

Challenges and Strategies for Improving Digital Literacy of Language Lab Teachers

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Abstract

As a special kind of digital learning environment, language labs require a high level of digital literacy among teachers in order to teach effectively. This paper examines the current situation, challenges, and development directions of language lab teachers' digital literacy, taking them as the research target. At present, language lab teachers have different degrees of deficiencies in digital awareness, technology application, and instructional design, and the digital transformation has posed multiple challenges to their digital literacy. In order to improve the digital literacy of language lab teachers, the development directions of digital awareness training of lab teachers, digital technology application training and instructional design innovation should be strengthened.

Keywords

Digital transformation, Digital literacy, Language lab teachers, Challenges, Development.

1. Introduction

With the continuous development of information technology, digital learning and teaching environments have become an important part of education. In recent years, more and more national and international organizations have begun to focus on teachers' digital skills and literacy, and have proposed guiding frameworks or normative standards related to teachers' digital technology applications [1]. At the First World Conference on Digital Education held on February 13, 2023, the Ministry of Education publicly released the industry standard "Teachers' Digital Literacy" to clarify the indicator framework and core connotations of teachers' digital literacy. This standard provides guidance for schools, educational administrations, and educational institutions to help them promote teacher digital skills education, and provides a solid foundation for building teacher digital literacy training resources and implementing monitoring and evaluation [2].

The application of digital technology in education is gradually gaining popularity, and language labs, as an important part of digital education, are playing an increasingly important role in language teaching and learning. Digital transformation poses new challenges to language lab teachers, and the improvement of their digital literacy becomes an important guarantee for digital education transformation. As a special digital learning environment with rich multimedia resources such as voice, audio and video, language labs can effectively enhance students' language communication skills and practical skills. For language labs to be most effective, teachers need to have a high level of digital literacy to teach effectively. The use of technology in language education has increased significantly, and language lab teachers are incorporating digital tools and technologies into their teaching methods to enhance student learning. Digital literacy has become a key skill for language lab teachers to effectively integrate technology into their teaching practices. The digital revolution has brought significant changes to the field of language education. Digital literacy has become a critical skill for language lab teachers to effectively integrate technology into their teaching practices.

In this paper, we analyze the current digital literacy deficits of language lab teachers from the perspective of the importance of digital literacy to language lab instruction and explore targeted countermeasures. It is expected to provide useful and feasible suggestions for the improvement of teachers' digital literacy and the construction of laboratories in the digital year.

2. Digital Literacy Is The Basic Literacy of Experimental Teaching Teachers

Teachers' digital literacy refers to the ability, awareness and responsibility of teachers to use digital technology to process, access, use, evaluate and manage digital information and resources, to analyze, identify and solve educational and teaching problems, and to innovate, optimize and transform educational and teaching activities. [3] The first to propose a digital literacy framework was Y.Eshet -Alkalai, who divided it into image literacy, information literacy, branching literacy, re-creation literacy, and socio-emotional literacy [4]. The ability and quality of using digital technologies for various activities in the information society is constantly increasing, and digital literacy has become an important competence requirement in the field of education. In the language laboratory teaching, digital literacy is an essential competency requirement. Only language lab teachers with the above digital literacy can effectively carry out digital teaching and improve students' communicative and practical language skills.

In the study conducted on the educational technology competency standards of college teachers, Zhang Yichun et al. proposed teaching and design, application and tools, performance and development, and management and resources as the educational technology competency standards of college teachers [5]. And the skills that language lab teachers should have for digital literacy include the ability to be familiar with digital teaching tools, such as the use of multimedia software and hardware devices for voice, audio and video, and to use digital teaching tools for classroom teaching. And they should be able to use digital resources flexibly in teaching and master the use of various digital resources, such as online teaching materials and digital libraries. Then, according to the characteristics of digital teaching tools and resources and students' needs, design reasonable and effective teaching programs to achieve the goals and effects of digital teaching. Evaluate and reflect on digital teaching in a timely manner to understand students' learning and teaching effects, and adjust teaching strategies and methods based on feedback information.

