

Adult Learning Open University Determinants study

Citation for published version (APA):

Neroni, J., De Groot, R., & Kirschner, P. A. (2013). *Adult Learning Open University Determinants study: Psychological determinants of study success*. Paper presented at 15th Biennial Conference EARLI 2013, Munich, Bavaria, Germany.

Document status and date:

Published: 30/08/2013

Document Version:

Peer reviewed version

Document license:

CC BY-NC-ND

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

<https://www.ou.nl/taverne-agreement>

Take down policy

If you believe that this document breaches copyright please contact us at:

pure-support@ou.nl

providing details and we will investigate your claim.

Downloaded from <https://research.ou.nl/> on date: 16 Jul. 2023

Open Universiteit
www.ou.nl



Adult Learning Open University Determinants study: psychological determinants of study success

Drs. Joyce Neroni; Dr. Renate H.M. de Groot; Prof. dr. Paul A. Kirschner

Abstract

As our current knowledge society is changing very rapidly, aging of knowledge and skills is going faster. To keep up with these developments, it is important being able to learn on a higher age. Factors playing a significant role in being a successful learner can have psychological origins. The association between psychological factors and academic performance is well established for children, adolescents, and college students in traditional education. However, evidence of associations between these factors and study success for adult students in distance education is lacking. In the present study, the association between several psychological factors (e.g. affect, test anxiety, goal orientation, learning strategies) and study success for adult students in distance education are investigated. Approximately 2000 students of the Open University will participate in this large longitudinal study, by filling out an online questionnaire and three online neuropsychological tests at baseline. There will be a follow up after six and twelve months. Data collection of baseline takes place September 2012 till September 2013. During EARLI 2013 preliminary results will be shown. The results of this study may provide insight into factors associated with study success in adult students. Based on these results effective learning strategies can be developed in order to optimize the current curriculum.

As our current knowledge society is developing rapidly, aging of knowledge and skills is going faster. To keep up with these changes in society, it is important to be able to keep developing knowledge and skills (The World Bank, 2003). So, being able to learn on a higher age is important. Factors playing a significant role in being a successful learner can have psychological origins.

Within children, adolescents, and college students in traditional education, the association between psychological factors and study success has already been studied extensively (e.g. Alivernini & Lucidi, 2011; Cassady & Johnson, 2002; Harackiewicz, Durik, Barron, Linnenbrink-Garcia, & Tauer, 2008). 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). However, in adult education, it is not always clear how these psychological factors are associated with study success. Also, most studies have been conducted within traditional education, and evidence for these relationships in distance education is lacking. Hence, in the present study the relationship between psychological factors and study success in adults in formal distance education will be examined.

The psychological factors are divided into three categories: cognitive (i.e. learning strategies, cognitive abilities, and self-regulation), affective / motivational (i.e. affect, test anxiety, goal orientation, perseverance, self-efficacy for learning and performance, self-esteem, stress, coping behaviour, and interrole conflict) and social factors (i.e. social support). In addition to these psychological factors there will be checked for several background variables (e.g. job information, computer skills, and hours per week of study time). The dependent variable is study success. It is the first time that all these different psychological factors are included in one study.

Research questions 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 can be developed to optimize the current curriculum. However, this is out of the scope of this study.

Methods

Participants and design

Approximately two weeks after subscription for their first course at the Open University, students receive an invitation for the ALOUD study by e-mail. In case of non-compliance, a reminder and last reminder are sent after two and three weeks respectively. Non-responders are phoned after four weeks. At baseline, participants are asked to fill out an online questionnaire and three online neuropsychological tests (45-60 minutes). After six and twelve months, participants will be invited for a first and second follow up, respectively.

Every student who subscribes for a course at the Open University of the Netherlands between 1 September 2012 and 31 August 2013 *for the first time* is invited to participate in the ALOUD study. The objective is a response rate of 33% (n=2000).

Measures

An overview of the measurements can be found in Table 1. Study success will be measured with student progress information gathered via the exam registration system of the Open University.

Results

Currently, baseline data of 300 participants are available. At conference, preliminary data regarding the first follow up will be presented.

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

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

References

- Alivernini, F., & Lucidi, F. (2011). Relationship between social context, self-efficacy, motivation, academic achievement, and intention to drop out of high school: A longitudinal study. *The Journal of Educational Research, 104*, 241–252. doi: 10.1080/00220671003728062
- Cassady, J.C., & Johnson, R.E. (2002). Cognitive test anxiety and academic performance. *Contemporary Educational Psychology, 27*, 270–295. doi: 10.1006/ceps.2001.1094
- Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology, 92*, 1087–1101. doi: 10.1037/0022-3514.92.6.1087
- Elliot, A.J., & McGregor, H.A. (2001). A 2x2 achievement goal framework. *Journal of Personality and Social Psychology, 80*, 501–519. doi: 10.1037//0022-3514.80.3.501
- Harackiewicz, J.M., Durik, A.M., Barron, K.E., Linnenbrink-Garcia, L.L., & Tauer, J.M. (2008). The Role of Achievement Goals in the Development of Interest: Reciprocal Relations Between Achievement Goals, Interest, and Performance. *Journal of Educational Psychology, 100*, 105–122.
- Lane, J., & Lane, A. (2001). Self-efficacy and academic performance. *Social Behavior and Personality, 29*, 687–694.
- Pintrich, P.R., Smith, A.F., Garcia, T., & McKeachie, W.J. (1993). Reliability and predictive validity of the Motivated Strategies for Learning Questionnaire (MSLQ). *Educational and Psychological Measurement, 53*, 801–813.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Schreurs, P.J.G., Willige, G. van de, Brosschot, J.F., Tellegen, B., & Graus, G.M.H. (1993). *Handleiding Utrechtse Coping Lijst UCL (herziene versie)*. Lisse: Swets & Zeitlinger.
- The World Bank (2003). *Lifelong learning in the global knowledge economy: Challenges for developing countries*. Retrieved from http://siteresources.worldbank.org/INTLL/Resources/Lifelong-Learning-in-the-Global-Knowledge-Economy/lifelonglearning_GKE.pdf
- Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063–1070.