

Finnish working age adults engage in lifelong learning complying to their personality

PIAAC-26, JYU

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Why engage in lifelong learning?

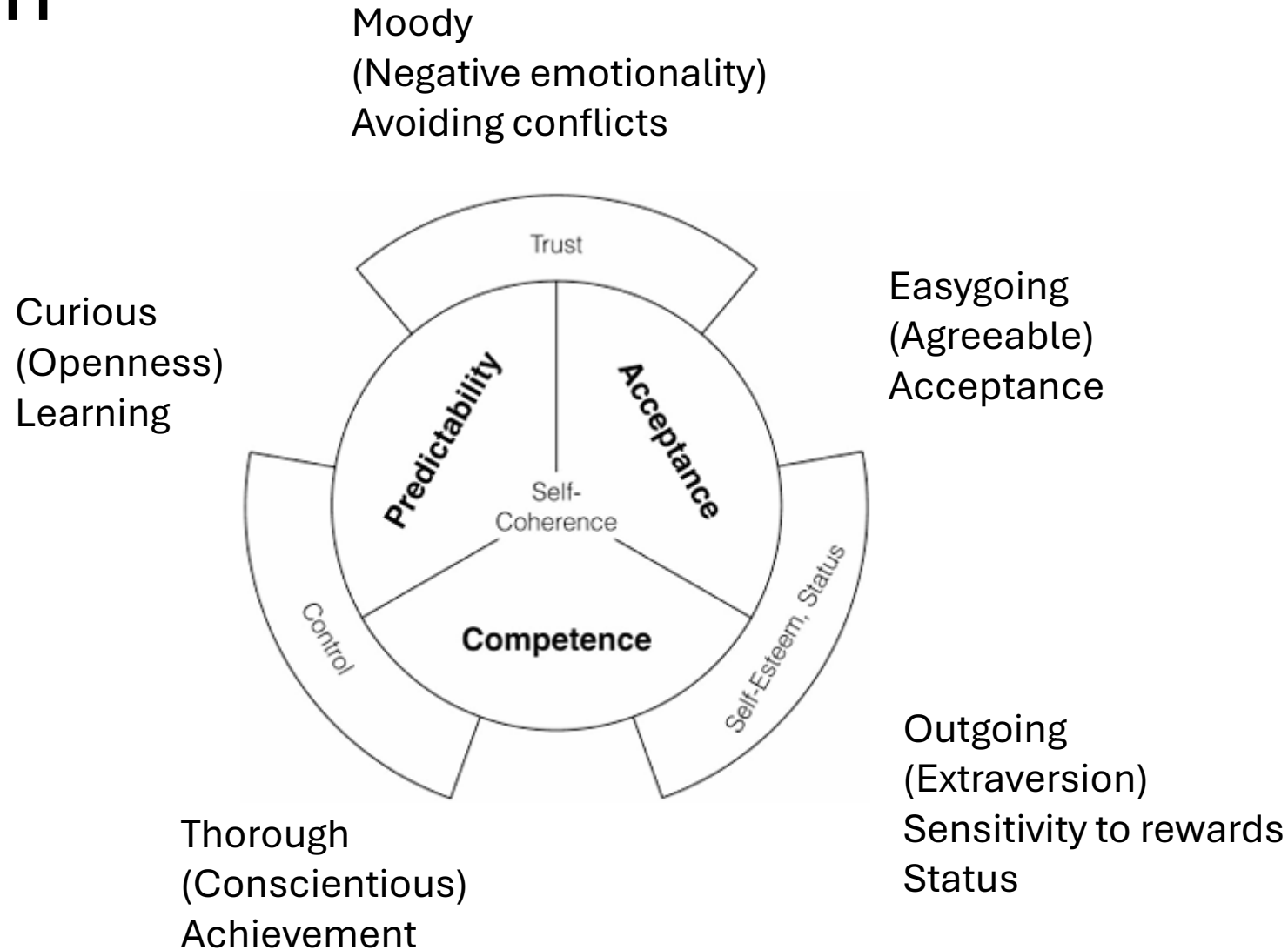
External motivation

- Employer reward, grade, fame, working life benefit etc.

Intrinsic motivation

- Personal interest, social acceptance, progress, achievement...
- Basic psychological needs

Personality (Five factor model, FFM/Big 5) and motivation



Research questions

BG: Our research aims to support Finnish LLL professionals and employers

Personality traits are associated with different motives to engage in LLL, and thus "personality is an important predictor of LLL decisions" (Laible et al., 2020).

