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Analysis on Digital Literacy, Self-Efficacy and Scaffolding Techniques among EFL Chinese Teachers

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Abstract: With the rising of China's national strength, more and more Chinese people start to do business with foreign clients. As the bridge of communication, the role of English has gained increased importance year by year. The educators in China started to shift their attention to EFL teaching. This paper aims to investigate the current situation of digital literacy, self-efficacy, and scaffolding teaching techniques for EFL Chinese teachers, and propose corresponding plans for its improvement and enhancement.

Keywords: Digital Literacy; Self-efficacy; Scaffolding Techniques; EFL Chinese Teachers.

1. Introduction

Teaching English as a foreign language (EFL) plays a crucial role in China's education system. With the deepening of China's openness and the acceleration of the globalization process, the demand for English teaching revolution and its importance have been growing. China's college teachers are facing severe challenges.

Zhang (2018) have found that some Chinese EFL teachers face challenges in the application of digital technology and the use of teaching tools. They may lack sufficient knowledge and skills in digital technology, unfamiliarity with the use of teaching software and online resources, and may also lack understanding of digital teaching strategies and assessment methods.

Aside from challenges in digital literacy, they also face challenges in self-efficacy. Self-efficacy refers to an individual's belief in their ability to accomplish specific tasks, achieve goals, and handle challenging situations successfully. It is a psychological construct introduced by Albert Bandura, a renowned psychologist, as part of his social cognitive theory. Bandura emphasized the importance of self-efficacy in determining human behavior, motivation, and personal achievement.

The third challenge they face is the challenges on application of scaffolding techniques. Wang (2017) scaffolding techniques is a student-centered teaching approach that involves providing support and guidance to students. However, studies have found that many Chinese EFL teachers face challenges in implementing scaffolding instruction. They may lack understanding of effective methods and strategies for supporting student learning and development.

2. Literature Review

In recent years, there have been numerous studies both domestically and internationally on the digital literacy, self-efficacy, and scaffolding techniques for EFL Chinese teachers. They made research from different angles and provide the references for the future researchers.

2.1. Digital Literacy

The concept of digital literacy emerged in the 1990s, with the widespread popularity of computer networks. Lanham (1995) introduced the term "digital literacy" referring to the ability to convert digital resources into various forms of information such as text, images, or sound. Digital literacy is considered a new literacy composed of multiple media literacies. In 1997, Gilster defined digital literacy as the ability to understand and use various types of information and resources on computers. It encompasses four abilities: internet searching, knowledge aggregation, hypertext navigation, and content evaluation. Gilster emphasized the importance of critical thinking in the digital environment, considering it a core skill of digital literacy.

2.2. Self-Efficacy

Bandura (1997) mentioned that self-efficacy refers to an individual's belief in their ability to perform a task successfully. It has been found to influence teaching practices and student outcomes. Bandura's Social Cognitive Theory suggests that self-efficacy is developed through four sources: mastery experiences, vicarious experiences, social persuasion, and emotional and physiological states.

Shao (2015) showed the core of social cognitive theory is the Triadic Reciprocality, which states that behavior, personal factors, and the environment mutually influence each other. A person's behavior is influenced by the interaction between external circumstances and personal factors.

2.3. Scaffolding Techniques

Hao (2021) proposed the term "scaffolding techniques", in the context of education, refer to instructional strategies and support mechanisms used by teachers to assist students in their learning process. The term "scaffolding" draws an analogy from the construction field, where temporary structures are used to support workers as they build higher levels of a structure. Similarly, in education, scaffolding involves providing temporary support and guidance to students as they work towards achieving their learning goals.

3. Methods

3.1. Research Design

The quantitative research method was employed in the research process. The digital literacy, self-efficacy and scaffolding techniques among EFL Chinese teachers were

examined by using the descriptive research. It sought to understand the current level of digital literacy, self-efficacy, and scaffolding techniques among EFL Chinese teachers.

3.2. Participants of the Study

The 344 participants in this study consist of EFL Chinese teachers who are currently teaching at universities in China. They come from 4 different private universities, and 3 different provinces.

3.3. Instruments

The study was mainly conducted by online questionnaire survey. The questionnaire was divided into four parts: Demographic Data, EFL Chinese Teachers' digital literacy Questionnaire, EFL Chinese Teachers' self-efficacy questionnaire, and EFL Chinese Teachers' Scaffolding Techniques Questionnaire.

4. Results and Discussion

4.1. Table on Digital Literacy

Table 1. Digital Literacy

Indicators	Weighted Mean	Verbal Interpretation	Rank
Teaching Content	3.39	Agree	1
Teaching Structure	3.33	Agree	2
Composite Mean	3.36	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

The above table presents summary on EFL Chinese Teachers' digital literacy. The composite mean of 3.35 indicates that the respondents agreed in all the indicators in general. But among the items cited, they all have the general sense of digital literacy, which got the highest mean score of 3.40 and ranked first.

