

# Adult Learning Open University Determinants (ALoud) study: Psychological factors associated with study success

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## **Adult Learning Open University Determinants (ALoud) study: psychological factors associated with study success**

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Our current knowledge society is changing very rapidly. As a result, aging of knowledge and skills is going faster. To keep up with these developments, employers have to be able to keep developing knowledge and skills (The World Bank, 2003). This means that being able to learn on a higher age is important. Factors playing a significant role in being a successful learner can have biological and psychological origins. In present research, the focus will be on psychological determinants. The biological determinants will be the focus of another research.

The association between psychological factors and successful learning and performance has already been extensively studied in children, adolescents, and college students in traditional education (e.g. Alivernini & Lucidi, 2011; Cassady & Johnson, 2002; Lane, Lane, & Kyprianou, 2004; Pajares, 2002). For instance, there has been found a negative correlation between test anxiety and academic performance within college students (e.g. Cassady & Johnson, 2002). Also, research shows a positive effect of self-efficacy for learning on academic performance within postgraduate students (e.g. Lane & Lane, 2001), as well as a positive correlation between high school students' perseverance and academic achievement (e.g. Hardre & Reeve, 2003). However, in adult education, it is not clear how these and other psychological factors are related to study success. Also, evidence is lacking how these factors are related to study success for distance education students. Hence, in present study the relationship between psychological factors and study success in adults in formal distance education will be examined.

The psychological factors that will be examined in this study are divided into three categories: cognitive (e.g. learning strategies; Pintrich, Smith, Garcia, & McKeachie, 1993), affective / motivational (e.g. test anxiety; Cassady & Johnson, 2002) and social factors (e.g. social support; Zimet, Dahlem, Zimet, & Farley, 1988). In addition to these psychological factors there will be checked for household composition, education, average school figure for education, age, gender, ethnicity, mood (at the time of study entry), job information, computer and study time (i.e. studied hours per week). The dependent variable in this research is study success. It is the first time that all these different psychological (and biological) factors in one study are included.

Research questions in this study are: (1) What characterizes persons participating in formal distance education? (2) Which differences are apparent between successful and non-

successful students? (3) Which factors determine study success, and in what way? (4) Which factors are age and sex dependent? (5) What are the associations between the respective psychological factors?

The results of this study may provide insight into factors associated with study success in adult students. Based on these results effective learning strategies are developed in order to optimize the current curriculum. However, this will be out of the scope of this research.

## **Methods**

### *Participants*

Participants will be approximately 2000 new students of the Open University of the Netherlands. Yearly, about 6000 new Bachelor and Master students subscribe for a course at the Open University of the Netherlands. Every student who subscribes *for the first time* for a course between 1 September 2012 and 31 August 2013 will be invited to participate in the ALOUD study. We strive to a response rate of 33%.

### *Measures*

An overview of the measurements of the psychological factors used in this research can be found in Tabel 1.

Study success will be measured with student progress information gathered via the exam registration system of the Open University.

### *Procedure*

Approximately two weeks after subscription for their first course at the Open University, students will receive an invitation for the ALOUD study by e-mail. If they don't start or complete the research within two weeks, they will receive a reminder by e-mail. After one more week they will receive a last reminder. Finally, a week later the students who didn't participate within these four weeks will be called by phone.

Participants are asked to fill out an online questionnaire and three online neuropsychological tests. In total it takes about 45 to 60 minutes to complete the questionnaires and tests. They don't have to fill it out in one time: it is possible to stop during filling out, and go further another time. Participants complete this online questionnaire and tests from their home computers.

Table 1. Measurements to measure psychological factors used in the ALOUD study.

<b>Psychological factor</b>	<b>Measurement</b>	<b>Reference</b>
<b>Learning strategies</b>	MSLQ (part B)	Pintrich et al., 1993
<b>Affect</b>	PANAS	Watson, Clark & Tellegen, 1988
<b>Test anxiety</b>	Subscale of MSLQ	Pintrich et al., 1993
<b>Goal orientation</b>	AGQ; Work Avoidance Scale	Elliot & McGregor, 2001; Harackiewicz et al., 2008
<b>Perseverance</b>	Grit scale	Duckworth, Peterson, Matthews, & Kelly, 2007
<b>Self-efficacy for learning and performance</b>	Subscale of MSLQ	Pintrich et al., 1993
<b>Self-esteem</b>	RSE	Rosenberg, 1965
<b>Stress</b>	Own questionnaire	
<b>Coping behaviour</b>	UCL	Schreurs et al., 1993
<b>Social support</b>	Own questionnaire	

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