Does engagement in LLL at work and at home differ by personality in Finland?

If so, does this carry over to information processing skills?

Data and variables

- Finnish PIAAC CY2 data ($n = 4,061$)
 - The personality measure used differs by country
 - Finland used BFI-2-XS, 15 items, three per trait
 - No facets → interpretation depends on item wording
 - Trait and skill levels differ by country; unbiased results with PIAAC
- Used variables
 - Formal (dropout) = B2_Q06a (binary, recoded to 0/1), Non-formal = B2_Q08a (binary, recoded to 0/1)
 - Derived ordinal WLE-variables for informal learning at home and at work
 - 10 plausible values for skills
 - Control variables: age, reported gender (0 = female, 1 = male)
 - Standardized scores per trait for BFI-2-XS

BFI-2-XS

- 1) **Easygoing** (agreeable): compassionate, kind, respectful, optimistic about people
- 2) **Thorough** (conscientious): organized, goal-oriented, reliable
- 3) **Moody** (emotionally instable): easily worried, depressed (reversed to **Emotional stability**)
- 4) **Outgoing** (extravert): talkative, dominant, energized
- 5) **Curious** (open): interest in arts and abstract ideas, original

Hypothesis

People choose learning types they like:

	AGR	CON	EXT	EMI	OPN	
Non-formal at work (social, organized)	+	+	+	−	+	Galkiewicz & Kern (2024); Laible et al., (2020); Major et al., (2006); Offerhaus, (2013)
Informal at work		+	+	−	+	Cerasoli et al., (2018); Laible et al. (2020): Major et al., (2006); Noe et al., (2014)
Informal at home					+	Galkiewicz and Kern (2024); Laible et al. (2020)
Skill proficiency	(−)	−	−	−	+	Rammstedt et al. (2017)

Methods

- Multiple regression models (linear/ordinal) using *Mplus*
 - Sampling and replicate weights (Fay, $k = 0.3$)
 - Multiple imputation from plausible values for skill measures
 - ML estimation for linear regression
 - Probit link function and WLSMV estimation for ordinal regression
 - Standardized estimates shown for ease of interpretation

Engagement in nonformal

Engagement in nonformal

Agreeableness	.002 (.023)	
Conscientiousness	.032 (.024)	
<i>Emotional stability</i>	<i>.117 (.023) ***</i>	
Extraversion	.064 (.025) **	
Openness	.098 (.021) ***	
Gender	-.105 (.022) ***	
Age	-.128 (.023) ***	
R^2 (M-Z)		.060 ***

