



The Study of Different Teaching Innovation Paths in Higher Education

Shang Shi

Department of Communication, Faculty of Humanities and Social Sciences, Beijing Normal University-Hong Kong Baptist University United International College, Zhuhai, Guangdong, China

s230031203@mail.uic.edu.cn

Abstract. This paper focuses on teaching innovation in higher education in different paths. To achieve the advancement of education in the world, diverse creativity in higher education has become a hot issue. As an important stage of education, higher education is necessary for each perspective to develop comprehensive innovation in teaching. This essay analyzes the importance of teaching innovation in higher education, which includes improving the teaching environment, enhancing core competitiveness, and constructing a national higher education brand for a country. To carry out research into this topic, this study integrates texts and investigations from international scholars and proposes three directions and paths of innovation to enhance higher education, which are thinking skills, teaching methods, and digital technology. Corresponding to these three aspects, this paper gives some advice, such as the combination of critical thinking and professional knowledge learning, implementation of Project-based Learning and flipped classrooms, and training technology literacy for teachers and students.

Keywords: Higher Education, Teaching Innovation, Thinking Skills, Teaching Method, Digital Technology

1 Introduction

The innovation of higher education has become a popular issue that students, teachers, and society pay close attention to. With the development of updated thinking and technologies, innovative higher education meets the demands of time and objective requirements. The aim of higher education is not only to get academic achievement but also more importantly to value the development of their abilities. Higher education is a non-obligatory education stage, so it is flexible that college students select and accept different types of training modes and universities, which is helpful for them in the workplace and society in the future.

It is important to understand teaching innovation of higher education, explore effective approaches from multi-aspects, and give some creative opinions to improve

the quality of higher education. Teaching innovation is not only academic innovations but rather curriculum, teaching methods and technical innovations.

This article reviews research to analyze the significance of teaching innovation in higher education, optimize and integrate the innovations, and finally suggest specific ways. This essay is mainly based on students' ability, teaching methods and digital technology, to discuss and advise the teaching innovation paths in higher education.

2 Analysis of the Importance of Teaching Innovations in Higher Education

2.1 Improve the Teaching Environment

Through teaching innovations from multi-aspects, the teaching environment can be promoted obviously. The quality of teaching in a classroom depends on certain teaching environment, which mainly includes the physical environment and psychological environment. On the one hand, about physical environment, depends on technical innovations of hardware facilities and more scientific evaluation criteria, which include the visual effect of slides, teaching aids, comprehensive assessment methods, etc. New methods, such as animation interactive design, and non-standardized assessment not only attract the attention of students but also relax students not to be worried about the scores of courses during the lessons, thus the measures of physical innovations enhance the engagement and motivation of students. On the other hand, to improve the psychological environment, it is important that teachers drive an active class atmosphere. The emergence of positive psychological tendency primarily relies on communication and activities and influences on students' behavior. Innovative curriculum design and teaching methods can effectively create a positive environment that facilitates teaching and learning. By flexible teaching methods and activities, excellent teachers create a more positive affective climate and a favorable environment in the classroom [1]. The creativity of diverse teaching methods and curriculum design in higher education provided active psychological emotions and effective environment to cultivate learning achievements and the comprehensive skills of students.

By improving the physical environment and the psychological environment through teaching innovations, it is effective that higher education instructors enhance students' engagement and initiative, and promote the quality of teaching during class time. Through the development and sustainability of teaching innovations, students will transform the studying method from passively acquiring knowledge to actively exploring learning. It will become a virtuous circle that the advancement of teaching innovations influences the teaching environment. If instructors receive positive feedback from students, teaching innovations will be updated.

2.2 Enhance Core Competitiveness

Enhancing core competitiveness is a crucial step for students in universities to realize personal value and promote future employment. Through teaching innovations of

multi-aspects, higher education enables students to receive holistic education more deeply and reach to all-round development.

For college students, their core competitiveness is mainly featured in knowledgeability, practical ability, and communication ability. First of all, about knowledgeability, teaching technical innovations are beneficial in that students actively explore new knowledge. Diverse technical innovations attract students' attention and enable them to absorb knowledge more efficiently than traditional learning with new technology. Thus, to some extent, innovation contributes to active learning. It helps students to have a deeper and more active understanding of the content and significance of new knowledge. Nowadays, it is important to understand interdisciplinary knowledge and perspectives. Teaching technological innovation allows students to acquire more interdisciplinary information, broadening the scope of students' knowledge. It is conducive to cultivating students to become interdisciplinary talents and improve core competitiveness. Secondly, about practical ability, teaching innovation takes comprehensive literacy as an individual ability. It helps students apply their knowledge and ability to practice and improve their teamwork and problem-solving skills. Innovative cultivation of comprehensive ability enables students to have forward-thinking and insight to understand the industry dynamics and employment situation. Through such information, students will have clear career planning and development goals. It solves the problem of the future employment of students, and improve the adaptability in the working environment and society [2]. Furthermore, regarding communication ability, innovative teaching methods promote the abilities of students' expression and collaboration. Students are the core of innovative teaching methods. Therefore, instructors give students greater freedom and many opportunities for communication during class time. The curriculum is mainly designed in the form of groups so that students can reach a coincident learning content and learning strategies during communication in groups. It is also helpful for students to have smooth and effective communication with colleagues and superiors when they enter the workplace in the future.

