

A Study on the Application of the Integrated Theory and Practice Teaching Model in Public Administration: A Case Study of the Course “Simulated Training in Public Administration”

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Abstract: Public Administration, as a discipline emphasizing practical application, places significant emphasis on practical teaching within its academic framework. The effectiveness and comprehensiveness of the practical teaching system directly affect students' capacity for practical application and their overall skill sets. This, in turn, is essential for the discipline's ability to nurture innovative and practically-oriented professionals that meet the evolving needs of society. However, existing public administration education in China is predominantly confined by traditional educational concepts and teaching methods, leading to an overemphasis on classroom instruction which tends to prioritize theoretical knowledge dissemination. Consequently, the planning and implementation of practical teaching content, methodology, and duration are inadequate and lack coherence. This status quo has had a detrimental impact on the quality of talent development within the domain of Public Administration. Addressing this, there is an evident need to transcend prevailing educational concepts and teaching paradigms, integrating practical teaching as an integral element of the broader public administration education system. In this regard, the innovation of teaching methods is crucial to adapt proactively to the “new normal” of socio-economic development, underlined by the pivotal role of “innovation, creativity, and practical application” as vital benchmarks for evaluating talent development. This study explores the “Integration of Theory and Practice” model in the context of practical teaching for public administration, constructing a practical teaching framework that

seamlessly unites theory and practice within the domain, placing students at the forefront and educators at the center. This model encompasses the alignment of teaching content, methodology, evaluation, and resources, achieving the “3+N” teaching effectiveness. By exemplifying the specific application of the *Simulated Training in Public Administration* course, it sheds light on the profound importance of the “Integration of Theory and Practice” model in enhancing the development of public administration and talent cultivation. The aim is to provide valuable insights for the reform of public administration education in China.

Keywords: Public Administration; Practical Teaching; Integration of Theory and Practice; Sand Table Simulation

1. Introduction

As the field of public administration continues to evolve, the demand for high-caliber, multi-disciplinary, and application-oriented public administration professionals is steadily growing. Practical teaching constitutes a vital component in nurturing such talents, as it aids in enhancing students' practical operational and innovative capabilities. However, traditional modes of practical teaching often exhibit certain limitations such as scarce practical resources and a disconnection between practical scenarios and real-life situations. Against this backdrop, it is imperative for universities offering public administration programs to reform their practical teaching methodologies, aiming to enhance students' overall abilities and practical skill sets. With the advancement of information technology, the emergence of the “Integration of Theory and Practice” model in

practical teaching has become increasingly prominent. This model integrates virtual simulation technology with real-life cases, providing students with a richer and more dynamic learning experience. Taking the *Simulated Training in Public Administration* course as a case study, this paper analyzes the specific application and effectiveness of the “Integration of Theory and Practice” model, with the aspiration of offering valuable insights for the reform of practical teaching methodologies in public administration programs and the cultivation of public administration talents in China.

2. The Connotation and Characteristics of the “Integration of Theory and Practice” Model in Practical Teaching

2.1 The Connotation of the “Integration of Theory and Practice” Model

The “Integration of Theory and Practice” in practical teaching refers to the organic fusion of real practical environments and virtual practice environments in order to achieve the objectives of practical training. This integration supports a series of systematic and flexible practical teaching tasks, fostering the learning of students’ knowledge and skills and the cultivation of their practical capabilities [1]. From the perspective of this study, it is defined as the predominance of theoretical classroom instruction denoted by “theory” and the reliance on authentic practical software and equipment denoted by “practice”, where practical skill training takes place in real environments such as laboratories and training rooms.

In this study, the establishment of the real training environment involves using the “City Simulation Sandbox Adversarial Platform” software to create an interactive virtual environment. This virtual environment is complemented by hands-on training using physical equipment in the training room. Taking the *Simulated Training in Public Administration* course as a case study, the research revises and updates the teaching syllabus and content. By leveraging the “City Simulation Sandbox Adversarial Platform”, the study adopts a student-centered approach, with the instructors as guides, utilizing various practical methods. Through the concurrent implementation of both virtual and real-world

teaching approaches, the study aims to explore and establish an integrated practical teaching model for public administration courses, incorporating a blend of “theoretical learning, simulated scenarios, and hands-on application”.

