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instructor

Ivan Kozhedub Kharkiv National Air Force University

<https://orcid.org/0000-0002-5080-0116>

FEATURES OF INFORMATION TECHNOLOGY FOR THE BLENDED LEARNING APPROACH USED IN A PROCESS OF AVIATION ENGLISH ACQUISITION BY STUDENTS

The process of aviation English teaching using information and communication technologies with the implementation of the blended learning educational approach is considered as an object of study. To increase the efficiency of the aviation English teaching the blended learning educational approach using the information and communication technologies has to be introduced into the university's learning process. Research methods are based on the collection, analysis and justification of data on the implementation of blended learning innovative learning technology with the help of information and communication technologies. Analysis of the existing regulations, standards and requirements of the International Civil Aviation Organization with the regards on recommended methods and approaches to aviation English teaching is presented. The experience of the implementation of the blended learning approach in appropriate educational institutions has been considered. Scientific and methodological recommendations for the aviation English teaching process through the introduction of the blended learning approach into the university's educational process are given. The notion and term "blended leaning" have emerged from the research as a kind of educational strategy. It based on information and communication technologies and supplements traditional learning. The main idea behind blended learning is to combine the best features of two environments: educational – from one hand, and information and communication – from the other. Rapid innovations have a great potential and make instructors to use technologies in education in a confident and secure way. Special tasks, things that are included in aviation English standards for language proficiency characterize language training in aviation. Conditions for aviation English use, individual and professional features that differentiate such learning from English language training in any other sphere of activity or interest or a particular branch of study are also considered as a specially tailored or designed tasks, materials, exercises. This work has studied, examined and structured a great quantity of documents, books, materials. All of them used to provide evidence in research. Aviation English acquisition has not been payed attention enough taking into consideration the use of information technologies in a blended learning approach.

Key words: teaching, approach, higher education, methodology, foreign language.

1. INTRODUCTION

Formulation of the problem. Instructors use information and communication technologies in education and training process of aviation English acquisition to improve aviation engineering students' success. Blended learning approach have proven to be one of the most popular technologies today as it allow trainer, coach, tutor or instructor to take advantage of the flexibility and convenience of the aviation English acquisition process and the benefits of traditional classroom activities. Blended learning approach is all about purely mechanical approach to mix or combine different forms of learning. The aviation engineering students' success of aviation English acquisition is defined in terms of the intended learning outcomes. This paper provides an examination of information technology usage features for the blended learning to recognize what students have achieved after each semester, course, module, task or activity.

Analysis of recent research and publication. According to the regulations on the issuance of certificates to aviation personnel adopted by

the International Civil Aviation Organization on 27 November 2003, starting from 5 March 2008, pilots of airplanes and helicopters, air traffic controllers and airline maintenance operators must be able to communicate in aviation English and understand it at the fourth working level from six identified, because the fourth level is minimally sufficient for the language support of both international flights and aircraft maintenance. The working level involves effective communication on general, specific and work-related topics. The content of special documents of the International Civil Aviation Organization allows in the system of professional training of aviation specialists to substantiate the basic requirements for the orientation, essence, methods of teaching aviation English. Nowadays, teaching aviation English remains an unregulated area of professional activity. Language training in aviation is characterized by specific tasks, content, criteria for language proficiency, conditions for its use, as well as personal and professional characteristics that distinguish this training from language learning in any other field of human activity.

Also, in order to assist the aviation community in selecting and choosing the proper higher institutions of aviation English language education services and establishing appropriate standards of good practice governing their activities, a number of sources have been analyzed and systematized.

Thus, in recent studies and publications the information technologies for blended learning approach were not taken into consideration regarding to aviation English acquisition. Learning of aviation English should begin with learning of a plain English language as it happens with learning of any other language for specific purposes. But this approach has not been used before and still not used in many higher vocational educational institutions. Due to the students' low-level knowledge of general English, many phrases containing information about various failures of aircraft and ground equipment and systems were simply memorized. The next major shortcoming of aviation English acquisition was the almost complete lack of qualified instructors or professionals. Concomitant factors of the drawback of the learning process were outdated teaching methods, poor motivation of the students or its complete absence.

