Motivation to learn and multilingualism across the adult life stages in the U.S.A.

Shalini Sahoo, MA[1]
Taka Yamashita, Ph.D[2]
Roberto J. Millar, Ph.D[3]
Phyllis A. Cummins, Ph.D[4]

1. Gerontology Ph.D. Program, University of Maryland, Baltimore County (UMBC);
2. Department of Sociology, Anthropology, and Public Health, UMBC;
3. Hilltop Institute, UMBC;
4. Scripps Gerontology Center, Miami University

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INTRODUCTION

- Lifelong learning, or continuing education over the life course, has become necessary to navigate the rapidly changing technological landscape in the U.S.A (Feinstein et al., 2008; Lim et al., 2018).
- Motivation to learn is essential for facilitating lifelong learning participation (Gegenfurtner et al., 2009; Kyndt et al., 2011; Liu et al., 2019).
- Over the last two decades, the percentage of American adults age 18 years and older who are multilingual nearly doubled from 9% to 17% (Zeigler and Camarota, 2019; American Academy of Arts and Sciences, 2021).

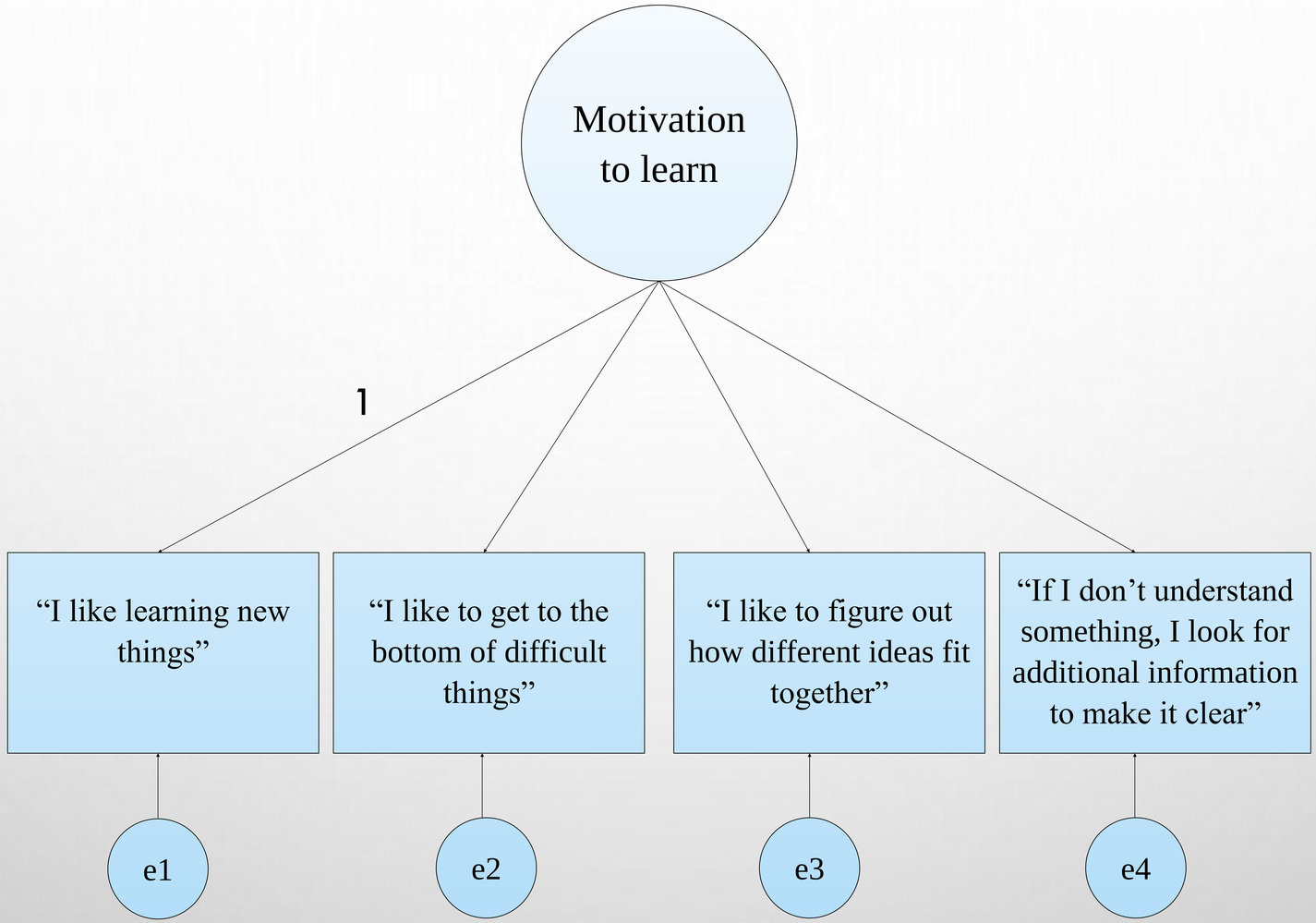
RESEARCH QUESTION

- How is multilingualism associated with motivation to learn across the adult life stages in the U.S.A?

