

Issues of Educational Technologies and Authenticity Synergy in a Content and Language Integrated Learning Course at Technical University

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Yuliana Lavrysh ^(✉), Nataliia Saienko, Andrii Kyrychok
National Technical University of Ukraine
“Igor Sikorsky Kyiv Polytechnic University”,
Kyiv, Ukraine
yulavrysh@gmail.com

Abstract—The issue of efficient technologies integration into educational environment has been a mainstream today. The present paper is focused on the issue of authenticity enhancement through learning technologies that are integrated into Public Relations course in the framework of Content and Language Integrated Learning. Based on the questionnaire conducted among lecturers of the university, the authors analyzed teachers' perception of authenticity and the ways of authenticity introduction in classes through educational materials, tasks and assessment. The findings of the empirical study, present evidence that technologies provide teachers with an opportunity to bridge the gap between the classroom and a real world as well as add variety to learning authentic activities. Technologies also contribute to the implementation of four pillars of Content and Language Integrated Learning strategy: content, cognition, communication and socio-cultural competence. The combination of authenticity and technologies transforms the students' perception of studying from theoretical into a practical and engaging experience.

Keywords—Authenticity, educational technologies, Content and Language Integrated Learning, technical university

1 Introduction

The teaching process has always been closely connected and oriented to society's needs and trends. However, classrooms at universities are still separated from the real world to some extent. Education materials, activities, and assessment methods are more focused on successful examination but not on practicing field-related skills. Earlier, this issue was explained by the lack of information accessible to teachers. Nowadays, the integration of educational technologies provides the opportunity to enrich the teaching materials and to bridge the gap between the classroom and the real world. Moreover, it influences the students' motivation to acquire new knowledge and search for new education resources and information to satisfy personal educational

needs. Therefore, the synergy of educational technologies in combination with authentic teaching is mainstream today.

The main challenge faced by many researchers of authenticity in the teaching process is to find the most relevant and appropriate means of authenticity introduction, especially for multidisciplinary subjects. The nature of such subjects implies the combination of tools, content, and methods that complicates the process of authentic materials usage. In our paper, we consider the issue of authenticity introduction into subjects taught through the Content and Language Integration Learning (CLIL) approach. Teachers of polytechnic universities develop CLIL curricula and apply this approach in order to provide students with the updated and most relevant field-related information that fosters students' professional growth. It has previously been observed that authenticity in CLIL is mostly connected with language as a tool for free access to the necessary information. This concept has recently been challenged by studies demonstrating that the authenticity of language is not enough to make CLIL lessons authentic. This indicates a need to transform the perception of authenticity by CLIL teachers and necessity to study its educational potential and challenges. We, as teachers of both field-related and language subjects, set a goal to bring authenticity, enhanced by educational technologies, into our classes and make them more engaging and close to the real world.

Our study describes the teaching of Public Relations through the framework of CLIL with the integration of technologies. We support the idea of Castañeda [1] that online educational practice in the fields of mass communication, public relations, and journalism should be examined more detailed. These fields are focused on information processing and dissemination of it to the society to shape the perception of the world. And nowadays, we can find the information mostly through the Internet, thus, students should be equipped with tools on how to deal with the information and apply ways of its evaluation and dissemination. Therefore, we consider that the earlier we bring real or authentic tools into classrooms, the more prepared our students will be for future career. Our study aims to identify how technology-enhanced teaching facilitates authenticity in CLIL classes. The key questions of the research were:

1. How do teachers perceive the phenomenon of authenticity in CLIL classes?
2. To what extent do technologies contribute to the development of authenticity in CLIL?
3. What issue of the teaching process becomes more productive in combination with technologies: authentic materials (language or content), authentic tasks, or authentic assessment?

2 Theoretical Background

The existing literature on CLIL is extensive and focuses particularly on the dual nature of the approach that integrates the content and language. Thus, Coyle [2] highlighted the role of language teachers in CLIL implementation and language proficiency as a necessary setting to understand the content. Researchers described three steps how to integrate language into the content teaching: outline specific vocabulary, select structures used to deal with content, support students with spontaneous language structures to deal with problems that might arise in class. This view was supported by

Bartik et al [3] who suggested recommendations on CLIL methodology and paid attention to the importance of collaboration of content and language teachers. The successful cooperation of teachers provides a natural language acquisition and allows them to demonstrate students' original resources and content, in other words, authentic material. To demonstrate the integrativeness of CLIL approach, Coyle [2] developed 4Cs framework of CLIL teaching model in which 4 key principles of this approach are described: content, cognition, communication, and culture. This framework demonstrates that there are some other issues apart from content and language that should be taken into consideration while CLIL teaching.

