



Assessing Virtual Collaborative Learning (VCL) as an Innovative Teaching and Learning Approach: A Case Application in Albania

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Purpose: The purpose of this research is to assess the implementation of a Virtual Collaborative Learning model (VCL) applied at a university level course/module with students of the bachelor cycle in a HEI in Albania.

Study design/methodology/approach: A single descriptive case study design has been used. At the end of the pilot VCL-based course activity deployment, an open-ended survey was conducted, and the response transcripts were analysed and elaborated. Course instructor and E-tutor first-hand observation has been also utilized.

Findings: Data obtained from the survey shows that the implementation of the VCL model alongside its challenges, is generally well-acknowledged and considered a positive experience. Majority of respondents, 93% of the students who participated in the survey highly recommend VCL as a new approach in learning. Communication issues are noticed particularly at first when students are trying to get accustomed to this model.

Originality/value: The expected novelty of this pilot project was the development of the teaching and learning processes through alternative innovative approaches such as through virtual collaborative learning.

Introduction

Before the 1990s in Europe, and beyond, only traditional education—face-to-face learning—was the standard. In 1999, 29 EU nations signed the Bologna Charter where for the first time, a uniformed, standardized, and unified structure for the European university system was created. The strategic mission of HEIs in Europe has been impacted by the Bologna Process, pushing them to prioritise among others student and staff mobility, relevant exchange programs, joint cooperation projects, and scientific research.

The online/remote/virtual models of teaching have gained considerable attention and usage. Also following the Bologna Charter process flexibilities, it is years now that various HEIs have been implementing it successfully. Especially during the Covid-19 pandemic, this model was seen as the most optimal solution for the time being. The idea of online/remote/virtual teaching models has been in the radar of continuous reforms of the higher education system and new approaches among universities of the European Union countries, which later included countries outside the European Union too. Especially since the world was under lockdown because of COVID-19 pandemic, virtual collaboration has resulted to be the most powerful form of communication used that connected, united, brought together, and kept people collaborating with each-other all over the world.

Albania as a country of the former ‘East’, until the early 90s was one of the most isolated countries in the world with a totalitarian communist system, which among all spheres of life impacted the education sector too. From the 90s until today, Albania has undergone developments in its continuous political, economic and social transformations, aiming to embrace models from the developed western countries. Significant changes have also been achieved in the field of education, particularly in changing curricula both in form and content,

affecting various study cycles. These changes in the education sector have brought about the need to introduce new models in both teaching and learning for both teachers and students. Nevertheless, related stakeholders find it challenging to directly incorporate new models without prior awareness raising, professional and technical preparation for the development and realization of such new models.

The purpose of this paper is to assess the implementation of a Virtual Collaborative Learning model (VCL) applied at a university level course/module with students of the bachelor cycle in a HEI in Albania, in the framework of VALEU-X¹ project (<https://valeu-x.eu/>), a project funded by the European Commission. This case study aims also to elaborate on the need for alternative teaching and learning methods to be implemented and used especially in Higher Education Institutions beyond the conventional ones and check on the capacities and infrastructure necessary to implement the Virtual Collaborative Learning approach. The Introduction to Business course is selected for the pilot implementation of the VCL-based teaching and learning approach with freshmen students of the BA Business Informatics study program at EPOKA University. The Virtual Collaborative Learning pilot course is implemented through the Microsoft Teams² platform.

The expected novelty of this pilot project was the development of the teaching and learning processes through alternative innovative approaches such as through virtual collaborative learning. Through this implementation, it was expected that students would gradually adapt not only to the change of format and to the synchronous and asynchronous virtual model of the learning process using Microsoft Teams³ platform, but also to learn and adapt to virtual collaboration and virtual teamworking etc. as alternative forms of collaboration and communication that have a wide usage in the present-day working life. By properly implementing and absorbing the VCL-based teaching and learning process, alongside fulfilling the respective course/module learning objectives, students are expected to pass to another stage of development accompanied by a change in communication and building new relationships. Communication plays a crucial role, not only in acquiring knowledge and educational learning during the teaching and learning process but also in adapting, behaving, and the way of communication that acquires and expresses in students' daily school, family, and social life.

