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RESEARCH ARTICLE

THE IMPACT OF TEAM-BASED LEARNING AND FLIPPED CLASSROOMS ON STUDENTS' EMPLOYMENT IN HUMAN RESOURCE MANAGEMENT

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ABSTRACT

In light of the rapidly expanding global employment marketplace, the work of higher education in augmenting students' working capabilities has never been relevant. To address this problem, the question of how best to increase the employability of students through novel teaching methods has come to represent an overarching issue for educational scholarship. Interdisciplinary approaches to pedagogy have recently taken center stage. Team-based learning (TBL) and the flipped classroom (FC) are two new learning systems that have been extremely successful in a number of fields, especially business-related studies such as human resource management (HRM). This study explores how TBL and FC, by means of an interdisciplinary teaching method, enhance students' key professional competencies and examines their effects on employability. Through a questionnaire survey, this study explores the impact of the two teaching modes on students' teamwork, communication, and problem-solving skills in HRM education. The findings indicate that TBL significantly positively affects students' key professional competencies, particularly teamwork and communication. In the meantime, FC facilitates learning outcomes and interest by supporting independent learning and classroom engagement. Moreover, the study revealed that the course content of HRM courses is well aligned with the demands of the market and that there exists a causal relationship between course content application in the workplace and the employability of students.

1. Introduction

1.1. Research background

As globalization and the advancement of information technology continue to intensify, the expectations placed on workers by contemporary organizations have increasingly shifted towards the development of all-round qualities. This trend particularly emphasizes the importance of key occupational competencies, such as teamwork, communication skills, and problem-solving capabilities. The conventional model of education focuses mainly on lectures in the classroom, emphasizing more theory over practice, which cannot effectively impart students' capacity to adjust to the complex working world, especially when adjusting to the fast-evolving job market, which is typically incompetent.

In recent decades, educational reform initiatives have focused more on instructional methodologies, with an emphasis on students' central significance. Two innovative pedagogic frameworks, specifically the TBL and FC, have gained wider acceptance and large-scale adoption globally. TBL emphasizes interaction and cooperation among students in the context of problem solving in teams and cultivates their communication ability, teamwork capability, and innovative thinking, whereas FC stimulates their learning interest, increases their sense of participation in classroom activities, and enhances and strengthens the effect of learning through precourse video learning and classroom interaction.

In teaching HRM courses, how to effectively combine these new teaching modes to enhance students' vocational core competence and employability has been a new challenge for colleges and universities. In particular, given the increasing demand for high-quality and compound talent in society, it has been difficult for traditional HRM teaching modes to meet diverse market demands.

1.2. Research Objectives

The purpose of this study is to investigate the effectiveness of two innovative teaching models, TBL and FC, in higher education, especially in HRM courses. The core objective of this study is to assess how these two teaching methods play a role in enhancing students' professional core competencies, which in turn affects their employment competitiveness. Specifically, this study focuses on analysing the effects of TBL on the development of students' vocational competencies, such as teamwork, communication skills, and

problem-solving abilities, and explores the potential of FC in promoting students' independent learning, increasing classroom engagement, and stimulating innovative thinking. This study explores the synergistic effect of TBL and FC and analyses how the two can work together to promote students' comprehensive quality and help them gain greater competitiveness in the workplace. The study also analyses the adaptability between the content of the HRM curriculum and market demand and explores how curriculum reform can enable students to better match the needs of the job market, thereby improving their job readiness.

1.3. Significance of the Study

1.3.1. Theoretical Significance

The study explores the integrated use of team-based learning and flipped classroom methods within the higher education environment, delivers an exhaustive review of how they affect students' occupational competences and yields original findings that inform the development of educational theory. The limitations and stiffness of conventional teaching methods at the present time no longer meet the needs of modern education in the development of students' comprehensive capabilities. The use of cutting-edge teaching methods such as TBL and FC has the power to dramatically increase students' active participation in the learning environment and enhance their collaborative and creative abilities. The study seeks to illuminate the cooperative effect of the use of TBL and FC in advancing the employability of students' competitiveness through an interdisciplinary analytical framework and to study comprehensively how the teaching methods of the two approaches help enhance students' abilities in practical teaching environments.

1.3.2. Practical significance

In today's complex and changing job market, the requirements of enterprises for talent focus increasingly on comprehensive quality and practical ability, and traditional teaching methods often neglect the cultivation of these core competencies. TBL and FC, as new educational modes, can provide students with more interactive and practical opportunities and promote the enhancement of their abilities in teamwork, practical problem solving and independent thinking. This study holds significant practical value. By analysing the specific application of TBL and FC in courses, the research results will provide educators with

actionable teaching strategies, equipping them with practical tools to improve their instructional practices. For example, educators can use the insights gained from this research to adapt their teaching content and formats to better meet students' needs, promoting a more dynamic and student-centered learning environment. Furthermore, this study will offer guidance for curriculum design in higher education institutions, especially for applied courses such as HRM, aiding students in adapting to market changes and improving their employment competitiveness.

2. Review of Literature

With the continuous innovation of the education model, FC and TBL have gradually received extensive attention from the academic community as effective teaching strategies. The core idea of FC is to move the teaching content of traditional classrooms outside the classroom so that students can master basic theoretical knowledge through independent learning, and classroom time is used for discussion, practice and problem solving to stimulate students' learning initiative and innovative thinking. TBL, on the other hand, emphasizes interaction and cooperation among students to improve the collective learning effect and cultivate the spirit of teamwork and the ability to solve practical problems. With respect to the research on these two teaching modes, scholars at home and abroad have proposed different views and application cases, highlighting their potential in education reform.