3. Major Challenging Issues Facing Teachers' Language Lab Digital Literacy Enhancement

At present, language lab instruction in our schools is commonly taught digitally, but there is some variation in the level of digital literacy among teachers due to the wide variability among schools. data from the 2020 Teachers Teaching International Survey show that there is a significant gap with only 60% of teachers using information and communication technology assisted instruction. [6] And the Organization for Economic Cooperation and Development released a study in 2020 that noted that most education systems fail to provide online learning opportunities for students. At the same time, teachers have not fully mastered the integration of technology into teaching and learning due to a lack of information and communication technology competencies. [7] A survey conducted by the International Association for Language Learning Technology revealed that while most language lab teachers are comfortable using technology in the classroom, only a small percentage feel very comfortable with more advanced digital tools and technologies. Challenges include lack of training, limited access to technology, difficulty keeping up with new technology, over-reliance on technology, and difficulty ensuring digital security. To overcome these challenges, language lab teachers can participate in training

and professional development programs, collaborate with colleagues, learn about the latest technology trends, balance technology use with other important skills, and ensure digital safety.

3.1. Inadequate digital resources and teaching platforms in language labs

Digital teaching resources in language labs are inadequate. Although digital teaching resources have been widely used, in practice, many schools still lack digital teaching resources leading to a lack of effective resources to support teachers in digital teaching and learning, making it difficult to carry out rich and varied digital teaching activities.

The digital teaching platform of language labs is not perfect. Since the construction and promotion of digital teaching platform has not been given sufficient attention, the digital teaching platform of many schools still has some problems, such as unfriendly interface and inconvenient operation, which bring certain difficulties to teachers' digital teaching work.

3.2. The digital literacy of language lab teachers cannot meet the needs of digital teaching

As technology plays an increasingly important role in language education, digital literacy is crucial for language lab instructors. However, it is also important to focus on upgrading the configuration of digital teaching-related support equipment in training rooms and laboratories, iteratively updating traditional technological equipment and systems to provide a new teaching and learning environment with a good experience, and to help promote the digital transformation of schools[8]. Currently, there are several challenges that need to be addressed.

Lack of training. Many language lab teachers may not have received sufficient training to effectively integrate technology into their teaching methods. Training mechanisms for teachers' digital literacy are inadequate and do not meet the practical needs of teachers well. Digital teaching provides more teaching resources and tools, and how to organically integrate them with subject knowledge to achieve better teaching results requires certain professional training for teachers so that the teachers concerned have high professionalism and experience. There are currently fewer standardized training systems in this area.

Access to technology is limited. In some cases, language lab teachers may not have access to the latest technology, which may limit their ability to teach digital literacy skills. Difficulty keeping up with new technology. As new technologies continue to emerge, it can be challenging for language lab teachers to keep up with the latest tools and technologies.

Over-reliance on technology. While technology can enhance language learning, there is a risk of over-reliance on technology, which can lead to insufficient attention to other important skills, such as critical thinking and communication.

Weakness in ensuring digital safety. With the increasing use of technology in language education, language lab teachers have difficulty ensuring digital safety for their students.

3.3. Lack of team building

Laboratory construction, especially related to the classroom teachers, who generally have dual tasks of research and teaching, are less enthusiastic about team building, less enthusiastic. Team building is the main catalyst to promote the quality of teachers. He can promote the collision of collective wisdom, solve some of the data processing sluggish problems, and can share employment information, etc.

3.4. Weak instructional design skills

Instructional design, a strategy for the orderly and scientific arrangement of course content according to a lesson or a chapter. Instructional design competency teaching enhancement, for teachers, somehow means that it encourages tapping to enhance teachers' digital literacy and supports them to participate in digital skills related teaching competitions.