During the last three years under pandemic, everyone was obliged to interact and work together exclusively through online/virtual platforms as the primary means of communication, agreement, and everything else. From pre-school programs to higher education institutions, this virtual approach embraced the entire educational cycle worldwide. In a remarkably short period of time, virtual collaboration, its channels, and the used platforms grew and advanced. It is to be emphasized that given the advantages that virtual collaboration brings about, the VALEU-X project consortium of international partners from Germany, Italy, Slovenia and Albania, on which this case study is based, had been working together to design the project and the innovative teaching and learning approaches it promotes since 2018 and also started to implement the project activities earlier independently from the covid-19 pandemic.

Literature Review

Bologna Process

Until 1999, not only in Albania but also in Europe and worldwide, traditional education was exclusively recognized, where the university system was unique in its kind and the student had

¹ VALEU-X is an Erasmus+ CBHE project www.valeu-x.eu

² Microsoft Teams is a cloud-based team collaboration software part of Microsoft.

to physically attend studies referring to the study programs of their respective university. Until graduation, the programs, curricula, assessments, etc. were discreet and determinative depending on the university. Until 2010, HEIs in Albania offered study programs of complete and unique university studies either in 4 or 5 years, inherited from the pre-90s education system of the country. The reform and changes in the education system came from the decision to implement the Bologna Charter.

In 1999, at the University of Bologna, the Bologna Declaration was signed, legalized, and formalized, which then was voluntarily signed by 29 education ministers of European countries (the original signatories of the declaration). The initiator signers of the Bologna Charter envisioned for the first time the creation and establishment of a joint standardized and unified structure of the university system in Europe. This structure would include the evaluation system (ECTS), quality assurance, curricula, accreditation, mobility of students and academic staff, and administrations between the higher education institutions included in the agreement. Afterward, many other countries, including Albania, agreed to sign the recognition and implementation of the Bologna process in the unification of higher education studies. The Bologna Process over the years has brought new reforms and innovations to countries that have signed up and are following this educational process (Wilson, 2016).

In 2003, Albania signed the agreement for the recognition and acceptance of the Bologna system, while in 2007 the implementation started for the first time in the Albanian university system - where the bachelor studies cycle was applied and the first diplomas of the first cycle of 3-year studies were obtained in 2010. The implementation of the Bologna process in Albania has had its difficulties, criticisms, acceptances, and advantages and disadvantages that have accompanied and are accompanying the process as a whole. In the context of improving the quality and unification of university studies according to the Bologna process - recognition of diplomas, curricula, credits, etc.- recently the main focus is on the modernization of teaching practices and internationalization of universities.

Collaborative Online International Learning (COIL)

Collaborative Online International Learning (COIL) is a hybrid mixed model, through which the learning process can be developed online or combined/hybrid (partially online, partially physically) and applied for special courses and classes, specific to HEIs, where these institutions previously cooperate for unification and standardization of programs, curricula, credit recognition, etc. COIL is not a technology or a technological platform, but a new way of approaching teaching (professors) and learning (students) that develops intercultural awareness and learning in mutual environments of many different cultures and countries.

COIL is an acronym and according to Amsterdam School of International Business (2019), it can be elaborated as, *Collaborative*; student-to-student learning to improve teamwork and collaboration skills, *Online*; learning how to work in a remote team and professionally manage virtual tools, *International*; cross-cultural learning and offering students an international experience, *Learning*; practicing professional skills and learning from peers around the world.

According to Villar-Onrubia & Rajpal (2015), COIL is defined by several key elements such as involving a cross-border collaboration or interaction with people from different backgrounds and cultures; engagement in some sort of asynchronous and/or synchronous online interaction; driven by a set of internationalized learning outcomes; containing a reflective component that helps participants think critically about their interactions.

