

## Adult Learner Characteristics as Predictors of Performance, Satisfaction and Intent-to-Persist in Online and Blended Environments.

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**Abstract:** Online or blended adult education offers learners autonomy which makes them responsible for shaping their own learning. Considering the increased responsibility over learning, learner characteristics are important factors to consider in order to achieve educational success. With this in mind, the current study examines to what extent different learner (background) characteristics predict adult learners' intent-to-persist, satisfaction and performance in online or blended environments. The learner characteristics, namely motivation, self-regulation, internet attitudes and self-efficacy are selected based on previous research with regard to influences on persistence, performance and satisfaction. Furthermore, background variables like age, gender, having children, prior diploma, employment status and current educational level are included. Data were collected through a survey among 242 learners in online or blended adult education. Multivariate linear regressions (with intent-to-persist, satisfaction and performance as respective dependent variables) show that the motivation of learners influences all three outcomes. For both satisfaction and intent-to-persist, results show a positive relationship with controlled motivation and a negative relationship with amotivation. The autonomous motivation has a positive relationship with expected performance. Moreover, motivation is found to be the only characteristic in this study that predicts the intent-to-persist. For expected performance, negative relationships are found for the self-regulation subscale 'time management' and a positive relationship for 'self-evaluation'. The self-regulation subscale 'environment structuring' has a positive relationship with satisfaction, while 'help-seeking' has a negative relationship. As predicted, self-efficacy seems to be an important variable which predicts the performance and satisfaction. Internet attitudes only relate to the satisfaction of learners. The results in the current study demonstrate that in online or blended adult education, learner characteristics are important to consider. Motivation is seen as a particularly critical variable. In this respect teachers and institutions should pay attention to the individual learner characteristics since these can serve as indicators for learners at risk.

**Keywords:** Adult education, intent-to-persist, motivation, online and blended learning, performance, satisfaction

## 1. Theoretical background

Although online or blended learning (OBL) is considered to be the future of education, the quality of it is still being brought into question. Amongst others, Lee and Choi (2011) mention that student factors are one category of factors that influence quality indicators. In particular, in the context of online or blended adult education (OBAE), where dropout rates are a problem, research on adult learners' characteristics is scarce. Therefore, this study explores the influence of diverse adult learner characteristics on three different quality indicators in OBL environments, namely, satisfaction, performance and intent-to-persist.

### 1.1 Online or blended adult education

Online or blended adult education offers learners flexibility and autonomy to learn in their own time, place and space. This makes it easier and more convenient for adult learners to participate in education and combine it with a job or family (Vanslambrouck, Zhu, Tondeur, Phillipson, & Lombaerts 2016). In this study, OBL is characterized as learning in an instructional context where the courses are delivered purely online or through a combination of online and classroom-based interventions. (Boelens, Van Laer, De Wever & Elen 2015).

Adult learners are a specific group of learners, who often combine learning and working, and learn in distance education (Knowles 1980). They are seen as non-traditional learners associated with lower persistence (Rovai 2003). Nonetheless, because of the heterogeneousness of this group of learners, OBL could be beneficial for their learning process (Vasileva-Stojanovska, Malinovski, Vasileva, Jovevski & Trajkovik 2015). However, previous research shows conflicting results. For example, while Deschacht and Goeman (2015) found that blended learning has negative effects on the course persistence, López-Pérez, Pérez-López and Rodríguez-Ariza (2011) found a reduction in dropout rates. In their review on factors influencing dropout or learning outcomes, Lee and Choi (2011) state that critical factors are not only to be situated at the program/course level or environment, but also at the student level. Since andragogy (the theory and practice of adult education) states that being sensitive to individual differences should improve adult learning (Knowles 1980), the conflicting effects of OBL on persistence could be due to more individual learner characteristics.

### 1.2 Conceptual model

The conceptual framework for this study is shown in Figure 1. The model provides information on the extent to which diverse learner characteristics predict different quality indicators (or learner outcomes).

