

Research on Flipped Classroom Teaching Mode in the Digital Era: Taking the Tourism Hospitality Industry as an Example

Jun Yu¹, Hongjuan Wang^{2*}, Hongbing Zhu¹, Nan Ding¹

¹School of Tourism, Huangshan University, Huangshan 245000, Anhui, China

²Pusan National University, Busan 47545, Republic of Korea

*Author to whom correspondence should be addressed.

Copyright: © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: In the digital era, flipped classrooms have formed a new teaching model that takes electronic courseware first, classroom teaching interaction, and courseware learning second. The teaching model is student-oriented, and multidisciplinary knowledge is cross-integrated to form a diversified teaching system. The tourism industry in the digital era has put forward more demands on the knowledge structure, skill level, and comprehensive quality of college students. In order to adapt to the development needs of the new tourism industry, the digital flipped classroom teaching model came into being. Through the new digital flipped classroom teaching model, the efficiency of classroom teaching and the degree of student participation in class are improved, and at the same time, the application of digital information tools by students is improved.

Keywords: Digital age; Flipped classroom; Tourism hospitality industry; New teaching model

Online publication: March 26, 2025

1. Introduction

With the progress of the times and the application of big data and artificial intelligence, the digital era has arrived. In this era, the flipped classroom, as an emerging teaching model, has been widely introduced into the university curriculum teaching system in recent years ^[1]. As one of the essential courses in the tourism management system, the integration of flipped classroom teaching into tourism reception courses can provide students with a new teaching model and enrich teaching content. In 2019, the Central Committee of the Communist Party of China and the State Council issued the "China Education Modernization 2035," which clearly states the need to "accelerate the

modernization of education and build a powerful country in education." Changes in talent training models in the digital era require the use of modern technology to establish a comprehensive and intelligent platform that integrates teaching, management, and service ^[2].

The 2023 National Education Conference emphasized "building a high-quality education system with the goal of strengthening the country through education, opening up new fields and tracks for development, and continuously shaping new drivers and advantages for development." In the context of the digital era, new technologies have brought profound changes to teaching models and students' learning methods, as well as significant impacts on traditional teaching methods and philosophies. During the pandemic, the domestic tourism industry was greatly impacted, and the learning of tourism reception courses for domestic college students shifted from offline to online. Online teaching requires teachers to deliver courseware to students ahead of time, facilitating independent and mobile learning.

With the widespread adoption of online teaching, college students have adapted to the teaching model where courseware precedes the class. The flipped classroom has emerged in the digital era. This article mainly explores the teaching characteristics and current challenges of the flipped classroom in the digital era, focusing on the tourism reception industry course and targeting college students.

2. Concept of flipped classroom

The flipped classroom utilizes technological means to enable students to independently learn basic knowledge before class. In the classroom, knowledge application and problem-solving are completed through teacher-student collaboration. This model promotes changes in teaching and learning roles, educational philosophy, teaching content, methods, and evaluation through the reconstruction of the teaching process. It effectively enhances students' engagement, classroom participation, and the internalization and application of knowledge ^[3]. The emergence of the flipped classroom is mainly attributed to two movements: first, the global technology movement, which allows for deep integration of information technology and education at a very low cost; second, the ideological movement, where advanced educational concepts are widely disseminated through technological means ^[4].

Jonathan Bergmann, the founder of the flipped classroom, points out that flipped learning is a bottom-up educational reform. Traditional learning models can be roughly divided into two types: one is the traditional classroom model that focuses on knowledge transmission, where the teacher teaches and students take notes; the other is a student-centered, self-directed learning model that emphasizes student initiative and participation ^[5]. It should be clarified that the flipped classroom does not completely negate the traditional teaching model but rather absorbs the beneficial elements of the teacher-centered model in traditional teaching. Through computers and network technology, the part of the teacher's explanation of knowledge is moved to before class, providing more time and space for activities such as group work and problem-solving that promote knowledge application in the classroom ^[6].

3. Flipped classroom teaching model

3.1. Advance electronic courseware

The online teaching model during the pandemic has gradually accustomed students to the mode of downloading and receiving electronic courseware ahead of time, which has facilitated the flipped classroom teaching model in the digital era. In the digital era, the flipped classroom model primarily relies on electronic information technology to shift some knowledge transfer from the classroom to pre-class, optimizing and reorganizing the traditional classroom teaching structure. The main manifestation is the advance distribution of electronic courseware. In the tourism reception industry, university teachers provide students with a portion of the electronic courseware ahead of time, focusing on the upcoming teaching content. Students can independently initiate preliminary learning through various online learning platforms and new media resources.

