You are kindly invited to the public defense to obtain the degree of

**DOCTOR OF EDUCATIONAL SCIENCES**

of Mr. Kai Wang

Which will take place on

**27th of November** at 9.30 AM
Promotiezaal D2.01 – Campus Etterbeek
Pleinlaan 2 – 1050 Brussel

**Investigating learning effectiveness in the implementation of MOOCs in higher education**

**JURY**

**INTERN:**

Prof. dr. Dominique Verte (Chair), PE, EDWE
Prof. dr. Koen Lombaerts, PE, EDWE
Prof. dr. Frederik Questier, PE, EDWE

**EXTERN:**

Prof. dr. Martin Valcke, Ghent University
Prof. dr. Guoyuan SANG, Beijing Normal University (China)

**PROMOTOR(S)**

Prof. dr. Chang Zhu (VUB)

You are also invited to the reception afterwards.

Please confirm your attendance before 22/11/2019 via mail kai.wang.edu@hotmail.com

How to reach the VUB?

http://www.vub.ac.be/campus/brussels-humanities-sciences-engineering-campus
Currently Massive Open Online courses (MOOCs) have received increasing attention in educational research, and flipped learning is supposed to be one of the main pedagogies to use MOOCs in higher education. As such, this dissertation aims to investigate the learning effectiveness of implementing MOOCs in higher education and more specifically on the relationships of MOOC-based flipped learning, the use of social media tools and learning performance. Throughout the chapters described in the dissertation, we demonstrated findings from different quantitative and qualitative studies. Twelve specific research questions were used in five studies to achieve the central aim. These studies provided empirical evidences for the current discussion about integrating MOOCs and flipped learning into formal curricula of conventional higher education as well as how factors in the learning context affected the integration. The results showed that students in the MOOC-based flipped learning performed better than those in the traditional classroom on average. Besides, MOOC-based flipped learning can facilitate cognitive presence and learning presence, promote group collaboration in establishing social presence, and increase the value of individual guidance in fostering teaching presence. However, the use of social media tool was found to be unrelated to the final marks in the MOOC-based flipped learning. This dissertation can support educational practitioners in applying innovative learning such as the integration of MOOC-based flipped learning in higher education.

**SUMMARY**

**CURRICULUM VITAE**

Kai Wang was born in Handan city, Hebei province of China on October 7th, 1991. Kai Wang obtained the degree of Master of Education in 2015 at Southwest University of China. Kai Wang is a PhD candidate at the Department of Educational Sciences of Vrije Universiteit Brussel in Belgium. In more recent work, he is especially interested in exploring the interplay between MOOCs, social media tools and flipped learning.