BMF CP27: Barriers to secondary school students' online learning comfortability and effectiveness

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1. Project description

1.1. Main objectives

The current study has two objectives, which are to:

1. Examine the potential factors contributing to secondary school students' online learning comfortability.
2. Examine whether secondary school students' online learning comfortability is positively associated with their learning effectiveness.

1.2. Materials

The mindsponge theory will be used for conceptual development, and Bayesian Mindsponge Framework (BMF) analytics will be used for statistical analysis on a dataset of 5,327 Vietnamese secondary students in Vietnam [1-3]. The bayesvl R package, aided by the Markov chain Monte Carlo (MCMC) algorithm, will be employed for statistical analyses [4-7]. For more information on BMF analytics, portal users can refer to the following book [8]. Data and code snippets of this initial analysis were deposited at: https://osf.io/snajd/

1.3. Main findings

The analysis shows that poor internet connection, lack of ICT skills, and psychological issues are associated with lower online learning comfort among secondary school students. Among these effects, the impact of psychological problems, like concentration difficulties, is the strongest (see Figure 1). We also find that learning comfortability is positively associated with learning effectiveness (see Figure 2).
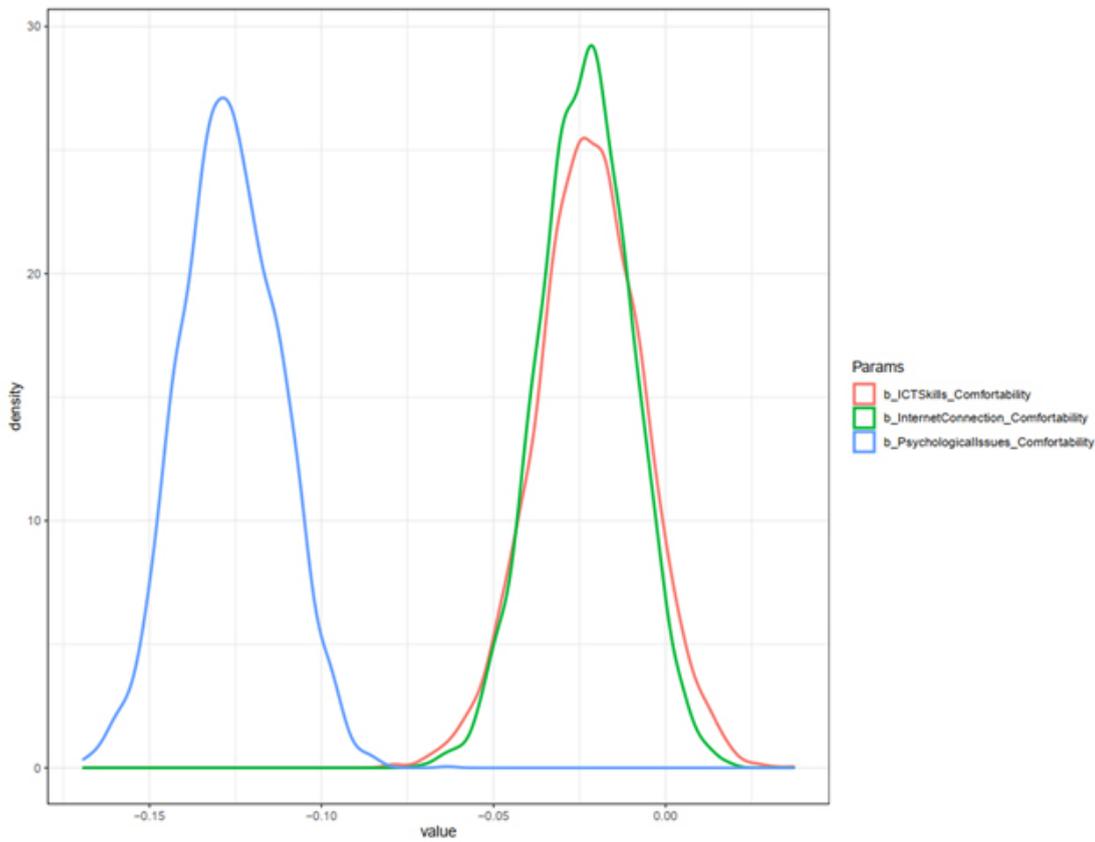

Figure 1. The coefficients indicating the barriers' effects on learning comfortability
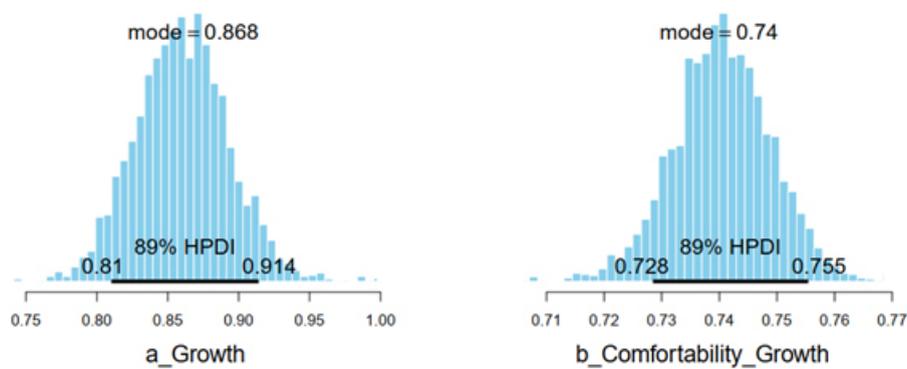

Figure 2. The coefficient indicating the learning comfortability's effect on learning effectiveness

2. Collaboration procedure

Portal users should follow these steps to register to participate in this research project:

1. Create an account on the website (preferably using an institution's email).
2. Comment your name, affiliation, and your desired role in the project below this post.
3. Patiently wait for the formal agreement on the project from the AISDL mentor.

If you have further inquiries, please contact us at aisdl_team@mindsponge.info

If you have been invited to join the project by an AISDL member, you are still encouraged to follow the above formal steps.

All the resources for conducting and writing the research manuscript will be distributed upon project participation.

AISDL mentor for this project: **Phuong-Loan Nguyen** (loan.nguyen@hanu.edu.vn), **Minh-Hoang Nguyen** (hoang.nguyenminh@phenikaa-uni.edu.vn)

AISDL members who have joined this project: Quan-Hoang Vuong.

The research project strictly adheres to scientific integrity standards, including authorship rights and obligations [9], without incurring an economic burden at participants' expenses [10].

References

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