Some online platforms used for COIL implementation are Microsoft Teams, Zoom, Google Classroom, Blackboard, Moodle, etc. Developing a scalable and sustainable COIL initiative requires a dedicated leader or team with experience in managing and coordinating learning

design, technology, and partnerships. According to research done for the iKUDU project (2019), each COIL project is unique and discreet in its kind because it is included in a specific curriculum or module, and the process of effective development of COIL requires knowledge and training of the team to function correctly and achieve the purpose, objectives, and mission required and anticipated. Accordingly, COIL projects include 5 main components, (1) Partnering; (2) Training; (3) Project development; (4) Project implementation; (5) Project evaluation.

Since 1999, initially, in Europe and later around the world, the strategic goal of many HEIs has been the internationalization of universities, their standardization, accreditation, and unification through national and international plans and strategies in education and research. In this context, the main internationalization element has been the mobility of students, academic and administrative staff, relevant exchange programs, and training of professors, at home and abroad. COIL is a model applied to HEIs in virtual education which eliminates and restricts the physical movements of stakeholders; reduces budget and expenditures; favors connection, exchange, and cooperation in virtual education with a large number of participants; applies and supports specialized online networks (and hybrids) for professional development in the framework of internationalization and unification of universities.

Virtual Exchange and Virtual Mobility

The mobility and academic exchanges depend very much on external conditions and the financial means available for the usually high travel and local living costs. Practically speaking, it is impossible to achieve the physical movement of all students and staff, both financially and organizationally, and structurally. Consequently, in the past, only a few of the privileged students have had the opportunity to gain international teamwork skills and experience differently through a physical mobility and thus leaving most students without access to such opportunities to have a new experience during their studies (EMEU, 2019). The Bologna Process facilitated and encouraged the mobility of students, researchers, and teachers not only physically, face-to-face but also in the virtual online format for following the learning process at different times and distances within the network of partners HEIs (EMEU, 2019). Compared to traditional mobility and physical exchange, Virtual Exchange and Mobility is an innovative method which enables students to gain international and intercultural experience and achievement, without the financial burden. Virtual mobility forms are developed and implemented to achieve access and inclusion of non-mobile students (physically) in this type of learning process experience (Villar-Onrubia & Rajpal, 2015).

Virtual exchange entails a learning experience that is enabled by technology, and which is easily accessible by the use of different platforms that connect people for a certain period. Virtual exchange involves the use of technology to connect students in different contexts beyond physical boundaries, geographical locations, and across the different cultures of the participating parties. According to Tawileh (2016), ICT-supported collaborative learning settings using affordable, flexible technologies allow local students and students abroad to connect virtually. This enables students to experience intercultural exchange adapted to their study content and integrated into their regular local studies without the need to invest additional time or money. Connection and cooperation of participants between the partner HEIs is achieved in two ways - synchronously or asynchronously. These forms of pedagogical approach can be offered for the development and conduct of a full course or individual modules, classes, and seminars. Virtual exchanges implemented and jointly created provide a rich and diverse educational environment for students, faculty, and other actors involved in this scenario worldwide, and provide for interdisciplinarity and comparative learning processes for all participants. Nevertheless, coordinators and project managers who conceive and implement

such an approach in their courses/modules face several organizational, didactic, and administrative challenges that need to be tackled.

Virtual Collaborative Learning (VCL)

Virtual Collaborative Learning (VCL) is a formal learning framework that aims to transfer traditional face-to-face classroom group learning into a virtual environment by utilizing the potential of virtual exchange and virtual mobility. Through the communal working to solve various problems, students develop intercultural awareness, interdisciplinarity, collaborative skills, and media competencies, besides deepening virtual expertise and adding soft skills such as project management (Schoop et al., 2019). VCL is a hybrid framework with a phase of self-directed preparation for acquiring fundamental information, a virtual group work project, a collaborative presentation of the outcomes, and a final individual reflection (Schoop et al., 2021). It is now a good practice framework based on 18 years of implementation, originating from the Technical University Dresden (Balázs, 2005; Rietze, 2019; Tawileh, 2016).

