

A Phenomenological Study on Teachers' Beliefs on Teaching Evaluation Practice for Space Design Studies in Higher Education Institutions at Xi'an China

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Abstract

This study employs a qualitative phenomenological emic research approach to explore the teaching beliefs and evaluation practices of instructors in space design courses (SDCs) within higher education institutions (HEIs) in Xi'an, China. In the context of globalization, professionalization, and large-scale transnational education, it investigates how instructors perceive and implement teaching assessments and what beliefs and values are reflected in their teaching practices. Through in-depth interviews with 17 spatial design course instructors, this research reveals four major themes: Teaching Assessment and Improvement, Instructors' Teaching Beliefs, Validity and Methods of Teaching Assessment, and Teaching Resources and Assessment Materials. Findings indicate that instructors generally consider teaching assessment to play a crucial role in enhancing teaching quality but hold varying perspectives on its validity and long-term impact. Additionally, instructors' teaching beliefs are diverse and heavily influenced by their personal philosophies, experiences, and professional backgrounds. These beliefs manifest and are applied in various ways in teaching practices, providing theoretical support and guidance for instructors' teaching decisions. The findings of this study offer a fresh perspective for understanding and improving the teaching of spatial design courses, providing insights for further theoretical research and teaching practices.

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1. Introduction

1.1 Background

Space (or equivalently termed as ‘spatial’) design, as an interdisciplinary practice, involving art and engineering knowledge domains has been gaining increasing attention from academia and industry. Especially in the context of globalization, technological advancement, and cultural convergence, space design demonstrates undeniable value and influence in various fields such as architectural design, landscape planning, and interior decoration. In China's higher education system, Space Design Courses (SDCs) not only serve as platforms for imparting professional knowledge and skills but also play a crucial role in nurturing students' innovative abilities and aesthetic literacy. Particularly in Xi'an, a city rich in cultural heritage and undergoing rapid urbanization, the teaching practices of SDC face multiple opportunities and challenges.

1.2 Research Questions

In this context, how do teachers' teaching beliefs and practices adapt to and shape the content and methods of SDC? How do global trends and local culture interweave and interact in teachers' pedagogical philosophies and practices? These questions are not only relevant to the quality and effectiveness of SDC teaching but also touch upon the adaptation and evolution of educational ideologies and practices amidst the collision of global and local cultures.

1.3 Research Objectives

This study aims to use phenomenological methods to deeply explore the teaching beliefs and practices of SDC teachers in Xi'an's higher education institutions. It seeks to reveal the underlying values, beliefs, and motivations behind their practices and, consequently, understand their adaptation and adjustment processes under the influence of globalization and localization.

1.4 Research Hypothesis

From a perspective grounded in social psychology, this study posits the hypothesis (or underlying assumption) that, within the context of global trends and local demands and expectations, the Teaching Philosophy and Evaluation System (TPES) of Xi'an's SDC teachers is of paramount importance.

1.5 Structure of the Thesis

This paper begins with a literature review that examines the theoretical background and previous research on SDC teaching, teaching beliefs, and phenomenological analysis methods. It then elucidates the theoretical framework and research methods employed in this study. On this basis, the research findings are analyzed in-

depth, discussed, and verified in conjunction with the research hypothesis. Finally, the study concludes its findings, highlights its limitations, and proposes directions and recommendations for future research.

2. Literature Review

2.1 Challenges and Opportunities in Space Design Education

Space design education typically encompasses a range of topics related to the creation and optimization of spatial environments, including architecture, interior design, landscape design, and more. With the development of globalization and technology, this field faces various challenges and opportunities. For instance, the application of digital technologies such as virtual reality and digital modeling has brought new possibilities to design practice and education, while also demanding updated teaching content and methods [1]. The process of globalization has also increased the exchange of spatial design concepts and practices among different cultures and social environments. Balancing local and international elements in education has become a topic for educators to consider [3].

