

STEAM APPROACH TO THE DEVELOPMENT OF FUTURE PRESCHOOL TEACHERS' ENGLISH LANGUAGE SKILLS

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Annotation

This article discusses the STEAM approach in developing future preschool teachers' English language skills. The STEAM approach integrates Science, Technology, Engineering, the Arts, and Mathematics in teaching and learning. The research included 30 third-year students from a pedagogical university in Kazakhstan. The study found that the STEAM approach was effective in increasing the English language proficiency of the students, as it provided a more engaging and interactive way of learning. This paper highlights the importance of adopting a STEAM approach to language education for the benefit of future teachers and their future students.

Keywords

STEAM, English language skills, preschool teachers, teaching and learning, pedagogy.

INTRODUCTION

With the rise of globalization, the importance of the English language has become more evident, particularly in education. In the field of pedagogy, the ability to speak, read, and write in English is essential, and one cannot overstate the significance of the teacher's role in improving students' English language proficiency. In today's education, dynamic and interactive techniques are necessary to improve language skills. STEAM is one such approach that has been gaining popularity in education, and it has been found to be effective in different spheres of learning. The main goal of this paper is to explore the effectiveness of the STEAM approach in developing future preschool teachers' English language skills using a qualitative research design.

MAIN PART

STEAM education has become quite popular as an innovative and interdisciplinary method of teaching and learning. The integration of Science, Technology, Engineering, the Arts, and Mathematics in the pedagogical method has gained traction in many education systems worldwide. However, in language education, the adoption of STEAM remains unclear. This study investigates the

effectiveness of STEAM in developing the English language skills of future preschool teachers.

The study involved 30 third-year students from a pedagogical university in Kazakhstan enrolled in the primary education program. The students participated in a six-week STEAM program that integrated STEAM components to enhance their English proficiency. The approach focused on themes relevant to education, including the life cycle of a plant, building structures, music and arts, mathematics and patterns. The lessons were conducted in English, and the program included interactive and engaging methods using storytelling, games, puzzles, group discussions, songs, and art activities.

The study results showed that the STEAM approach was effective at improving the English proficiency of the participants. Before the program, the participants rated their English abilities as satisfactory, but after the six-week STEAM program, their proficiency and confidence in the language increased. The program's activities involved critical thinking and problem-solving skills, which helped the participants develop their cognitive capabilities. The effectiveness of the STEAM approach in language teaching and learning lies in its interactive and engaging aspects.

The integrated and interdisciplinary approach of STEAM has proven to be useful in promoting learning and development in young children. However, it has not been explicitly used in language education for teachers, and its effectiveness in this aspect remains uncertain. The study uses a qualitative research design that includes 30 third-year students who were enrolled in the primary education program of a pedagogical university in Kazakhstan. The study was conducted using a six-week program that integrated STEAM components in teaching English to the study participants.

The STEAM approach used in the teaching of English was designed using themes that were relevant to the field of education and inculcated the STEAM components. Examples of these themes that were taught using STEAM are:

- The life cycle of a plant – based on science
- Building structures – based on technology and engineering
- Music and arts – based on the arts
- Mathematics and patterns – based on mathematics

All lessons were conducted in English, and the program included different methods such as storytelling, games, puzzles, group discussions, songs, and art activities.

The findings of the study indicated that the STEAM approach effectively improved the English proficiency of the participants. Before the program, the participants rated their English abilities as adequate, but after the six-week STEAM program, their proficiency and confidence in the language increased. Interviews with the participants revealed that they found STEAM-centered activities to be more engaging, interactive, and fun, and this made learning English more interesting for them. Furthermore, the activities used in the program helped the participants develop critical thinking and problem-solving skills.

RESULTS AND DISCUSSIONS

STEAM is an alternative approach to traditional teaching. At the same time, children learn Science, Technology, Engineering, Art and Mathematics based on interdisciplinary connections and practical approaches. STEAM allows children to carry out project and research activities in and out of preschool. STEAM education is developed in America. Some schools decided to integrate the natural sciences, technology, engineering skills, and mathematics to track the subsequent activities of their graduates, thus giving rise to the STEM (Science, Technique, Engineering and Math) system. Later, art was added to it, and now STEAM was formed to the end. According to educators, the knowledge gained in these disciplines will help children to become highly qualified professionals in the future. The basic idea of the STEAM approach is that practice is as important as theoretical knowledge. At the same time, children have to use not only their minds but also their hands in the learning process. The main feature of the STEAM approach is that children use their minds and hands to effectively learn most subjects, and "acquire" knowledge independently. Children experiment with learning, design models, create music and movies independently, build robots, that is, implement their ideas and create products. Today's world is not like yesterday, and tomorrow will not be like today! In the STEAM learning environment, children can apply their knowledge in practice as they grow up, and when they face a variety of real-life challenges, such as environmental pollution, climate change, and other complex issues. they understand that in order to solve, they need to rely only on their own knowledge and work together in different fields of science. It is not enough to rely on knowledge in one discipline. Therefore, the STEAM approach is also a way of thinking.

Today, STEAM education is evolving as one of the major trends in the world and is based on the integration of five areas into a single curriculum in the application of a practical approach. The conditions for such education are its continuity and the development of children's ability to interact in groups so that

they can gather ideas and exchange ideas. Therefore, the core curriculum includes modules for developing logical thinking, such as Lego technology and children's research.

CONCLUSION

In conclusion, the STEAM approach is an effective method in language education for future preschool teachers. The approach provides an engaging and interactive way of learning that can cater to the different learning styles of the students to develop their English proficiency. This study's findings highlight the need for STEAM integration in language education programs, as it could benefit prospective teachers and their future students. Adopting STEAM in language education for teachers should be considered an innovative way of improving teaching quality.

The study concludes that the STEAM approach is an effective method in teaching and learning English language skills for future preschool teachers. The approach provides a more engaging and interactive way of learning that addresses the different learning styles of the students. This method may be applied in other fields of teaching and learning languages. The study thus proposes that teacher education institutions consider incorporating STEAM components in the curricula of prospective teachers as a way of improving their language proficiency and their ability to better teach their future students.

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