The Scientific Basis of Authentic Assessment and Its Implementation in English as a Foreign Language Education

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Abstract. Authentic assessment is extensively accepted in higher education as an alternative assessment to replace or supplement traditional assessment. This paper examines the scientific basis, types, and characteristics of authentic assessment from the perspective of the supporting theories used in the research literature. Furthermore, this paper discusses the internal and external requirements of authentic assessment in English language teaching in terms of profession, students' motivation and willingness, and the integrative nature of English language use. The paper concludes by pointing out the factors to consider in designing the tasks and rubrics for the implementation of authentic assessment.

1. Introduction

In today's higher education system, authentic assessment is a widely accepted method for increasing learners' interest and motivation, promoting students' mastery of knowledge and skills, and helping teachers to better understand student performance [1]. However, how to implement authentic assessment as an assessment method in teaching practice is not a simple issue. Especially in the course of English as a foreign language, how to design and apply authentic assessment to effectively improve students' English usage and communicative competence still needs to be further explored.

The application of authenticity assessment in English as a foreign language (EFL) education has become a hot topic because it can better reflect students' language proficiency and practical use of English [2], and it can more accurately assess their learning performance and outcomes [3]. The current problem lying behind the education practice is that teachers may have inadequate knowledge of authentic assessment but much dependence upon conventional assessment. The objective of this conceptual paper is to study and discuss the scientific basis of authentic assessment and its application in EFL teaching. First, the concept, types, and characteristics of authentic assessment are introduced, and the advantages of authentic assessment over traditional measurement methods are described. Then, the scientific basis and necessity of implementing authentic assessment in EFL teaching are introduced, including the theoretical basis that underpins authentic assessment. Finally, the specific internal and external requirements of implementing authentic assessment in EFL education are discussed, and future research directions are suggested.

2. Concept, features, and types

Authentic assessment refers to the use of real-life problems or learning tasks that students need to solve as assessment vehicles, and the assessment of students' development through open-ended questions, projects, and exams [4]. Authentic assessment replaces the traditional teaching model of evaluating students' ability to memorize and imitate and has a wide range of applications in practice in EFL education. Authentic assessment emphasizes placing subjects in real situations and assessing their level and ability based on their demonstrated competence in real situations. Specifically, the basic features of authentic assessment include: firstly, authentic assessment places the test taker in a real-life situation by simulating or performing a real task, and focuses on the student's perception and application of the "real" situation [5]. Secondly, authentic assessment estimates the overall competence of students [6]. It is oriented to student performance and growth and therefore aims to develop students' exploratory thinking, critical thinking, and problem-solving skills. Thirdly, authentic assessment has objectivity and reliability [7]. In authentic assessment, objectivity can be achieved through clear criteria and rubrics that objectively define what constitutes quality work, as well as through using multiple evaluators to grade the same work. In authentic assessment, reliability can be enhanced by ensuring that the assessment task is clearly defined and standardized so that students are given the same instructions and expectations regardless of when or where they take the assessment. Fourthly, authentic assessment evaluates students' cognitive, affective, and behavioral integrity with diverse types and tasks [8], including oral expression, writing, and reading comprehension, to meet students' different levels of needs.

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In its assessment guide description, George Lucas Educational Foundation had a clear classification of the dominant types of authentic assessment: observation, essay, interview, performance tasks, exhibitions and demonstrations, portfolios, journals, teacher-created tests, rubrics, self- and peer-evaluation, and simulations [9]. It is the personal decision of the teachers to have a choice of assessment types. In a study conducted by the writers of this paper, the adoption rate of authentic assessment types in classroom teaching was calculated, revealing a tendency for the implementation of some preferable assessment types due to students’ English language proficiency, personality characteristics, previous education background, living and learning context, and so on. These facts could influence the effect of authentic assessment and are considered challenging by teachers. The types which were considered challenging were rarely the option of teachers in teaching practice. Figure 1 illustrates the dominant types of authentic assessment preferred by teachers as a finding of the writers’ previous study. The qualitative data from interviewing the teachers revealed that they were afraid of failure if they selected other types. But they confirmed that their choices were verified by their teaching experience and that the other types might be proper for different contexts.

3. Scientific basis

Authentic assessment is based on constructivist learning theory, the theory that students acquire knowledge by actively participating in real-life situations rather than passively absorbing information [10]. In contrast to traditional assessment methods that emphasize memorizing the facts, authentic assessment assesses students’ ability to apply concepts and principles through complex, open-ended tasks that simulate real-world problem-solving. The approach is designed to promote deep learning and higher-order thinking, where students develop enduring understanding and transferable skills. Authentic assessment is a broad field that requires knowledge and methods from many different disciplines to promote a comprehensive understanding. Research findings and theories from the fields of psychology, cognitive science, and sociology contribute to the scientific basis of it.