METHODS

- 2012/2014/2017 U.S.A PIAAC restricted-use file (license # 17080026) (National Center for Education Statistics, 2017).
- Age 25 and older (n = 8,210)
- **Outcome variable:** Motivation to learn – a latent construct with four survey items (Gorges et al., 2016)
- **Predictor variables:** Speak English most often at home (vs. non-English language), literacy skill proficiency (0-500), and years of education.
- **Covariates**: age group, gender, race/ethnicity, income, living with spouse, number of household members, self-rated health, and the U.S.A born.
- Structural equation model with the latent motivation to learn construct

Figure 1: Simplified Path Diagram of the Motivation to Learn Measurement Model



Note. Robust maximum likelihood estimator was used.
5-point Likert-type response categories: 1 = *Not at all* to 5 = *To a high extent*.
e1 – e4 indicate the residual variances.

Table 1: Weighted Descriptive Statistics for the adults aged 25 and older

Variables		N = 8,210 Mean (standard error) or percentage
Motivation to learn items **(1-5: Not at all – To a very high extent)**		
I like learning new things		**4.18 (0.01)**
I like to get to the bottom of difficult things		**3.94 (0.01)**
I like to figure out how different ideas fit together		**3.76 (0.01)**
If I don't understand something, I look for additional information to make it clearer		**4.15 (0.01)**
Speak English most often at home		**89.74%**
Age		47.78 (0.17)
Gender (Women)		51.45%
White		67.50%
Black		12.00%
Hispanic		12.64%
Others		7.89%
Total years of formal education		13.81 (0.04)
Income level (quintile and no income)		
	0	35.83%
	1	8.96%
	2	11.46%
	3	13.28%
	4	14.50%
	5	15.98%
Self-rated health (good, very good and excellent)		81.69%
US born		84.36%
Number of household members (top-coded at 7)		2.96 (0.02)
Living with spouse		66.76%
Literacy proficiency score (0-500)		**268.03 (0.70)**

Data Source: PIAAC Restricted Use File Data

Table 2: Selected Results for the Estimated Coefficients (Standard Error) from the Linear Regression on the Latent Motivation to Learn Construct by Age Group

	Age 25-34	Age 35-44	Age 45-54	Age 55+
Speak English most often at home	**0.20 (0.01)***	**0.28 (0.09)***	0.06 (0.09)	0.13 (0.13)
Literacy proficiency	**0.01 (0.01)***	0.01 (0.01)	0.01 (0.01)	**0.01 (0.01)***
Years of education	**0.03 (0.05)***	**0.03 (0.01)***	**0.05 (0.01)***	**0.04 (0.01)***

*$p < 0.05$

Model fit: chi-square 421.05 (DF = 41; p < 0.05); CFI = 0.96; RMSEA = 0.03; SRMR = 0.02

Note: The model was adjusted for age, gender, race/ethnicity, number of household members, living with spouse, US born, and self-rated health.

The PIAAC sampling and replicate weights were applied.

RESULTS

- Being multilingual was associated with greater motivation to learn among younger age groups, including ages 25 to 34 and 35 to 44.
- Multilingualism was not associated with motivation to learn among older age groups, including ages 45 to 54 and 55 and older.

	Age 25-34	Age 35-44	Age 45-54	Age 55+
Speak English most often at home	**0.20 (0.01)***	**0.28 (0.09)***	0.06 (0.09)	0.13 (0.13)

RESULTS

- Literacy skills were associated with motivation to learn among the youngest (25-34) and oldest (55+) age groups.
- Education was consistently associated with motivation to learn in all age groups.

	Age 25-34	Age 35-44	Age 45-54	Age 55+
Literacy proficiency	**0.01 (0.01)***	0.01 (0.01)	0.01 (0.01)	**0.01 (0.01)***
Years of education	**0.03 (0.05)***	**0.03 (0.01)***	**0.05 (0.01)***	**0.04 (0.01)***

FINAL TAKEAWAYS

- Being multilingual is associated with greater motivation to learn among **younger adults**, compared to older adults.

PRACTICAL IMPLICATIONS

- Factors including being multilingual with or without English as a first language may provide deeper insights into the relevance of language skills for lifelong learning.
- Educational policies should consider targeting younger multilingual American adults.
- Policies designed to enhance motivation to learn of older adults should account for educational needs and learning style preferences.

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PIAAC Restricted Use File use was reviewed and approved by the IES Disclosure team.

Data License number: 117080026 (Takashi Yamashita)

National Center for Education Statistics. (2017). Program for the International Assessment of Adult Competencies (PIAAC) 2012/2014: U.S. National Supplement Restricted-Use Data Files-Household. U.S. Department of Education. Retrieved May 17 from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2016668rev

THANK YOU

Shalini Sahoo, MA

University of Maryland Baltimore County

Sahoo1@umbc.edu

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