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INTRODUCING ACTIVE LANGUAGE LEARNING TECHNIQUES INTO A VIRTUAL CLASSROOM: REFLECTION ON THE AMERICAN PRACTICES

ABSTRACT

The paper considers American active learning (AL) practices that can be used in a virtual language learning classroom in Ukrainian higher education institutions to encourage students' engagement, collaboration and evaluate their performance. The authors study the concept of AL, its main techniques and peculiarities of application; outline technologies and tools that have the potential to influence active language learning (ALL) in a virtual classroom; define the techniques that can be used to promote ALL in a virtual classroom (polls and surveys, discussions and forums, case studies, interactive lectures, simulations and games, collaborative projects, personalized learning).

Particular attention is paid to online AL strategies applied by Columbia University and Cornell University (USA). Here belong Online Polling, Think-Pair-Share, a Minute Paper, Small Group Discussion and Short Student Presentation strategies, each of them requiring appropriate online learning platforms, services and tools for its effective implementation. They include Zoom videoconferencing platform with its breakout rooms, polling, screen sharing, whiteboard and nonverbal feedback features, Poll Everywhere, CourseWorks Quiz, Canvas Quiz features, collaborative online tools such as LionMail (Google) Docs, Sheets, Slides, etc. Another important issue considered in the paper is assessment and evaluation of students' progress in AL.

Assessment techniques used in Cornell University comprise Grading Rubrics, plagiarism detection, self-assessment, peer assessment, surveys and classroom polling. In this context, Canvas Rubrics, Canvas Assignments, FeedbackFruits, Gradescope, Qualtrics, Turnitin can be used as effective assessment tools. The authors conclude that the main advantages of ALL are its flexibility, collaborative learning opportunities, customization options, access to online resources while its challenges involve lack of face-to-face interaction, technical difficulties, high pricing plans for some online services and tools, variety of distractions such as social media, email, or other online activities, and limited learning environment.

Keywords: *active language learning, virtual classroom, active learning technique / strategy, online learning platforms / tools, assessment.*



ВПРОВАДЖЕННЯ ТЕХНОЛОГІЇ АКТИВНОГО НАВЧАННЯ МОВИ У ВІРТУАЛЬНОМУ ОСВІТНЬОМУ СЕРЕДОВИЩІ: АМЕРИКАНСЬКИЙ ДОСВІД

АНОТАЦІЯ

У статті розглядається американський досвід активного навчання (АН), який може бути використаний у віртуальному освітньому середовищі для вивчення мови в українських закладах вищої освіти з метою заохочення студентів до взаємодії, співпраці та оцінювання їх успішності. Автори досліджують поняття АН, його основні прийоми та особливості застосування; характеризують технології та інструменти, які можуть впливати на активне навчання мови (АНМ) у віртуальному освітньому середовищі; визначають ефективні методи АНМ онлайн (опитування, дискусії та форуми, тематичні дослідження, інтерактивні лекції, симуляції та ігри, групові проекти, персоналізоване навчання). Особливу увагу приділено стратегіям АН онлайн, які застосовуються Колумбійським і Корнельським університетами (США). Сюди входять стратегії онлайн-опитування, обговорення у парах, однохвилинної письмової роботи, обговорення в малих групах, короткої презентації. Кожна з них потребує відповідних навчальних онлайн-платформ, сервісів та інструментів для її ефективного впровадження, а саме: платформи для відеоконференцій Zoom з функціями розподілу на «сесійні зали», проведення опитувань, невербального зворотнього зв'язку, трансляції екрана та інтерактивною дошкою; засобів для онлайн-опитувань на зразок Poll Everywhere, CourseWorks Quiz, Canvas Quiz, онлайн-інструментів для колаборативного навчання, таких як LionMail (Google) Docs, Sheets, Slides. У статті також розглядається проблема оцінювання успішності студентів під час АН. Досліджено методи оцінювання, які використовуються в Корнельському університеті: рубрики оцінювання, перевірка на плагіат, самооцінювання, взаємооцінювання та онлайн-опитування. У цьому контексті ефективними інструментами оцінювання є Canvas Rubrics, Canvas Assignments, FeedbackFruits, Gradescope, Qualtrics та Turnitin. Автори роблять висновок, що основними перевагами АНМ є його гнучкість, колаборативність, індивідуалізація, доступ до онлайн-ресурсів, тоді як його недоліки полягають у відсутності очної комунікації, технічних труднощах, високій цінній політиці для використання окремих онлайн-сервісів та інструментів, ймовірність відволікань на соціальні мережі, електронну пошту тощо, а також обмеженість навчального середовища.