2.2 The Influence of Teacher Beliefs on Teaching Practice

Teacher beliefs are widely recognized as a significant factor influencing teaching practices. Teachers' beliefs and values not only affect their choice of teaching methods and strategies but also to some extent shape the course content and the direction of student learning [4, 5]. In spatial design education, teacher beliefs may involve design values, preferences for design methods, emphasis on skills, and theoretical knowledge, among other aspects, which are manifested in their teaching practices [6]. Understanding the meaning and origins of teacher beliefs helps delve into their role and significance in teaching practice.

2.3 The Application of Phenomenology in Educational Research

Phenomenology, as a research method, emphasizes the direct experience and understanding of the lifeworld. In educational research, phenomenology is often used to explore the essence and significance of educational phenomena by delving into participants' inner experiences and feelings through in-depth interviews and observations [7]. In the study of teacher beliefs, phenomenology can assist researchers in gaining a deeper understanding of how teachers' internal beliefs are formed and how these beliefs are reflected and realized in their teaching practices [8]. With the help of phenomenological methods, researchers can go beyond surface phenomena to explore the more complex and underlying relationships between teacher beliefs and teaching practices.

3. Theoretical Framework

3.1 Key Concepts of Phenomenology

Phenomenology, as a research method, focuses on human experiences and consciousness. It seeks to understand the essence of phenomena by revealing the structures and meanings hidden behind everyday experiences [9]. In

this study, phenomenological methods are used to delve into teachers' beliefs and their experiences in teaching evaluation practice. Through teachers' interview data, the research will uncover the deep structures and meanings behind their beliefs and how these beliefs influence their teaching practices.

3.2 Teacher Belief Research from a Social Psychological Perspective

Social psychology provides an insightful perspective for understanding teacher beliefs, particularly in the interaction between teachers' beliefs and their social and cultural contexts. A core hypothesis of this study is that teachers' beliefs and teaching practices are influenced by their social and cultural environments, including global trends and local demands and cultural values. Therefore, the research will explore how these macro and micro-level factors shape teacher beliefs and further impact their teaching practices.

3.3 Integration of the Theoretical Framework

By combining key concepts of phenomenology and the perspective of social psychology, the theoretical framework of this study will explore several aspects. Firstly, through phenomenological analysis, it aims to gain a deep understanding of the essence of teachers' beliefs and experiences regarding the teaching practices in spatial design courses. Secondly, in conjunction with theories from social psychology, it will analyze how the sociocultural context influences teachers' beliefs and practices. Lastly, building on the first two points, the study will investigate how to understand and enhance the teaching practices of spatial design in the context of global and local cultural influences.

4. Research Methods

4.1 Research Design

This study employs a qualitative research approach, specifically relying on phenomenological methods to explore the teaching evaluation practice beliefs of space design teachers in higher education institutions in Xi'an. Phenomenological methods allow us to delve deeply into and understand teachers' beliefs, perceptions, and experiences, revealing the underlying structures of meaning. Through interviews, we aim to gain insights into teachers' vivid experiences and feelings in teaching practice, thereby uncovering the deeper connotations of their teaching beliefs.

4.2 Participants

The study participants consist of 17 teachers who teach spatial design at higher education institutions in Xi'an. Participant selection aims to capture diverse and rich teaching practice experiences and beliefs. We contacted potential participants via email and phone, explained the purpose and process of the study, and conducted interviews with their consent.

4.3 Data Collection

Data are primarily collected through semi-structured interviews. Semi-structured interviews allow researchers and participants sufficient flexibility to explore unforeseen new topics and ideas while maintaining a certain thematic focus. The interview guide includes a series of open-ended questions designed to guide participants in sharing their teaching evaluation practice experiences, challenges, beliefs, and feelings. The interview guide is presented in Table 1.

Table 1: Interview guide.