2.1. Research on the application of FC

Zhang (2024) explored the application of FC in the "digital media technology" course and concluded that FC can improve students' interest in and participation in learning by guiding them to learn independently before class and realize interaction and practice in class. In these kinds of courses, students master basic theoretical knowledge in advance through self-study of a variety of materials, such as videos, literature and courseware, and in the classroom, students discuss problems and perform experimental operations with the instructor; this mode of teaching greatly improves students' independent learning ability and practical hands-up ability. Kong (2024), on the other hand, analysed changes in education FC from the perspective of HRM and noted that FC can effectively promote students' deep understanding of knowledge and cultivate their ability to solve complex problems, thus

enhancing their competitiveness in employment. This advantage of FC is especially prominent in courses that are highly theoretical, enabling students to understand the course content in practice in depth and improving their ability to solve practical problems. Yang (2024) suggested that the application of FC in ceramic decorative painting courses not only improved students' practical ability but also stimulated their creativity and autonomy, confirming the effectiveness of FC in art courses. Art courses usually require many practices and operations, and FCs can enable students to learn theories and skills through independent study outside the classroom and then focus on practical operation in the classroom, resulting in a good situation of combining theory and practice.

2.2. Research on the application of the TBL

TBL, as a student-oriented interactive teaching method, emphasizes the promotion of collective learning effects through cooperation and communication among students. This teaching mode develops students' teamwork ability, communication ability and problem-solving ability by dividing them into groups and encouraging them to assign tasks, discuss, and solve TBL problems within the group. Research has shown that TBL not only enhances students' academic performance but also effectively strengthens their professional core competencies, especially in the areas of leadership, teamwork, and communication skills. Research on TBL has also shown its potential in enhancing students' career core competencies. Through an applied study on the teaching of cheer leaders in elementary education majors, Wang (2024) reported that TBL not only improved students' teamwork ability but also effectively improved their communication and leadership abilities, which are crucial for future career development. This study suggests that TBL not only enhances students' professional competence in academic courses but also increases students' comprehensive quality and team spirit in nonacademic courses. Zhang & Zhang (2022) explored the optimization strategy of the TBL in the classroom and concluded that through well-designed group activities, students can learn more practical application skills in cooperation, which enhances their social adaptability and teamwork, which is beneficial to their future employment. For example, when designing group tasks related to actual work, students can not only exercise teamwork skills but also simulate situations in actual work to enhance their social practice ability. By studying the integration of innovation and

entrepreneurship education and HRM courses, Liu & Lu (2022) noted that the TBL can enhance students' innovative thinking and teamwork ability, thus improving their competitiveness in the job market. In the process of TBL, students need to work together to complete project tasks and solve problems collaboratively, and this process can not only enhance students' teamwork ability but also cultivate their innovative thinking and leadership to improve their employability.

2.3. Research on the combination of FC and TBL

The combined application of FC and TBL is also a popular topic that scholars pay attention to. According to Ji Xiaohan (2021), combining TBL with FC not only promotes students' independent learning and teamwork but also enhances the interactivity of the classroom and students' problem-solving ability. In this mode, students not only learn theoretical knowledge but are also able to deepen their understanding of knowledge in group discussions and cooperation and develop a greater level of thinking ability (Ji, 2021). In this model, students are not only able to independently master knowledge outside the classroom but also able to deepen their understanding of knowledge through TBL, which in turn develops their critical thinking and innovation ability. Zhou (2018) noted that the combination of FC and TBL can achieve good teaching results in secondary e-commerce professional courses and that students not only mastered professional skills in actual operations but also improved their ability to collaborate in actual work. The combination of this model not only helps students better master professional skills but also improves their ability to collaborate in actual work, thus enhancing the competitiveness of students' employment.

2.4. Impact of FC and the TBL on employability

With respect to the combined application of the flipped classroom and TBL in the enhancement of employability, Xiao (2017) argued that these two modes can effectively enhance students' vocational ability, especially in the teaching reform of the performance management course. FC can help students better understand and apply theoretical knowledge, whereas TBL allows students to participate in the classroom more actively to enhance their practical ability. The combination of this model helps students form comprehensive vocational literacy, thus enhancing their competitiveness in the workplace.

Li & Li (2017) noted that the application of FC in English case teaching can also stimulate students' interest in independent learning and cultivate their innovative and critical thinking, which is important for future employment.

An analysis of relevant studies at home and abroad revealed that the combined application of FC and TBL can not only improve students' learning effects but also play an important role in enhancing students' employability. FCBL can enhance students' independent learning ability and practical ability, whereas TBL can enhance students' teamwork ability and innovative thinking. The combination of the two can help students achieve comprehensive development in terms of knowledge mastery, practical operation, teamwork and innovation ability and thus enhance their competitiveness in employment. Future research can further explore the application effects of these two modes in different disciplines and majors and conduct in-depth analysis with practical cases to provide a richer theoretical basis and practical guidance for educational reform and optimization of the teaching mode.

3. Methodology

3.1. Research Hypotheses

This section presents the hypotheses of the study, focusing on the relationships among the independent variables, dependent variables, and their theoretical foundations.

Hypothesis 1: TBL Enhances Students' Core Professional Competencie

TBL, a student-centered learning approach, emphasizes collaboration and interaction among group members to promote learning outcomes (Tao, 2024). Through task-driven activities and role allocation, students develop essential skills such as teamwork, communication, and problem solving—skills critical for professional success.

Independent Variable (IV): TBL

Dependent Variable (DV): Core professional competencies (teamwork, communication, problem-solving)

Theoretical Foundation:

Social Constructivism (Vygotsky, 1978): Learning occurs as a social process facilitated through peer interaction.

