

The 20th SEFI Special Interest Group in Mathematics Seminar

Faculty of Engineering and Science, University of Agder 17 – 18 June 2021 in Kristiansand, Norway

# Students' self-awareness of learning agility: a case-study

J. Mendonça<sup>1</sup>, C. M. A. Pinto<sup>1</sup>, L. Babo<sup>2</sup>

<sup>1</sup>School of Engineering, <sup>2</sup>Porto Accounting and Business School Polytechnic of Porto

cap@isep.ipp.pt, jpm@isep.ipp.pt,lbabo@iscap.ipp.pt



Context



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- The VUCA (Volatile, Uncertain, Complex, Ambiguous) world
- The labour market is constantly changing: fundamental changes in Global Economy, Technology and Demographics
- Employers expect an

increasingly better qualified

### workforce

 Students need to develop strong employability skills to compete in the job market



Volatility, uncertainty, complexity and ambiguity





"The pace of change in the workplace is ever increasing, so graduates need to ensure they are developing the skills and abilities that will not only empower them to land the job of their choice, but also allow them to thrive as their career develops."

STEPHEN ISHERWOOD, CEO OF THE ISE (2019)

Companies are requesting graduates with attributes such as:

"(...) communication, teamwork, problem solving, technological skills, creativity, interpersonal skills, leadership skills, self-management and flexibility/adaptability"

M. OSMANI et al. (2015)







"It is becoming more and more vital that universities also prepare graduates for the world of work. This means that the development of **soft skills**, like team-playing and resilience, often becomes as important as the **technical skills** and **knowledge** acquired during a degree."

Nunzio Quacquarelli CEO, QS



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# Context



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Source: De Meuse, K. P., Dai, G., Zewdie, S., Page, R. C., Clark, L. P., & Eichinger, R. W. (2011, April). Development and validation of a self-assessment of learning agility





#### How assess learning agility?

There are **five main characteristics** that can be assessed to determine an individual's learning agility.

Mental Agility — how comfortable are they in dealing with complexity?

**People Agility** — are they skilled communicators who can work with diverse people?

**Change Agility** — do they like to experiment? Are they not afraid to be at the forefront of change?

Results Agility — can they deliver results in first-time situations?

Self-Awareness — do they recognise their own strengths and weaknesses?





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#### What is Mental Agility?

think able quickly make solution changing approach course situation ment changing approach course situation mental through person sharpness effectively manner flexible action process work response issue complex various different new fly while about one timely order facts task mind time variety creative feet without means processes any solve learn areas ideas based quickness conclusions apply come one's information learning efficient challenges box see tasks draw sharp view concepts problems things thought adjust solutions mentally having respond experience outside environments using understand situations decisions circumstances think-on-your-feet knowledge

Source: Siegfried Group Survey Response



# People

Those with this type of **aggin and and aggin a** 

Understand others. Are skilled communicators. Enjoy helping others succeed. Are comfortable with diversity. Handle conflict constructively. Use others effectively. Study



17 - 18 June 2021 in Kristiansand, Norway

Baccalaureate degree in Engineering 20/21 -1<sup>st</sup>semester

Theoretical classes – online

Practical classes – face-to-face

Active learning strategy – TPS, Buzz, "eduscrum"

Survey:

Mental Agility and People Agility

Respondents: 51 students – 23

28 **Q** 



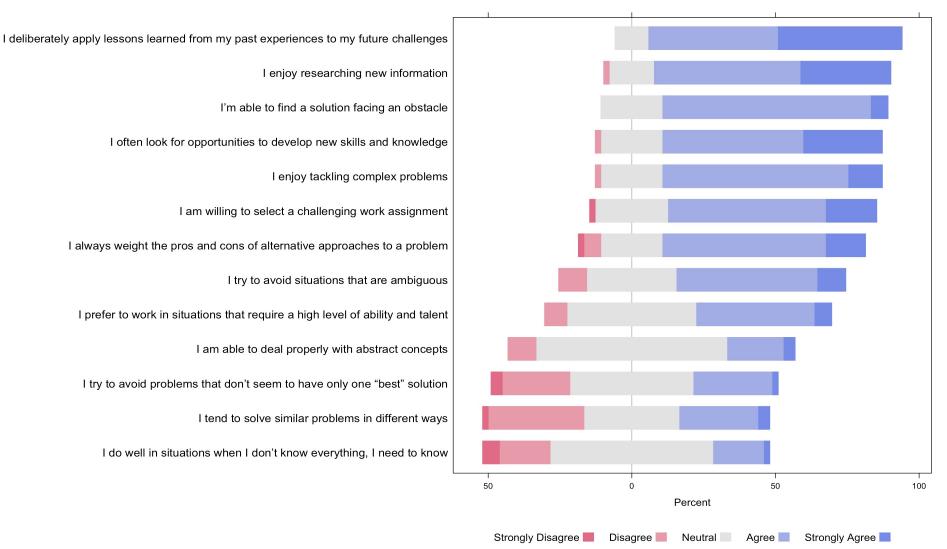
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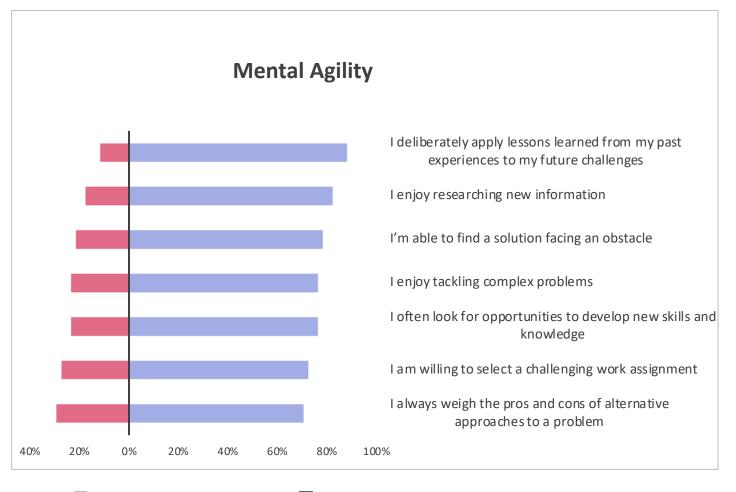
# Results