#### 1.2.1 Quality indicators

First, a low persistence rate indicates a poor quality of the education (Angelino, Williams & Natvig 2007) and is often associated with non-traditional learners. Since this study involves adult learners in OBL during their education, intent-to-persist is used. Furthermore, satisfaction (Lee & Choi 2013; Naaj 2012) and expected performance (Alshare, Freeze, Lane & Wen 2011) are also added as quality indicators as previous research linked these constructs to persistence. However, it can be different for adult learners. More specifically, it is assumed that adult learners are satisfied because of the convenience of OBL but the authors (Vanslambrouck, Zhu, Tondeur, Phillipson, & Lombaerts 2016) found that, while learners value the flexibility of OBL, they still underestimate the costs (job, family) which can cause them to drop out.

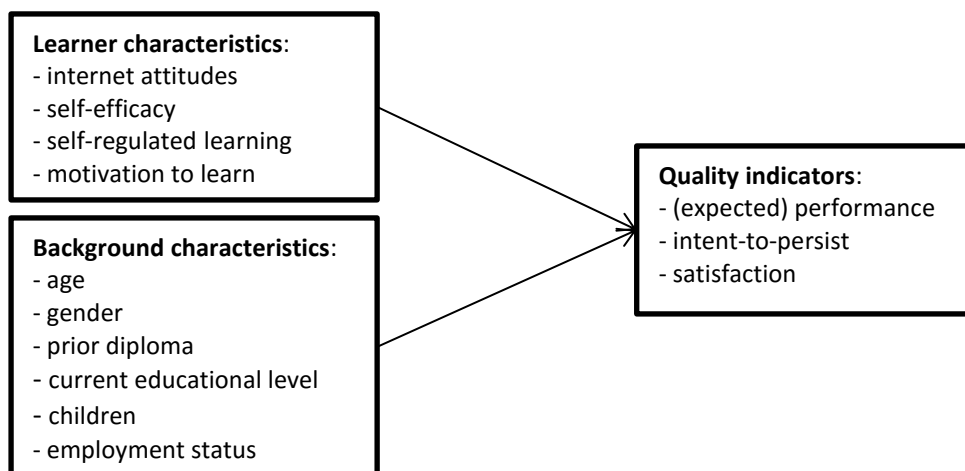


Figure 1: Conceptual model

### *1.2.2 Learner characteristics*

Previous literature indicates motivation and self-regulation (SRL) as critical learner characteristics, specifically in autonomous and flexible learning environments like OBL (e.g. Broadbent & Poon 2015). This is because teacher regulation is less available in OBL and learners have to manage their learning process partly on their own (Fryer & Bovee 2016). Dörnyei and Ushioda (2011) state that, not only the skills to learn independently, but also the will to use these skills, are needed.

Motivation is seen as the reason why people select a particular activity, determine how long to persist and what degree of effort to invest (Dörnyei & Ushioda 2011). It is a key factor for success from the start of the learning process (Sogunro 2015) and is especially important in highly autonomous environments like OBL. This is because it activates the needed self-regulated learning skills (Kormos & Csizér 2014).

Applied in an educational context (as a motivation to learn), the self-determination theory (SDT, Deci & Ryan 2000) discerns five types of learners: 1) intrinsically motivated people who learn for its inherent pleasure and satisfaction; 2) identified regulated people who learn to attain a personally valuable goal; 3) introjected regulated people who learn to maintain a positive view of themselves or to avoid negative feelings like shame or guilt; 4) externally motivated people who learn to obtain a positive outcome or avoid a negative one and; 5) amotivation, who are people who are not motivated to learn.

The review of Guay, Ratelle and Chanal (2008) showed significant relationships between different types of motivations and persistence, achievement and satisfaction.