The group work aspect of VCL scenarios focuses on the interaction between small groups and the development of intercultural collaborative skills. Social software and digital tools are used for communication and process documentation. Since each group member is jointly accountable for the outcomes of their work, there must be a high level of self-organization inside the groups. In A VCL setting, students are assisted by certified E-Tutors or learning facilitators during their collaboration to maximize both individual and group learning outcomes. In virtual learning conditions, the role of E-tutors and their communication determines the creation of social, teaching, and learning relationships, and in the management of various situations. The E-tutor plays an important role in the teaching and learning process, in creating a shared group perception, in learning and formation of the student, in the way they learn and communicate, behave, and present themselves in the classroom or in the virtual group. A complex, stage-by-stage strategy that would address several organizational issues is required for establishing a VCL-based project that will promote virtual mobility. This process is summarized into 5 stages according to Clauss et al. (2019), including, Stage 1. Analysis; Stage 2. Conception; Stage 3. Preparation; Stage 4. Project; Stage 5. Evaluation.

According to Schoop et al. (2019) and Clauss et al. (2019) there are four pivotal pillars to be considered while developing a -based situation-oriented case “Professionalized pedagogical support” which is done especially by qualified E-Tutors, who act as learning facilitators that support both individual students and groups. “Realistic cases and working tasks” which implies that students engage on didactically designed, realistic case studies that enable maximum interaction among group members. “Technical platform” acting as a central social learning platform providing necessary features for collaborative work. “Learning analytics & information visualization” which entails analysing in-group social behaviour in the virtual setting and visualizing it to trace recurring interaction patterns of participants.

A Pilot VCL-based Case Application in the Context of VALEU-X Project

VALEU-X project is co-funded by the European Union and implemented by a consortium of 9 international HEIs. It addressed the limited exposure of Albanian university students and academics to international experience in virtual collaborative learning (VCL). It proposed blending on-campus teaching activities with international Virtual Collaborative Learning components as a Virtual Mobility element to introduce international perspectives in formal study programs within a holistic approach of internationalization-at-home. In this context, a pilot project was implemented throughout the Fall Semester, during the December 2021 to February 2022 period at EPOKA University, Albania. The pilot VCL course activity was implemented in the Introduction to Business course, and engaged 1 Lecturer, 5 E-tutors, and 93

students, who were divided into 13 groups, with each group having 1 E-tutor to facilitate their work.

This pilot VCL-based case will be elaborated based on the Clauss et al. (2019) 5-stage model of developing and implementing a VCL project.

Analysis Stage

The preparations for this pilot VCL-based course started in July 2021 with the E-tutor qualification workshops aimed to train them as learning facilitators for the pilot VCL-based project. Then, the target course (introduction to Business) and study program (BA Business Informatics) were selected. An important part of the evaluation for this course consisted of the term project, which requested students to build a business plan for a novel business idea. The aim of the term project is not exclusively to have a successful finished idea or product to be marketed; rather, the value lies in the process of researching, critical thinking, teamworking, designing and pitching ideas systematically. The projects are worked in diverse groups of students and if structured well, it is believed that these group projects can promote important intellectual and social skills and help to prepare students for a professional working life in which teamwork and collaboration are increasingly the norm.

Students were first introduced to VCL approach and the requirements of the pilot VCL-based course activity at the beginning of the semester even though the implementation started in December 2021 and ended in February 2022. Guidelines, learning objectives were agreed upon and collaborative competencies to be gained were introduced. Microsoft Teams was selected as the platform for communication and collaboration during the pilot project implementation.

Conception Stage

In December 2021, the participating students were randomly divided into groups, their E-tutors were allocated provided with additional background information regarding their term project and the technicalities of the VCL-based implementation. The theme of this year's term project was decided to be the broader area of Social Business/Entrepreneurship with a concrete implementation in the Albanian ecosystem. In essence, social entrepreneurship aims to provide value to the society or have a beneficial influence on it by finding solutions that directly address social issues. Social entrepreneurship is frequently viewed as a means of tackling disproportionate situations that lead to exclusion, marginalization, or suffering among various groups of a specific interest.