Engagement in informal learning

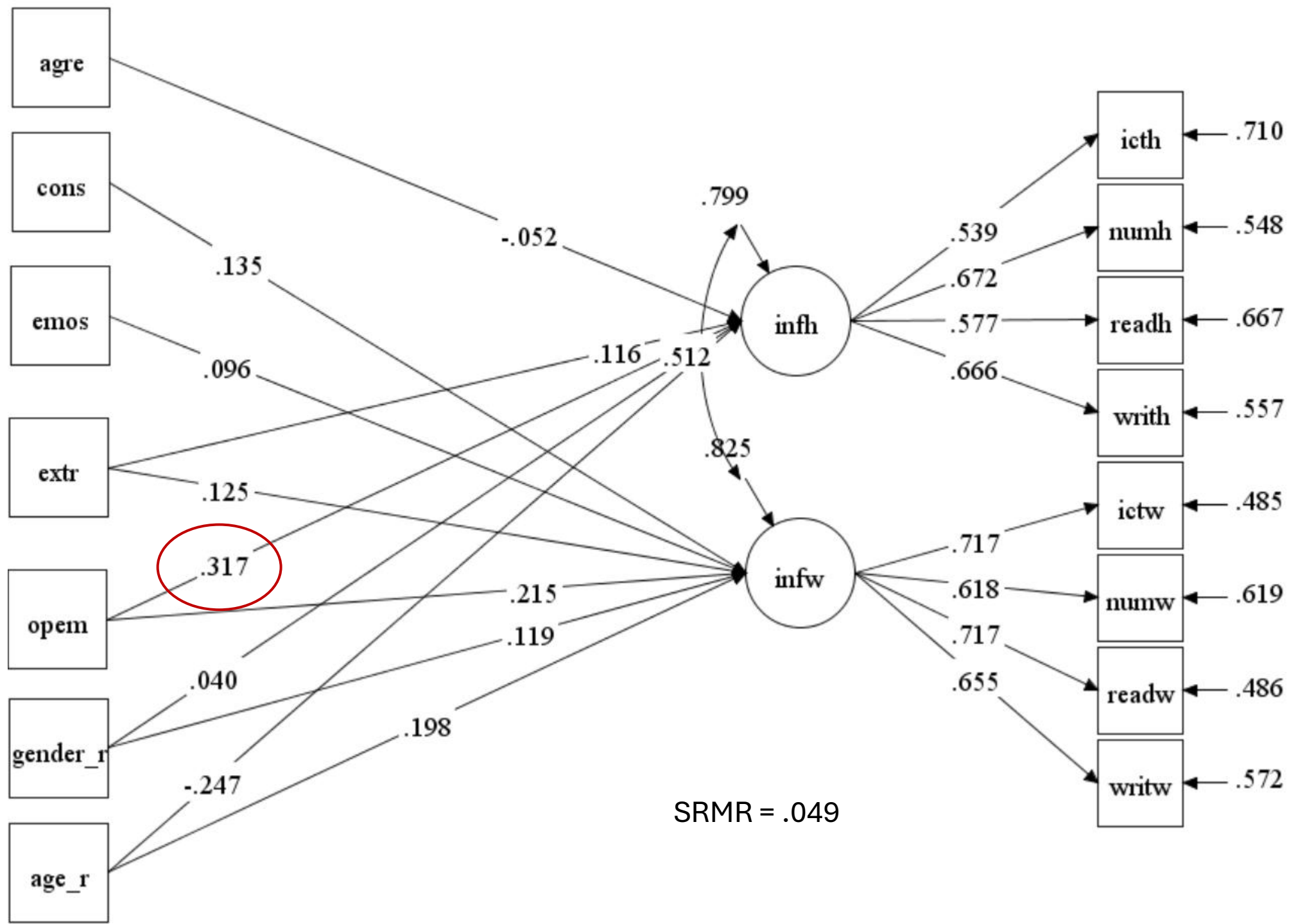
Skill use at work

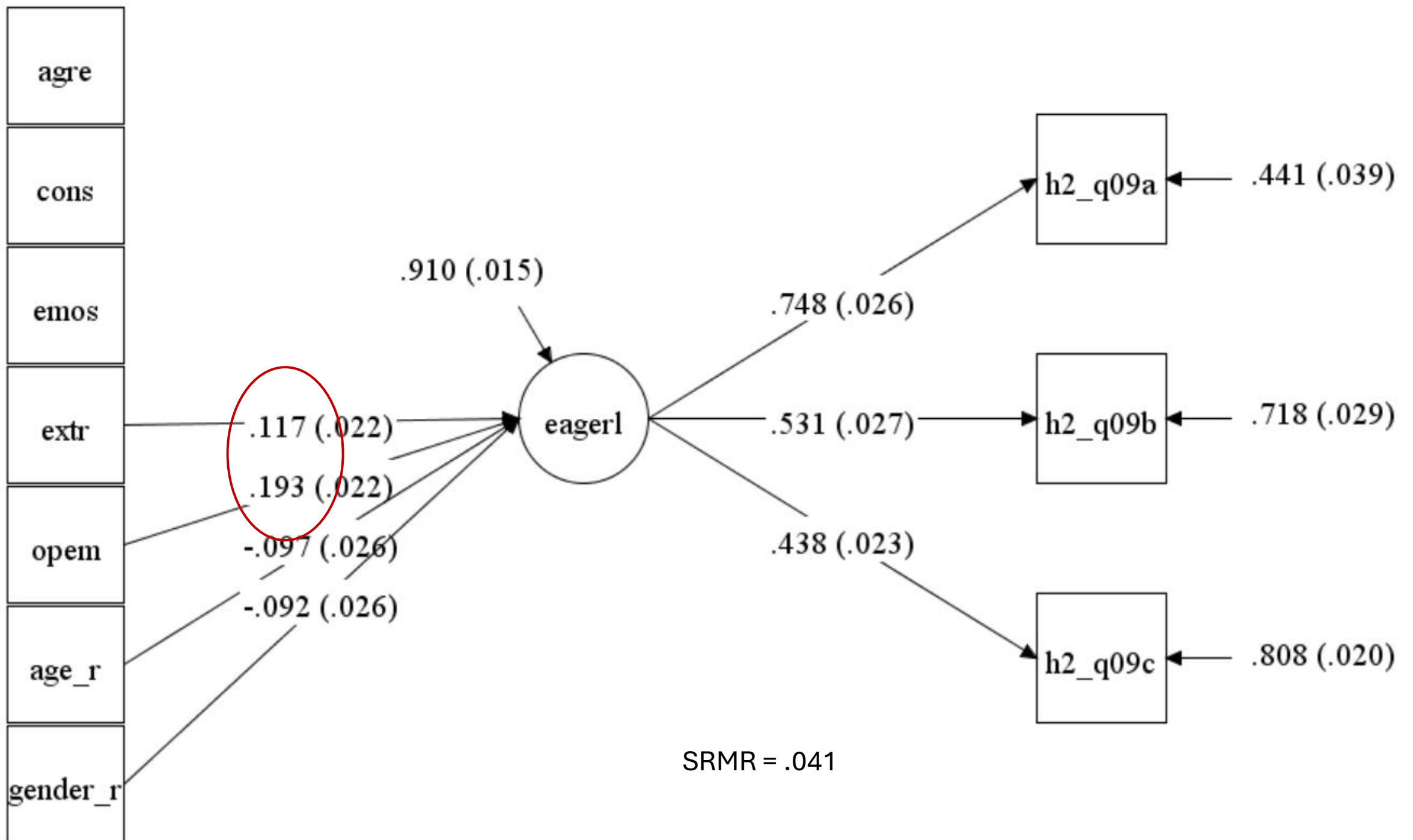
	ICT	Numeracy	Read	Write
Agreeableness	-.018 (.021)	-.030 (.022)	-.036 (.019)	.007 (.019)
Conscientiousness	.114 (.020) ***	.088 (.023) ***	.082 (.018) ***	.082 (.023) ***
Emotional stability	.086 (.024) ***	.025 (.025)	.051 (.020) ***	.092 (.019) ***
Extraversion	.056 (.023) *	.094 (.023) ***	.098 (.020) ***	.111 (.020) ***
Openness	.192 (.017) ***	.124 (.017) ***	.190 (.016) ***	.086 (.020) ***
Gender	.054 (.022) *	.271 (.017) ***	.031 (.018)	.053 (.020) ***
Age	.043 (.024)	.067 (.018) ***	.251 (.017) ***	.121 (.021) ***
R^2 (M-Z)	.081 ***	.119 ***	.132 ***	.072 ***

