by Thijs (moderate profile). Another important cost was that online interaction is sometimes considered as a threshold. This was mentioned in two of the three profiles and not by one specific profile. In other words, there is no regularity between the mentioned costs and the profiles.

Summarised, the qualitatively-measured values provided more detailed information about the quantitatively-measured motivations to participate. Specifically, students in the self-determined profile, clearly displayed a lot of intrinsic and less utility value. This indicates that they learn and value learning because they feel ambition, interest and gratification. The additive students also mentioned a lot of intrinsic value but differ in that they also mentioned attainment and utility value. These students like learning and value extra, external benefits that they can acquire with a successful completion. The moderate profile showed no intrinsic nor attainment values but does display utility value. They value their learning because it can benefit them externally after successful completion. Conclusively, regarding research question four, the current study indicates that the profiles are reflected in the values that students attribute to their education. This confirms the approach of, for example [Chiu and Wang \(2008\)](#), who associate the motivations from the SDT to the values of the expectancy-value theory since results showed that students from different profiles mention the different, corresponding values.

5.4. Implications

This study yields some practical implications. Overall, findings can be used by teachers and institutions to lead intake conversations with their students. In this way, they get to know their students' situations and perceptions and can anticipate to their needs when considering the other implications. Firstly, teachers and institutions should provide realistic information at the start of the programme; they should make sure the students know they are going to have distance moments and provide support to schedule time for these moments matching with their personal situation. Secondly, a good balance between face-to-face and distance moments should be pursued and teachers should make sure the students may find easy guidance during distance moments. Preferably, the teachers should be online when the distance moment is scheduled, but also be approachable at other times since students get flexibility to work whenever it suits them. Hence, institutions should develop a vision and guidelines on how to support students without limiting their flexibility. Therefore, the institution should use the profiles to follow up students and get insight in how to improve their education to benefit and support diverse learners. For example, students in the moderate profile are less motivated and attain the least value to their education. Following up these students can entail suggestions to enhance these students' interest and enjoyment in participating in online and blended education. For instance, by incorporating more personal and authentic anecdotes in the online classes, students will feel closer and more connected to the teacher. Thirdly, since the costs do not differ depending on the profile, teachers will benefit every profile when taking into account these costs by making environmental and pedagogical decisions. For instance, group work is considered as a difficult aspect in blended education. Teachers should help with organising group work or integrate it in face-to-face moments so students do

not experience unnecessary stress or tension to organise their group work. This can be done by, for example, using the profiles of learners to make the composition of the groups.

5.5. Limitations and future research

A first limitation of the current study is the relatively small sample in the qualitative study. This might pose a threat to the extent to which the findings can be generalised. It is possible that the results are unique to the participants and the specific OBL contexts investigated in this study. Next to that, OBL can take many forms, regarding the amount of distance versus face-to-face moments or the kind of activities performed. Therefore, future research should not only include a larger but also a more diverse sample, to improve the generality and transferability of the findings. Different programmes, modules and institutions should be taken into consideration.

Another limitation is the cross-sectional design of this study. Persisting is an ongoing process and thus, students' motivation and values they attribute to persist will be dynamic. The current study does not provide insight into changes in motivation or values due to, for instance, more experience of students in their OBL course. Longitudinal research should cover this limitation and could reveal who dropped out. Knowing what costs and values students mention, who drops out, is interesting to compare to the costs and values of persisting students. It could inform teachers in more detail about what costs can cause students to drop out.

Next, the lack of intrinsic value attributed to the specific OBL environment can be attributed to the fact that almost none of the interviewed participants chose OBL consciously. Interviewing students who consciously chose OBL would provide more information about the specific environment. Furthermore, taking previous experiences with OBL as a control variable is necessary. Students with more experience might have found ways to overcome costs and could have other kinds of costs and values attributed to OBL than students with little experience.

It would be interesting to measure the values students attribute to the specific OBL environment in a quantitative way to back up data retrieved in a qualitative way. Therefore, future research could focus on developing such a scale. Furthermore, measuring the motivations to enrol in qualitative ways to back up quantitatively retrieved data is relevant.

6. Conclusion

In the current literature, there is a lack of information about the diversity in motivation between students in OBL environments and the multiplicity of motivators within one student. Therefore, teachers cannot always adjust the OBL environment to the personal needs of students. The present study addresses this gap by exploring the diverse reasons to participate and the values and costs attributed to learning in OBL. By addressing the question concerning learning motivation - why do students engage in education? - the current research contributes to the scientific knowledge on motivation. Most participants in this study did not deliberately choose OBL. Thus, their motivations to enrol were not based on reasons specifically related to OBL. However, they valued its flexibility because it would be practically unfeasible to persist otherwise. Additionally, the students mentioned aspects that could possibly create obstacles to persistence such as the unexpected workload that leads to nightwork and family issues. Values and costs mentioned in this respect mainly refer to education in general and have less to do with the specific online or blended environment. Because students make their decision to persist based on a value-cost balance, the practical relevance of the current study is that teachers get insight in the values and costs that are important for the different motivational profiles of students in online and blended education in this study. In this way, teachers can - for every motivational profile - see which values or costs are important to create more favourable balances. In sum,

teachers could use the results of this study to lead the intake conversation and address important characteristics of the students. This information will assist them in planning individualised support in the view of online or blended education such as composing groups for group work.

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