Ключові слова: активне навчання мови, віртуальне освітнє середовище, технологія / стратегія активного навчання, онлайн-платформи / інструменти навчання, оцінювання.

INTRODUCTION

Working in a virtual classroom has become a norm in higher education due to the shift towards remote learning as a result of the COVID-19 pandemic and Russian aggression against Ukraine. Virtual classrooms offer a unique opportunity for teachers and students to interact and learn in a digital space. Successful teaching in a virtual classroom requires establishing clear communication channels, creating a structured learning environment, encouraging student engagement, using technology to enhance learning, building a sense of community, and supporting student well-being in condition of stress or anxiety.



Moving class sessions to a virtual classroom gives new opportunities for active learning and student participation. By incorporating active learning techniques into online classes, instructors can improve learner engagement, retention, and comprehension, leading to better learning outcomes.

THE AIM OF THE STUDY

The aim of this paper is to study American practices and suggest the effective active learning techniques that can be applied in a virtual language learning classroom in a higher education institution.

THEORETICAL FRAMEWORK AND RESEARCH METHODS

The active learning methodology is deeply rooted in constructivist learning theory which suggests that students learn by connecting new information and experiences to their prior knowledge and experiences. It allows building (constructing) new knowledge and understandings (Bransford et al., 1999).

Active learning is generally defined as activities that students do to construct knowledge and understandings. These are various types of such activities, but all of them require students' higher order of thinking. An important, though not always explicitly noted, element of active learning is metacognition. That is students' thinking about their own learning which provides the link between activity and learning (Brame, 2016).

Thus, active learning is a teaching method that engages students in the learning process by giving them a more active role in their education, encouraging them to participate in the discussion, ask questions, solve problems, and share their ideas with others. The main goal of active learning is to develop critical thinking, improve problem-solving skills, and foster a deeper understanding of the subject matter. The majority of studies prove that active learning positively impacts students' attitude and learning as they comprehend and remember new material better (Hyun et al., 2017).

The most commonly used active learning techniques (methodologies) have been profoundly analysed by Ch. Mercat. The list of them includes Flipped learning, eduScrum, Pause and Share, Think-Pair-Share, Case Studies, Jig-Saw, Peer-Review, Post-it Parade, Affinity Cluster, Card Ranking, Dotmocracy, Snowball, "Respond, React, Reply", Memory Game, Round Table, Complete Turn Taking, Fishbowl, Think Aloud, Each One Teach One, Group Text Reading, Debates, DeBono's hats, Pro-Con Grids, Consider All Factors, 2x2 Matrix, Line-up, Fist to five, Quescussion, Index Card Pass, 1-Minute Papers/Reflections, Six Serving Men, Ask 3 before me, Stick Debate, Numbered Heads, Appreciation, 5 seconds Rule, PALPaR, Revolving Circle, SCAMPER, Parking Lot (Mercat, 2022).

Many active learning techniques involve group work where students are arranged in small groups (Cooper et al., 2000; Lumpkin et al., 2015). Some instructors prefer to combine lectures with active learning activities. Incorporating group work in the classroom does not mean that the class must be lecture-free (Cavanagh, 2011). One more way to engage students in the active learning process is to provide formative assessment opportunities. In this case active learning techniques can be a foundation for evaluation and feedback to fulfill formative assessment conditions (Adkins, 2018).

A. W. Bates singles out four emerging technologies which have the potential to influence teaching and learning techniques in a virtual classroom: social media, serious games, immersive technologies and artificial intelligence. Thus, social media have a variety of possible applications enabling students to produce their own work and take part in collaborative activities at a distance. Serious games and immersive technologies (virtual



and augmented reality) can develop higher order learning skills such as problem solving, analysis, intuitive thinking, creative thinking, as well as affective skills, such as empathy. Artificial intelligence can focus on boosting learners' comprehension and understanding to provide teachers with free time on the development of higher order cognitive skills necessary in a digital age. The above mentioned technologies are not separate and should be integrated (Bates, 2022).