The follow-up studies presented the guidelines on CLIL pedagogy that included lesson planning, material analysis, assessment methods, etc. In the context of our research, we find meaningful Palatella's [4] ideas on material selection and analysis because in the research scholars pay much attention to technologies integration and authenticity of materials that makes learning relevant to students' professional needs. As a background for the process of CLIL materials design, researchers refer to "CLIL-Pyramid" that consists of four parts: topic selection and search for materials, evaluation of materials, task design, CLIL workout [4]. It is also highlighted that technologies give access to authentic materials that can be reached not only in class but outside of the classroom and permanent access contributes to the development of self-directed learning skills. Moreover, authentic materials application leads to the designing of authentic communication and tasks. In a comprehensive study of the CLIL and technologies connection, Conkan [5] claims that through technologies students have an opportunity to create field-related digital content based on authentic materials while performing authentic tasks. Such system promotes students' self-confidence and self-efficacy that is significant to start a successful career. Albero-Posac [6] also discusses beneficial impact of technologies in CLIL educational environment as they give teachers more freedom in material and methods choice.

A number of authors have considered the impact of authenticity on the teaching process [7-9]. According to Pinner's [7] study the concept of authenticity should be analyzed from three key components: authenticity of resources, tasks, and assessment. McKeever [10] states that exactly technologies provide access to authenticity. Encountering with authentic tasks and content out of class, students might learn how to solve authentic problems themselves but teachers should equip students with these skills at classes. We support the idea of Vaičiūnienė and Užpalienė [11] that learning should be considered as a process where skills of authentic information perception contribute to the development of authentic tasks solution and outcomes are measured by authentic assessment.

Considering the issue of technology integration into the Public Relations teaching, McAllister and Maureen [12] argue that technologies provide an excellent opportunity to collect information, monitor public opinion, and involve people into dialogue. The results of an empirical study on flipped journalism classes carried by Moore and Jones [13] confirm the positive changes in students' self-efficacy and motivation to study if the subject is presented with technologies application. It also transforms the learning environment from pure educational into pragmatic and realistic. Kinsky, et al [14] claim that successful career of PR practitioners depend on digital skills and literacy gained at universities. All of the studies reviewed here support the hypothesis that

technology-enriched educational environment contributes to the creation of authentic lessons and curricular.

3 Methodology

As a methodological background for our study, we chose a participatory research framework [15] because it enables the research participants to contribute to the research procedure and outcomes. Moreover, participants (students and teachers) are the ones who identify and reflect on those issues that prevent their authentic learning and identify opportunities for positive changes. This kind of research implies a survey and actions to outline critical issues and suggest solutions. Thus, teachers from two departments English Language and Department of Publishing and Editing cooperated and performed the study. Teachers were involved in data collection and analysis, investigated weaknesses and strengths of the present approach to teaching a subject «System of marketing communication» using English as a medium of instruction. Students participated in classes and presented their reflections on applied teaching methods and recommended some additional digital resources to enrich the content of the subject.

3.1 Study procedure

To answer the questions of the research we outlined the following procedure of the experiment. First, teachers completed the questionnaire on their perception of authentic learning as a pedagogical phenomenon. Second, the CLIL course "System of marketing communication" with integration of technologies and authentic learning methods was designed and suggested to students. After that, we randomly distributed students into two groups control (n= 21) and experimental (n=24). Both groups were of second-year study and were taught the same subject "System of marketing communication", however, the difference was in the way of educational material introduction, application of educational technologies, types of authentic materials, methods of teaching, and kinds of assessment.

While developing the course framework teachers familiarized with the methodology of authentic learning through workshops and webinars, studying methodological literature on the topic and group discussions. When teachers held the course in the experimental group, they were observed by colleagues to trace the dynamics of changes and outline the strengths and weaknesses of the approach. The course lasted one term; students had 18 lectures and 18 practical classes. As a summative assessment for both groups, we suggested students to perform a problem-based project. The results of the assessment of two groups were compared according to the assessment rubric developed according to the course objectives and outcomes. At the end of the experiment, we held a reflective discussion with experts, teachers, and students to get their feedback on the challenges and perspectives of authentic learning and technologies integration.

