

The Transformative Teaching Practice of Teachers and Cultivation of 21st Century Skills of College Students in Selected Sports Universities in China

Bailing Sun^{1,2,*}, LORNA A.ESPESO¹

¹ College of Education and Liberal Arts Graduate School Faculty, Adamson University, Manila, CO 0900, Philippines

² Wenzhou Business College, Wenzhou, 325035, China

* Corresponding author: Bailing Sun (Email: Sarasun216@163.com)

Abstract: This study aims to explore the impact of teachers' transformative teaching practices on college students' mastery of 21st-century skills, with a focus on the teaching dimensions of "Personalized Considerations" and "Inspiring People," as well as the students' mastery of "Professional Skills" and "Life Skills." By analyzing students' assessments of their proficiency in 21st-century skills, the research demonstrates a significant positive correlation between transformative teaching behaviors and students' skill mastery. Specifically, the ability of teachers to motivate and provide personalized support significantly enhances students' performance in learning, life, literacy, and professional domains. The data analysis revealed that students generally rated their mastery of 21st-century skills, including learning, life, literacy, and professional skills, as "agree," indicating a moderate level of manifestation. Additionally, differences in students' skill levels across gender, age, and grade level were found to be insignificant. However, the impact of transformative teaching practices on students' skill development was notably significant, particularly in the areas of "Charm Influence" and "Intellectual Stimulation." Regression analysis further highlighted that "Personalized Considerations" and "Inspiring People" teaching styles are strongly associated with students' mastery of 21st-century skills, especially in enhancing "Life Skills" and "Professional Skills." The proposed intervention program, developed from this study, aims to strengthen teachers' transformative teaching abilities to improve students' mastery of professional and life skills. Through personalized support and motivational guidance, college students will be better equipped to face future challenges in both their personal and professional lives. This study provides practical recommendations for educators to enhance teaching strategies to more effectively cultivate students' core 21st-century skills.

Keywords: Transformative Teaching Practices; 21st-century Skills; College Students.

1. Introduction

Transformational leadership theory, first introduced by Burns, suggests that leaders can significantly alter followers' perceptions, values, and aspirations through their leadership qualities. Bass (1985) expanded on this by introducing psychological mechanisms to measure the efficacy of transformational leadership, emphasizing its ability to drive organizational change by inspiring intrinsic motivation, confidence, and a sense of mission in employees. This leadership style, characterized by charisma, ethics, and vision-setting, has been shown to positively influence educational practices, particularly in physical education (Brown, 2023).

Recent studies have demonstrated that transformational leadership in physical education enhances teachers' and students' creativity, learning enthusiasm, and curriculum innovation, contributing to students' comprehensive development (Zhuang, 2021). Competency-based theory complements this by focusing on the knowledge, skills, and abilities required in vocational education, promoting personalized development and practical abilities in students (Wang, 2020; Zhang, 2019).

In the context of China Sports University, which emphasizes 21st-century skills such as leadership, teamwork, and social responsibility, there is a need to explore the relationship between teachers' transformational practices and students' skill development. This study investigates college students' evaluations of their teachers' transformative

practices and their understanding of their own skill levels. By analyzing these evaluations, the research aims to provide recommendations for enhancing teaching practices at China Sports University, contributing to the development of outstanding sports professionals and socially responsible individuals (Luo, 2018; Li, 2019).

2. Methodology

2.1. Research Design

This study employed a quantitative, descriptive comparative correlational design to assess the acquisition of 21st-century skills among third and fourth-year students and the level of teachers' transformational leadership practices. A questionnaire adapted from previous studies on transformational leadership and skill mastery was used to analyze relationships between these variables.

2.1.1. Sampling Method

A total of 681 junior and senior students from three leading Chinese sports universities were randomly selected using Raosoft software. Purposive sampling was employed to select the universities: Sport University A, B, and C. The survey was conducted online, reducing costs and increasing response rates while ensuring ethical compliance and confidentiality of participants.

2.1.2. Research Instrument

A modified questionnaire assessed teachers' transformational leadership practices based on the framework of Bass (1980) and students' skill mastery levels grounded in

CBE theory. The survey included demographic data and used a 4-point Likert scale to evaluate constructs. The reliability of the instruments, confirmed through a pilot study, showed Cronbach's alpha values above 0.8.

2.1.3. Data Gathering Procedure

After expert review and university approvals, data collection was conducted via online questionnaires. Clear communication with respondents ensured a high response rate, with ethical standards such as informed consent and confidentiality strictly upheld.

2.1.4. Statistical Treatment of Data

Data were analyzed using SPSS. Statistical methods included frequency counts, percentages, weighted averages, and standard deviation. Hypotheses were tested using t-tests, ANOVA, and Pearson's correlation analysis, with a significance level of 0.05.

2.2. Figures

This study is grounded in Transformational Leadership Theory (Burns, 1978) and Competency-Based Education (CBE) Theory (McClelland, 1967). Transformational Leadership Theory emphasizes how leaders influence organizational change by inspiring intrinsic motivation, innovation, and development among employees.