With regard to self-regulated learning, Artino and Jones (2012) state that, because of the highly autonomous situation in OBL, learners need to be active and constructive learners and thus self-regulate their learning. They need to make choices and manage and control their own learning process to be successful and experience a good quality of education (e.g. Lehmann, Hähnlein & Ifenthaler 2014). You and Kang (2014) identified learner autonomy and self-regulated learning as important factors for academic success. They ascribe underachievement and dropout to a lack of SRL.

Although andragogy (Knowles 1980) states that adult learners are independent learners, some adults have no prior experience with computers and the internet in education. This makes it necessary to explore their SRL in relation to the outcomes.

Furthermore, self-efficacy and internet attitudes seem to be important learner characteristics to perform in OBL environments (e.g. Shen, Cho, Tsai & Marra 2013). Bandura (1997) conceptualizes self-efficacy as the learner's perception about their ability to complete a task successfully. Previous research found that self-efficacy of learners is a significant predictor of their intentions to continue a web-based learning course (Chiu & Wang 2008); their satisfaction with OBL and their expected performance (Alshare, Freeze, Lane & Wen 2011).

In their review paper on online course dropout, Lee and Choi (2011) mentioned that several studies indicated a positive correlation between dropout and students' self-efficacy. However, these studies measure the general self-efficacy to learn, while it is necessary to look at the self-efficacy of adults to learn in an OBL environment. Therefore, the current study interprets self-efficacy as the perceptions of adult learners about their ability to learn successfully in online or blended environments.

In addition, internet attitudes reflect the preferences of learners which influence their decisions to persist. Literature states that holding a positive internet attitude leads to an increased performance (English 2005). Research in the context of OBAE is scarce.

### *1.2.3 Background characteristics*

Learners in OBAE start their education with heterogeneous background characteristics due to their previous life, work and educational experiences. These characteristics can cause differences in learner outcomes. For example Alshare, Freeze, Lane and Wen (2011) found that gender and educational level relate to the successes in online learning environments. Therefore, this study uses the background characteristics as control variables and explores whether they are related to the quality indicators.

## **1.3 The present study**

Adult education is important to keep people active on the rapidly changing labour market. OBL is seen as an opportunity to reach, attract and educate as many diverse adults as possible. However, OBAE still struggles with the problem of high dropout rates. Considering the increased responsibility of learners in OBL environments, it is important to examine adult learner characteristics and the consequences these entail in education. The

consequences in this study are seen as behavioral (intent-to-persist), affective (satisfaction) and educational (performance) quality indicators. This study draws upon the following research questions:

RQ1: What are the relationships between learner (background) characteristics and expected performance?

RQ2: What are the relationships between learner (background) characteristics and satisfaction with OBL?

RQ3: What are the relationships between learner (background) characteristics and intent-to-persist?

## **2. Method**

### **2.1 Sample**

Data were collected using a survey among two hundred and forty two learners in OBAAE in eight different centers for adult education in Flanders, Belgium. The majority of the participants were females ( $n=167$ ), 74 participants were males. Mean age of the participants was 33.64 (SD: 9.09) and ranged between 19 and 57.

### **2.2 Measures**

For the background characteristics, dichotomous variables were used for gender (male/female), children (yes/no), employment status (active/non-active), and prior diploma (secondary or lower/higher education). Age contained four categories (younger than 25, between 25 and 34, between 35 and 44 and older than 45) and current educational level encloses three categories (teacher education, TE; secondary adult education, SAE and higher vocational adult education, HVAE).

The Academic Motivation Scale (AMS, Vallerand et al. 1992) was used to measure the motivation of learners to learn. The instrument represents five subscales, each with four items, namely, intrinsic motivation (e.g. Because I experience pleasure and satisfaction while learning new things), external regulation (e.g. Because I need the diploma in order to find a high-paying job later), introjected regulation (e.g. To prove to myself that I am capable of completing this program), identified regulation (e.g. Because I believe that my education will improve my competence as a worker) and amotivation (e.g. I can't see why I go to school and frankly, I couldn't care less). Cronbach alpha of the subscales are between .731 and .880.