3.2 Participants

The study involved 15 teachers from the Department of Publishing and Editing and the Department of English for Engineering from the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". The total number of students participated in the study comprised 45. All students majored in Public Relations and were taught the course of "System of marketing communication". We decided to engage students of the second year of study because it was the beginning of their field-related study and it was essential to provide students with relevant and meaningful professional background. Moreover, at the classes of ESP students were taught the professional vocabulary and it helped them with terminology for better understanding of the content during CLIL classes. The questionnaire was anonymous and participation of students was optional. Students could stop their participation at any time without any academic consequences. In order to validate the results of the research, we invited 5 teachers from the Pedagogy Department as experts to audit the research and monitor the procedure. They performed 5 classes' observations and participated in the post experiment group discussion. The layout and procedure of the experiment were approved by the Scientific Committee.

3.3 Data collection tools

In order to collect data, we employed explanatory sequential mixed method approach for collecting both more detailed qualitative and quantitative data [16]. We consider such method application is necessary because the nature of authenticity is rather complex and requires holistic study. This kind of multiple data collection tool was applied with a view of examining teachers' perception of authenticity as an educational phenomenon (qualitative data collection) and students' academic performance achievements before and after the study (quantitative data collection). For teachers we developed a questionnaire for initial information collection and a short reflective interview after the course. The questionnaire was suggested before the course and comprised the following questions:

1. What CLIL teaching activity should be authentic?
2. To what extent do you agree that teachers should go beyond the textbooks and curriculum to bring authenticity in a classroom (1 strongly agree.....5 strongly disagree)
3. To what extent do you agree that peer and self- assessment make classes more authentic? (1 strongly agree.....5 strongly disagree)
4. To what extent do you agree that interdisciplinary perspectives are essential to make classes authentic? (1 strongly agree.....5 strongly disagree)
5. What educational materials do you consider as authentic?
6. Should authentic materials be simplified or adapted for students?
7. Do you perform the authentic learning? If yes, list methods you implement.
8. What educational technologies do you use to bring authenticity in a class?
9. What does authenticity benefit to: language or content acquisition?

Students participated in the experimental course and in collaboration with teachers suggested more relevant educational technologies and provided us with timely feed-

back as it is substantiated by the essence of participatory research method. In order to demonstrate the results, students of the experimental group performed a problem-based project that was suggested instead of the exam as a summative assessment.

3.4 Data analysis tools

The questionnaire with open-ended questions and reflective interview were analyzed through the modified content analysis [17] to find out the participants issues and concepts. This tool is also helpful to bridge the gap between qualitative, quantitative, and research methods. As a content analysis unit, we took 20 key concepts such as "authenticity", "real life", " educational technologies", " online tools", "professional relevant skills", " critical thinking", "authentic assessment" and other topic-related lexical frames. We analyzed the frequency of their usage with a positive or negative connotation, classified participants' answers into groups and defined common and variable data in answers. Some questions, namely 1,2,3, were analyzed by Likert-scale to measure participants' attitudes towards the researched topic. The answers were decoded as follows: 1- strongly disagree, 2- disagree, 3- neutral, 4-agree, 5- strongly agree. We collected responses and applied descriptive statistics to identify the most common responses to each statement and the dispersion of the responses.

All practical classes, that we held in terms of our experimental course, were observed by experts and evaluated according to the following rubric (see Table 1):

Table 1. Authentic learning classroom observation

Lesson Presentation	Outstanding 4	Good 3	Fair 2	Poor 1
The activities/exercises, material chosen to achieve the objectives were effective and authentic				
Suitability of authentic materials and methods for the professional and language level of students				
The exercises and activities were introduced in context				
There was an appropriate balance of structured and authentic open-ended/communicative activities				
The lesson was geared toward authentic language use				
Teacher explains meaning of a vocabulary or content related item in the context				
The choice of assessment tool corresponded the objectives of the lessons and was authentic in type				
Use of technology (video, audio, web materials) was appropriate given the material being presented				

The classroom observation rubric was created to evaluate only authenticity level and applicability of authentic tasks and assessment, so observers did not have to pay much attention to class management, mistakes correction techniques or interactivity mode of the classes. Students' academic performance was collected and analysed

according to the rubric applied to assess the outcomes and achievements of a field related project. Students chose a product to promote and design an advertising company for this product. The assessment rubrics are presented in Table2:

Table 2. Project assessment rubrics

Criteria	Outstanding 4	Good 3	Fair 2	Poor 1
Target audience identification				
Market SWOT analysis				
Application of communicative strategies				
Budget of the company calculations				
Project presentation				

Students had to present the project, give logical explanation and clarification of the project steps completion, and justify relevance of chosen methods to complete the task.