Competency-Based Education (CBE) Theory focuses on developing practical skills rather than merely imparting knowledge. It emphasizes four aspects: knowledge, skills, attitude, and feedback. It prioritizes flexibility and adaptability in teaching, promoting students' self-evaluation and development.

The study seeks to understand how transformational teaching practices influence students' skill development, providing insights for a 21st-century skill training program tailored to China Sports University.

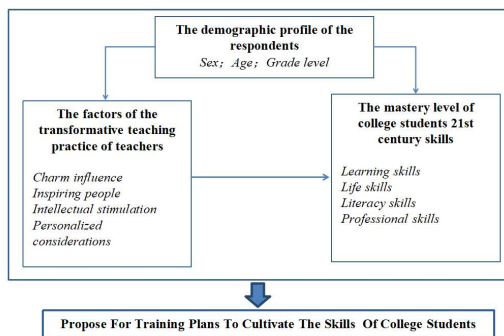


Figure 1. The research paradigm

2.3. Results and Discussion

The data analysis revealed that students generally rated their mastery of 21st-century skills, including learning, life, literacy, and professional skills, as "agree," indicating a moderate level of manifestation. Additionally, differences in students' skill levels across gender, age, and grade level were found to be insignificant. However, the impact of transformative teaching practices on students' skill development was notably significant, particularly in the areas of "Charm Influence" and "Intellectual Stimulation." Regression analysis further highlighted that "Personalized Considerations" and "Inspiring People" teaching styles are strongly associated with students' mastery of 21st-century skills, especially in enhancing "Life Skills" and "Professional Skills."

Table 1. Relationship between the transformative teaching practice of teachers and the mastery level of college students 21st century skills

Teaching practice Variables	Skills Variables	Computer	Sig	Decision on Ho	Interpretation
1. Charm Influence	Learning skills	0.71	0.00	Rejected	Significant
	Life skills	0.79	0.00	Rejected	Significant
	Literacy skills	0.75	0.00	Rejected	Significant
	Professional skills	0.78	0.00	Rejected	Significant
	Average	0.76	0.00	Rejected	Significant
2. Inspiring People	Learning skills	0.76	0.00	Rejected	Significant
	Life skills	0.75	0.00	Rejected	Significant
	Literacy skills	0.78	0.00	Rejected	Significant
	Professional skills	0.75	0.00	Rejected	Significant
	Average	0.79	0.00	Rejected	Significant
3. Intellectual Stimulation	Learning skills	0.80	0.00	Rejected	Significant
	Life skills	0.77	0.00	Rejected	Significant
	Literacy skills	0.75	0.00	Rejected	Significant
	Professional skills	0.75	0.00	Rejected	Significant
	Average	0.81	0.00	Rejected	Significant
4. Personalized Considerations	Learning skills	0.83	0.00	Rejected	Significant
	Life skills	0.78	0.00	Rejected	Significant
	Literacy skills	0.76	0.00	Rejected	Significant
	Professional skills	0.76	0.00	Rejected	Significant
	Average	0.83	0.00	Rejected	Significant

3. Literature References

Transformational leadership practices are widely applied in education. Educational leaders play a crucial role in school management and reform, inspiring teachers' potential and promoting school development (An, 2021). Transformational leaders also foster teachers' professional growth and teaching innovation by cultivating a positive learning atmosphere and teamwork (Guo, 2019). These practices extend to students, where leadership fosters skills like teamwork, leadership, and innovative thinking, promoting their comprehensive development (Wang, 2020).

Research in Chinese sports universities highlights the role of transformational leadership in motivating students and faculty. Leaders with a charismatic presence foster a supportive learning environment, improving student engagement and academic performance (Zhang et al., 2018). Instructors who inspire students through motivational practices enhance personal and academic development (Wang & Li, 2019). Intellectual stimulation from transformational leaders promotes creative problem-solving (Liu & Chen, 2020), while personalized mentorship improves academic performance and career readiness (Zhou et al., 2021).

College students today face complex challenges, requiring a shift from traditional knowledge-based education to skill development (Qu, 2023). The competency-based education model emphasizes innovation, practical application, and teaching abilities (Zhang, 2021; Li, 2019). Research in China

Sports University shows that innovative teaching methods improve critical thinking, problem-solving, and learning flexibility (Li et al., 2018; Wang, 2020). Life skills, such as leadership and teamwork, are enhanced through physical education and campus activities (Liu, 2019; Zhang, 2021).

Research suggests that sports universities face challenges in aligning student skills with societal needs. Current training models lack diversity and adaptability (Zhang, 2021), and curricula often fail to balance theoretical and practical components (Zhang, 2020). Foreign research on student skills is more comprehensive, while domestic studies focus on individual disciplines, with limited exploration of transferable skills (Fang, 2022; Guo, 2021). This study will address these gaps by analyzing student skill training in China Sports University, offering a tailored approach to cultivating 21st-century skills.