2.2 Characteristics of the “Integration of Theory and Practice” Practical Teaching Model

2.2.1 Immersive Learning Experience

The most distinctive feature of the “Integration of Theory and Practice” practical teaching model lies in providing students with an immersive learning experience [2]. Through virtual reality technology, students are able to immerse themselves in a highly realistic virtual environment, experiencing vivid visual, auditory, and tactile effects. This immersion helps to heighten students’ learning interest and engagement, enabling them to acquire knowledge within an enjoyable atmosphere.

2.2.2 High Interactivity

The “Integration of Theory and Practice” practical teaching model emphasizes the interaction between students, the virtual environment, instructors, and peers. Within the virtual environment, students are empowered to freely explore, manipulate, and experiment with real-time interaction with virtual objects and scenarios [3]. Furthermore, instructors can dynamically adjust the virtual environment based on students’ learning progress and needs, providing personalized teaching support. This high interactivity fosters students’ autonomy in learning and collaborative abilities.

2.2.3 Personalized Teaching

The “Integration of Theory and Practice” practical teaching model can offer personalized instruction tailored to each student’s characteristics and requirements. Leveraging virtual reality technology, instructors are able to create customized virtual learning environments for students, allowing each student to learn at their own pace and difficulty level. Simultaneously, the virtual environment’s intelligent tutoring systems can provide real-time feedback to assist students in promptly adjusting their learning strategies.

2.2.4 Resource Sharing and Collaboration

The “Integration of Theory and Practice” practical teaching model facilitates the sharing and collaborative use of high-quality

educational resources. Through virtual reality technology, instructors can develop abundant teaching resources, enabling students to access superior educational materials within the virtual environment. Additionally, the virtual environment can promote cross-regional and interdisciplinary communication and collaboration among instructors and students, facilitating joint discussions, experience sharing, and thereby enhancing the quality of education [2].

3. The Necessity of Implementing the “Integration of Theory and Practice” Practical Teaching in Public Administration Programs

From a macro perspective, the necessity arises from the nature of the public administration discipline. The cultivation of talents in public administration programs must honor the characteristics and principles of public administration, with particular emphasis on fostering students’ practical abilities, enabling them to authentically apply theoretical knowledge to real-world scenarios [4]. The training of talent in public administration necessitates the strengthening of its applied nature, and the design and implementation of practical curricula represent crucial pathways for fostering such capabilities. Therefore, imperative action is required to achieve the teaching objectives and to investigate and reform the teaching methodologies associated with these courses. Additionally, there is a need stemming from the employment-oriented direction of undergraduate education. Students in local universities often possess relatively weak academic foundations, displaying varying degrees of deficiency in self-directed learning abilities and study methodologies. Consequently, it is essential to construct a talent cultivation system guided by the concept of Outcome-Based Education (OBE). When implemented at the curriculum level, it becomes even more crucial to emphasize the alignment of educational objectives with the demands of the job market. Furthermore, students, for the most part, display a keen interest in practical knowledge and are eager to acquire practical, skill-based knowledge that will enhance their competitiveness in future employment opportunities.

At the micro level, the insufficiency of attention to practical teaching emerges as a

primary concern. In comparison to disciplines within the fields of science and engineering, the allocation of practical teaching hours within public administration programs tends to be generally lower. This conceptual bias results in inadequate resource allocation, leading to varying degrees of deficiencies in hardware and software in both laboratory facilities and internship training. A case in point can be observed in the operation of the urban management practical teaching segment at Liupanshui Normal University. The emphasis of professional development has been predominantly placed on concentrated practical teaching, resulting in relatively insufficient attention given to course-based practical instruction. Moreover, a lack of robust quality control and evaluation mechanisms has led to many practical and training activities merely becoming formalities. Furthermore, the method and means of practical teaching appear relatively singular. Particularly, course-based practical teaching segments often tend to rely heavily on theoretical instruction, frequently restricting students to following pre-designed steps to experimentally verify and demonstrate theoretical concepts, without much room for independent exploration [5]. Additionally, there are systemic deficiencies in the assurance mechanisms governing the operation of practical teaching, as well as inadequacies in quality monitoring and evaluation systems. Thus, the imperative need for reforms in practical course instruction becomes increasingly evident.