Preparation and Project Implementation Stage

Students were introduced to Microsoft Teams and other tools such as Miro Board, Kahoot Quizzes, and various gamification tools. 93 students were divided into 13 groups based on their free selection of group members and weekly tasks were created. Each group was invigilated by qualified e-Tutors who were trained for this specific case and assigned randomly. The groups were then configured, roles and activities were allocated, and the social platform and the E-Tutors' information dashboard, based on social learning analytics were designed and enhanced by additional tutorials and learning materials. Students were informed that they had to hold at least 1 synchronous virtual meeting per week among themselves and 1 meeting with their E-tutors. As part of their evaluation, they also had to asynchronously contribute to their group channels with ideas, comments, task completion etc. Group meeting report templates and E-tutor report templates were developed and shared with all participants.

As it relates E-tutors, they are expected to:

- Offer functional, technical, personal, and group-based support.

- Communicate important information and guidelines.
- Assist with comprehension of issues, ambiguities, misunderstandings.
- Observe and supervise the learning process.
- Support of the evaluation of the tasks and overall project by using pre-defined evaluation instruments.

Regarding the student evaluation, the course instructor and E-tutors observed and evaluated for:

- Activity and engagement of each group member.
- Utilization of Miro Board.
- Online presence in the meetings with E-tutor.
- Online presence in the independent group meetings.
- The completion, quality, and timely submission of their tasks.
- The quality of their meeting reports
- Bonus points (for any extra effort or highest points in Kahoot quizzes)

Week 1: The first kickoff meeting was held. E-tutors facilitated the setting for students to get familiar with each other through gamification tools, with the concept of VCL, the social business term project, and the Microsoft Teams platform. During week 1, students had to hold an ice-breaking virtual meeting. Within each group, group members allocated the roles, responsibilities, and work to be done. Roles such as project manager, project rapporteur, researcher etc. were allocated. During this week they had to decide on the social business idea they would work in. Miro Board was used for brainstorming and expressing everyone's opinion as seen in figure 1 below. Accordingly, they received their assessment at the end of the week.

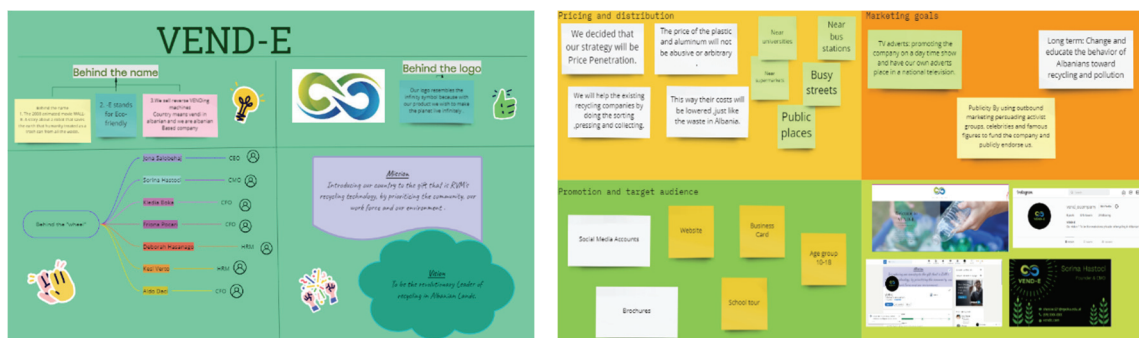


Figure 1. Illustration of collaborative work on Miro Board by one of the groups (Gr. 2, VEND-E)

Week 2: After getting familiar with everything mentioned above, E-tutors gave an overview for the first task of the project: creating a general business description, consisting of keywords such as mission, goals and objectives, core values, industry operating in, market needs to be met, customers, location etc. The assessment for this week was based on the completion of the above-mentioned task, group meeting reports delivered, and the E-tutor report for their weekly contribution and interaction in the group channel.

Week 3: The focus for this week was to discuss possible issues arising from the last task, and mainly to start the next project task, that is properly building the management team and respective roles for their social business idea. Aspects like skills and qualification of the management team, organizational structure, reward philosophy were discussed. At the end of the week all groups received their task and weekly assessment.