Furthermore, we used the online self-regulated learning questionnaire of Barnard, Lan, To, Paton and Lai (OSLQ 2009). The questionnaire consists of six subscales. The subscales 'help seeking' (e.g. If needed, I try to meet my classmates face-to-face), 'task strategies' (e.g. I prepare my questions before joining in the chat room and discussion) and 'self-evaluation' (e.g. I communicate with my classmates to find out how I am doing in my online class) all have four items. The subscale 'goal setting' has five items (e.g. I set standards for my assignments in distance moments) and the subscales 'time management' (e.g. I try to schedule the same time every day or week to study for my online courses and I observe the schedule) and 'environment structuring' (e.g. I know where I can study most efficiently for online courses) have three items. Cronbach alpha of the subscales were between .589 and .711.

Self-efficacy is measured by the scale of Artino and McCoach (2007). Minor adjustments were made to the wording of the eight items so that it measures the self-efficacy to learn through OBL. An example of an item is 'I can perform well in a module in which I have to regulate my own learning as in OBL'. Cronbach alpha for this scale is good ( $\alpha = .833$ ).

We applied the scale of Evers, Sinnaeve, Clarebout, Van Braak and Elen (2009) to measure the attitudes of learners to learn with the use of the internet. An example of an item is 'modules for which the internet is used, are more enjoyable'. The scale shows a good internal consistency ( $\alpha = .852$ ).

For the expected performance, participants indicated a score between 0 and 20 that they expect to achieve in the course they are enrolled in at the moment.

The satisfaction was measured by the scale of Arbaugh (2000). This scale has eight items, for example 'I'm satisfied that I follow this course through OBL'. The internal consistency is very high ( $\alpha = .928$ ).

Finally, the scale of Shin and Shan (2004) was applied for this variable. An example of an item is 'I will finish this course, no matter how difficult it is'. Cronbach alpha is good ( $\alpha = .779$ ).

All variables were measured on a 5-point Likert scale ranging from 1 = totally do not agree, to 5 = totally agree.

### **2.3 Data Analysis**

In order to answer the research questions, multivariate linear regressions were conducted. Before analyzing, the assumptions for multivariate linear regression were checked and considered good. An analysis of standard residuals was carried out on the data to identify any outliers, which indicated that two participants needed to be removed.

### **3. Results**

#### **3.1 Initial analysis: correlations**

Table 1 presents the means, standard deviations, correlations and the reliabilities of the variables. The correlation matrix shows mainly weak ( $r =$  between .1 and .3) and moderate correlations ( $r =$  between .3 and .5). the most strongly significant correlations are found between the subscales of SRL. Another strong significant correlation is found between self-efficacy and satisfaction ( $r=.507$ ).

With regard to the outcome variables, all variables except 'amotivation' and 'environment structuring' show weak correlation with expected performance. For satisfaction, correlation analysis shows a negative moderate significant correlations with amotivation ( $r=-.300$ ) and a positive moderate significant correlation with internet attitudes ( $r=.360$ ). Setting goals ( $r=.265$ ), environment structuring ( $r=.230$ ), time management ( $r=.139$ ) and autonomous motivation ( $r=.155$ ) show weak significant relationships. Setting goals ( $r=.134$ ), self-evaluation ( $r=.167$ ), autonomous motivation ( $r=.278$ ), controlled motivation ( $r=.286$ ) and amotivation ( $r=.235$ ) are weak significantly correlated with intent-to-persist.

Furthermore, the outcomes themselves show weak correlations with each other. Also some learner characteristics show significant correlations with each other. These can be found in Table 1.