4. The Development of the “Integration of Theory and Practice” Practical Teaching Model

Centered around students and facilitated by instructors, the construction of the “Integration of Theory and Practice” practical teaching model revolves around four core components: teaching content, teaching methods, teaching platforms, and teaching assessment. These culminate in the establishment of a scenario-based simulation experimental platform within the classroom, an in-school project-based training platform, and an off-campus practical platform. Together, they form a “3+N” model capable of enhancing multiple competencies through the integration of theory and practice (as depicted in Fig. 1).

4.1 The Research Focus of the “Integration of Theory and Practice” Practical Teaching Model

Centered around students and guided by educators, the model fully harnesses student initiative while simultaneously transforming the role of the instructor into that of a facilitator in the classroom and a conveyor of knowledge.

4.2 Design and Implementation of the “Integration of Theory and Practice” Practical Teaching Model

Through the refinement and updating of teaching content, teaching methods, teaching platforms, and teaching assessments, the construction of the teaching system for the “Integration of Theory and Practice” practical teaching model is completed.

In terms of teaching content, the focus is on the revision and enhancement of the curriculum outline and related course materials, aligning closely with theoretical knowledge, societal hot topics, and cutting-edge research in the field of public administration. This approach is geared towards cultivating and enhancing students’ practical abilities [6].

Regarding teaching methods, aside from traditional lecture-based instruction, methods such as scenario simulations, virtual simulations, case analyses, role-playing, and data simulations are also employed [7].

In the realm of teaching assessment, the emphasis has shifted from the previous static evaluation primarily based on instructor assessments and final examinations to a comprehensive evaluation of the entire learning process of the students. This entails adjusting the weighting of regular and final assessments, enriching evaluation indicators, rationalizing assessment standards, and dynamically monitoring participation processes.

As for teaching platforms, a multi-level developmental platform, progressing from the classroom to the institution, the university, and finally to society, has been established. Through this framework, theoretical knowledge and practical simulations are realized in the classroom, disciplinary competitions and project training are conducted at the department and university levels, and knowledge transfer and application

capabilities are cultivated and enhanced through relevant internship placements and societal engagements.

4.3 Effectiveness of the “Integration of Theory and Practice” Practical Teaching Model

The implementation of the “Integration of Theory and Practice” practical teaching model has resulted in the achievement of the “3+N” teaching outcomes, enhancing multiple competencies across the three platforms. Here, the “three platforms” refer to the scenario-based simulation experimental platform within the classroom, the project-based training platform at the department and university levels, and the off-campus practical platform involving societal and governmental departments. The enhancement of “multiple competencies” encompasses the cultivation and refinement of knowledge transfer, communication, teamwork, collaboration and competition, practical skills, self-management, innovation acumen, and logical thinking, achieved through course-based development.

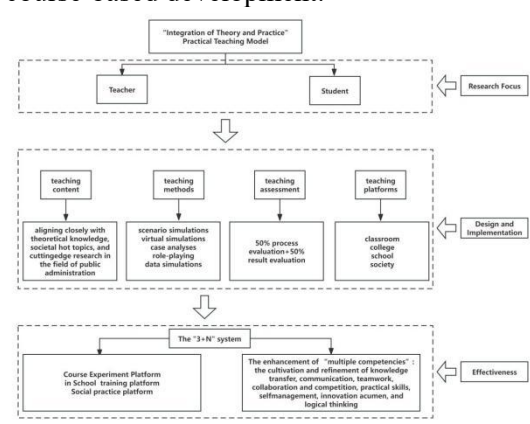


Figure 1. The Construction of the “Integration of Theory and Practice” Practical Teaching Model

5. Specific Application of the “Integration of Theory and Practice” Practical Teaching Model in Public Administration Programs

Taking the *Simulated Training in Public Administration* course as an example, a detailed demonstration of the specific application of the “Integration of Theory and Practice” practical teaching model is showcased within this context.