NO.	Interview Questions	Importance
1	(a) What is the main purpose and benefits [Importance] of teaching evaluation?	High importance questions
2	About Philosophy of teaching - Teacher conception of teaching and their understanding of student learning.	
	(a) Do you have any specific personal theory / philosophy?	
	(b) Do you have any particular adoption of teaching theory/ scientific theory / philosophy of education.	
	(c) On Outcome-based Education (i.e. OBE) & constructive alignment. Do you aware of its concept? What is the importance of OBE & CA? Please explain.	
3	(a) What is your primary belief (or concept) as a teacher (or other role), that a teaching evaluation index system is considered an effective one?	
	(b) What types of information files / document do you used for teaching evaluation during the teaching process, and how important do you think they are?	
7	What kind of teaching evaluation contents and teaching evaluation methods (or other related considerations) you think - are the most suitable for the evaluation of the teaching evaluation index system of space design courses?	
19	Do you think the current teaching evaluation has an impact on space design courses? If so, what kind of impact do you think it has?	Low importance question

4.4 Data Analysis

In the data analysis phase, we employ phenomenological coding with thematic analysis to understand and interpret teachers' beliefs about teaching practices. Firstly, interview data is transcribed verbatim, and multiple rounds of careful reading are conducted to gain an in-depth understanding of each participant's experiences and feelings. Next, we conduct initial coding by marking key phrases, sentences, and paragraphs. Subsequently, we identify and extract themes that reflect teachers' core beliefs and experiences. Throughout the analysis process, we continuously iterate between data and theory to ensure the depth and breadth of the analysis.

5. Research Findings

After conducting a meticulous phenomenological analysis of the interview data from 17 teachers, this study unveils four major themes that profoundly reflect teachers' beliefs and experiences regarding the teaching evaluation practices in space design courses.

5.1 Teaching Evaluation and Improvement

Interview data indicates that teachers generally perceive the primary purpose of teaching evaluation to be the enhancement of teaching quality. For instance, one teacher stated, "The primary purpose of teaching evaluation is to enhance teaching quality" (Objectives and Values of Teaching Evaluation). While the teaching evaluation system has had a certain impact on spatial design course instruction, five teachers believe that this impact is not absolutely profound, as expressed by one teacher: "(The space design course's) teaching evaluation system indeed has some influence on curriculum education, but I don't think the impact is absolutely profound" (Evaluation of Spatial Design Course Teaching).

5.2 Teachers' Teaching Beliefs

Teachers' teaching beliefs play a crucial role in educational practice, often guiding and influencing their choices of teaching methods and implementation strategies. In this study, the theme of teachers' teaching beliefs encompasses personal teaching philosophies, teaching theoretical models, views on Outcome-Based Education (OBE) and constructivist alignment, and the implementation strategies of teaching methods.

Personal Teaching Philosophy More than ten interviewed teachers expressed their personal teaching philosophies, emphasizing the importance of students' moral qualities and ethical development in teaching. For example, one teacher explicitly stated, "I believe that in teaching, we should emphasize the cultivation of students' moral qualities and ethics." This indicates that teachers generally consider moral and character development education to be significant in professional instruction.

Teaching Theoretical Model Teachers often draw upon specific theoretical models in their teaching practices. For instance, one teacher emphasized, "I consistently adhere to a student-centered approach, guiding students to think independently through engaging activities." This reflects the prevalence and application of student-centered teaching philosophies among teachers.

Teachers' Views on OBE and Constructivist Alignment Teachers generally endorse the teaching philosophies of OBE and constructivist alignment, believing that they contribute to ensuring the effectiveness and relevance of teaching. An illustrative viewpoint is, "The philosophy of OBE and constructivist alignment helps ensure the effectiveness and relevance of teaching."

Teaching Method Implementation Strategies Teachers typically flexibly select and implement teaching methods based on the actual circumstances of students during the teaching process. For example, one teacher stated, "I tend to choose teaching methods that suit the students based on their actual situations." This indicates that teachers often consider students' needs and backgrounds in their practical teaching approaches. This implied teachers emphasize of the role of student-centric learning (SCL) with individualized assessment because it is crucial to promote students' creativity, innovation and motivation to learn in teaching space design courses.

The above findings indicate that teachers' teaching beliefs are diverse and are often deeply influenced by their personal philosophies, experiences, and professional backgrounds. These beliefs are manifested and applied in

various ways in actual teaching practice, providing theoretical support and guidance for teachers' teaching decisions.