Week 4: The topic for this week was the respective product or service they chose to deliver. It depends on whether the students chose a social business focused on products or services. During this week they had to describe in-depth the features, benefits, and limitations of their business.

How will it be produced or offered, product characteristics, and lastly the customer needs. At the end of the week all groups received their task completion and weekly assessment. Overview of their virtual interactivity levels were shared with them, and they were instructed by E-tutors how to increase their contribution.

Week 5: The fifth week started with the previous assessment, but the focus was on Market Analysis. It was concentrated on the industry they chose for their social business, analyzing their target market and competitive analysis. At the end of the week all groups received their task completion and weekly assessment.

Week 6: This week two sections were merged, Marketing and Financial Plan. The marketing plan includes information regarding the product, pricing, distribution, and promotion. While the financial plan included aspects about how they planned to raise the funds that they needed for the investment as well as how they plan to share the profits.

Week 7: This week was the last week for working on the project content. After completing the other sections, students had an overall discussion regarding the whole project up until now. And lastly, they started working on their presentation. For their presentation they could opt between in-presence, virtual, or recorded video presentation.

Week 8: This last week of the pilot VCL-based course activity was dedicated to the 13 groups pitching of their term projects in front of their other peers and a jury. The jury consisted of 5 members including professors and E-tutors.

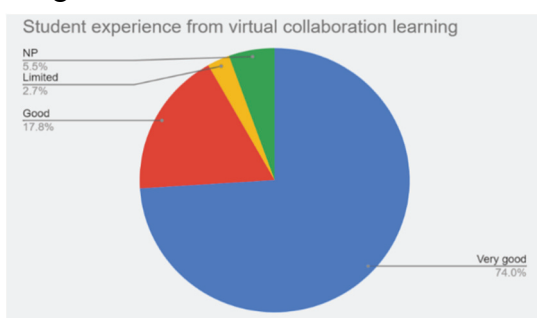
Evaluation Stage

A dynamic synchronous and asynchronous interaction level and collaboration was observed during the virtual phase, which was evaluated on weekly basis by the E-tutors and course lecturer to be finally translated into the individual student grades. Peer-to-peer evaluation in the groups, quantitative data analysis (social learning analytics & information dashboard), and reflective self-assessment were added to this pilot VCL-based case evaluation to make the assessment as inclusive as possible. Presentation skills were also evaluated during the pitching day of the projects.

Findings

At the end of the pilot VCL-based case application, an open-ended survey was conducted, and it resulted in a 78.5% response rate. The survey had 4 simple questions designed to get feedback regarding the implementation and evaluation of the pilot VCL-based project. The questions focused mainly on the perceived student experience, the challenges faced, advantages and disadvantages observed in the VCL-based approach as well as recommendations for replication or multiplication of this innovative pedagogical approach.

Data obtained from the participants shows that the implementation of the VCL model alongside its challenges, is generally well-acknowledged and considered a positive experience. As seen in figure 2 below it results that 74% of students claim to have had a very good experience during



the implementation of VCL and only a very small portion of 2.7% claim to have had limited experience.

Figure 2. Student experience during VCL

However, given that this was the first VCL-based experience for students it results that they faced challenges especially in terms of time load needed to finish the tasks and adapt to the technicalities of this new approach. As seen in figure 3 below, it results that 41% of students claim to have faced many challenges during the case implementation, and the rest of students claim to have had manageable to no challenges.

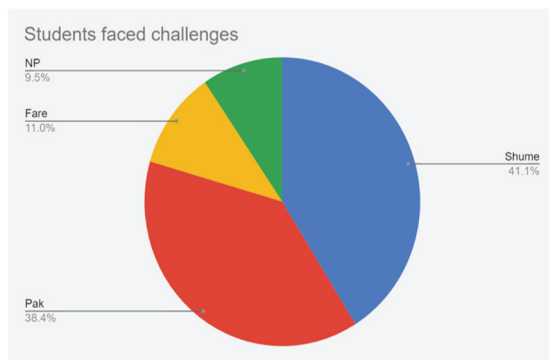


Figure 3. Student challenges

Regarding the advantages and disadvantages for the VCL approach, participants of this pilot VCL-based case were asked to provide their perception and highlight some benefits and shortcomings of this approach. A summary from the transcribed statements was compiled and the advantages that emerged from the transcripts could be summarized under several points as below,