The *Simulated Training in Public Administration* is a practical, mandatory

course tailored for urban management majors, spanning 32 teaching hours and carrying 2 credits. Historically, due to a lack of pertinent training equipment and software, the course primarily relied on traditional lecture-based teaching, case analyses, and role-playing methods for the delivery and learning of knowledge across various modules of public administration. This conventional teaching approach, which tends to prioritize conclusions over processes, simplifies the teaching process into mere listening and memorization, making it challenging to instill in students the habit of active reasoning. Consequently, a phenomenon emerged where there was an exclusive pursuit of knowledge acquisition without engaging in critical thinking, inquiry, or evaluation. This, in turn, placed certain limitations on fostering students' proactive learning consciousness and the enhancement of practical skills [8]. Through the implementation of the "Integration of Theory and Practice" practical teaching model, a teaching approach has been developed, consisting of pre-class theoretical accumulation, in-class simulated practice, and post-class evaluation feedback (as depicted in Figure 2).

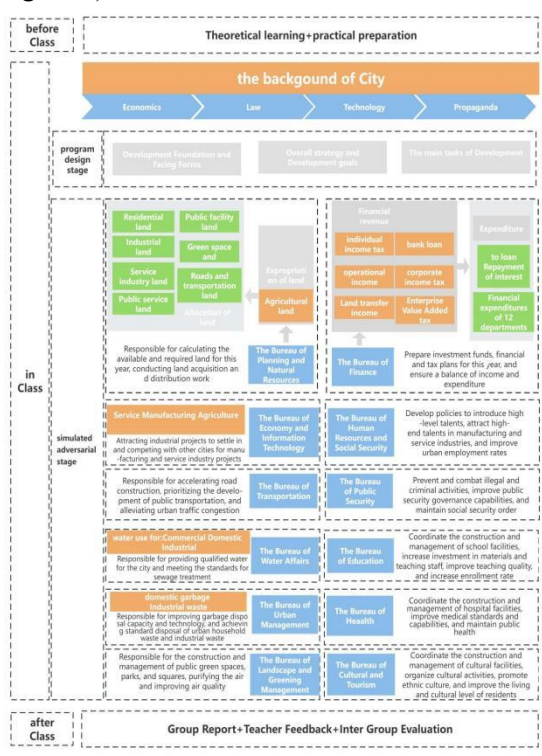


Figure 2. The Practical Teaching Model Depicting the "Integration of Theory and Practice" within the Simulated Training in Public Administration Course.

5.1 Preparatory Phase before Class

In conjunction with the urban professional curriculum framework, an analysis is conducted encompassing the relevant foundational and core courses offered before and after the *Simulated Training in Public Administration* course. This process involves distilling the knowledge points related to the *Simulated Training in Public Administration* from each course, revising the teaching syllabus, and determining the course's relevant practical training content and its challenging aspects. The dissemination of related knowledge points for review and pre-reading is initiated prior to the class, along with the completion of training group arrangements and other pertinent preparatory matters, culminating in the fulfillment of the "virtual" training component within the "Integration of Theory and Practice".

5.2 Simulation Phase in Class

The in-class simulation phase corresponds to the practical component of the "Integration of Theory and Practice" teaching model. In this course, the "City Simulation Sandbox Adversarial Platform" software is utilized as a medium to create an interactive and realistic environment for public management training. The training is divided into two stages: "Program Design" and "Simulated Adversarial Simulation". Set against the backdrop of real urban cases, students work in groups to plan urban development, assuming different functional roles, making multi-phase urban operational decisions, and responding to relevant knowledge-based questions, thus achieving a deep integration of theory and practice [9].

During the program design stage, groups with assigned roles engage in reading and discussing the provided citywide information and historical operational data. They define the city's mission and purpose, examine both internal and external city environments, assess city strengths and weaknesses, ultimately determining the city's strategic development objectives. External environmental analysis encompasses positioning the city within the country, understanding the population dynamics in various cities, predicting total population supply, and economic development trends. Internal environmental analysis

involves assessing the current state of urban management, understanding the city's current population, environment, transportation, economy, society, and predicting future urban management needs based on city development strategies. Following the analysis and discussion of city background information, groups collaborate to produce a written report outlining the city management and development plan.