Human Capital Theory (Becker, 1964): Education enhances individuals' professional

competitiveness by fostering key workplace skills.

Hypothesis 2: FC promotes students' autonomous learning and classroom participation.

FC, an innovative teaching model, shifts the acquisition of foundational knowledge to preclass activities, allowing in-class time for deeper engagement and problem solving. This model cultivates students' self-directed learning skills and increases active classroom participation (Yang & Wang, 2023; Wang, 2023).

IV: FC

DV: Autonomous learning and classroom participation

Theoretical Foundation:

Constructivist Learning Theory (Piaget, 1970; Vygotsky, 1978): Learning is an active, self-constructed process supported by autonomous learning and in-class interactions.

Self-Determination Theory (Deci & Ryan, 1985): FC increases students' intrinsic motivation by providing more control over their learning processes.

Hypothesis 3: The synergistic effect of the TBL and FC enhances students' employability.

When combined, TBL and FC create a complementary learning environment that simultaneously strengthens students' collaborative and autonomous learning abilities. TBL involves teamwork and communication, whereas FC fosters self-directed learning and critical thinking. Together, they significantly improve students' readiness for dynamic workplace demands (Zhang, 2023).

IVs: TBLs and FCs

DV: employability

Theoretical Foundation:

Multiple intelligence theory (Gardner, 1983): Diverse teaching strategies address various competencies and abilities.

Social Learning Theory (Bandura, 1977): Learning through interaction and observation enhances social and professional adaptability.

Hypothesis 4: Alignment of HRM Curriculum with Market Demands Enhances Students' Career Readiness

Adapting HRM curriculum content to reflect current market needs ensures that

students acquire relevant skills and knowledge. By incorporating contemporary topics such as strategic HRM, digital HRM, and data-driven decision-making, the curriculum better prepares students for competitive job markets (Xiong, 2022).

IV: Adaptation of the HRM curriculum

DV: Career readiness and market adaptability

Theoretical Foundation:

Human Capital Theory (Becker, 1964): Curricular changes should align with market trends to maximize students' employability.

Curriculum Design Theory (Tyler, 1949): Educational programs should reflect societal and market needs to produce skilled professionals.

3.2. Selection and Description of Research Participants

The participants in this study consisted of 203 undergraduate students, primarily from human resource management-related majors. The gender distribution is nearly balanced, with male participants accounting for 51.72% and female participants accounting for 48.28%. The participants were from different academic years, with the highest proportion being third-year students (32.51%), followed by first-year students (28.57%) and second-year students (22.66%), while fourth-year students accounted for 16.26% of the sample. Most of these students have a certain academic foundation and practical experience, especially third- and fourth-year students, who are facing employment pressure and are highly concerned with the course content and its relevance to employment.

In terms of internship experience, 88.67% of the students had participated in related internships or work experiences, indicating that the majority of the students actively engaged in extracurricular practical activities and possessed some professional experience. The diversity of the research participants provides rich data for this study, enabling an in-depth exploration of how interdisciplinary team-based learning and flipped classroom methods impact students' employment preparation from various perspectives, including academic year, gender, and practical background. By analysing survey data from these students, the impact of course design and teaching methods on enhancing students' employability and competitiveness can be comprehensively assessed.

3.3. Research methods and data collection

In this study, a questionnaire was used to understand the role of interdisciplinary TBL and FC in influencing students' employability (Bao, Chen, & Mo, 2022). Data were collected by designing a structured questionnaire, which covered students' basic information, course participation, learning attitudes, and preparation for employment. The questionnaire utilized single-choice and multiple-choice questions to ensure the comprehensiveness and depth of the data. The questionnaires were distributed to undergraduate students from HRM-related majors, and a total of 203 valid questionnaires were collected both online and offline. All the data were collated and analysed to quantitatively assess the impact of the teaching mode on students' job readiness, and the process of data collection and analysis followed scientific and rigorous research methods to ensure the reliability and validity of the research results.

3.4. Data analysis methods

For the quantitative analysis of the questionnaire data, SPSS statistical software was used. After the data were collected, a descriptive statistical analysis was performed on the basic information involved in the questionnaire, such as gender, grade, and whether the applicant had participated in the practice, to understand the basic situation of the sample. Frequency distribution, percentage, and other methods were used to analyse students' attitudes and behaviors with respect to TBL, FC experience, and employment preparation. In this study, data analysis was performed via SPSS statistical software, and the analysis process was divided into several main steps. First, descriptive statistics were applied to summarize the basic information of the sample, followed by chi-square tests (χ^2), t tests, and correlation analysis to explore the relationships between variables and assess the specific impact of the interdisciplinary TBL and FC on students' employment preparedness.

3.4.1. Descriptive Statistical Analysis

Descriptive statistical analysis was performed on the basic information of the 203 undergraduate students. In terms of gender distribution, 51.72% (105 students) were male, and 48.28% (98 students) were female, indicating a balanced gender ratio. In terms of grade distribution, 32.51% (66 students) were in their third year of undergraduate studies, 28.57% (58 students) were in their first year, 22.66% (46 students) were in their second year, and 16.26% (33 students) were in their fourth year. With respect to internship experience, 88.67% of the students had participated in relevant internships or work experiences, with 180

students having internship experience and 23 students having no internship experience.

