

The ALOUD Study:

Adult Learning Open University Determinants Study

Influence of biological determinants on academic achievement in formal
lifelong learning in adults

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Overview

- Introduction
- Determinants
- Methods
- Procedures
- Ultimate goal



Problem definition

- Relation between cognitive neuroscience and education is strengthening
- No insights are gained with the adult education
- OU serves this group of learners, therefore this is the goal of the project



Background

- Cognitive functions develop until late adolescence
- Cognitive decline begins in early adulthood
- However, the ability to learn hardly declines until far into old age



Limitations previous research

- Implementation of new neuroscientific insights in primary and secondary education
- Implementation only in children and adolescents
- Research not oriented towards adults and elderly



Research questions

- What characterizes persons participating in formal lifelong learning?
- Which factors are age and sex dependent?
- What are the associations between the respective determinants?
- Which factors determine academic achievement?



Independent variables

- Biological determinants
 - Nutrition
 - Sleep
 - Vitality
 - Physical activity
 - Correlates such as weight, height, etc.



Outcome variables

- Academic achievement
- Successful vs. drop-outs
- Quality of life
- Life satisfaction
- Possibly in the longitudinal study
 - Long-term achievement (promotion, salary raise)



Covariates/Background variables

- Age
- Sex
- Weight
- Height
- Level of education
- Ethnicity
- Family situation/marital status
- Health status
- Previous GPA
- Current working hours
- Computer skills
- Mood
- Personality
- Job information
- Cognitive status



Methods

- Cross-sectional observational study (pilot)
- Longitudinal observational study
- 2000 OU students
- Master courses Psychology and Learning Sciences



Procedures

- Biological determinants:
 - Questionnaires
 - Physical activity (subpopulation):
 - Accelerometers
- Outcome variables:
 - Questionnaires
 - Examination registration office
- Covariates:
 - Questionnaires



Ultimate goal

- Developing an intervention which leads to a better study performance and overall long-term efficacy