In the simulated adversarial stage, instructors autonomously set the duration and number of phases based on the four major management training contents in public management: economic management, environmental management, social management, and infrastructure management. Each phase is characterized by specific training backgrounds and focal points. Students role-play as members of various departments such as the Planning Bureau, Water Affairs Bureau, Transportation Bureau, Urban Management Bureau, Gardening Bureau, Finance Bureau, Economic and Information Commission, Human Resources Bureau, Public Security Bureau, Education Commission, Health Bureau, and Tourism Bureau. They face a unified external economic environment and national policy and legal environment. Through the allocation of funds and land use, they engage in internal and inter-group competition, attract investment, develop industrial and commercial services, invest in public utilities, enhance local resident well-being, and uplift urban competitiveness to drive regional economic and social development.

5.3 Feedback Phase after Class

Following the completion of the program design and simulated adversarial stages, a city competitiveness ranking is determined based on the scores achieved in these two phases. This ranking encompasses the scores for city strategic formulation, as well as the horizontal and vertical comparative rankings among the departments played by each group. Additionally, rankings are established for the scores achieved in the interspersed public management related knowledge assessments during the simulated adversarial stage. Each group reports on their decision-making, execution, and ultimate performance across the two stages. Following inter-group evaluations,

the instructing faculty provides a final assessment focusing on the city development plan report, city competitiveness, resident well-being index, and on-site presentation. Throughout the sharing process, the course's elements of civic education serve as an evaluative standard, considering factors such as teamwork, the interplay between cooperation and competition, holistic awareness, and management collaboration skills.

6. Implementation Effects of the “Integration of Theory and Practice” Educational Model

6.1 Innovative Educational Approach

The “Integration of Theory and Practice” educational model blends virtual reality technology with traditional education, offering students an entirely new mode of learning. This approach aids in fostering innovative thinking and practical abilities among students, enabling them to freely explore, experiment, and create within virtual environments [10]. In the future, this educational approach is poised to become a significant breakthrough in China's educational reform.

6.2 Enhancement of Educational Quality

The “Integration of Theory and Practice” educational model contributes to an improvement in educational quality. Leveraging virtual reality technology, educators can provide students with richer, more vivid, and targeted instructional content, enabling students to grasp knowledge in a relaxed and engaging atmosphere [11]. Simultaneously, this model facilitates personalized instruction, allowing each student to learn in an environment suited to their individual needs, thereby bolstering educational equity.

6.3 Promotion of Educational Equity

The “Integration of Theory and Practice” educational model contributes to the promotion of educational equity. Through the use of virtual reality technology, high-quality educational resources can transcend geographical limitations, reaching more remote regions and impoverished families. Students in these areas can access education resources of equal quality to those available to

urban students, thereby narrowing the educational disparities between urban and rural areas as well as different regions.

6.4 Cultivation of a New Generation of Educators

The “Integration of Theory and Practice” educational model presents new demands on educators. In the future, educators will need to master virtual reality technology and learn how to design, develop, and utilize virtual teaching resources [12]. To achieve this, China’s education authorities should intensify instructor training efforts, cultivating a cohort of educators proficient in virtual reality teaching, thus advancing the widespread adoption and development of the “Integration of Theory and Practice” educational model in the country.

7. Conclusions

The “Integration of Theory and Practice” practical teaching model for contributes to the cultivation of students’ practical skills, innovation capabilities, and teamwork consciousness, while broadening their knowledge horizons. Simultaneously, it elevates the teaching standards for instructors, providing valuable insights for the training of public management professionals. In the *Simulated Training in Public Administration* course, the application of virtual simulation technology, the introduction of real-world cases, the integration of online and offline teaching methods, and the fusion of practical and theoretical instruction effectively enhance students’ practical operational and innovative abilities. In the future, academia should further strengthen research and application of the “Integration of Theory and Practice” public management practical teaching model, offering more robust support for the training of public management professionals.

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