4. Conclusion

This study reveals that college students, primarily in their third and fourth years, perceive transformative teaching practices-characterized by Charm Influence, Inspiring People, Intellectual Stimulation, and Personalized Considerations-as significantly present in their educational experiences. Assessments of these practices show consistency across demographics such as sex, age, and grade level, indicating their broad effectiveness and appeal. Additionally, students express strong confidence in their mastery of 21st-century skills-Learning Skills, Life Skills, Literacy Skills, and Professional Skills-suggesting they feel well-prepared for the demands of the modern workforce.

Moreover, a significant relationship exists between transformative teaching practices and students' mastery of 21st-century skills. The findings indicate that teaching methods that inspire and intellectually stimulate students are vital in fostering essential skills such as critical thinking, collaboration, and communication. Therefore, the implementation of transformative teaching is crucial for effectively preparing students for success in an evolving global landscape.

Acknowledgments

This thesis was completed under the careful guidance of my advisor, Professor Dr. LORNA. The professor's skilled professional knowledge, rigorous academic attitude, excellent work style, as well as the tireless noble teaching ethics, self-discipline and noble style of tolerance for others, simple and approachable personality charm have had a profound impact on me.

References

- [1] Adams, R. (2019). Gender differences in skill development: Equal access and opportunity in higher education. *Journal of Higher Education*, 89(2), 275-292.
- [2] American Association of Colleges and Universities (AAC&U). (2019). *The LEAP Challenge: Education for a World of Unscripted Problems*.
- [3] Brown, K., & Miller, J. (2023). Organizational management in physical education at universities. *Educational Leadership Journal*, 12(2), 67-82.
- [4] Chen, L. (2018). The impact of sports spirit on enhancing student resilience and stress management in physical education. *Journal of Sports Education*, 20(3), 188-202.
- [5] Council of Europe. (2020). *Competences for democratic culture: Living together as equals in culturally diverse democratic societies*. Retrieved from [Council of Europe website].
- [6] Côté, J., Strachan, L., & Fraser-Thomas, J. (2019). The Role of Coaching in the Development of Athletes. In J. Lyle & D. R. C. McKenzie (Eds.), *Sports Coaching: A Review of the Literature*.
- [7] Chen, L. (2019). The impact of diversified teaching content on student motivation in physical education. *Journal of Sports Education*, 22(3), 198-211.
- [8] Coffin, C., & Cowie, N. (2020). Digital literacy and gender in 21st century learning: Exploring student engagement and proficiency. *Computers & Education*, 148, 103805.
- [9] Danielson, C. (2018). *Enhancing professional practice: A framework for teaching*. ASCD.
- [10] European Commission. (2020). *Education and Training Monitor 2020*. Retrieved from [European Commission website].
- [11] Facione, P. A. (2021). Critical thinking: What it is and why it counts. *Insight Assessment*.
- [12] Fan, X. (2022). Research on the construction of professional ability evaluation system for junior high school physical education teachers. Henan University.
- [13] Fang, X. (2021). Research on the evaluation index system of teaching ability of physical education students from the perspective of core literacy. Liaoning Normal University.
- [14] Georgakis, S. (2010). Comparative physical education pedagogy in teacher training: Innovation in comparative education. In *Papers from the 8th International Conference on Comparative Education and Teacher Training* (pp. 33-37).
- [15] Guo, J., & Sui, Y. (2019). Experiential Learning and its Impact on Professional Skills Development in Higher Education. *Journal of Educational Research*, 112(4), 474-485.
- [16] Gunter, G. A., & Gunter, R. E. (2019). *Literacy in the Digital Age: A Framework for Enhancing Student Learning*. Routledge.
- [17] Gallon, M. R., Stillman, H. M., & Coates, D. (2019). Putting core competence into practice. *Research Master's Thesis*, 30(01), 90-95.
- [18] Harris, D. N., & Sass, T. R. (2021). Teacher training, teacher quality, and student achievement. *Journal of Public Economics*, 95(7-8), 798-812.
- [19] Hattie, J. (2021). *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. Routledge.
- [20] Xu, H. (2019). Collaborative research and academic exchange in promoting student learning outcomes. *Journal of Academic Studies*, 14(4), 244-259.
- [21] Yoon, S. Y., Lee, H. J., & Kim, J. H. (2023). The stability of student evaluations of teaching over time. *Assessment & Evaluation in Higher Education*, 48(1), 12-24.
- [22] Zhang, D. (2020). New exploration on the cultivation of teaching ability of students majoring in physical education. *Journal of Hebei Normal University (Education Science Edition)*, 17(03), 121-124.
- [23] Zhang, L. L., & Li, H. W. (2019). Impact of competency-based education theory on educational practice. *Journal of Educational Psychology*, 25(3), 112-128.
- [24] Zhang, N., & Zhao, G. (2021). Systematic structure and cultivation of teaching ability of students majoring in physical education. *Journal of Guangzhou Institute of Physical Education*, 36(01), 117-120.

- [25] Zheng, C. (2021). The impact of university campus club activities on the development of students' life skills. *Sports Research*, (8), 67-70.