

Report on Bachelor Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	Julie Kováčsová
Advisor:	PhDr. Jana Votápková, Ph.D.
Title of the thesis:	Does growing up surrounded by books improve our cognitive skills as seniors?

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

Short summary

The thesis tests the hypothesis if being surrounded by books as a child decreases the probability of old-age cognitive-skill decline using a logit regression on a sample of about 11,000 observations from the SHARE dataset.

The results confirm that being surrounded by books increases the change of passing cognitive tests in the old age by 11.69 %. Effect of other variables on old age cognitive skills were uncovered too. Specifically, negative effect on cognitive skills was revealed for age, being a female and being depressed. Positive effect was uncovered for the years of education, and surprisingly, for alcohol drinking - most probably because there were moderate drinkers in the sample.

Contribution

The thesis contributes to the stream of research in the area, applying standard methodology on an available dataset.

Methods

The thesis used a logit model. The methodology is standard, however the author did not discuss any test diagnostics, such as LR test or Pseudo R² for the goodness of fit, or tests for individual predictors (Wald test)

Literature

The author discussed a decent number of available studies. However, from of citation is sometimes wrong. Such as (Salthouse 2009)

The author mixes literature review with other parts of the thesis. Also, description of own contribution should be provided at the end of the literature review, not in the middle if each subchapter followed by further literature review. The reader distracts attention.

References are sometimes used in an unusual form, such as:

“many studies have identified” (p.4.)

A study by Sikora et al. (2019) shows – rather Sikora (2019) study

p. 5 „this research paper“ which one?

Wrong format of multiple referencing (p.11) - (Evert & Oscar-Berman 1995), (Woods et al. 2016).

Manuscript form

Due to the fact that the author did not sufficiently discuss the thesis with her supervisor, manuscript form lacks academic style, some parts require restructuring, fillers should be removed (e.g. p. 14 “quite a decent number of observations”), some parts repeat (such as 4.1. and 3.1.1).

Additional comments to manuscript form:

List of Acronyms – really only one acronym?

P20 „this histogram“ instead of „Figure 5.3“

4.2.2: model description – most of it belongs to the data section – how the dependent variable was constructed.

5.1.1. Descriptive statistics of the dataset – belongs to the data section

P.25 missing reference to correlation matrix

3.1.1. origin of the data – the second part of the first paragraph is unnecessarily filling the space.

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P 9. description of other variables that could have been used is not necessary.

Section 5.1.3. belongs to methodology rather than to results

P31, 2 nd paragraph „eleven thousand“, rather 11,000

Overall evaluation and suggested questions for the discussion during the defense

This bachelor thesis is a decent academic attempt with an unused potential. Had the author consulted the work with me as a supervisor more, the thesis would be a very good one.

My points and questions to the defense are the following:

1. Table 4.2. Why is the minimum number of books at ten not set to 0, but 1?
2. P22 Why was the upper bound of depression set to 6? Why not 6+= depressed (1), 0 otherwise?
3. When the upper bound is set to 6, the thesis deals with non-depressed individuals only
4. What is endogeneity in a cross-sectional regression, where does it come from and how can it be solved?

P12 The author states that „Education and mental capacity are undoubtedly two closely linked variables. The question might be if a person gains better educational results with better mental capacity or the other way around. The assumption is that the better education a participant has, the greater probability of acquiring better cognitive test results.“

Note however, that cognitive results are measured in the elderly age, while education is usually attained early in life, so I would not consider reverse causality as the case. Sure, there may be behavior characteristics such as motivation to involve in certain mental activities over the life-time that determine that a person obtained higher education and also led to higher cognitive results. It is however a different problem than the author is discussing.

Some discussion regarding my concern is on p 27 but it is obvious that the author does not fully understand the endogeneity problem in a cross-sectional regression.

5. Could there be a potential bias stemming from the fact that the people who regularly visit libraries do not own many books? Or do you assume that when they visit libraries, they actually have a number of books at home already? I would assume that the people who regularly visit libraries actually read them with higher probability than those who own them.

Despite my comments, the thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a grade B.

The results of the Urkund/Turnitin analysis do not indicate significant text similarity with other available sources

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SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	25
<i>Methods</i> (max. 30 points)	30
<i>Literature</i> (max. 20 points)	22
<i>Manuscript Form</i> (max. 20 points)	10
TOTAL POINTS (max. 100 points)	87
GRADE (A – B – C – D – E – F)	B

NAME OF THE REFEREE: *PhDr. Jana Votápková, Ph.D.*

DATE OF EVALUATION: *January 15, 2023*

Digitally signed (15.1.2023)
Jana Votápková

Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

CONTRIBUTION: *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

METHODS: *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

LITERATURE REVIEW: *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

MANUSCRIPT FORM: *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

Overall grading:

TOTAL	GRADE
91 – 100	A
81 - 90	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F