3.2. Interactive classroom teaching

Classroom teaching activities involve the participation of both teachers and students, making the quality of classroom instruction particularly critical. Traditional teaching primarily revolves around lectures, with students passively listening. In the digital era, university classroom teaching should prioritize students, stimulating their enthusiasm, innovation, and autonomy. Students can be divided into groups for presentations and PPT demonstrations, while other groups engage in question-and-answer sessions. Additionally, case studies and practical exercises can be incorporated, with teachers providing supplementary instruction and clarification. This model not only leverages the advantages of information technology, catering to personalized learning needs and enhancing student engagement, but also effectively cultivates students' practical skills, innovative thinking, and problem-solving abilities. It offers a new pathway for tourism reception course instruction, promoting digital transformation and innovative development in university tourism reception education.

3.3. Relearning with electronic courseware

Relearning with electronic courseware refers to students' ability to revisit the courseware multiple times to clarify uncertainties or doubts from the classroom. Classroom activities constitute just one aspect of the flipped classroom and do not signify its conclusion. Teachers need to carefully design diverse and enriching after-class assignments or learning practices based on classroom content and student performance, utilizing their teaching experience and extensive knowledge. These after-class activities reinforce students' understanding and absorption of classroom knowledge, reveal the practical applications of that knowledge, and deepen the significance and value of relearning with electronic courseware.

4. Advantages of the flipped classroom in tourism reception courses

4.1. Student-centered teaching philosophy

The traditional teaching model is teacher-centered, with students passively receiving knowledge. In contrast, the

flipped classroom teaching model in the digital era prioritizes students. This new student-centered teaching approach emphasizes students as the protagonists of learning. In terms of teaching objectives, it focuses on students' practical application of knowledge and systematic honing of abilities. Regarding teaching methods, it highly values students' independent learning and the enhancement of team collaboration skills during the learning process ^[7]. Positioning students as the main actors in learning can inspire them to engage in the learning process with a positive, proactive, and creative attitude, forming a virtuous cycle and promoting the achievement of educational goals ^[8].

4.2. Manifestation of teaching diversification

The traditional teaching model was a singular approach with the teacher as the main protagonist delivering classroom instruction. However, with the advancement of electronic information technology, the teaching model in the digital era has evolved into a diversified educational system. The new teaching model prioritizes students, involving both teachers and students in classroom instruction, strengthening communication and interaction among students. This breaks down the barriers of the traditional single teaching model, where the teacher was the main protagonist. The integration of digital technology with teaching has brought changes to the teaching environment. Simultaneously, it has enabled the creation of various teaching platforms, providing technical support for a diversified teaching environment. Digital new media technology has also made virtual learning a reality. Through the application of virtual reality (VR) technology, an immersive learning environment can be created for students ^[9].

4.3. Adapting to the development needs of the tourism industry

With the continuous improvement of people's quality of life, the diversified upgrading of consumption structures, and the infiltration of digitization into various industries, new demands have emerged. As the core practitioners of the future tourism industry, college students face increased demands on their knowledge structure, skill level, and overall quality due to the new tourism industry trends. The tourism reception course is a compulsory basic course for tourism management students. To better adapt to the current development needs of the tourism industry, new teaching models have emerged.

The application of digital flipped classrooms in the tourism reception industry allows college students to master relevant emerging technical knowledge. Through advance electronic courseware featuring big data videos, students can analyze tourists' consumption behavior and preferences using big data technology. Students are assigned topics related to tourist attractions and prepare PPT presentations in groups for classroom delivery. This exercise helps students develop their editing skills for tourism copywriting and enhances their language and logical expression abilities.

Collaborating with tourism enterprises and scenic spots, more practical opportunities are provided for students through practical courses. Combining theoretical knowledge with practical activities, students are involved in planning tourism routes and developing copywriting plans for tourism enterprises. Additionally, they participate as volunteers in on-site explanations for tourists at scenic spots. These practical experiences enable students to enhance their self-efficacy and adapt to the development needs of the tourism industry.

5. Dilemmas of flipped classrooms in tourism reception courses

Tourism reception is an interdisciplinary course, and the integration of culture and tourism in modern society has also raised new requirements for the teaching mode of tourism reception courses. As a new teaching mode, the digital flipped classroom enriches the teaching mode of tourism reception courses and can better adapt to the current tourism industry. However, there are certain difficulties in applying flipped classrooms to teaching.