Furthermore, applying the right tools, it is possible to create an engaging and interactive virtual classroom for effective active learning practice. They include: video conferencing tools which allow teachers to conduct live classes, interact with students, share screens, and use virtual whiteboards (Zoom, Google Meet, Microsoft Teams, Skype); learning management systems (LMS) – online platforms that allows teachers to create and manage course content, track student progress, and communicate with students (Moodle, Blackboard, Canvas, Schoology); screen recording and sharing tools which enable teachers to record their screen and share it with students (Camtasia, Snagit, Screencast-O-Matic, Loom); interactive whiteboards that allow teachers to write, draw, and manipulate objects in real-time (Microsoft Whiteboard, Google Jamboard, SMART Notebook); virtual reality tools that can be used to create virtual field trips, simulations, and interactive games (Google Expeditions, Nearpod VR, CoSpaces Edu); collaboration tools which allow students to work together on projects and assignments (Google Docs, Slack, Trello, Asana).

RESULTS

Online active learning has become increasingly popular in universities across the United States due to its flexibility and convenience. Online platforms often offer a range of features that can enhance active learning, such as real-time polling, breakout rooms for group work, and multimedia resources. Many universities in the United States have embraced online active learning as a key component of their educational offerings. For example, the University of California offers a range of online courses and degree programs that emphasize active learning, including interactive simulations, virtual labs, and collaborative projects. Stanford University is famous for launching its famous Coursera MOOC startup in 2012. Coursera has grown to become one of the most popular and well-respected online learning platforms in the world featuring a range of courses and specializations from top universities and institutions around the world that emphasize active learning and engagement. Other universities are experimenting with innovative approaches to online active learning. For example, Arizona State University has developed a platform called ASU Sync, which allows students to participate in live online classes that feature real-time discussions, collaborative projects, and other interactive activities. The University of Maryland has developed an online platform called ELMS-Canvas, which provides a range of tools and resources for active learning, including discussion boards, multimedia resources, and collaborative assignments.

There are many different strategies that are used to promote active language learning in a virtual classroom. Polls and surveys are effective ways to gather information from learners. They can be used to assess learners' understanding of a topic, and gather feedback on course content. Discussions and forums provide a platform for learners to interact with each other and the instructor, share ideas, ask questions, and receive feedback. Case studies are real-world scenarios that are presented to learners for analysis and discussion. Interactive lectures can include activities such as vocabulary and grammar quizzes, polls, and discussions. Simulations and games provide learners with an engaging and interactive environment to practice language skills. Simulations encourage students to



use language in a context that is relevant to their daily lives. Collaborative projects are group assignments that require students to work together to complete a task. They can be used to promote teamwork, communication, and problem-solving skills. Personalized learning is an approach that tailors the learning experience to the individual learner's needs and preferences. It can include adaptive learning technologies, personalized learning paths, and individualized feedback to promote engagement and retention.

Having studied the practices of active learning in an online classroom implemented by Center for Teaching and Learning in Columbia University (USA) and Center for Teaching Innovation in Cornell University (USA) we came to the conclusion that their strategies are appropriate for active language learning as well. Let's consider these strategies.

1. Polling strategy. Polling is a fast and easy technique to ask questions and collect responses from students, either anonymously or with identifying information. These responses are then shared with the class to encourage discussion and reflection on the topic. Here are some ways online polling can be used for active language learning in a virtual classroom:

- pre-assessment: to evaluate students' prior knowledge and understanding of a topic. This information can be used by teachers to tailor their lessons and teaching methods to meet the needs of their students;
- check for understanding: this helps teachers to quickly identify areas where students may need additional support or clarification;
- feedback and evaluation: teachers can use this feedback to modify their teaching methods or adjust the course content to better meet the needs of their students;
- collaborative learning: teachers can create a poll that asks students to share their perspectives on a topic, and then use the results to facilitate a discussion;
- a part of the gamification technique: to promote engagement and motivation. For example, teachers can create polls that award points or badges to students who provide correct answers or demonstrate a deep understanding of a topic.

Online tools to conduct polling are the following:

Zoom polling feature allows teachers to create polls that students can respond to during a live session. Once the poll is created, a teacher can launch it during the session, and students can respond by selecting the answer they believe is correct.

Poll Everywhere is an audience response system, a web-based platform that allows teachers to create and administer polls, surveys, and quizzes in real-time. The platform is versatile and can be used in a variety of online teaching settings, from live virtual classrooms to asynchronous online courses.