4. Strategies for Improving Digital Literacy of Language Laboratory Teachers

In the process of teaching practice in language labs, teachers should have the ability to select and create digital resources so that they are integrated with instructional design, and digital resources should be selected to effectively assist in the achievement of teaching goals [9]. It is particularly important to improve the digital literacy of language laboratory teachers, and the following are strategies to improve the digital literacy of language laboratory teachers.

4.1. Promoting the construction of digital resources and teacher training

Schools should increase the investment in the construction of digital teaching resources and provide more, more comprehensive and better quality digital teaching resources to meet the needs of teachers' digital teaching. And pay attention to the maintenance and upgrade of digital teaching platform, improve the digital teaching platform, improve the interface design and operation process, so that teachers can use digital tools more conveniently. Scientifically and reasonably formulate evaluation standards for teachers' digital literacy, evaluate them from various aspects such as technical level and teaching effect, and provide timely feedback to teachers so that they can improve their digital teaching level. Establish a sound digital teaching training mechanism and provide teachers with specialized and personalized training courses to promote their digital teaching level to improve continuously. Promote free or low-cost digital teaching tools to reduce the cost of digital teaching for teachers and increase their enthusiasm for using digital tools.

4.2. Enhancement of teachers' literacy

4.2.1. Develop digital literacy of language lab teachers

Participation in training and professional development programs: Language lab teachers can participate in training workshops and professional development programs to improve their digital literacy skills. These programs can provide teachers with the knowledge and skills they need to effectively integrate technology into their teaching practices.

Collaborate with colleagues: Language Lab teachers can collaborate with other colleagues to share best practices and learn from each other's experiences. This can help build a community of practice around digital literacy and support the development of digital literacy skills.

Stay on top of the latest technology trends: Language Lab teachers can keep up with the latest technology trends by reading industry publications, attending conferences and events, and participating in online communities. This allows teachers to discover new tools and technologies that will enhance their teaching practices.

Balance technology use with other important skills: Language lab teachers should strike a balance between using technology effectively and ensuring that students develop critical thinking and communication skills. This can be achieved by integrating technology into teaching practice to support the development of these important skills.

Ensure digital security: Language lab teachers ensure that students are aware of digital security issues and that they take advantageous measures to protect their privacy and personal information.

4.2.2. Establishing digital teaching faculty and teaching teams

Strengthen the construction of digital education teachers' teams, focus on the training and construction of digital education teachers' teams, guide more excellent teachers to participate in digital education teaching, and strengthen the training and qualification of digital education teachers to guarantee the professionalism and teaching ability of digital education teachers' teams.

Establishing digital teaching teams can improve collaboration and resource sharing among teachers. It actively promotes the circulation of data elements, accelerates the establishment of a data element circulation and sharing system, improves the governance system, and cultivates educational subjects. [10] Digital teaching teams can be composed of teachers from different disciplines to jointly explore the latest developments and application cases of digital teaching and to conduct teamwork-based curriculum design and teaching practice. Collaboration among teachers is encouraged, such as organizing teaching and research activities and conducting teaching analysis. Through these collaborative activities, teachers can share their experiences and resources and promote each other, thus improving the quality of digital teaching and providing digital teaching resources, such as online teaching platforms, teaching tools, and multimedia resources, to the digital teaching team. The resources can be shared to the members in the team for better application in digital teaching practice. Organize teamwork-based curriculum design and teaching practice. Through teamwork-based curriculum design and teaching practice, digital teaching teams, teachers can jointly explore the latest developments and application cases of digital teaching and personalized teaching design and teaching practice according to the needs of different disciplines to improve the teaching effectiveness of digital teaching teams, for which language labs can provide teaching digital teaching teams The establishment of digital teaching teams can promote cooperation and communication among teachers and improve the digital literacy level and teaching quality of team members. In addition, digital teaching teams can further expand the application fields of digital teaching and innovate teaching methods and curriculum design to adapt to the changing teaching environment and needs.