Table 3.1: Descriptive Statistical Analysis

Analysis Content	χ^2/t-value/r-value	p-value
Gender and Employment Ereparedness	χ^2=8.45	p<45
TBL and Employment Preparedness	χ^2=8.45	p<0.05
FC and Employment Preparedness	χ^2=6.89	p<0.05
Grade Level and Employment Preparedness	t=2.88	p<0.05
Gender and Employment Preparedness	t=0.79	p=0.22
Correlation: TBL and Employment Preparedness	r=0.62	p<0.01
Correlation: FC and Employment Preparedness	r=0.58	p<0.01
Correlation: Class Content Engagement and Employment Confidence	r=0.64	p<0.01

3.4.2. Chi-square test analysis

The chi-square test was used to examine the associations between different variables. For example, the relationship between the frequency of students' participation in TBL and their employment preparedness was investigated. The data revealed that among students who frequently participated in TBL (≥2 times per week), 72% reported feeling "very prepared" or "prepared" to enter the job market, whereas only 28% indicated that they were "not yet prepared." In contrast, only 40% of the students who participated less frequently (≤ 1 time per week) indicated that they were well prepared for employment, and 60% indicated that they were “not yet ready”. A chi-square test revealed a significant association between the frequency of TBL and students' job readiness ($\chi^2 = 8.45$, $p < 0.05$). This result indicates that there is a significant positive correlation between the frequency of students' participation in TBL and their motivation for job readiness.

Table 3.2: Chi-square test analysis

Analysis Content	(χ^2)	p value
Frequency of TBL and Employment Preparedness	χ^2=8.45	p<0.05
Experience with FC and Employment Preparedness	χ^2=6.89	p<0.05

In addition, chi-square tests were used to analyse the relationship between FC experience and students' job readiness. The survey revealed that 70% of the students who experienced the FC teaching mode believed that this teaching mode could help them better understand the course content and enhance their employability, whereas only 40% of the students who did not experience the FC expressed the same opinion ($\chi^2 = 6.89$, $p < 0.05$). Thus, the experience of the FC teaching model has a positive effect on students' employment preparation and competence.

3.4.3. T test analysis

The t test is used to analyse differences in employment readiness across different grades, genders, and other groups. First, we compared the job readiness of students in different grade levels. Table 3.3 shows that students in grades 3 and 4 score significantly higher on job readiness than do students in grades 1 and 2. Specifically, third-graders scored an average of 4.2 out of 5 on a job-readiness scale, compared with 4.1 in fourth-graders and 3.7 and 3.8 in first- and second-year grades, respectively ($p < 0.05$). The t-test results revealed that there were significant differences in job readiness between grades and that students in grades 3 and 4 were generally more concerned with and engaged in job readiness as they approached graduation. Second, the t-test for gender differences also reveals that there is a difference in the job readiness scores of male and female students. The average score for job readiness was 4.0 for male students and 3.9 for female students, and although the difference was not significant, the difference was statistically insignificant after a t-test ($p = 0.22$).

Table 3.3: t-test results

Analysis Content	Group	Mean Score	t-value	p-value

Grade Differences	First-year	3.7	-	-
	Second-year	3.8	-	-
	Third-year	4.2	t=2.88	p<0.05
	Forth-year	4.1	t=2.67	p<0.05
Gender Differences	Male	4.0	t=0.79	p=0.22
	Female	3.9	-	-

3.4.4. Correlation Analysis

To further explore the relationships among the TBL, FC and employment readiness, a Pearson correlation analysis was conducted. The results revealed that the correlation coefficient between TBL frequency and employment readiness was 0.62 ($p < 0.01$), indicating a strong positive correlation between the two variables. Students who frequently participate in group work are more likely to believe that they are fully prepared for employment. Similarly, the correlation coefficient between FC experience and employment readiness was 0.58 ($p < 0.01$), suggesting that FC can help students improve their employability competitiveness and thus enhance their employability. The correlation coefficient between classroom content input and employment confidence was 0.64 ($P < 0.01$), indicating that students' engagement in class directly affected their confidence in employment. Higher classroom engagement often means that students are better able to grasp what they have learned, which increases their confidence and ability to be employed.

Table 3.4: Correlation analysis

Vriable1	Vriavle2	r	p-value
Frequency of TBL	Employment Preparedness	0.62	p<0.01
Experience with FC	Employment Preparedness	0.58	p<0.01

Class Content Engagement	Employment Confidence	0.64	p<0.01

3.5. Data Processing Procedure

In the data processing stage, the questionnaire data were first cleaned, and samples that were incomplete or had obvious errors were excluded to ensure the accuracy of the data for subsequent analysis. The data were subsequently systematically statistically analysed via SPSS software. All hypothesis tests were conducted with 0.05 as the level of significance to ensure the statistical reliability of the study results. To further increase the credibility of the data analysis, this study paid special attention to the validation and correction aspects of the data processing process. For the quantitative data, the robustness of the results was verified through multiple repeated tests to ensure the accuracy and depth of the research conclusions.

4. Research Findings

4.1. TBL significantly enhances students' Core Professional Competencies

TBL, as an important teaching tool, is widely used in all kinds of courses, especially in fields such as HRM, and has a significant effect on the enhancement of students' vocational core competencies. According to the survey data (see Table 4.1), students showed the most notable improvements in teamwork skills (89.66%), communication skills (86.21%), and problem-solving abilities (77.83%). These data suggest that TBL provides a practical platform for students to interact and collaborate in a way that not only improves their occupational core competencies but also deepens their understanding of teamwork and task collaboration.

Table 4.1: Most significant competency improvements in the TBL

Competency Type	Improvement Rate(%)
Teamwork Skills	89.66%
Communication Skills	86.21%
Problem-Solving Skills	77.83%
Leadership Skills	45.32%

The survey also revealed (see Table 4.2) that 42.86% of the students assumed the role of informants in TBL, whereas 34.48% of the students acted as recorders. The success of TBL

could not be achieved without the allocation of roles among the students in the group. Students who acted as "information providers" were required to provide professional knowledge, whereas those who acted as "recorders" were required to organize and summarize the discussion. These tasks require students to take the initiative to participate and coordinate their work in teams, thus further enhancing their sense of responsibility and teamwork.