In the teaching mode of flipped classrooms for tourism reception courses, students are the main focus. Students have a high proportion of independent learning in the entire teaching mode, but their learning initiative varies. Therefore, in the entire teaching mode, students' learning acquisition also varies, and the feedback received is also different. In the teaching link where electronic courseware precedes, university teachers mainly focus on the part that will be taught and send electronic courseware to students ahead of time. Students can independently carry out initial learning through various online learning platforms and new media resources. Some students have relatively weak initiative and self-awareness in this link and have not learned the new knowledge in the electronic courseware, which leads to obstacles in the subsequent classroom teaching interaction, greatly reducing the effectiveness of student learning and even affecting student participation in classroom learning ^[10].

During the classroom teaching interaction, PPT presentations and explanations are given in groups, or students analyze and practice cases. This link requires active participation and interaction from students, but many students are accustomed to the traditional passive listening teaching mode. Faced with the high-intensity participation mode of flipped classrooms, they may feel anxious and uncomfortable. In the information age, with the introduction of AR teaching interaction, some students are not familiar with information tools, resulting in a low sense of participation and failing to achieve the expected teaching goals.

6. Reflections on flipped classrooms in the digital age

The entire teaching mode of flipped classrooms is student-driven. The core concept of flipped classrooms in the digital age is to use information technology to move the knowledge transfer process outside the classroom. Classroom time is mainly used for deep interaction among students and the internalization of knowledge, thus realizing a new student-centered teaching mode. The entire teaching mode is divided into three parts: advance electronic courseware, classroom teaching interaction, and relearning with electronic courseware.

The new student-centered teaching philosophy of flipped classrooms in the digital age, with a diversified teaching system and the integration of multidisciplinary knowledge, breaks the traditional single teaching mode and better adapts to the changing needs of the tourism industry. Combining online learning with offline classroom teaching creates a hybrid online and offline teaching mode. This breaks the limitations of time and space. Simultaneously, through the teaching mode of advance courseware and classroom interaction, classroom teaching efficiency and student participation are improved.

Funding

Huangshan University School-level Project; School Scientific Research Startup Project (2023xskq011), Huangshan University School-level Project; Anhui Provincial Key Laboratory Project of Integration Effect between Regional Culture and Smart Tourism (WLSYS202402)

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Liu Y, Guo M, Yu M, et al., 2024, Research on Constructing an Innovative Talent Teaching Model in the Digital Era—Taking the Optoelectronic Information Science and Engineering Major of Jilin Engineering Normal University as an Example. Journal of Jilin Engineering Normal University, 40(02): 36–39.
- [2] Li Q, Pei L, 2020, Building a High-Quality, Professional, and Innovative Teaching Team—Based on the Policy Interpretation of "China's Education Modernization 2035." China Educational Technology & Applications, (01): 17– 24.
- [3] Zeng W, Zhou Z, Liu L, 2020, How to Design a "Student-Centered" Flipped Classroom in Universities. Modern Distance Education Research, 32(05): 77–85.
- [4] Li S, Bai K, 2019, Research on the Design and Practical Issues of Flipped Classroom Teaching. Adult Education, 39(04): 27–31.
- [5] Ginns P, Ellis R, 2007, Quality in Blended Learning: Exploring the Relationships between Online and Face-to-Face Teaching and Learning. The Internet and Higher Education, 10(1): 53–64.
- [6] Yao Y, 2022, On the Flipped Classroom Teaching of Morality and Rule of Law in Junior High School. Teaching Reference of Middle School Politics, (19): 49–51.
- [7] Sun X, 2024, Construction and Implementation of a Student-Centered Curriculum Teaching System—Taking the Course of Mental Health Education as an Example. The Science Education Article Collects, (24): 181–184.
- [8] Zhang H, 2024, The Connotation, Value, and Practical Path of "Student-Centered Teaching." Modern Vocational Education, (36): 9–12.
- [9] Yan J, 2025, Research on the "1+X" Personalized Physical Education Teaching Reform Model from the Perspective of "Digitalization + New Quality Physical Education." Shandong Sports Science and Technology, 47(01): 61–66.
- [10] Sun H, 2020, Dilemmas Faced by the Implementation of Flipped Classrooms in China and Exploration of Localization Reform. Industrial and Technological Forums, 19(21): 149–151.

Publisher's note

Whioce Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.