5.3 Effectiveness and Methods of Teaching Evaluation

The Effectiveness of the Current Teaching Evaluation System

The teaching evaluation system is perceived to have some influence on space design courses, but this impact is not considered to be absolutely profound. Based on interview data, positive impacts include promoting teachers' professional development and providing intuitive feedback on teaching quality. However, some negative effects have also emerged, such as the lack of precision in evaluation metrics and poor alignment of the evaluation system, which may have adverse consequences on the validity of assessments. Additionally, interviewees mentioned that evaluation should not be the sole basis for assessing course quality, highlighting limitations in the evaluation system's ability to reflect the actual teaching situation.

Qualitative and Quantitative Methods for Evaluating Teaching Projects

According to interview data, educators engaged in in-depth discussions on qualitative and quantitative evaluation methods. Qualitative methods offer the advantage of observing student performance in diverse contexts, providing a deeper understanding of course dynamics, but may increase teachers' workload, among other potential drawbacks. Quantitative methods are praised for their intuitiveness and ability to collect data on a large scale but face challenges related to complex question design and the inability to comprehensively consider students' day-to-day performance.

Nearly two-thirds of the interviewees leaned toward a combined approach that integrates both qualitative and quantitative evaluation methods. This comprehensive approach not only allows for a holistic assessment of student performance and course effectiveness but also reduces biases and limitations that may arise from a single evaluation method.

These findings offer valuable insights, emphasizing the need to carefully consider the strengths and weaknesses of qualitative and quantitative methods when designing and implementing teaching evaluations. Teaching evaluation is a complex, multifactorial issue that requires thorough and comprehensive consideration to accurately reflect teaching quality and promote improvement.

5.4 Teaching Resources and Evaluation Materials

Teachers employ various types of documents in evaluations, including "basic documents like lesson plans and teaching designs, as well as course materials such as PowerPoint presentations and case databases" (Types of Evaluation Documents). Evaluation documents are seen as a means to showcase teachers' course designs, teaching plans, and the extent to which student learning objectives are achieved: "These documents can showcase my course design, teaching plans, and the degree of achievement of student learning objectives" (Importance of Evaluation Documents).

6. Validation of Research Hypotheses

6.1 Hypothesis Analysis and Validation

After a deep exploration of teachers' teaching beliefs and teaching evaluation practices, we further analyze how these findings align with the original hypotheses of our research. Our original hypotheses emphasize the importance of teachers' beliefs in the Teaching Practice Evaluation System (TPES), especially in the context of global and local societal and industry demands.

Importance of Teaching Evaluation In the "Teaching Evaluation and Improvement" theme, teachers generally consider the primary purpose of teaching evaluation to be the enhancement of teaching quality. This aligns with our hypothesis that teachers indeed value the Teaching Evaluation System. While some teachers believe that teaching evaluation has a significant impact on space design courses, and others think the impact is not necessarily profound, this may suggest that there could be limitations or issues in the implementation of the teaching evaluation system.

Teachers' Teaching Beliefs We found that teachers' personal teaching philosophies, teaching theoretical models, views on OBE and constructivist alignment, and teaching method implementation strategies play crucial roles in teaching practice. Teachers tend to select teaching methods that align with students' actual circumstances, indicating their concern for the effectiveness of teaching practice and implying that they may pay attention to teaching evaluation feedback to optimize teaching methods.

Effectiveness and Methods of Teaching Evaluation In the "Effectiveness and Methods of Teaching Evaluation" theme, teachers expressed skepticism about the validity of the existing teaching evaluation system and mentioned the importance of adhering to the principle of accuracy in evaluation. This also suggests that teachers are concerned about the authenticity and accuracy of assessments and tend to use a combination of quantitative and qualitative methods for evaluating teaching projects.

6.2 Limitations of the Hypotheses

While our findings partially support the original hypotheses, they also reveal aspects that may not align entirely with the hypotheses.

For example, some teachers questioned the validity and fairness of the existing teaching evaluation system, indicating that, in actual teaching practice, teachers may also be exploring and seeking more effective and equitable assessment methods and systems.

6.3 Further Exploration of the Hypotheses

Further research may need to delve into how teachers integrate the feedback from teaching evaluation into their teaching practices and how the teaching evaluation system can more effectively guide and improve teaching practices in the context of global and local societal and industry demands.