Table 4.2: Key roles in the TBL

Role	Ratio
Information Provider	42.86%
Recorder	34.48%
Coordinator	17.24%
Leader	5.42%

TBL plays a crucial role in enhancing students' core career competencies. Through teamwork, communication, and problem solving, students not only gain knowledge in the classroom but also lay a solid foundation for their future careers.

4.2. FC effectively promotes students' autonomous learning and classroom participation

FC, as an innovative teaching model, has been widely used in many college and university programs. The model works by transferring traditional classroom lectures outside the classroom, where students learn independently through videos and reading materials before class, while classroom time is used for discussion, problem solving and in-depth understanding. According to survey data, FC significantly promotes students' independent learning ability and classroom engagement, especially in HRM courses, where students show positive attitudes towards the experience and feedback of this model.

The results of the survey indicated (see Table 4.3) that the majority of the students were satisfied with the overall experience of the FC. Specifically, 49.26% of the students were very satisfied, and 29.06% were satisfied. This reflects the positive effect of FC in enhancing students' interest in learning and improving learning efficiency. Additionally, 39.9% of the students rated their understanding of the course content as excellent, and 31.03% considered it good, demonstrating FC's effectiveness in improving students' mastery and comprehension

of the course materials.

The implementation of FC significantly enhanced the students' learning experiences and understanding of the course content. Notably, nearly 40% of the students believed that FC helped them better grasp the course material, underscoring the role of FC as a student-centered teaching model that promotes deep learning.

Table 4.3: Overall Experience and Content Understanding in FC

Item	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Overall FC Experience	49.26%	29.06%	13.3%	4.93%	3.45%
Understanding of Course Content	39.9%	31.03%	17.73%	5.42%	5.91%

FCs have also achieved significant success in promoting student classroom participation. As shown in Table 4.4, 44.83% of the students reported being very active in FC discussions, whereas 27.09% indicated active participation. These results demonstrate that the FC's discussion-based teaching model enhances classroom interaction and stimulates students' interest in actively engaging and thinking critically. In traditional lecture-based teaching, students often remain passive recipients of information. In contrast, FC encourages active participation through classroom discussions and group collaborations, fostering students' critical thinking and communication skills.

Table 4.4: Student Participation Levels in FC Discussions

Participation Level	Very Active	Active	Neutral	Inactive	Very Inactive
Classroom Discussion	44.83%	27.09%	15.76%	7.88%	4.43%

FCs, as an innovative teaching model, have significantly enhanced students' autonomous learning and classroom participation. Through preclass self-directed learning and in-class interactive discussions, students not only gain a deeper understanding of the course content but also develop critical thinking, communication, and teamwork skills.

These improvements positively impact their future employability.

4.3. The positive impact of human resource management courses on students' employability

As one of the core courses in business-related disciplines, HRM courses have a significant impacts on students' future career development and employability (Li & Huang, 2016). Through this course, students not only gain systematic professional knowledge but also cultivate essential workplace competencies, thereby laying a solid foundation for their future employment.

The survey data (see Table 4.5) indicate that 44.83% of respondents perceived the HRM course was very helpful for their future employment, whereas 29.06% considered it quite helpful. Overall, over 70% of the students agreed that the course significantly enhanced their employability. Specifically, the course content, particularly in areas such as recruitment, compensation management, and employee training, not only helped students understand theoretical concepts but also provided practical skills applicable to real-world workplace scenarios, thereby improving their professional competence and job readiness.

Table 4.5: Impact of the HRM Course on Student Employability

Level of Helpfulness	Very High	High	Moderate	Low	Very Low
Employment Assistance	44.83%	29.06%	16.75%	5.42%	3.94%

In addition to the benefits of the course content itself, the survey revealed that students developed multiple core workplace competencies during their studies (see Table 4.6). Specifically, 68.47% of the students identified communication skills as one of the most important employability skills, whereas 62.56% emphasized the critical role of teamwork skills in future employment. Through activities such as group collaboration, role-playing, and case studies, students honed these essential workplace skills, which are highly valued by most employers during recruitment.

Table 4.6: Skills Most Important for Future Employment by Students

Skill Tape	Percentage
Communication Skills	68.47%

Teamwork Skills	62.56%
Problem-Solving Skills	50.74%
Leadership Skills	51.72%

The survey also revealed (see Table 4.7) that 72.41% of the students had participated in HRM-related internships or practical activities, which provided valuable experience for their career development. Through these internships, students were able to apply theoretical knowledge to real-world work scenarios while enhancing their professional skills and overall competencies. Additionally, 45.32% of the students believed that feedback from both coursework and internships significantly contributed to their career development, further increasing their employability.

Table 4.7: Participation in HRM-Related Internships or Practical Activities

Participation Status	Percentage
Participated	72.41%
Did Not participated	27.59%

The HRM course effectively enhanced students' core workplace competencies, such as communication skills, teamwork, and problem-solving abilities, through systematic theoretical learning and practical activities. These competencies are critical for students' future career success. Internships and practical activities enable students to integrate theory with practice, further strengthening their employability. The HRM course not only helps students acquire professional knowledge but also lays a solid foundation for their careers, providing them with greater employment opportunities.

4.4. Students are satisfied with Career Services but Require Additional Support

In the modern job market, the employability of university students depends not only on their mastery of professional knowledge but also on the quality of career services provided by their institutions (Wang, 2016). According to the survey results, while students generally expressed satisfaction with the career services offered by their school, their demand for additional support was evident, particularly in areas such as career planning, internship opportunities, and industry engagement activities.