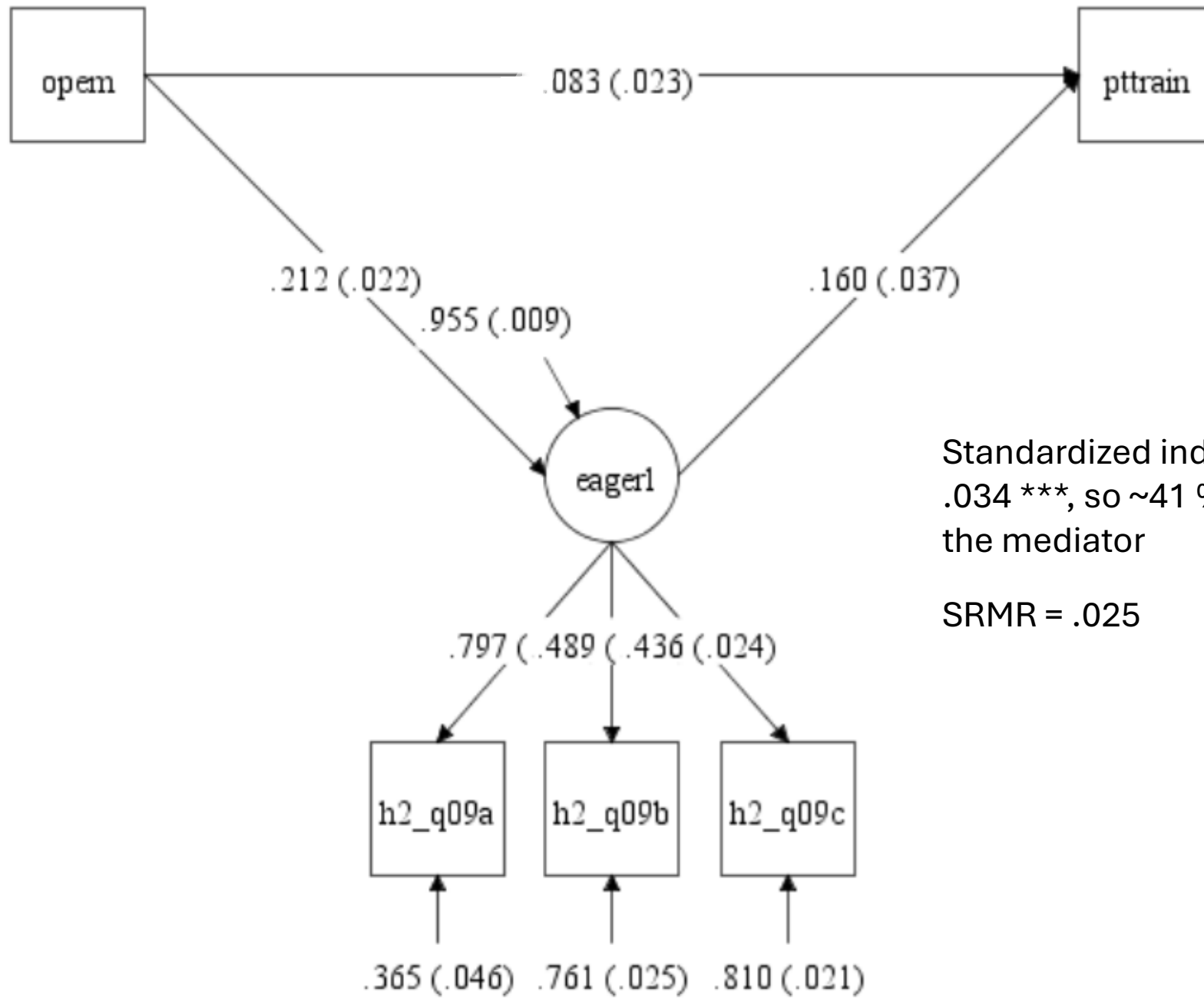
Engagement in informal learning

Skill use at home

	ICT	Numeracy	Read	Write
Agreeableness	.005 (.017)	-.064 (.018) ***	-.025 (.021)	-.036 (.019)
Conscientiousness	.025 (.020)	.004 (.020)	.032 (.020)	.018 (.019)
Emotional stability	-.025 (.020)	.016 (.021)	.001 (.020)	.035 (.021)
Extraversion	.107 (.020) ***	.053 (.018) ***	.047 (.018)**	.106 (.018) ***
Openness	.135 (.018) ***	.236 (.016) ***	.246 (.017)***	.199 (.016) ***
Gender	-.004 (0.019)	.103 (.017) ***	-.003 (.020)	-.003 (.019)
Age	-.282 (.016) ***	-.284 (.018) ***	.074 (.018)***	-.135 (.015) ***
R^2 (M-Z)	.121 ***	.167 ***	.71 ***	.82 ***