**Table 1:** Means, Standard Deviations, Intercorrelations and Reliabilities

Variable	N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Internet attitudes	240	3.80	.71	1													
2. Self-efficacy	240	3.59	.73	.309**	1												
3. Setting goals	240	3.44	.75	.462**	.297**	1											
4. Environment structuring	240	3.78	.83	.213**	.164*	.470**	1										
5. Task strategies	240	2.80	.83	.284**	.017	.517**	.384**	1									
6. Time management	240	2.91	1.00	.319**	-.011	.535**	.349**	.572**	1								
7. Help-seeking	239	2.97	.82	.186**	-.091	.284**	.171**	.437**	.420**	1							
8. Self evaluation	240	3.24	.81	.238**	-.006	.496**	.325**	.438**	.523**	.625**	1						
9. Autonomous motivation	239	3.91	.66	.302**	-.003	.345**	.191**	.291**	.385**	.200**	.353**	1					
10. Controlled motivation	239	2.98	.94	.079	-.202**	.172**	-.045	.295**	.321**	.368**	.274**	.345**	1				
11. Amotivation	239	1.61	.73	-.174**	-.222**	-.253**	-.171**	.053	-.104	.052	-.070	-.210**	.118	1			
12. Satisfaction	240	3.91	.90	.360**	.507**	.265**	.230**	.097	.139*	-.126	.015	.155*	.006	-.300**	1		
13. Performance	229	14.36	2.04	.235**	.271**	.230**	.064	.192**	.177**	.172**	.242**	.163*	.179**	-.091	.152*	1	
14. Intent-to-persist	240	4.54	.58	.120	.023	.134*	.083	.052	.123	.112	.167**	.278**	.286**	-.235**	.109	.140*	1

Note: \*\*p<.01, \*p<.05

### 3.2 Multivariate Regressions

Multivariate regressions explored what and to which extent certain learner (background) characteristics predict the dependent variables. Results are presented in Table 2 and indicate that the (background) characteristics explain a significant amount of variance for satisfaction ( $F(20,216) = 4,102, p < .01, R^2 = .425$ ), intent-to-persist ( $F(20,216) = 2,961, p < .01, R^2 = .215$ ) and expected performance ( $F(20,205) = 6,507, p < .01$  and  $R^2 = .388$ ).

Results with regard to satisfaction show positive beta weights for internet attitudes ( $\beta = .188, p < .01$ ) and self-efficacy ( $\beta = .421, p < .01$ ). For motivation, the subscale 'controlled motivation' shows a positive significant relationship ( $\beta = .146, p < .05$ ) and the subscale 'amotivation' shows a negative significant relationship ( $\beta = -.164, p < .01$ ) with satisfaction. Only two out of the six subscales of SRL predict satisfaction, namely 'environment structuring' ( $\beta = .146, p < .05$ ) and 'help-seeking' ( $\beta = -.199, p < .01$ ).

Furthermore, expected performance has a positive relationship with autonomous motivation ( $\beta = .144, p < .05$ ), self-efficacy ( $\beta = .200, p < .01$ ) and the SRL subscale 'self-evaluation' ( $\beta = .181, p < .05$ ). It shows negative relationships with the SRL subscale 'time-management' ( $\beta = -.251, p < .01$ ) and with TE ( $\beta = -.538, p < .01$ ) and HVAE ( $\beta = -.193, p < .01$ ) in comparison to learners in SAE.

Finally, the intent-to-persist can only be predicted by two subscales of motivation to learn, being controlled motivation ( $\beta = .300, p < .01$ ) and amotivation ( $\beta = -.240, p < .01$ ).