2.3 Construct a National Higher Education Brand

Education is deeply influenced by the polity and political system. As a kind of state soft power, the development level of higher education reflects a country's talent training strategy and comprehensive national strength. Therefore, it is crucial for a country to build its higher education brand and gain cultural recognition through various teaching innovations. Because of the innovative development of higher education teaching, students will have resonated with the content and substance of teaching and highly recognized the teaching method and curriculum design. Meanwhile, the investment of higher education costs in teaching innovation is conducive to the comprehensive development of teaching content and teaching modes with domestic characteristics. Furthermore, the influence of domestic education brands will also continue to expand. The hard technology and soft power of teaching innovation in higher education will combine sufficiently.

In addition, higher education has the connotation of an elite, quality commodity that confers labor market advantages and social status, so it is endowed with the abil-

ity to be a kind of cultural capital or knowledge economy to promote a country's status in the world [3]. The concept of modern cultural capital has been recognized more and more in the international environment. Higher education is positioned as a global commodity under the background of the knowledge economy. Innovative teaching and brand effect also added value to education. The study of national higher education brands is a new phenomenon, which is beneficial to promoting teaching innovation, and stimulating the growth of knowledge economy and cultural capital [3].

3 The Significance and Suggestions of Different Teaching Innovation Paths in Higher Education

3.1 Integration of Thinking Skills into Curriculum

Improving thinking skills is an important way to cultivate comprehensive ability and literacy. As a kind of quality and competency, critical thinking is useful and helpful so that college students will achieve great success in their school life daily life, and future professional life [4]. Critical thinking is an important thinking skill, which includes not only rational thinking but also independent thinking. It can change some stereotypes, that people can contact different styles and communicate with other smoothly. Also, the development of critical thinking influences the depth and breadth of the major subject curriculum. Therefore, universities are necessary to cover the ability cultivate of critical thinking into syllabi, programs, and curricula [4]. However, the concept of critical thinking is relatively abstract, so to implement the teaching outcome, innovative active methodologies need to be promoted for its advancement.

There are some effective pedagogical advice for improving the learning of critical thinking. Through the combination of critical thinking and professional knowledge learning, universities and teachers cultivate the comprehensive ability of students. Some typical training methodologies of critical thinking in higher education such as oral and written reflection and argumentation, case studies have received recognition from instructors, who have successfully implemented [4]. Critical thinking is not necessary to be taught separately. Because critical thinking is a mode of thinking and a tool of problem-solving, it must be applied to a specific event. It should be trained during teaching professional lessons. Especially, the effectiveness of teaching critical thinking is better when native students and international students learn together, which they can have a collision of thought and culture. Thinking like a 'Westerner' enables students to have their ideas and measure the balance between studying, working, and entertainment. In addition, if teachers want college students to participate in the classes more actively, they should consider the interests of students and provide students the opportunities, before the classes have been started, which will promote their critical thinking skills [5].

3.2 Integration of Teaching Methods into Curriculum

Reforming and popularizing innovative teaching methods is a good approach to optimizing teaching environment, quality, and effectiveness. As the kinds of teaching methods, PBL and flipped classrooms are both student-centered pedagogical approaches, which facilitate independent learning.

First of all, PBL is acknowledged to be a promising teaching method that improves students' learning initiative in higher education. Through the implementation of PBL, the studying outcomes of college students will be mainly reflected in students' learning processes and final products [6]. However, in Chen and Yang's meta-analysis, they found that although PBL is being applied in the education field, only 20% of universities are adopting such a teaching method [7]. The process of PBL ranges from proposal to final self-reflection, which promotes active learning and research skills. Thus, it is effective that students have the opportunities to engage in real problem-solving and knowledge construction in a real professional environment [6].

The flipped classroom is a beneficial approach to assess the knowledge absorption and narrow the gap between instructors and students, influencing sustainable development for college students. On the one hand, through such teaching methods, students get a sense of satisfaction and engagement, which stimulate students to make certain about academics, thus knowledge and skills will improve. On the other hand, it cultivates essential skills for students in their future workplace.

Because college students have relatively strong learning abilities and learning experiences, universities and instructors should have the courage to try out the adoption of PBL and flipped classrooms. To increase the degree of learning initiative and engagement, designing, constructing, and developing the student-centered learning environment is the first step to implementing PBL and flipped classrooms [8]. Secondly, the establishment of a comprehensive incentive mechanism enables students to stimulate their beliefs in learning and form a higher level of individual cognition [8]. Thirdly, the study strategy of learning is designed by the students themselves. It not only enhances academic skills but also increases cognitive and meta-cognitive functioning both individually and collaboratively [8].

