Self-Directed Learning and Development in Adulthood

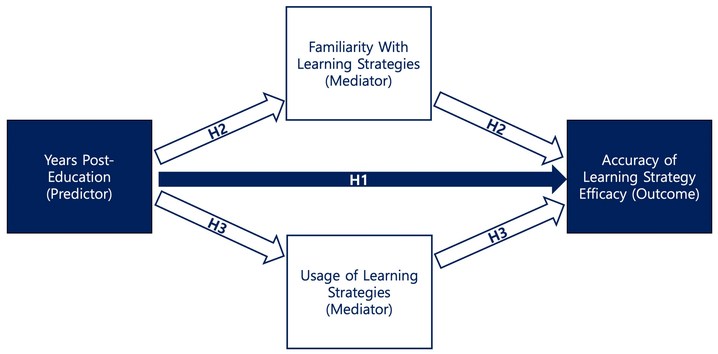
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Introduction

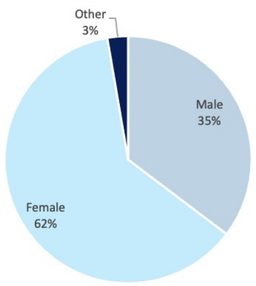
- Rapid industry evolution and emerging technologies increase the need for ongoing skill development through effective self-directed learning[6].
- Effective learning strategies foster deeper understanding and knowledge transfer by encouraging active engagement[1].
- Limited research exists on learning strategy utilization outside of a k-12 context.
- Our project sought to address this gap by understanding working adults' familiarity, utilization, and accuracy of knowledge about learning strategies.

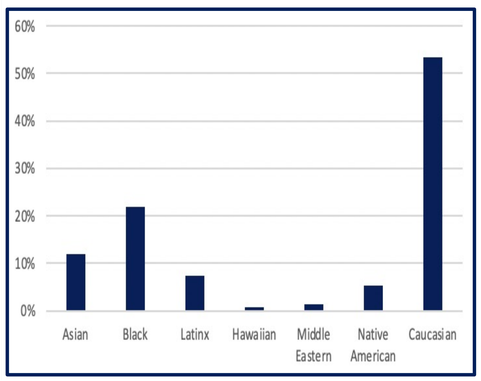
Hypotheses



Participants

- Prolific Sample n = 150
- Average Age = 34.8 (*SD*=13.1)
- Average Years Post-Education = 10.3 (*SD*=11.4)





Inclusion Criteria

-At least 18 years old

-Currently employed OR actively job seeking

-U.S. Resident

Methods

20-minute Survey

-Data analyzed through a path analysis in Jamovi

Variable of Interest	How was it measured?
Years Post-Education	In what year were you last enrolled in an educational institution (e.g., K-12 school, college, university, graduate school, medical school, law school)?
Learning Strategy Familiarity	[Description presented] I am familiar with this learning strategy (1 Not familiar at all-5 Extremely familiar).
Learning Strategy Usage	[Description presented] When trying to learn, I use this strategy. (1 Never-5 Always).
Accuracy of Learning Strategy Efficacy	[Description presented] How effective do you believe this learning strategy to be? (1 Not effective at all-5 Extremely effective) Their ratings were then compared to those of a subject matter expert.

Covariates	Example Item	Cronbach's Alpha
Self Efficacy for Learning	When trying to learn new skills on your own, how confident are you that you can... - Effectively divide time between your learning and other responsibilities. (1 Not at all confident-5 Extremely confident)	0.91
Intellectual Openness	I...Am interested in many things. (1 Strongly disagree-5 Strongly agree)	0.78
Love of Learning	I...Look forward to the opportunity to learn and grow. (1 Strongly disagree-5 Strongly agree)	0.77
Conscientiousness	I...Set high standards for myself and others. (1 Strongly disagree-5 Strongly agree)	0.79
Training Frequency	How often does your organization offer training programs relevant to your job? (1 Never-5 A great deal)	0.77

Learning Strategies

1. Self Explanation
2. Elaborative Interrogation
3. Summarization
4. Highlighting
5. Imagery
6. Rereading
7. Practice Testing
8. Distributed Practice
9. Interleaved Study
10. Rehearsal
11. Organization
12. Interpersonal Help-Seeking
13. Seeking Help From Written Material
14. Practical Application
15. Emotion Control
16. Motivation Control

Results

While our hypotheses were not supported, there was a significant correlation between learning strategy usage and accuracy of learning strategy efficacy.

		Learning Strategy Familiarity	Learning Strategy Utilization	Learning Strategy Knowledge Accuracy	Self Efficacy for Learning	Intellectual Openness	Love of Learning	Conscientiousness	Workplace Training Frequency
Learning Strategy Familiarity	Pearson's r	—							
	df	—							
	p-value	—							
Learning Strategy Utilization	Pearson's r	0.632***	—						
	df	145	—						
	p-value	<.001	—						
Learning Strategy Knowledge Accuracy	Pearson's r	0.084	0.265**	—					
	df	145	145	—					
	p-value	0.309	0.001	—					
Self Efficacy for Learning	Pearson's r	0.299***	0.296***	0.064	—				
	df	145	145	145	—				
	p-value	<.001	<.001	0.443	—				
Intellectual Openness	Pearson's r	0.320***	0.167*	0.043	0.223**	—			
	df	145	145	145	148	—			
	p-value	<.001	0.043	0.601	0.006	—			
Love of Learning	Pearson's r	0.358***	0.348***	0.171*	0.293***	0.562***	—		
	df	145	145	145	148	148	—		
	p-value	<.001	<.001	0.038	<.001	<.001	—		
Conscientiousness	Pearson's r	0.230**	0.210*	0.016	0.457***	0.160	0.333***	—	
	df	145	145	148	148	148	148	—	
	p-value	0.005	0.011	0.847	<.001	0.050	<.001	—	
Workplace Training Frequency	Pearson's r	0.247**	0.283**	0.048	0.252**	0.053	0.252**	0.134	—
	df	117	117	117	120	120	120	120	—
	p-value	0.007	0.002	0.602	0.005	0.564	0.005	0.141	—

Discussion

- Hypotheses were not supported, indicating no direct relationship between years post-education and learning strategy efficacy knowledge.
- There was, however, a direct relationship between learning strategy usage and accuracy of learning strategy efficacy.
- In addition, training frequency and many personality-based measures revealed significant correlations with our variable of interest.
- These findings suggest an importance in considering individual differences and training regimes in this area of research.

Future Directions & Limitations

Future Directions:

-Conduct longitudinal studies for causality and long-term impact.

-Study the role of workplace environment and culture.

-Test training programs to enhance self-directed learning.

-Analyze the influence of personality on learning strategy adoption.

Limitations:

-Cross-sectional design limits causal inferences.

References

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ASK Lab
Adult Skills and Knowledge Lab

Questions?
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This material is based upon work supported by the National Science Foundation under Award No. 2241704. Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.