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## DOCTOR OF EDUCATIONAL SCIENCES

of Mr. Minh Hien Vo

Which will take place, in a digital way only,  
on June 22, 2020 at 10 A.M.

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## INVESTIGATING BLENDED LEARNING EFFECTIVENESS AND DISCERNING ITS SIGNIFICANT DESIGN FEATURES REGARDING STUDENTS' LEARNING OUTCOMES IN HIGHER EDUCATION

### JURY

**INTERN:**

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## SUMMARY

The PhD research project investigates blended learning implementation in higher education in the context of a Vietnamese university. The research investigates the effect of blended learning on student performance, as a function of disciplinary differences (STEM and non-STEM), and the implementation of blended learning from the instructors' perspectives. The research also focused on how blended learning design features are related to enhanced students' learning achievements measured by objective course grades.

Four studies constitute the dissertation, among which a meta-analysis, a quantitative study, a qualitative study consisting of 29 interviews with instructors, and a survey study with a sample of 571 students from different blended learning courses at Can Tho university were conducted. The findings revealed that blended learning had an overall higher effect on student performance compared to traditional courses. The findings reveal that instructors in STEM and non-STEM disciplines shared both similarities and differences in their instructional strategies. In both cases, students' self-regulation is a factor that should be addressed when designing blended learning activities. Furthermore, factors related to students' performance measured by final course grades are unraveled, controlling for the effects of gender and prior learning achievement. The results show that students in non-STEM disciplines obtained higher grades than students in STEM disciplines. Clear goals and expectations, material quality, and collaborative learning are significant predictors of students' performance. Factors related to instructors' support, feedback, and facilitation are found to be non-significant to student learning performance.

The research results are important for supporting blended learning design and implementation in Vietnamese universities. Efforts to help students clearly understand what they can learn from the course and how they demonstrated the acquired knowledge and skills at each milestone is strongly appreciated. Additionally, with the advancement in technologies, making content more interactive and providing opportunities for students to interact with the content will help enhance student-content interaction. In addition to the importance of the design of authentic learning tasks that captures students' interests and helps them apply theories in practices, it is crucial to keep students engaged in collaborative learning, and enhance instructor's monitoring and prompt feedback.

## CURRICULUM VITAE

Minh Hien Vo was born in An Giang, Vietnam on Oct 6th, 1982. He obtained a bachelor degree in Information Technologies at Can Tho University (Vietnam) and master degree in Information Systems Development at HAN University, the Netherlands.

He started working at Can Tho University as an IT specialist at the Department of Academic Affairs (Can Tho university) since 2005. In 2009, he went to the Netherlands to pursue a master in Information Systems Development. Since 2010, he worked at the Graduate School as post-graduate program administrator and as a lecturer in ICT. In 2015, he got a PhD scholarship from the Ministry of Education and Training (Vietnam) to perform his doctoral research in Educational Sciences at the Vrije Universiteit Brussel. His research centers around educational technologies and ICT integration in higher education with a specific focus on design features and the perspectives of instructors and students in implementing blended learning in higher education.