Voogt (2012) analyzed different countries' frameworks for 21st-century competences, including digital literacy. It explored the role of digital literacy in teaching innovation and discussed its significance in teachers' professional development and students' learning.

4.2. Table on EFL Chinese Teachers' Self-efficacy

Table 2. EFL Chinese Teachers' Self-efficacy

Indicators	Weighted Mean	Verbal Interpretation	Rank
Instructional Support	3.42	Agree	1
Classroom Management	3.40	Agree	2.5
Student Engagement	3.40	Agree	2.5
Composite Mean	3.41	Agree	

Legend*: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree*

The table above presents the Summary on EFL Chinese Teachers' Self-efficacy. The composite mean of 3.41 indicates that the respondents agreed in all the indicators in general. But among the items cited, they agreed that instructional support is more important than the other two indicators, which got the highest mean score of 3.42, and ranked first, followed by classroom management and student engagement both with the score of 3.40.

Based on the above results, we can see that the weighted mean is quite close, which means teachers tried various ways to use instructional support, classroom management and student engagement in their teaching, this shows that the EFL Chinese teachers have certain self-efficacy in terms of instructional support, classroom management and student engagement.

4.3. Table on EFL Chinese Teachers' Scaffolding Techniques

Table 3. EFL Chinese Teachers' Scaffolding Techniques

Indicators	Weighted Mean	Verbal Interpretation	Rank
Digital Awareness	3.40	Agree	1
Teaching Innovation	3.29	Agree	2
Composite Mean	3.35	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 3 presents the summary table on EFL Chinese teachers' scaffolding techniques.

The composite mean of 3.36 indicates that the respondents agreed in all the indicators in general. But among the items cited, they agreed that teaching content is more important than the teaching structure, which got the highest mean score of 3.39, and ranked first.

Based on the above results, we can see that the weighted mean is quite close, which means teacher all tried their best to use instructional support, classroom management and student engagement in their teaching, this shows that the EFL Chinese teachers have certain scaffolding techniques in terms of Teaching content and Teaching structure.

5. Conclusion

With the results obtained from the data gathered, the following conclusions were produced.

1.The respondents highly agreed with the two indicators that digital awareness and teaching innovation has a huge influence on teachers' digital literacy. Digital literacy is critical to the advancement of IT applications in higher education as well as teaching reform for English conversation teaching. Using new technologies such as the Internet of Things and mobile terminals, can create a new digital English conversation teaching environment.

2. Among the two indicators in digital literacy, between digital awareness and teaching innovation, teacher's teaching innovation is relatively week. EFL teachers in China use traditional ways of teaching, the ability to use innovative teaching approaches has become an essential skill for all the Chinese EFL teachers.

3.The participants have a high recognition that instructional support, classroom management and student engagement are important in enhance teachers EFL teachers teaching outcomes. Instructional support can stimulate students' thinking, classroom management can help students

developing a sense of accomplishment and self-confidence in language learning.

4.Teachers are more familiar with the traditional teaching content such as teaching structure and different tenses in English grammar. Scaffolding techniques related to teaching structure should be enhanced.

6. Recommendations

1. Encourage EFL teachers to proactively engage in learning and practicing digital teaching methods. Universities shall provide relevant resources and reference materials, encourage teachers to participate in teaching workshops, academic conferences, and online communities to share experiences and exchange best practices.

2. Universities in China shall create a platform for EFL teachers to communicate and collaborate, such as establishing teaching research groups or online communities. These platforms can facilitate interaction and cooperation among teachers, enabling them to share experiences and resources related to digital teaching, as well as provide mutual support and motivation.

3. Universities shall provide feedback and support: Offer regular opportunities for classroom observation and feedback to EFL teachers, helping them identify blind spots in their teaching and areas for improvement. Additionally, provide necessary support and resources such as technical assistance, guidance in instructional materials and curriculum design to help teachers effectively apply digital teaching tools and technologies.

4. English teachers shall continually update their teaching strategies and adopt scaffolding teaching methods. Scaffolding teaching emphasizes teachers providing support and guidance during the learning process to help students fully understand and grasp knowledge. Teachers can explore the use of online learning platforms, interactive teaching tools, and multimedia resources to create a positive, interactive, and personalized learning environment.

5. Researchers in this field may use larger sample size in this field. Due to the time limit and limited sample size, the researches in this study only use private university EFL teachers in China as the sample, future researchers could use a larger sample size, and may get a more comprehensive understanding of the variables.

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