CourseWorks Quiz is a feature available within the CourseWorks learning management system. The platform offers a range of question types, including multiple choice, true/false, short answer, and essay questions. CourseWorks Quiz also allows teachers to set time limits for quizzes, randomize question order, and use question groups to create multiple versions of a quiz.

Canvas Quiz is a feature of Canvas learning management system used to create and administer online quizzes and surveys, conduct and moderate exams and assessments, both graded and ungraded. There are four types of quizzes in Canvas: graded quiz, practice quiz, graded survey and ungraded survey.

2. Think-Pair-Share strategy. This is a collaborative learning strategy that can encourage students to engage in active language learning by providing opportunities for



reflection, discussion, and peer-to-peer feedback. This strategy involves three stages: thinking, pairing, and sharing.

During the first stage a short problem, scenario or question is given to students to think through independently for about 30-60 seconds. This phase encourages students to analyze and process information and form individual ideas and opinions. In an online learning environment, teachers can use various digital tools such as Google Forms, Padlet, or Jamboard to provide prompts and allow students to brainstorm and write their ideas.

The second stage is pairing. Once students have completed their initial thinking, they are paired with a partner to discuss their ideas. This stage is an excellent opportunity for students to learn from each other and broaden their perspectives. Teachers can apply various digital tools to facilitate pairing, such as Zoom breakout rooms, Google Meet, or other video conferencing software. Teachers can also use social media platforms such as Twitter or Facebook to create discussion groups where students can pair up and exchange ideas.

The final stage is sharing. Students are given the opportunity to share their ideas and feedback with the rest of the class. This stage allows for a collaborative discussion where all students can learn from each other and build on their ideas. Digital tools that can be used to facilitate sharing in real-time are Flipgrid and Google Slides. Tools preferred by Columbia University instructors are Zoom's Share Screen (or Whiteboard) and Breakout Rooms features.

Alternative pair-work strategies are Note-Taking Pairs (working in pairs to improve individual class notes), Three-Step Interview (working in pairs, interviewing each other in turns and reporting what was learned to another pair) and Peer Instruction (answering a poll question individually, pairing up to explain the rationale and answering the poll question again).

3. A Minute Paper strategy. This strategy involves asking students to take one minute to write down their thoughts and ideas in response to a specific open-ended and thought-provoking question or prompt related to the course material. Instructors can create discussion forums, use Poll Everywhere (or other online polling tool) and Zoom's Share Screen feature to facilitate this process. They can choose to have students share their responses with the class or collect the responses and use them to guide future discussions or assignments.

The strategy provides a quick and easy way for instructors to assess student understanding of course material and can help identify areas where students may be struggling. By giving students a brief opportunity to reflect on course material and share their thoughts with their peers, instructors can create a more engaging and collaborative learning environment that promotes critical thinking and deep learning.

Alternative strategies to use with the same aim: What's the Problem (categorizing example problems according to the principles and strategies necessary to solve them) and Muddiest Point (sharing responses to the prompt "What was the muddiest (most confusing) point in ...?").

4. Small Group Discussions. This strategy involves dividing students into smaller groups and assigning them a specific task or topic to discuss together. Instructors can create breakout rooms or use an online discussion forum. There is a possibility to assign groups or allow students to self-select groups. It's important to provide clear instructions and guidelines for the discussion, including the task or topic to be discussed, the length of the discussion, and the expected outcomes. During the discussion, students can share their ideas, perspectives, and insights with their peers, providing feedback and engaging in



critical thinking. Online tools that can be applied to ensure students' interaction are collaborative documents (LionMail (Google) Docs, Sheets, Slides) and Zoom's Nonverbal Feedback feature that allows students to express opinions by clicking on icons. Instructors can monitor the discussions and provide guidance or feedback as needed. After the discussion, the groups can report back to the class with their findings or insights.

Alternative strategies include Test-Taking Teams (working in small groups to prepare for a test, taking it individually and submitting responses, then retaking the test in small groups and working to find consensus on responses), Jigsaw (working in small groups each becoming an expert in a certain topic, forming new groups with at least one expert on each topic, teaching peers the topic of one's expertise).

5. Short Student Presentations. This strategy enables students to participate in peer instruction, synthesize and communicate their knowledge. Students are assigned to study a certain issue of interest that is relevant to the course topic or work on a problem on their own out of class and then present their research results during an upcoming online session. It gives students the opportunity to link course content with their individual interests, life experiences and acquire knowledge from their peers.