The objective of this work is to justify that the traditional learning process of aviation engineering students can be enhanced at every stage of aviation English acquisition by different ways of using information and communication technology used for the blended learning approach.

2. RESEARCH RESULTS

Blended learning as an educational technology can change and transform the whole process of aviation English acquisition. Some additional efforts are needed from both instructors and students. Usage of information technology for the blended learning approach is a revolutionary transformation model which gives a new impulse to the qualitative development of education. It is more effective, more accessible than the traditional learning process and has a personal approach. Over time it can eventually redesign and enhance the traditional teaching methods.

Information and communication technology have absolutely changed the way instructors teach the aviation English. The process of acquisition of new language items became more enjoyable, interesting and motivating. Nowadays digital solutions such as Power Point Presentations, Quizlet, Smart board etc. For example, lesson can be started as an instructors' presentation in a traditional learning design as a poster with the helicopter's parts. Then students write down all the new lexis into their copybooks. After that, the practice stage of the lesson, with the different kind of vocabulary activities, helps students to develop the accuracy of the aviation English terminology usage. The blackboard, copybooks, textbooks and workbooks can be used. Next the production stage starts to develop fluency of the new items

of vocabulary usage. Picture descriptions, making a conversation and poster production can be the learning outcomes. It is traditional or conventional learning design of the lesson. This way of teaching and learning can be enhanced at every stage by different ways of using technology. Blended learning design of the lesson means embedding technology wherever it is appropriate. Intended learning outcomes from such approach overwhelming. The technology enhanced lesson of aviation English on the topic "Helicopter structure" could start with the online activity "On your own: find out about the helicopter structure". Then "Read, watch and listen" brings the variety of information and data about the object. After that "Collaborate", "Discuss", "Investigate", "Practice" and "Produce" lesson plan's stages help substantially meet the learning outcomes and boost the students' experiences. Blended learning enhance teaching and learning activities and supports the students' success. It really makes the difference doing the vocabulary test on the "Helicopter structure" in Quizlet Application. Results from the automated tests are more motivating. The case study shows how practical activities with interactive technology can help understand the operations vividly. Although the lack of monitoring and feedback sometimes turns the lesson into a 'feed-in' session only, there must be a peer-feedback too, which is also essential. Students should be given corrective feedback, which could have been enhanced and supported by technology. Discussion forums, padlets, e-portfolio work, reflective e-journals, e-peer feedback, e-self checklists, online tutorials and virtual office hours, online quiz help instructors to keep record of the students' learning progress and serve as formative assessment. Instructors keep the summative assessment which encourage students to be active participants in their own learning process. As a result, evidence of learning can be recorded in a formative or summative way. Instructors ask students questions before and after each activity to check their understanding of the theory and its practical application. This check to ensure students what they are learning as they move through the lesson. It could get them to say what they have learned at the end of the lesson.

Students are subjected to continual assessment with the help of information technology as a blended learning approach over a whole aviation English learning program. They are assessed on specific pieces of work, scenario-based activities and exams. The main point of the blended learning is the ability to identify those struggling, or perhaps needing assistance, and adding differentiation to those who need pushing further. Having a set of lessons with embedded blended learning is a great idea. So formative assessment enhanced with information and communication technology can identify and meet the individual needs.

For example, social education network Edmodo which helps connect all learners with the instructors and resources to meet the learning outcomes and reach their full potential can grade students' works and show results in percentage or a bunch of points. This is a practical tool for learning at a distance, in person or anywhere in between. Research shows 30 percent better results of the aviation English acquisition using blended learning approach than traditional learning or in class design. It happens because all the learning resource was available online supporting learners beyond the classroom. So, they could do self-directed learning to enhance their basic skills without the teacher being present.