**Table 2:** Multivariate regression results for the effects of (background) characteristics on the outcome variables.

Dependent variable	(expected) performance	satisfaction	Intent-to-persist
Variance explained: $R^2$ (F)	.388 (6.507**)	.425 (7.996**)	.215 (2.961**)
	B (t)	B (t)	B (t)
<b>Model</b>			
Internet attitudes	.084 (1.256)	.188 (3.018)**	.054 (.741)
Self-efficacy	.200 (3.039)**	.421 (6.796)**	.046 (.638)
Controlled motivation	.034 (.485)	.146 (2.212)*	.300 (3.874)**
Autonomous motivation	.144 (2.085)*	.019 (.292)	.135 (1.774)
Amotivation	-.028 (-.444)	-.164 (-2.814)**	-.240 (-3.533)**
Help-seeking	-.067 (-.848)	-.199 (-2.673)**	-.001 (-.007)
Task strategies	.094 (1.222)	.035 (.484)	-.087 (-1.036)
Self-evaluation	.181 (2.189)*	-.033 (-.419)	.097 (1.053)
Goal setting	-.017 (-.202)	-.083 (-1.028)	-.079 (-.839)
Time management	-.251 (-3.041)**	.031 (.407)	-.033 (-.368)
Environment structuring	.003 (.048)	.146 (2.312)*	.043 (.576)
Age: <25	-.059 (-.701)	-.114 (-1.440)	-.044 (-.475)
Age: 25-34	-.047 (-.537)	-.142 (-1.716)	-.003 (-.034)
Age: 35-44	.039 (.489)	-.073 (-.966)	-.021 (-.243)
Gender	.096 (1.653)	-.116 (-2.119)*	-.039 (-.614)
Children	.096 (1.426)	.084 (1.343)	-.082 (-1.120)
Prior diploma	-.001 (-.010)	-.004 (-.049)	-.098 (-1.167)
Employment status	-.046 (-.798)	.092 (1.663)	.044 (.681)
Current educational level: TE	-.538 (-6.408)**	-.060 (-.761)	.101 (1.090)
Current educational level: HVAE	-.193 (-3.028)**	.024 (.399)	-.049 (-.707)

Note: Reference category for variable gender is 'female'; for employment status is 'active'; for prior diploma is 'higher education'; for age is 'older than 45 year and for current educational level is 'SAE', \* $p < .05$ , \*\* $p < .01$

#### **4. Discussion**

Results from this study show the relationships between adult learners' (background) characteristics and different outcome variables, namely, performance, satisfaction and intent-to-persist.

The correlation matrix already gives supporting results for the claim that motivation relates to the persistence of learners, their performance and satisfaction (Mellard, Krishok, Fall & Woods 2013). With regard to the SRL, weak significant correlations are found with the outcomes, mostly for satisfaction and expected performance. The internet attitudes and self-efficacy both correlate with the expected performance and satisfaction. Results of multivariate linear regressions further clarify these correlations.

##### **4.1 Relationships with Satisfaction**

Results display positive direct relationships of both self-efficacy and internet attitudes with satisfaction. Learners who feel that they have the ability to learn in OBL environments and show a positive attitude towards the internet in education, are more satisfied with the online or blended environment. This is in line with previous studies which state that self-efficacy is a determinant of satisfaction in a blended learning environment (Kuo, Walker, Belland & Schroder 2013). Furthermore, a positive effect is found for controlled motivation and a negative effect for amotivation. This means that the higher the controlled motivation or the lower the amotivation, the more satisfied adult learners are with the OBL environment. As Kirmizi (2015) found, these results show that motivation is an important variable for student satisfaction. For SRL, results show that adult learners are more satisfied when they can structure their environment appropriately or seek less help. This result can be linked to the autonomous characteristic of the OBL environment. Needing less help from others and being able to find and create an appropriate environment to learn helps adult learners to experience autonomy. This is necessary, since OBL requires learners to learn independently and autonomously (Artino & Stephens 2009). Finally, results indicate that men are less satisfied with the OBL environment than women.