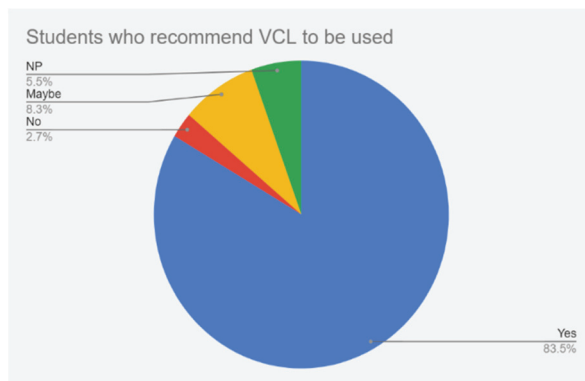
- Improved group collaboration and teamworking in a virtual setting.
- Opportunity to learn, use and master virtual collaborative platforms and tools like Microsoft Teams, Miro Board, and Kahoot Quizzes etc.
- VCL as a new experience that provides for flexibility in online communication and interaction.
- Virtual collaboration resulted to be easy, effective, fun, and it saved time and money.
- VCL provided for overcoming challenges and difficulties through the support of e-Tutors, and everything was stored in a channel and recorded so one could go back whenever needed.
- Learned how to do independent research, exchange documents to do common work asynchronously, and had rich information sharing and meetings synchronously whenever needed.

Disadvantages identified by the participants can be summarized as below:

- Challenges in virtual communication due to shyness and/or participants feeling uncomfortably from this new approach because of limited icebreakers.
- VCL was a new learning methodology, and we could not get used to it for the given amount of time.
- Traditional learning is more effective due to its long history.
- Poor internet connection, poor quality of voice and video, technical issues.
- Too much information and tasks to be processed in a limited time.
- Easier to lose focus in a virtual setting, and consequently some members become less active, and less collaborative.

Despite the challenges faced and some resistance shown for this new approach, as seen in figure 4 below, it results that 84% of the participants recommend the VCL-based approach to be integrated in other courses.

Figure 4. VCL recommendation



Conclusion

The goal of this case study was to assess the implementation of a Virtual Collaborative Learning (VCL) based application in one HEI in Albania, in a limited module (Introduction to Business) and a limited group of participants (93 bachelors' students). In this pilot course activity, through the EU funded VALEU-X project it was possible to create a complete infrastructure for the operation and implementation of this new virtual learning process approach. Enthusiastic and dedicated E-tutors worked with students and contributed to the conception, implementation of the case and the improvement of the learning process, new models, and approaches to virtual collaboration.

This pilot VCL-based course activity promoted teamwork collaboration as a crucial asset for any group project. It encouraged systematic work, constant tracking of progress and division of work. Students engaged in this pilot application of the VCL-based case, acknowledged it as an innovative, modern, and flexible approach to learning alongside acknowledging the challenges it creates to adjust to it. E-tutors also felt a great sense of achievement by being entrusted with supervising group activity, which on the other hand facilitated the in-term and in-group collaboration process besides the final product of the groups.

Technology advancements present possibilities for new approaches to the teaching and learning processes, such as the VCL approach that could be expanded in time and space and in contrast to the conventional methodology, the case study of VCL describes a novel approach to the development of the learning process. Through the virtual collaborative learning experience, students can gain knowledge and skills in a range of areas important to their personal, academic, and professional development, including intercultural communication, critical thinking, foreign language, intercultural and virtual teamworking, and problem-solving skills.

Virtual mobility and virtual exchange programs have recently started to play a significant role in the framework of the internationalization and standardization of international higher education institutions, therefore VCL is attracting special attention and importance. Beyond its obstacles and challenges, Virtual Collaborative Learning course activities and modules incorporated in higher education contributes significantly to the development of the curricula, modules, and programs to match EU standards, as well as in enhancing relationships between partner HEIs.

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