Authentic assessment involves human behavior and thought processes [11], so psychological studies of human behavior can provide foundational support for understanding. The classical theories of cognitive development such as those of Dewey and Piaget can be used to explain problems in authentic assessment and provide theoretical support. Authentic assessment involves human cognitive and processing processes of information. Thus, cognitive science findings can be used to account for some of the cognitive mechanisms involved in authentic assessment [12]. Authentic assessment requires students to use a range of cognitive mechanisms, including metacognition, problem-solving, memory, and attention. These skills are critical for success in authentic assessment and are essential for students to develop in their academic and professional lives. Teachers can facilitate the development of these skills by providing students with meaningful and relevant assessment tasks that require the use of higher-order thinking and problem-solving. Authentic assessment involves the social environment of human beings and their cultural background. Therefore, sociological theories and methods can be used to analyze and understand the influence of social factors such as group behavior and traditional practices on authentic assessment. Collaboration and group work are essential in many authentic assessments, but students may encounter challenges when working in groups. Traditional practices may also influence student perceptions of assessment. These are the challenges teachers and researchers expect to find scientific resolutions.

Research on authentic assessment has yielded key findings that demonstrate its validity. Research by Kearney has shown that authentic assessment tasks enhance student motivation, engagement, and self-efficacy by providing purpose and relevance to the learning experience [13]. In addition, research by Razmawaty and Othman has shown that authentic assessment promotes higher-order thinking skills such as analysis, synthesis, and evaluation, which are critical for contemporary workplace success [14]. Authentic assessment is found to be effective in promoting the learning and cognitive development of students. Due to its complexity, still, more questions about authentic assessment in the constantly changing context of teaching and learning are to be answered.

4. Authentic assessment applied to EFL education

Since EFL education stresses the practical application of the English language, the implementation of authentic assessment in EFL education is considered inevitable [15] to meet some requirements from real-life contexts. This is because authentic assessment is an evaluation approach that emphasizes real-world tasks, performance-based assessments, or projects to evaluate students’ skills, knowledge, and competencies in practical and realistic contexts.
4.1 Profession requirements

Traditionally, the main form of assessment in foreign language education has been scored tests. The advantage of this format is that it is efficient, provides a clear result, and allows for a quick measurement of student learning. However, it is well known that there are many problems with score-based tests, one of the biggest being that they are not conducive to improving students' foreign language skills and practical application. The writers of this paper had an experiment combining traditional assessment and authentic assessment in classroom teaching. The findings revealed that although the questions became more complex to facilitate quick measurement, the test still did not fully simulate a real language communication situation. In contrast, authentic assessment measured students' foreign language proficiency, cultural awareness, and communicative competence with the help of real communication situations. In the interviews for qualitative data collection, some teachers stressed the importance of authentic assessment in terms of globalization. Since globalization accelerates and trade liberalization expands, companies are more interested in the practical use of English by their employees, and this type of communication in real situations needs to reflect their English proficiency and thinking skills rather than mechanical skills learned by rote to justify the professional qualification. Therefore, the implementation of authentic assessment in EFL courses helps to provide students with a more profession-relevant educational environment and to develop more comprehensive English skills for them.

4.2 Motivation and willingness requirements

In traditional scored tests, students may tend to focus on memorization and technique when taking the test, so they may not truly master English language and communication skills. Tasks in real-life situations, such as producing a podcast for social media platforms, presentations to an audience, and customer receptions, arouse students' enthusiasm and interest and stimulate their willingness to actively participate and practice. Sridharan and Mustard [16] suggested over a hundred different authentic assessment tasks in eight assessment dimensions. Teachers still have to design the tasks based on the specific teaching contents and objectives, etc. The research by the writers of this paper found tasks that allowed the most freedom for students to involve and display their potential were the most effective, including questionnaire composing and analysis, interviewing on specific topics, and group discussion.

4.3 Requirements of integrative nature of language use

Authentic assessment not only encourages students to use English more often to communicate in authentic contexts but also helps them to develop a clear understanding of their learning goals and to develop individualized learning strategies. In context-based tasks, students must use different skills to achieve the goals of the task. Moreover, through authentic assessment, teachers can provide targeted feedback based on students' learning performance so that they can more effectively improve their English language skills.

Authentic contextual communication requires not only phonological or grammatical knowledge alone, but a comprehensive set of competencies, such as judgment of communication strategies and analysis of communicative intentions. This requirement reflects the ultimate goal of foreign language teaching which is the acquisition of fluent, accurate, and appropriate speaking and writing skills. When students need to use their foreign language skills to solve real-life problems, they have to utilize a variety of abilities to accomplish the task. This contextual training can promote their overall language competence and development, thus enabling them to substantially enhance and apply their language skills in practice. Through this practical experience, students’ language proficiency can continuously improve, allowing them to better adapt and integrate into society. Therefore, practice can help students utilize their foreign language knowledge and skills more effectively to solve real-life problems, while also helping them subconsciously improve and develop their language abilities.

5. Conclusion

In conclusion, authentic assessment offers a scientific framework for promoting deep learning, higher-order thinking, and real-life application of knowledge and skills. Its implementation in EFL courses is justified by its potential to enhance the accuracy and validity of the evaluation, promote intercultural understanding, and develop transferable skills that are highly valued in the labor market. Teachers are responsible for preparing their students for the challenges of the 21st century, and adopting authentic assessment practices is one effective means of achieving this goal. Due to the differences in teaching content, teaching methods, the language proficiency of students, teaching facilities, etc., the teachers are responsible for designing the tasks and rubrics whose validity and efficiency could be verified and which can extensively enhance the comprehensive language proficiency of students. Designing authentic assessment tasks and rubrics is not uniform or simple. The underpinning theory, the taxonomy of knowledge, the varied teaching contents, etc. are all factors to be considered in designing the tasks and assessing rubrics, which needs further study and exploration.

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