The survey data (see Table 4.8) indicate that 49.26% of the students were very satisfied

with the school's career development services, whereas 26.11% were satisfied. This suggests that the majority of students recognized the value of the school's career services, especially in terms of employment guidance and access to career resources. However, 13.3% of the students reported neutral satisfaction, and 11.33% believed that the quality of career services needed significant improvement, highlighting room for enhancement, particularly in terms of personalized guidance and alignment with market demands.

Table 4.8: Student Satisfaction with School Career Services

Satisfaction Level	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Career Services	49.26%	26.11%	13.3%	5.42%	5.91%

Further investigation revealed that students generally feel that the university should strengthen its support for career development, particularly in career planning guidance and providing more internship opportunities. Specifically, 77.34% of the students hoped that the university offered more comprehensive career planning guidance, whereas 50.25% of the students wanted more internship opportunities. For students at different academic stages, practical experience is key to improving employability. Additionally, 92.12% of the students expressed a desire for more company engagement activities, which would not only allow students to interact face-to-face with industry professionals but also help them better understand job opportunities and industry trends across various fields.

Table 4.9: Students' demand for additional career support

Type of Support	Percentage
Career Planning Guidance	77.34%
Internship Opportunities	50.25%
Skills Training	37.93%
Industry Engagement Activities	92.12%

The students also expressed a desire for more skills training, particularly in essential soft skills such as communication and leadership. According to the survey, 37.93% of the students indicated a high demand for such training. As competition in the job market intensifies, the

importance of soft skills in the hiring process becomes increasingly evident. Many students hope that the career services provided by their school will further enhance their overall competitiveness in the workplace.

Although most students are satisfied with the career services provided by the university and believe that the school performs well in terms of job guidance, recruitment information, and job-searching training, they still have a strong demand for more personalized career development support. In particular, students hope the university can offer deeper, more targeted support in areas such as career planning, internship opportunities, and company engagement activities. With the increasing demand for soft skills in the job market, students also hope to enhance their communication, leadership, and other core competencies through the career services provided by the university. These needs suggest that universities should focus more on personalized support and soft skills training in future career services to better help students cope with increasingly fierce competition in the workforce.

5. Discussion

5.1. Role of the TBL in enhancing students' employability

TBL is a highly interactive teaching method that can significantly increase students' competitiveness in employment. Through TBL, students can not only better master subject knowledge but also exercise and improve their core vocational competencies in real-life situations, especially in teamwork, communication, problem solving and leadership. TBL enhances students' teamwork ability. In the workplace, teamwork is a basic competency required in almost all industries. Through TBL, students need to collaborate with others, share tasks and cooperate with each other, which enables them to better understand the roles and responsibilities of a team and learn how to work efficiently with people from different backgrounds. For example, survey data revealed that 89.66% of the students thought that the ability to work on a team was the most important ability enhancement in TBL. TBL strengthens students' communication skills. In group discussions, students not only need to express their opinions clearly but also need to learn to listen and respond to others' opinions effectively, which is crucial for communication and collaboration in the workplace. A total of 86.21% of the students indicated that their communication skills were significantly improved through TBL. Students are able to improve their problem-solving skills through TBL. In

small groups, students are faced with problems that need to be solved together, and they are able to practice critical thinking and creative solutions through group discussions, debates, and thinking from multiple perspectives. A total of 77.83% of the students believed that problem-solving skills are an important enhancement they obtain from learning through TBL.

5.2. Advantages of FC in Cultivating Core Professional Skills

As an innovative teaching method, FC has significant advantages in cultivating students' vocational core competencies. By transferring the content of traditional classroom lectures to outside the classroom, students learn independently before class and have more interaction and in-depth discussions in the classroom. This model not only improves the learning efficiency of students but also promotes the cultivation of the skills they need in the actual workplace. FCs greatly enhance students' independent learning ability. In traditional teaching, students usually rely on teachers' explanations to acquire knowledge, whereas FCs require students to master basic knowledge independently through videos and reading materials before class. The survey data revealed that 50.74% of the students believed that FC was very effective in improving their self-learning ability. This type of independent learning enables students to master knowledge at their own pace and prepare for classroom discussions and problem solving, thus cultivating their ability to think independently and take the initiative to learn, which is crucial in the workplace. FCs effectively improve students' communication and teamwork skills through class discussions and teamwork. In the classroom, students work in groups to discuss and analyse cases, which requires them to practice their communication skills in the process of expressing and listening to others' opinions. The survey data revealed that 44.83% of the students reported actively participating in discussions with the FC, indicating that the interactive nature of the flipped classroom promoted students' critical thinking and communication skills. FCs also help students improve their problem-solving skills. Class time is no longer used to teach the basics but rather to analyse and solve real-world problems. This practice-oriented learning approach allows students to apply what they have learned in real-life situations, enhancing their problem-solving skills and innovative thinking.

5.3. The Impact of Course Formats on Students' Employment Preparation from an

Interdisciplinary Perspective

From an interdisciplinary perspective, the influence of curriculum form on students' preparation for employment has become increasingly significant. In modern education, the traditional division of disciplines has gradually failed to fully meet the needs of students in complex and changing workplace environments, and the interdisciplinary teaching mode is widely recognized as being able to better cultivate the comprehensive quality and employment competitiveness of students. Innovations in the form of a curriculum, especially the organic integration of content from multiple disciplines, can provide students with multidimensional knowledge structures and skills training, further enhancing their preparation for employment.