In addition to the above measures, language labs can also develop personalized digital teaching enhancement strategies in line with the actual situation, such as training for specific subjects or course types and developing online education resources that suit the characteristics of our university. By continuously improving the digital teaching system and enhancing teachers' digital literacy, language labs can provide students with more high-quality and efficient digital education services.

4.3. Strengthen teachers' teaching design ability

Digital teaching requires teachers to have strong teaching design skills, including setting teaching objectives, selecting suitable teaching methods, and designing assessment programs. Therefore, language labs can strengthen teachers' instructional design skills in training so that they can better apply digital teaching tools and resources for curriculum design. To improve teachers' instructional design capabilities, language labs can organize professional instructional design training, such as curriculum design and assessment strategies, and provide relevant courses taught by internal or external experts to provide guidance and feedback to teachers, who can better understand the basic principles and methods of instructional design. In the process of teaching practice in language labs, teachers need to have the ability to select and create digital resources and integrate them with instructional design in order to effectively assist in achieving instructional goals [10].

Providing professional training courses: by organizing professional training courses, language lab teachers can be helped to better understand the latest trends, technological tools, and pedagogical approaches to digital teaching and learning. These training courses can be delivered by internal or external experts and cover various aspects of digital teaching and learning, such as the use of online teaching platforms, the application of interactive teaching tools, video production techniques, etc.

Provide case studies and teaching practice opportunities: The Language Lab can provide digital teaching case studies and teaching practice opportunities for teachers to apply the instructional

design theories they have learned in practice. Through practice and reflection, teachers can continuously improve their instructional design and implementation skills.

Establish an instructional design institute: To strengthen instructional design capacity, language labs can also establish a specialized instructional design institute composed of instructional design specialists, educational technologists, and content specialists. This agency can work with the Department of Education, schools, and other related institutions to provide professional instructional design services and training for teachers to improve their instructional design capabilities. At the same time, through cooperation with schools and education bureaus, the instructional design organization can improve the overall instructional design level of schools, promote education reform and enhance teaching quality.

Optimize digital learning resources: Language labs can establish their own digital learning resource libraries, including online courseware, learning videos, and practice questions. Teachers can use these resources to improve their digital literacy level and apply them to their teaching practice. At the same time, IT professionals can also be invited to update, maintain and improve digital learning resources.

Establish a digital teaching community: Establishing a digital teaching community can help teachers communicate and collaborate with each other and share experiences and resources. Digital teaching communities can be established using online platforms or social media, etc., in which the latest technologies and application cases of digital teaching and learning are discussed, and successes and difficulties in practice are shared.

Encourage innovative and experimental teaching: Encouraging teachers to engage in innovative and experimental teaching is one of the key strategies to improve digital literacy. Language labs can encourage teachers to design experimental lessons, explore new digital teaching tools and methods, and organize evaluation and feedback on these innovative teaching strategies.

Establish digital teaching standards: Establishing curriculum design and teaching methods that meet digital teaching standards can improve teaching effectiveness and course quality.

Language labs can develop digital teaching standards and guidance documents to provide teachers with standardized guidance on digital teaching practices.

Establish evaluation and reflection mechanism: Schools can establish evaluation and reflection mechanism of digital teaching to guide teachers to evaluate and reflect on digital teaching courses in time and adjust teaching strategies and methods based on feedback information.

5. Conclusion

Improving the digital literacy of language lab teachers is an inevitable requirement for digital transformation and an important guarantee for improving the quality of language teaching. Only when teachers have sufficient digital literacy can they better meet the challenges of digital transformation and better provide students with high-quality digital education. Therefore, language lab teachers should continuously improve their digital literacy, actively explore the application of digital education, create digital teaching scenarios, and improve teaching effectiveness. At the same time, schools should also strengthen the construction of digital education, provide digital education resources and technical support, and provide support and guarantee for teachers' digital transformation. Only through the joint efforts of teachers and schools can we promote the in-depth development of digital transformation in language lab teaching and provide students with better quality education services.

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