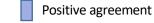
#### **Mental Agility**









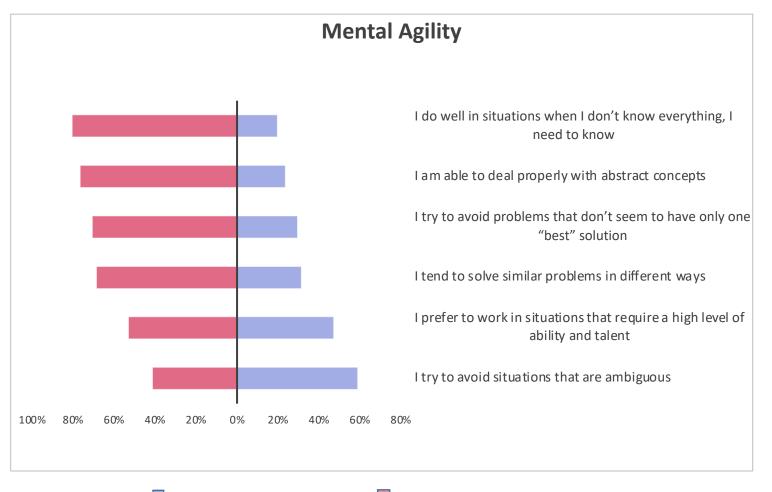


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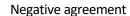
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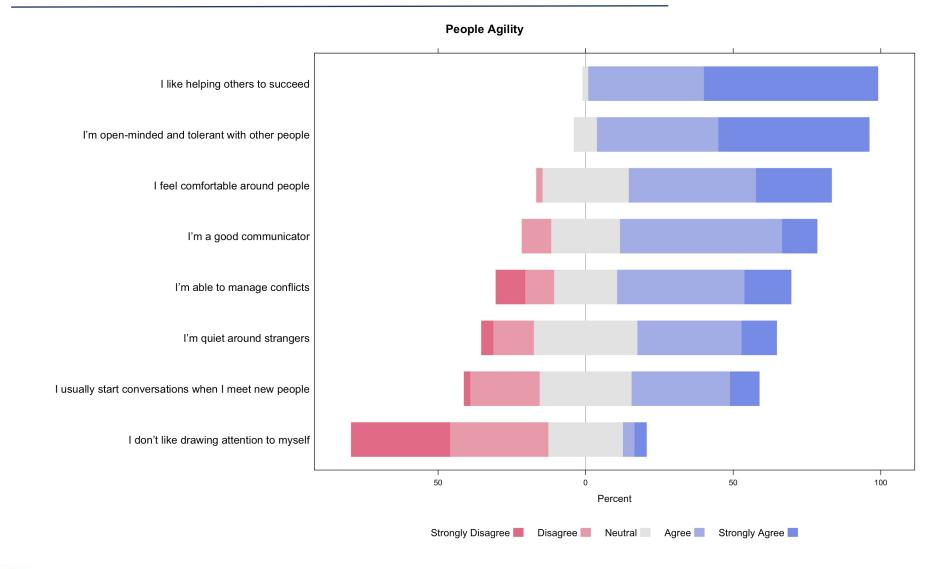
Positive agreement



Results

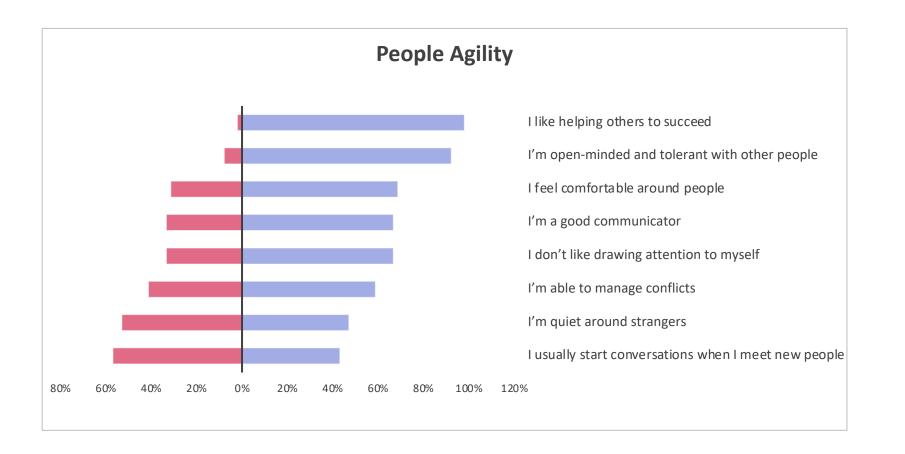


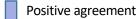
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Negative agreement



# Results



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	Ν	Mean	Std deviation
Mental Agility	51	3,606	0,309
People Agility	51	3,821	0,358
	t	p-value	
t.Test paired samples	-4,153	0,000	

The students feel they are significantly more "people agile" than "mental agile"





- Students look for opportunities to develop new skills and knowledge.
- Students enjoy delving into new information.
- Students apply past experience knowledge to future challenges.
- Students feel they are open-minded, tolerant and like helping others.
- Positive impact of active-learning in the development of learning agility.





Success today requires the agility and drive to constantly rethink, reinvigorate, react, and reinvent.

**Bill Gates** 

AZQUOTES