4 Results and Discussion

According to key objectives of the study and content analysis results we differentiated finding into groups: teachers’ perception of authenticity (questionnaire); the role of technologies in the process of bringing authenticity to class (questionnaire), authenticity integration into the some constituents of the teaching process (questionnaire), the most efficient ways of authenticity integration (questionnaire, classes observations, summative assessment), students results (summative assessment), reflection on the results and perspectives (post experimental reflective group interview).

First, we found out teachers’ perception of the authenticity as a pedagogical phenomenon. The results were verified by Likert-scale and the median value. The findings were as follows (see Table 3):

Table 3. Teachers’ initial perception of authentic learning

Statement (Participants n= 15)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree 5
To what extend do you agree that teachers should go beyond the textbooks and curriculum to bring authenticity in a classroom		8	3	4	
To what extend do you agree that peer and self-assessment make classes more authentic		2	5	8	
To what extend do you agree that interdisciplinary perspectives are essential to make classes authentic		3	5	7	

Having analysed answers to the first question about what contributes to authenticity facilitation, we obtained the following results (see Figure 1):

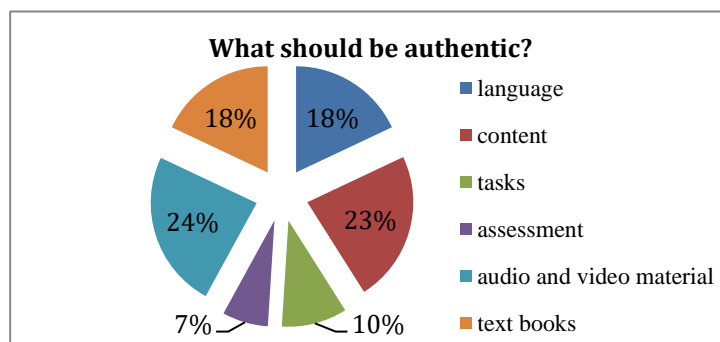


Fig. 1. Authentic activities distribution

Regarding questions about the authentic learning and technologies integration, teachers (n= 10) mentioned professional texts books in English, video and audio material that bring authenticity in the classroom and the rest of teachers (n=5) added MOOCs. All teachers (n=15) claimed that authentic material should be simplified and adapted to students language and professional competence level. Answering the question about how to perform authentic learning, 9 teachers stated that they only suggested authentic video and audio material, 3 teachers also mentioned that they used some authentic activities such as role-plays, problem-based activities and discussions, 2 teachers listed texts summarizing and collaborative writing in Google Documents. Among technologies teachers mentioned: Google tools (n=5), MOOCs (n=3), YouTube (n=3) and 4 teachers claimed that educational technologies do not contribute the authenticity but entertain students. 10 teachers said that authenticity benefits only language development, so it should be more applied at ESP classes, 5 teachers told that authentic content teaching could not be introduced in terms of curriculum but only throughout self-learning activities.

Results of 15 classes observations demonstrated that all teachers integrated authenticity in their classes but with some variables. We traced the dynamics of changes and noticed that in the beginning most teachers (n=13) used authentic materials (articles, chapters form text books, videos) but did not suggest students authentic tasks and assessment. The situation changed after the 5-7 classes, when teachers were more confident and saw students' academic achievements changes. After that, lessons were enhanced with authentic tasks and assessment. Only 5 teachers did not adapt materials, 7 teachers simplified only language. Due to applying authentic activities without adaptation, some of them were complicated for students but teachers explain it whether using explanations or translation. After 8 classes, teachers (n=13) as well as students claimed that productivity of the lesson and students motivation increased with the application of educational technologies. Educational technologies were used for tasks accomplishment, material introduction and assessment. However, in the beginning of the course 9 teachers used technologies only for material introduction so no to distract students from the course. Students' summative assessment results (project)

comparison is presented in the Table 4. The maximum grade for the projects was 20 (max 4 for each criteria). We counted the number of students for each grade and criteria.

