

## **Statement of Purpose for Admission to the Doctor of Philosophy Program in Education**

My name is Nguyen Hoang Tung Lam, and I am currently preparing my application for the **Doctor of Philosophy in Education** program at **Columbia University, Teachers College (TC)**. Below is my detailed plan for personal development in the upcoming period, with the hope of receiving guidance and support from the faculty at Teachers College, allowing me to fully develop my research potential and contribute to the advancement of educational innovation, both locally and globally.

### **I. About My Past & Present**

I am currently completing my Master's program at Johns Hopkins University. My aspiration to become an expert in the field of education has been shaped not only through academic achievements but also by a profound desire to conduct research in areas explored by leading universities in the United States. In particular, upon completing my Master's degree, I am eager to pursue the next stage of my academic journey at Columbia University, aiming to deepen my expertise in digital learning, educational technologies, and innovative pedagogical practices.

Born and raised in a family with a strong academic tradition, I have always understood the importance of education. Yet, I believe that teaching transcends the mere transfer of information; it is about inspiring and guiding students to unlock their full potential. This belief has motivated me to apply to the PhD in Education program at Teachers College, where I can cultivate the knowledge and skills to become an educator and researcher capable of creating meaningful impact—not only in Vietnam but also internationally.

With the goal of contributing to the global education system, I aspire to bring advanced teaching methods and research-based knowledge back to improve the Vietnamese education system. Admission to Teachers College would be a major stepping stone, enabling me to continue my academic journey and fulfill this vision.

### **II. Research Interests & Goals**

My primary research interest lies in exploring digital pedagogies in higher education, with a focus on redefining teaching and learning in the digital age. Digital pedagogy presents significant opportunities for universities, including enhancing student engagement, enabling personalized learning experiences, and fostering innovative teaching methods. However, its effective implementation also faces challenges, such as limitations in infrastructure, equity in access, faculty readiness, and cultural factors influencing teaching and learning practices. By examining these dimensions, I aim to understand how digital technologies can be leveraged to support both instructional excellence and inclusive educational outcomes.

From a reflective perspective, Vietnam currently stands at a pivotal juncture in its higher education transformation. The country benefits from strong policy intent, emerging institutional innovations, and a youthful student population eager to embrace digital learning. The central challenge is to convert these favorable conditions into systemic, pedagogically robust reform that balances equity with quality. Thoughtfully implemented, digital pedagogy has the potential to enable Vietnamese universities to fulfil their dual mission of expanding access to higher education while enhancing learning outcomes, contributing to the nation's educational development in a rapidly evolving global context.

### **III. Academic & Professional Experience**

Throughout my academic journey, I have actively engaged in research, publication, and science competitions that have honed both my technical expertise and analytical skills. As a co-author on multiple chemistry research papers, including studies on ternary magnetic-polymer catalysts and carbon dioxide hydrogenation, I have presented at international conferences and published in peer-reviewed journals, earning recognition such as gold medals at the International Science and Engineering Fair and other global competitions. Beyond chemistry, my research interests have expanded into educational innovation, as evidenced by my authorship of educational books—including a geometry exercise book sold to over 1,000 students and a Braille astronomy book for visually impaired learners—demonstrating my commitment to applying knowledge to tangible educational outcomes.

In parallel with my academic work, I have cultivated extensive leadership and collaborative experience in research and innovation projects. I have led multiple Vietnamese national teams in international competitions, including the International Olympiad in Artificial Intelligence, Silicon Valley International Invention Festival, and Thailand Inventors' Day, where I coordinated project development, guided research application, and supervised team presentations. Additionally, I have served as Head of the Researcher Team at the Research Institute of Creative Education (RICE), where I designed and evaluated STEM curricula for high school students, and as Co-CEO of QCOne Group, overseeing research-driven product development. These experiences have strengthened my ability to lead interdisciplinary teams, translate research into practice, and foster innovation—skills that I am eager to further develop through doctoral study at Teachers College.

### **IV. Future Plans & Contribution**

Through my PhD research, I aim to investigate how digital pedagogies can transform teaching and learning in higher education, with a particular focus on the Vietnamese context. My study will examine the opportunities that digital technologies offer, their impact on teaching methods and student learning, and the challenges posed by infrastructure, equity, cultural factors, and faculty readiness. Employing a

**mixed-methods approach**, including student surveys, faculty interviews, and case studies, I plan to develop a comprehensive framework for implementing digital pedagogy that is both inclusive and pedagogically robust. Ultimately, I hope my research will provide evidence-based recommendations and practical tools to enhance teaching quality, foster equitable access, and guide policy development in higher education institutions.

At Teachers College, I intend to actively contribute to ongoing research initiatives and interdisciplinary collaborations. I aspire to share my experience in digital learning and STEM education, collaborate with faculty and peers, and participate in international conferences and publications to disseminate knowledge globally. Beyond the university, I aim to translate my findings into practical applications that support Vietnamese universities in realizing their dual mission of expanding equitable access while improving educational quality, thereby contributing meaningfully to both the local and global education communities.

## **Conclusion**

In summary, my research aspiration is to investigate the implementation and impact of digital pedagogies in higher education, with a focus on enhancing learning outcomes and promoting equitable access within the Vietnamese context. The Doctor of Philosophy in Education program at Columbia University, Teachers College, distinguished by its interdisciplinary research environment and commitment to educational innovation, provides an ideal setting to pursue this work. I am committed to contributing to the academic community through rigorous research, collaborative initiatives, and dissemination of findings, while translating insights into practical frameworks and policy recommendations. I look forward to engaging with faculty and peers at Teachers College to advance knowledge in digital education and to make a meaningful contribution to both local and global educational landscapes.