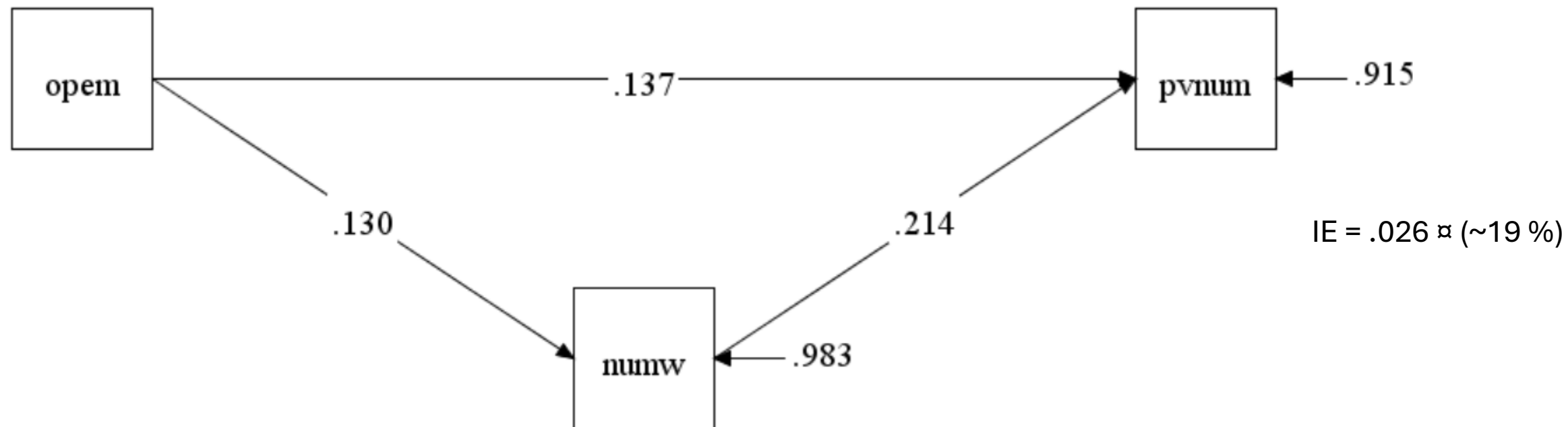
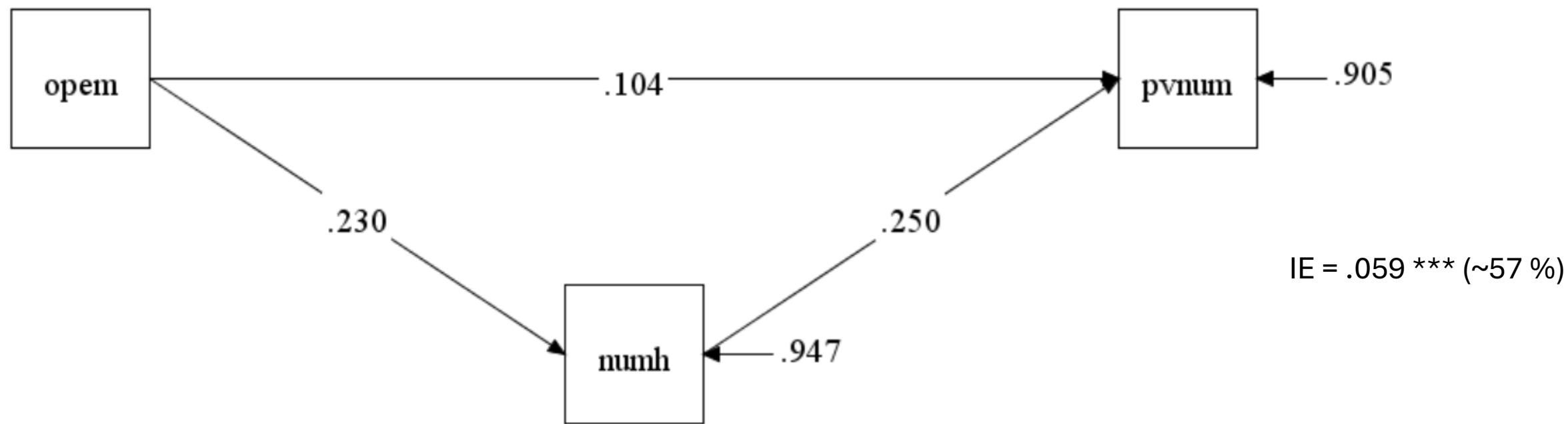


