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Introduction

Dropout and failure in higher education is a key issue for European countries. A recent report stated that “*a key concern is that too many students in Europe drop out before obtaining a higher education diploma or degree.*” (European Commission, 2015).

As a consequence, we need to get a better understanding of the factors having an impact on persistence and academic achievement. In this study we'll address this issue within a psychosocial framework on student performance highlighting the interplay between personal and contextual characteristics. This approach combines educational models (Tinto, 1997) and engagement models (Fredricks, 2001 ; Hazel & al., 2014 ; Skinner & al., 2008 ; Reeve, 2013). Engagement refers to a student's active involvement in a learning activity. It's a multidimensional construct including a behavioral component (effort, time spent on study, persistence), an emotional component (positive emotions) and a cognitive one (deep strategies). Moreover, drawing on Tinto's concepts of academic integration and social integration, student's course experience can be conceived as a key factor to support engagement: « *the classroom is the crossroads where the social and the academic meet. If academic and social involvement or integration is to occur, it must occur in the classroom.* » (Tinto, 1997).

Research questions and hypothesis

The research questions are twofold: what is the impact of each component of engagement on student performance? How does the course experience shape the different components of student engagement? It is hypothesized that engagement is a proximal determinant of student performance and course experience (that how student perceives the learning context) is a major determinant of student engagement.

Methodology and Population

The study has been implemented in a French technology-two year institution (Universitary Institute of Technology, IUT). A total of 240 students (211 male and 29 female, mean age 19 years) participated at the study. All students were enrolled in STEM field.

Self-report questionnaire measuring course experience and engagement were used. Behavioral component of engagement was measured by time spent on study during week and week end. Disorganization (Entwistle, 1988) was used as a negative indicator of cognitive engagement

(example of item: *I realize that it is not clear to me what I have to remember and what I do not have to remember*). Situational interest (Hidi, 2001) was used as a measure of both cognitive and emotional indicator of engagement (example of item: *I find it interesting to attend classes*). Course experience included academic staff concern for students' development and teaching (example of item: *teachers are interested in alleviate students' academic weakness*), peers' support (example of item: *in my class there are some students with whom I'm feeling good*), teamwork (example of item: *teachers make us work in group during lesson time*) and competitive climate (example of item: *teachers make comparisons between students*). All items used a 7-point rating scale from 1 (totally disagree) to 7 (totally agree).

Results and Discussion

We ran a set of multiple regressions. First, we regressed participants' average score at the end of semester two (S2) on time spent on study, disorganisation and situational interest. Gender and participants' average score at the end of semester one (S1) were also entered as control variables. The regression (adjusted $R^2 = .67$ $p < .001$) yielded significant relationships for S1 average score ($\beta = .76$, $p < .001$) and situational interest, ($\beta = .17$, $p < .001$). Time spent on study, disorganisation and gender have no impact on student performance. Second, we regressed situational interest on S1 average score, gender, prior level of academic achievement in upper-secondary education (kind of baccalauréat degree, graduating with honours). This step is requested to support the view that situational interest is really a product of course experience. The regression yielded no significant results (adjusted $R^2 = 0$). Finally, we regressed situational interest on the four variables related to course experience. The regression (adjusted $R^2 = .28$, $p < .001$) yielded significant relationships for academic staff concern for students' development and teaching ($\beta = .39$, $p < .001$), competitive climate ($\beta = -.21$, $p < .01$) and teamwork ($\beta = .12$, $p < .05$). Peers' support has no significant impact.

Results showed that situational interest has a specific impact on student performance previous academic performance being controlled. Situational interest reflects engagement during lesson time. It catches the behavioral, emotional and cognitive component of engagement. By contrast, time spent on study has no influence on student performance. Qualitative effort, as measured by situational interest, is thus a better predictor of student performance than quantitative effort. Time spent on study tell us nothing about how students study, this is why it's a weak predictor of student performance (Trautwein & al., 2006). Furthermore, the results showed that catching and holding students' situational interest is of high value throughout the academic year. One might think that teachers have to highlight this issue at the beginning of the academic year in order to engage students in their new studies. However, it would probably have damaging consequences on student performance at the end of semester two. The results also showed that situational interest only depends on students' perception of the learning context. Of paramount importance is the impact of academic staff concern on situational interest. This variable doesn't refer to specific skills or to specific teaching devices. It refers rather to teacher attitude and flexibility. Students appreciate this attitude and it helps them to develop a situational interest, which could be a first step toward a more content-centered interest (Hidi & Renninger, 2006). This issue should be enhanced in higher education teacher training. Finally, avoiding a competitive climate and developing cooperative or

collaborative interactions among students have a positive impact on situational interest too. It supports Tinto's view of classroom as a place where the social and the academic meet.

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