Alternative strategies to use with the same aim:

– Digital Scavenger Hunt: students are provided with a list of clues or questions related to the topic they are studying, and they must use digital resources to find the answers, create media (images, video clips, audio clips) that best represent the course concepts to share with the class;

– Book Club: students select a number of suggested books on course content and form corresponding book clubs. Each book club presents a final report to the rest of the class, while other students have to identify common themes and differences between the presented books and the books they selected in their own book club;

– Student group presentations: students collaborate in small groups out of class to prepare assigned projects, present their research outcomes during the online session while others have to ask questions and link the presentation to course content (Columbia University, n. d.).

One more important point to consider is assessment and evaluation of students' progress in active learning. In Cornell University, grading rubrics, Canvas Assignments, plagiarism detection, self-assessment, peer assessment, surveys and classroom polling are used in this context (Cornell University, n. d.).

Canvas Rubrics tool is a feature within the Canvas learning management system that provides clear criteria and expectations for an assignment or task, making it easier for both instructors and students to understand what is expected and how performance will be evaluated. Using the Canvas Rubrics tool, instructors can create custom rubrics or use pre-existing rubrics. These rubrics can be attached to assignments, discussions, quizzes, and other types of assessments within the Canvas platform. Canvas Rubrics tool allows instructors to specify different levels of achievement for each criterion and assign point values to each level. This makes grading more objective and transparent, allowing students to see exactly how their work will be evaluated and providing them with clear feedback on their performance.

FeedbackFruits is a platform that can be integrated into Canvas. One of its main features is the ability to create peer feedback assignments. Teachers can set up the assignment and specify the criteria that students should use when providing feedback.



Students can then review each other's work and provide feedback, which can be anonymous or named, depending on the teacher's preference.

Gradescope is an online grading platform that uses AI technology and optical character recognition to recognize and grade handwritten or typed answers. It can be used for assignments that cannot be graded automatically by other tools or require human grading. With Gradescope, instructors can create assignments or exams and upload them to the platform. Once students complete the assignments, instructors can grade them online using a variety of grading options, including rubrics, partial credit, and group grading. The platform provides a user-friendly interface for grading, allowing instructors to view student answers side-by-side and easily input grades and feedback.

Qualtrics is a survey tool that provides a variety of question types, including multiple choice, ranking, matrix, and open-ended questions, allowing users to create surveys tailored to their specific needs. Qualtrics also provides features that make it easy to distribute surveys to respondents. Surveys can be sent via email, social media, or embedded in a website. The platform allows users to create custom reports and dashboards to visualize survey results and track key metrics. It also includes features for analyzing open-ended responses and text analytics.

Turnitin is a plagiarism detection tool used by educators and institutions to ensure academic integrity in written work. The platform compares submitted documents against a vast database of academic and other sources to check for potential plagiarism and provide feedback on originality (Cornell University, n. d.).

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Having analysed online active learning strategies and tools used in Columbia University and Cornell University (USA) we came to the conclusion that they have a number of advantages. Active online learning allows flexibility: students who cannot attend off-line classes can participate in coursework from anywhere with an internet connection, at any time. Online learning tools provide an opportunity for learners to work collaboratively with their peers. This can help foster a sense of community and enhance the learning experience through shared experiences, feedback, and group discussions. Online learning platforms can allow learners to customize their learning experience based on their learning style, interests, and pace. Students get access to a wide range of resources, including multimedia content, online libraries, and other learning tools. This can enhance the learning experience and provide learners with a broader understanding of the course content. Despite many advantages of online active learning, there are also some challenges to implementing this approach effectively. Online learning sometimes leads to a lack of face-to-face interaction between learners and instructors. This can make it difficult for learners to receive personalized feedback or ask questions in real-time, which hinders the learning experience. Technical issues with online learning platforms can cause frustration and disrupt the learning experience. This is especially challenging for learners who are not technically proficient. In addition, some online learning platforms and tools can have high pricing plans. Online learning may be easily interrupted by distractions such as social media, email, or other online activities. This makes it difficult for learners to stay focused and engaged. Online learning platforms can be limited in their ability to provide hands-on, practical learning experiences.

Further research in this field should be done to develop effective techniques for assessment and evaluation of students' performance in a virtual language classroom.



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