Video materials embedded into blended learning design of teaching could be feasible for introduction, for example, the main process of aircraft maintaining. This enables the students to get real hands-on experimentation immediately with the task. They can make their own video with the same manipulations and comments which they would be assessed upon later. This is a great opportunity to be involved in active participation rather than listening passively the theory or as the instructor demonstrated. Research work made on a video materials usage during the blended learning design of teaching demonstrates that even for the practical courses like aviation English a great mixture of the face-to-face and information and communication technology can be used. It also showed how serious the learners are interacting together and with the blended materials. The instructor had the direct access to students' work. The technology used made enable the educator to identify evidence of learning.

3. CONCLUSIONS

Studying the features of information technology for the blended learning approach used in the process of aviation English acquisition by the aviation engineering students shows how blended learning can give instant results and allows the instructors to record appropriate information immediately. An important advantage of embedding the blended learning approach into learning process is that it can assist students to learn aviation English anytime and anywhere. Also it allows students to access appropriate content in their own time at their own pace.

As a famous proverb says: "Tell me and I forget, teach me and I remember, involve me and I learn". It describes the evidence of how information and communication technology optimizes learning via the usage of blended learning approach as well as giving the students the chance to experiment the new knowledge before putting it into practice in the real world. And it also provides the instructor with the observation of the learning process, efficient monitoring and the feedback on the spot. It was explored, saved and tracked all the formative and summative assessment data that could be an easy evidence of how technology can foster independent learning in our students.

The pedagogical implication of the blended learning approach used in the process of aviation English acquisition by aviation engineering students reinforces current practices for incorporating technology to enhance the benefits of traditional learning.

As the directions for further research using of robotics in education would be the great idea.

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Денисова С. В. Особливості використання інформаційних технологій для змішаного навчання в процесі оволодіння студентами авіаційною англійською мовою

Процес викладання авіаційної англійської мови з використанням інформаційно-комунікаційних технологій із реалізацією змішаного навчального освітнього підходу розглядається як об'єкт дослідження. Для підвищення ефективності викладання авіаційної англійської мови в навчальний процес університету має бути впроваджено змішаний навчальний підхід із використанням інформаційно-комунікаційних технологій. Методи дослідження засновані на зборі, аналізі та обґрунтуванні даних про впровадження інноваційних технологій змішаного навчання за допомогою інформаційно-комунікаційних технологій. Представлено аналіз існуючих норм, стандартів та вимог Міжнародної організації цивільної авіації з урахуванням рекомендованих методів та підходів до авіаційного викладання англійської мови. Розглянуто досвід впровадження підходу змішаного навчання

у відповідних навчальних закладах. Надано науково-методичні рекомендації щодо навчального процесу авіаційної англійської шляхом впровадження підходу змішаного навчання в навчальний процес університету. Поняття та термін «змішане схильність» з'явилися в результаті дослідження як свого роду освітньої стратегії. Він базується на інформаційно-комунікаційних технологіях та доповнює традиційне навчання. Основна ідея змішаного навчання полягає в поєднанні найкращих рис двох середовищ: освітньої – з одного боку, та інформаційно-комунікативної – з іншого. Швидкі інновації мають великий потенціал і змушують викладачів використовувати технології в освіті впевнено та безпечно. Спеціальні завдання, й всі ті матеріали, що включені до стандартів володіння авіаційною англійською мовою, характеризують мовну підготовку в авіації. Умови використання авіаційної англійської мови, індивідуальні та професійні особливості, які відрізняють таке навчання від засвоєння англійської мови в будь-якій іншій сфері діяльності чи інтересів або у певній галузі навчання, також розглядаються як спеціально підібрані або розроблені завдання, матеріали, вправи. У цій роботі було вивчено, досліджено та структуровано достатню кількість документів, книг, матеріалів. Всі вони були використані для забезпечення доказів у дослідженні. Приділено недостатньо уваги оволодінню авіаційною англійською мовою з урахуванням використання інформаційних технологій у змішаному навчанні.

Ключові слова: викладання, підхід, вища освіта, методологія, іноземна мова.