Interdisciplinary programs help develop students' diversified thinking and problem-solving skills. In the workplace, problems are often not solved by a single discipline, and many jobs require knowledge and skills across multiple fields. Through interdisciplinary learning, students are able to apply the theories and methods of multiple disciplines when solving real-world problems, thus developing a more comprehensive perspective and a more flexible way of thinking (Liu, 2023). For example, by combining HRM with psychology, law and other disciplines, students are able to better understand employee behavior, management practices and legal risks, which lays a solid foundation for their future careers. Interdisciplinary programs promote students' teamwork and communication skills. In interdisciplinary programs, students are often required to work with classmates from different backgrounds, which not only increases their chances of communicating and coordinating in a team but also helps them learn how to play to their strengths in a diverse team and deal with the conflict of different viewpoints. Interdisciplinary programs can improve students' employment adaptability. In modern enterprises, job responsibilities tend to become increasingly integrated, and employees need to possess not only professional knowledge but also cross-disciplinary abilities.

5.4. Analysis of the Adaptability of HRM Course Content to Market Demand

The analysis of the adaptability of HRM course content to market demand is an important indicator for evaluating the effectiveness of course teaching and the competitiveness of students' employment. With the development of the global economy and

the diversification of the employment needs of enterprises, the content and teaching methods of HRM courses must keep up with the changes in market demand to effectively enhance students' occupational core competencies and fully prepare them for their development in the workplace.

Modern enterprises have increasingly diversified requirements for HRM. Traditional HRM courses focus mainly on basic knowledge such as recruitment, compensation management and employee benefits, but with the rapid development of society and technology, the requirements of enterprises for HR practitioners are no longer limited to traditional functions but focus more on strategic, innovative and data-driven management methods. Currently, areas such as data analytics, performance management, and talent development have become important parts of the HRM curriculum. By learning this cutting-edge content, students can better meet the market demand for senior HR professionals. The updating and expansion of the course content helps students master the latest management concepts and tools to increase their competitiveness in the highly competitive job market.

The demand for talent is not only limited to professional knowledge but also requires HR practitioners to have strong cross-cultural communication and team management skills. In the context of globalization, multinational corporations and diverse work environments require HR to have the ability to address international employee management, cultural adaptability and communication skills. Therefore, the current HRM curriculum not only focuses on basic management skills but also needs to incorporate cross-cultural management and global HR strategies (Brooks, 2012). Students can improve their cross-cultural communication and coordination skills during the learning process, which is especially important for entering enterprises or multinational corporations with internationalized backgrounds in the future.

The technical requirements of enterprises for HR practitioners are also increasing. With the wide application of technologies such as artificial intelligence, big data and cloud computing, the HR field has gradually transformed to include digitalization and intelligence. HRM courses need to combine with technology trends and increase the content of courses such as data analysis and HR technology (HR Tech) to enable students to master these

emerging tools with stronger data sensitivity and decision-making ability. The market demand for HR Tech has become an important part of the hiring strategy of enterprises, so cultivating HR professionals with the ability of data analysis and technology application has become an inevitable trend in curriculum design.

5.5. Synergistic Effect of the TBL and FC Educational Models on Student Employability

TBL can develop students' teamwork and communication skills, which are crucial for most jobs in the workplace. Students share different roles within the group, such as information providers, recorders, and coordinators, and need to work closely with others to coordinate different opinions and work progress, which hones their collaboration and communication skills in a complex environment. The FC provides students with sufficient preparation time through independent learning before class, enabling them to provide insightful insights and solutions in class discussions, thus enhancing critical thinking and problem-solving skills. FCs require students to study the course content on their own before class, a process that requires them to master time management and self-discipline. In TBL, students not only need to be responsible for their own TBL tasks but also need to work with their team members to promote the progress of the project, which prompts them to develop a stronger sense of responsibility and task management skills (Ansoff, 1965). The teaching mode of integrating TBL and FC has a significant effect on enhancing students' innovation and adaptability. In view of the rapid changes in the workplace environment and the acceleration of technological iteration, the demand for innovative and highly adaptable talent is becoming increasingly urgent. The implementation of FC effectively stimulates students' innovative thinking through the catalytic effect of classroom discussion. On this basis, the TBL mode promotes the intermingling of multiple types of thinking among members, further promoting the formation and development of innovative ideas.

6. Conclusion

This study focuses on the impact of the TBL, FC model and HRM course on the development of students' core vocational competencies and employment competitiveness. The results of the study revealed that the combination of the TBL and FC models had significant synergistic effects on the development of students' vocational competencies. TBL significantly enhanced students' performance in teamwork, communication skills and

problem-solving abilities, whereas FC promoted the development of students' critical thinking and deep understanding by strengthening independent learning and deepening classroom discussions. Moreover, the HRM program played a key role in strengthening students' teamwork, communication skills, and job readiness.

In addition, the study revealed that students were highly receptive to this modern educational model, suggesting that these innovative teaching methods could effectively respond to the rapidly changing demands of the job market. Although challenges such as team communication barriers and a lack of individual responsibility are faced when implementing TBL and FC, these issues are expected to be resolved by optimizing instructional design and providing necessary support. This study emphasizes the importance of integrating multiple instructional modes in enhancing students' vocational competence and employment competitiveness and provides useful references for educational practice.

In summary, the educational model that combines TBL and FC can enhance not only students' vocational core competencies but also their employment competitiveness. Future teaching should further optimize the implementation of these models to help students better adapt to the challenges of the workplace and lay a solid foundation for their career development.