##### **4.2 Relationships with Expected Performance**

Multiple regressions with expected performance as a dependent variable revealed that learners in HVAE and TE expect to score less compared to adults in SAE. An explanation for this could be that, in SAE most adults have a lower prior educational degree than in HAVE or TE, which means that learners in SAE have experienced less years in education. Therefore, SAE learners could expect to score lower. Furthermore, the SRL subscale 'time management' also has a negative relationship with the expected performance. This means that adult learners who indicate to spend more time managing their study time, expect to score lower. Adults with a lot of different responsibilities need to manage their time more efficiently. This can be difficult which causes them to expect to score lower due to time restraints. This latter result confirms that, in OBL environments, good time planning is critical (Broadbent & Poon 2015). Furthermore, in line with Goulão (2014), the current study shows that self-efficacy is a significant predictor of performance. Also, autonomous motivation and the SRL subscale 'self-evaluation' show positive relationships with the expected performance. The higher the autonomous motivation and the more learners evaluate themselves during their education, the better they expect to perform. Learners who evaluate themselves, can adjust their learning if necessary. In this way, they will perform better at the end.

##### **4.3 Relationships with Intent-to-persist**

The only significant relationships that are found for intent-to-persist are with autonomous motivation and amotivation. Amotivation has a negative relationship with intent-to-persist, which means that people with a higher amotivation, have less intention to persist. For autonomous motivation, the relationship is positive. This indicates that learners who participate in OBAE for reasons that come from within themselves, have more intention to persist in their OBL course. Finally, Lee and Choi (2011) mention influences of demographic characteristics on persistence. In the current study, we did not find any relationship between, on the one hand, background characteristics like gender, age, prior diploma, employment status, having children or current educational level and, on the other hand, the intent-to-persist.

##### **4.4 Limitations and future research**

This study is a first step towards further in depth research about the extent to which motivation has an effect on the behavioral, cognitive and emotional outcomes of adult learners in OBL environments. Motivation is a broad variable, which can be conceptualized and investigated in different ways. The current study used the SDT to conceptualize motivation as the reasons why adult learners participate in education. However, it is equally important to explore the motivation as the driving force to persist when encountering difficulties during



education. Future research should also consider the influence of learner individual characteristics on the motivation of learners which could act as mediators for the influence on outcomes.

Motivation drives learners to behave in certain ways and OBL environments offer the autonomy to self-regulate their own behavior. Therefore, the role of self-regulated learning in the relationship between motivation and outcomes could also be investigated in future research. Future research could focus on identifying which aspects of SRL are important in this specific context and if this differs for non-OBL contexts.

Nonetheless, these are interesting starting points for further research but there are also a number of limitations to note in this study. An important limitation is the representativeness. Forthcoming research should aim for a larger sample that is representative of all learners in OBAE. Furthermore, representativeness of learners in different educational levels is not met in this study but is interesting to explore. Blended learning should be considered carefully since this type of education can take several forms. Blended courses can differ regarding the amount of online versus face-to-face moments or regarding the types of activities accomplished online or in face-to-face moments.

Another aspect to keep in mind for future research is that some variables can be investigated in greater detail. For example, with regard to the employment status, Lee and Choi (2011) refer to different studies which show that full-time workers are more likely to drop out. More detailed information with regard to whether the active participants are full-time or part-time would be interesting. Also, with regard to the outcomes, it could be more interesting to use dropout instead of the intent-to-persist and the actual performance instead of the expected performance.

## 5. Conclusion

This study contributes to the scientific debate on the effects of learner individual characteristics on their intent-to-persist, satisfaction and expected performance. It confirms that learners themselves have an important impact on their success. Motivation showed up as a particularly important characteristic. Furthermore, it contributes to the literature about adult learners, OBL and motivation. More specifically, it adds to the literature on the self-determination theory, self-efficacy, self-regulated learning and internet attitudes by applying these variables in the context of online and blended adult learning.

From a practical perspective, this study indicates that teachers and institutions should be attentive to learner individual characteristics, since these can indicate learners who are at risk of dropping out. Influencing the student factors to reduce the dropout rate and increase the satisfaction and performance is hard and even impossible. However, providing teachers and institutions with the knowledge of what factors influence these outcomes and handing over a screening instrument to see which learners are at risk, is a possible strategy to improve outcomes and therefore the quality of OBL.

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