3.3 Integration of Digital Technology into Curriculum

Digital technology has gradually transformed the current offline physical learning environment into an online digital form, enriching the teaching form and improving the possibility of teaching implementation. Most noteworthy, in Bond et al.'s study, they demonstrated that an institutional platform, which is called a learning management system, is an effective tool for teaching [9]. The system is well-structured and includes tools that increase openness and possibilities for teaching and learning. Both teachers and students are able to efficiently develop discussions, seminars, and meetings.

Another digital technology is called distance learning. Distance learning has an outstanding advantage, which is knowledge sharing. Distance learning significantly expands teaching and learning space, and allows college students to study inter-

faculty even transnational university programs in depth [10]. With the development of computer technologies and networks, information about higher education is transferred and exchanged in the fiction space without any distance within the framework of the student-instructor system, which include teaching and learning. In addition, Moreover, such a learning mode has many benefits than the traditional mode. Because distance learning saves time and provides learning autonomy, college students are able to select the courses according to their needs or interests to learn the content, that they want to choose. However, limited resources, uneven distribution of marketing advantages, and inadequate administrative structures are the unsolved problems in innovation technology of higher education teaching [10].

The digital transformation of higher education and the implementation of international development strategies must pay attention to the needs of teachers and students. Therefore, based on the different fields of study and research, it is necessary that skilled technicians should develop fine computer technologies and the elaboration of diverse functions, which respectively appropriate to arts and humanities, business studies, medical science, mathematics, etc. Also, the universities should train instructors to make up for a lack of digital skills and to change their minds of reluctance in educational technology. Furthermore, the arrangement of professional staff to solve systemic problems is helpful for students and teachers to apply digital technology more conveniently and skillfully [9].

4 Conclusion

This paper has argued that teaching innovation in higher education is crucial for students, teachers and even national future, and has many different paths and specific approaches to implement and develop.

Teaching innovation from diverse ways is good to improve the teaching environment, enhance core competitiveness and construct a national higher education brand. Excellent teaching environment consists of physical and psychological environment. The innovative teaching from these two perspectives can make students increase the engagement of class, and increase interactions with classmates and instructors. For college students, through teaching innovation in different paths, the cultivation of core competitiveness is not only helpful for students to get high scores and to work in groups harmoniously but also effective for them to adapt to society and distinguish other people in the workplace.

This essay has given some suggestions, that can be adopted in higher education. Firstly, critical thinking is a kind of ability of students, if this skill is combined with professional knowledge, it have great progress in students' lives. Secondly, take PBL and flipped classrooms as instances, if these two teaching methods are popularized, the learning initiative of college students will surely increase. Thirdly, if students and instructors have the proficiency of digital technology, the use of teaching sources can be maximum.

This paper has proposed some references and ideas for scholars to research teaching innovation deeply. Higher education as a system, there is not only has several

perspectives, which were analyzed in this essay, to improve but also many aspects have not been studied yet, such as the order and the speed of development in different innovation paths. The teaching innovation of higher education in different paths is valuable for universities and nations, so creativity in higher education is a long-term significant topic.

References

1. Bovill, C.: Co-creation in learning and teaching: the case for a whole-class approach in higher education. *High Education* 79(6), 1023-1037 (2020).
2. Keinänen, M., Ursin, J., Nissinen, K.: How to measure students' innovation competences in higher education: Evaluation of an assessment tool in authentic learning environments. *Studies in Educational Evaluation* 58, 30-36 (2018).
3. Lomer, S., Papatsiba, V., Naidoo, R.: Constructing a national higher education brand for the UK: Positional competition and promised capitals. *Studies in Higher Education* 43(1), 134-153 (2018).
4. Bezanilla, M. J., Fernández-Nogueira, D., Poblete, M., Galindo-Domínguez, H.: Methodologies for teaching-learning critical thinking in higher education: The teacher's view. *Thinking Skills and Creativity* 33, 100584 (2019).
5. Aycicek, B.: Integration of critical thinking into curriculum: Perspectives of prospective teachers. *Thinking Skills and Creativity* 41, 100895 (2021).
6. Guo, P., Saab, N., Post, L. S., Admiraal, W.: A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research* 102, 101586 (2020).
7. Chen, C. H., Yang, Y. C.: Revisiting the effects of project-based learning on students' academic achievement: A meta-analysis investigating moderators. *Educational Research Review* 26, 71-81 (2019).
8. Zarouk, M., Olivera, E., Peres, P., Khalid, M.: The impact of flipped project-based learning on self-regulation in higher education. *International Journal of Emerging Technologies in Learning* 15(17), 127-147 (2020).
9. Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., Kerres, M.: Mapping research in student engagement and educational technology in higher education: A systematic evidence map. *International Journal of Educational Technology in Higher Education* 17(1), 1-30 (2020).
10. Leontyeva, I. A.: Modern distance learning technologies in higher education: Introduction problems. *Eurasia Journal of Mathematics, Science and Technology Education* 14(10), em1578 (2018).

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