Although this study has preliminarily explored the role of TBL and FC in enhancing students' employability, some unresolved research gaps deserve further exploration in the future. First, this study focuses mainly on applications in HRM courses, and whether the effects of this model can be equally evident in other subject areas (e.g., finance, marketing, etc.) needs to be further verified. The teaching content, student background, and course characteristics of different disciplines may affect the effectiveness of the implementation of FC and TBL; therefore, interdisciplinary research and comparison will be a direction worth exploring in depth. The data in this study are derived mainly from quantitative analysis, and future research can combine qualitative research methods to dig deeper into students' specific feelings and feedback about the flipped classroom and TBL in the actual classroom. This information could help to better understand the dynamics of students' learning in this instructional model and their specific needs in preparing for the workforce, especially in understanding and applying course content. Although this study identified issues such as

poor team communication and a lack of personal accountability, future research should focus more on how to design effective interventions to address these issues. For example, how to optimize the effectiveness of TBL through teacher guidance, teamwork tools, and classroom management can be explored, thereby enhancing students' ability to work in teams in real work environments.

With the rapid development of artificial intelligence, big data, and other technologies, future research can explore how to integrate these technological tools into the instructional design of the FC and TBL. For example, real-time feedback and personalized guidance can be provided to students through online learning platforms and intelligent learning management systems, or big data can be used to analyse students' learning and provide a basis for the adjustment and optimization of teaching strategies. This will further increase the flexibility and effectiveness of the teaching mode and promote students' success in a wider range of employment scenarios.

CONFLICT STATEMENT

The authors of the article "The Impact of Team-Based Learning and Flipped Classrooms on Students' Employment in Human Resource Management", Song Yating, Yang Hao, and Wang Suchuan, solemnly declare that throughout the entire process of conducting this research and producing this paper, including but not limited to the collection and analysis of data, formation of viewpoints, writing, revising, submission, and potential publication, there are no conflicts of interest that could compromise the fairness, objectivity, or originality of this work.

COOPERATION STATEMENT

The first author, Song Yating, was responsible for the design of the study, data collection, and drafting the initial manuscript. The second author, Yang Hao, contributed to data analysis, literature review, and revision of the manuscript. The third author, Wang Suchuan, provided supervision, theoretical guidance, and final critical review of the entire paper.

Reference

Zhang, Y. Y. (2024). Research and application of the project-based teaching model based on the flipped classroom: A case study of the "Digital Media Technology" course. Science and Technology Wind, 30, 94-96.

Kong, L. (2024). The impact and countermeasures of human resource management on social employment stability in the context of the new economic normal. China Economic and Trade Guide, 12, 184-186.

Yang, X. L. (2024). Research and application of the "Mobile Learning + Flipped Classroom" teaching model in the "Ceramic Decoration and Painting" course. Jiangsu Ceramics, 02, 11-13+15.

Wang, Z. L. (2024). Application of the "Flipped Classroom" in cheerleading teaching for elementary education majors. Shaanxi Education (Higher Education), 07, 26-28.

Zhang, R. Q., & Zhang, R. M. (2022). Research on optimizing group cooperative learning in classroom teaching—Also discussing the integration of the flipped classroom. Science and Technology Wind, 12, 34-36.

Liu, J. Y., & Lu, M. N. (2022). The impact of integrating innovation and entrepreneurship education with human resource management education on college students' employability. Modern Rural Science and Technology, 03, 82-84.

Ji, X. H. (2021). Combining group cooperative learning and flipped classrooms to build an efficient classroom. Curriculum and Teaching Research, 07, 43-45+48.

Zhou, J. J. (2018). Using flipped classrooms to promote effective teaching: A case study of the e-commerce program in secondary vocational schools. Science and Technology Innovation Herald, 05, 230+232.

Xiao, K. Q. (2017). Research on enhancing employability through group cooperative learning: A case study of performance management course reform. Chinese University Student Employment, 16, 60-64.

Li, H., & Li, Q. (2017). A study on case-based teaching in English flipped classrooms: A review of "Research on English Case Teaching in the Flipped Classroom Model". News and Writing, 06, 119.

Tao, X. (2024). Application of the flipped classroom in teaching basic knowledge of international trade. Talent and Wisdom, 02, 85-88.

Yang, X. R., & Wang, J. Z. (2023). Exploration of the flipped classroom teaching model based on OBE concepts under the background of educational informatization. Xingtai University Journal, 02, 160-166.

Wang, L. Y. (2023). Research on the application of flipped classrooms in the "Mechanical Basics" course in secondary vocational education (Master's thesis). Guangdong Technical Normal University.

Zhang, Y. Q. (2023). Research on the application of the flipped classroom teaching model based on the OBE concept in the "Tourism Practices" course in secondary vocational education (Master's thesis). Nanning Normal University.

Xiong, X. Y. (2022). Research on the impact and countermeasures of digital economy development on employment. Business and Exhibition Economics, 23, 111-113.

Bao, C. L., Chen, Y., & Mo, R. (2022). Research on the impact and countermeasures of digital economy development on employment. China Labor, 01, 5-14.

Li, N. Q., & Huang, X. R. (2016). The application of flipped classrooms in career planning courses in higher vocational education. Modern Education, 32, 241-243.

Wang, C. (2016). Discussing the impact of corporate human resource planning on employment. Private Technology, 09, 272.

Liu, H. (2013). Research on the application of group cooperative learning in college students' employment guidance courses. Journal of Jiamusi Education College, 12, 156-157.

Brooks, R. (2012, May). Valuing the human asset-the impact of university placements on academic performance and graduate employment amongst management students. In Journal of Physics: Conference Series (Vol. 364, No. 1, p. 012103). IOP Publishing.

Ansoff, H. I. (1965). Corporate strategy: An analytic approach to business policy for growth and expansion. (No Title).