7. Discussion

In this study, we delved into the teaching beliefs of space design course teachers in higher education institutions in Xi'an using phenomenological methods. In this section, we will discuss the significance of the research findings, their practical applications, and their relationship with existing research.

7.1 Interpreting the Findings

Teaching Evaluation and Improvement While teaching evaluation is considered a key tool for enhancing teaching quality, teachers hold different views on its impact. Further analysis and discussion can explore how to optimize the teaching evaluation system to better serve the improvement of teaching quality and innovation in teaching methods.

Teachers' Teaching Beliefs Teachers' teaching philosophies, theoretical models, and method implementation strategies play a central role in actual teaching. Discussion can further explore how these beliefs shape teachers' day-to-day teaching practices and their relationship with teaching effectiveness.

Effectiveness and Methods of Teaching Evaluation Teachers express skepticism about the effectiveness and fairness of the teaching evaluation system. Further discussion can explore how to improve the existing assessment system to ensure it accurately reflects teaching practice and its outcomes.

7.2 Insights for Theory and Practice

Our findings also provide insights for theoretical research and practical teaching. For example, while teachers generally acknowledge the importance of teaching evaluation, their doubts about its validity and fairness suggest a need for more careful and thoughtful design and implementation of assessment systems. Additionally, teachers' teaching beliefs and practices suggest a need to pay more attention to teachers' personal beliefs and values in teacher training and development.

7.3 Relevance to Existing Research

Our findings align with some existing research results, such as the close relationship between teachers' teaching beliefs and their teaching practices. At the same time, our study also reveals some new perspectives and findings, such as how teachers in a Chinese cultural context understand and implement teaching evaluation and how they adjust their teaching beliefs and practices in both global and local contexts.

7.4 Recommendations and Reflections

At the practical level, designers and implementers of teaching evaluation systems may need to consider teachers' needs and feedback more extensively to ensure the effectiveness and feasibility of assessment systems. At the theoretical research level, future studies can further explore the dynamic relationship between teachers' beliefs and teaching practices and the influence of cultural and social backgrounds on this relationship.

8. Conclusion

This study conducted a phenomenological analysis of space design course teachers in higher education institutions in Xi'an, exploring various aspects of teachers' teaching beliefs and teaching evaluation practices. In this section, we will summarize the main findings and discuss their potential implications for future research and practice.

8.1 Summary of Key Findings

Complexity of Teaching Evaluation Teachers generally consider teaching evaluation to be of significant importance for improving teaching quality, but they have differing views on its validity and impact.

Diverse Teaching Beliefs Teachers' teaching beliefs encompass various aspects, including teaching philosophies, theoretical models, and implementation strategies, and play a crucial role in actual teaching.

Challenges in Assessment Systems Teachers express doubts about the effectiveness and fairness of the existing teaching evaluation systems, pointing out some problems and challenges in the current assessment systems.

These findings not only reveal the challenges and dilemmas that teachers face in teaching evaluation and practice but also provide important clues for improving teaching evaluation systems and enhancing teaching quality.

8.2 Research Limitations

This study primarily focused on space design course teachers in Xi'an, and its findings may be influenced by specific cultural and educational backgrounds. Further validation and exploration may be needed in other cultural and educational contexts.

8.3 Insights for Future Research and Practice

Improvement of Teaching Evaluation Systems Future research and practice can further explore how to enhance teaching evaluation systems incorporating specialty context appropriate to the particular course instead of using common assessment items across all courses, to better serve as an effective methodology to improve teaching quality and teacher development.

Support for Teacher Development Educational institutions and policymakers can consider providing more support and resources to promote teachers' professional development and teaching innovation.

Cultivation of Teaching Beliefs Teacher education and training programs can further focus on cultivating teachers' teaching beliefs, helping them develop teaching philosophies and methods that align with the changing times and student needs.

8.4 Conclusion

By delving into teachers' teaching beliefs and teaching evaluation practices, this study provides new insights for understanding and improving higher education teaching. We hope that these findings will offer valuable references for educational researchers and practitioners, further promoting the enhancement of teaching quality and the development of education.

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