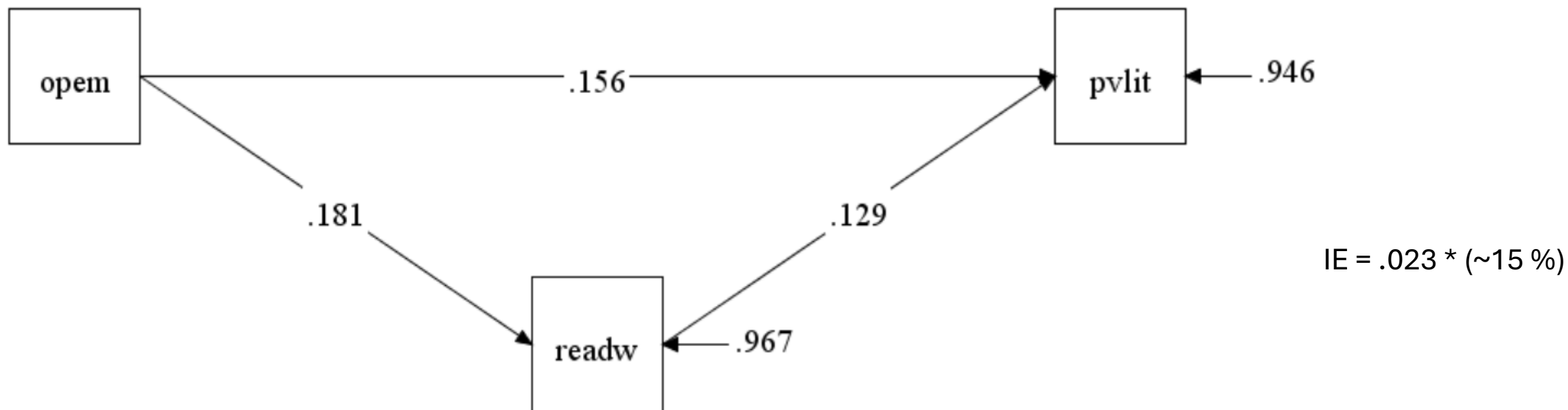
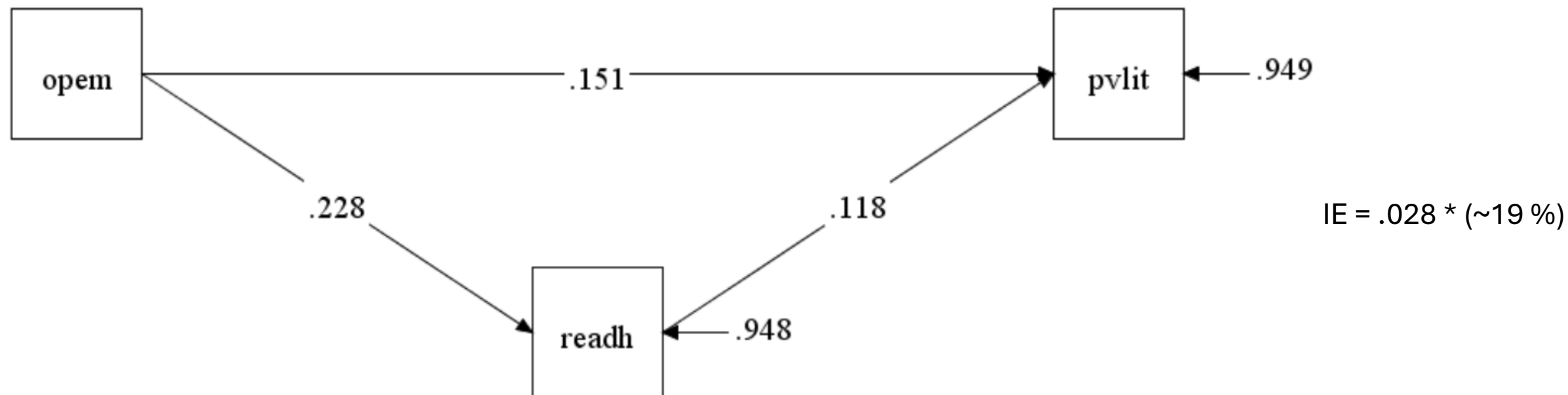


Key information processing skills

	Literacy	Numeracy	Problem solving
<i>Agreeableness</i>	-.052 (.032)	-.044 (.027)	-.053 (.032)
<i>Conscientiousness</i>	-.022 (.021)	-.020 (.024)	-.027 (.022)
<i>Emotional stability</i>	.087 (.044) *	.107 (.063)	.097 (.054)
<i>Extraversion</i>	-.051 (.033)	-.038 (.037)	-.058 (.029) *
Openness	.177 (.075) *	.166 (.077) *	.141 (.068) *
Gender	-.066 (.061)	.081 (.018) ***	.015 (.035)
Age	-.257 (.052) ***	-.206 (.040) ***	-.322 (.079) ***
R^2	.116 ****	.099 ***	.146 ***

Consequential
Inconsequential





Summary of main results

- Personality constrains learning engagement at home and at work
 - Openness drives engagement the strongest, especially at home
 - The effect carries over to skill levels, especially to numeracy from home
 - Anxious individuals engage less at work but equally at home
 - Conscientious and extraverted engage more at work than home
 - Organized courses do not motivate to engage socially

Conclusions and some limitations

- Account for personality when supporting an individual's LLL decisions
- Does personality affect testing and skill scores?
 - *Traits as control variables? Or even as conditioning variables along with age, gender, education?*

References

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