Table 4. Students’ summative assessment results

Criteria	Outstanding 4		Good 3		Fair 2		Poor 1	
	<i>exp.gr.</i>	<i>contr gr.</i>	<i>exp.gr.</i>	<i>contr gr.</i>	<i>exp.gr.</i>	<i>contr gr.</i>	<i>exp.gr.</i>	<i>contr gr.</i>
Target audience identification	9	5	10	11	5	3	0	2
Market SWOT analysis	5	3	8	6	9	8	2	4
Application of communicative strategies	8	4	10	8	5	7	1	2
Budget of the company calculations	7	0	8	10	6	8	3	3
Project presentation	10	6	10	11	4	3	0	1

Taken together, these results suggest that there is an association between authenticity and technology integration. Authentic learning is a persuasive representation of modern trends in pedagogical theory and practice, indicating the transition from routine forms of activity to intellectual ones. The model of authentic intellectual activity demonstrates the principles of the constructivist theory of cognition and its orientation to activities, involving the combination of social forms with active and creative forms of teaching [7]. Such forms of teaching foster evidenced-based authentic teaching practices that involve real-word problems solutions to motivate students learning [18] The main result of authentic learning is the professional competence of future specialists and their ability to take responsibility for their own knowledge and skills.

The concept of authentic learning serves as a perspective resource through which we can consider the quality of such components of the educational process as the level of tasks, the cognitive activity of students, the organization of educational activities by a teacher, the authenticity of the achieved results. The concept is perceived as a real help to the teacher in recognition of own teaching activities and it also can be considered as a potential tool for the professional self- development. Authentic intellectual activity requires more thoughtful feedback from students than the traditional system of classes, however, according to our research findings; authentic tasks are more interesting and meaningful for students, as they are as close as possible to reality. Nevertheless, we have to mention that authentic learning might not find support among proponents of standardized traditional training, as its result cannot be fully recorded and sometimes is difficult to measure due to the authenticity complicated nature. Despite this fact, we highlight that the goal of the authentic learning is to acquire knowledge and skills appropriate and significant for the profession.

The perception of authenticity first of all is associated with the introduction of authentic teaching materials. This fact is proved by the participants’ answers represented in Fig.1. Most teachers considered that if they suggested students using authentic text

books or videos, it would be enough to make classes authentic. It is obvious that authentic texts or articles reflect the real-life concepts and language of the profession, but it does not mean that students will acquire necessary knowledge or skills only by listening or reading authentic texts, even with teachers' explanation. Moreover, it is wrong to consider that the use of authentic materials is unquestionably beneficial for CLIL lessons [19]. While choosing educational materials, it is necessary to take into account students' profession and language background, needs, interests and learning styles. With this in mind, we can state that authentic professional material for native speakers might not be appropriate for students who learn English as a foreign language. The main reasons are non-conformity with national curriculum and high linguistic level. However, such text books or materials enhance students' motivation to learn language as well as extend their professional knowledge. Thus, we suggest some recommendations to follow: provide student with scaffoldings tools such as glossaries, visual frames, simplifying or paraphrasing some sentences of explanations, focusing on key ideas and combining authentic materials with other authentic learning tools.

Having analysed numerous researches on authentic learning, participants of our study found a balance between the authentic materials and other constituents of the teaching process such as tasks and assessment that was observed during class observations. Our research findings and analysis are in a line with opinion of Avery, who states that to achieve a high-quality results it is not enough to find and adapt authentic materials and to develop tasks. Authentic learning is aimed at the intellectual development and high order thinking skills. Therefore, in order to evaluate the authenticity level of teaching process, practitioners Porter et.al [20] developed some requirements, which we followed while developing our course:

- Tasks should involve issues for the development of high order thinking skills
- Real-world problems relevance
- Tasks should provide opportunity to investigate the problem from different perspectives
- Authentic tasks should facilitate social interaction and collaboration in a group
- The solution of a task might require to go beyond the specific learning outcomes
- Authentic tasks might allow diversity of outcomes and involve the integration of a wide range of resources, disciplines and technologies

By examples of authentic tasks, we suggested, we would like to demonstrate their indicators of authenticity and educational focus.

Task 1: Adapt a product to a new market: Ss work in two groups and create a profile for the imaginary country for the opposite group. Task: as members of a marketing team, introduce a store of product from Ukraine adapting it to a new international market of the country suggested by the opposite group. Think over a promotion and marketing strategy.

Educational outcome: the task is designed to test knowledge about the marketing strategies, about the methods of market research. Skills development: attention to details, content creation, creativity, evaluation and team communication and collaboration.

Indicators of authenticity: Real-world content; field relevant skills; requires previous knowledge or strategies efficient application because students should explain their answers based on background; correctness in not assessed.

Task 2: Produce, shoot and edit a 5 min public media profile on an important or interesting issue to students of your university, conduct a research and three interviews

Educational outcome: The task is designed to develop skills and knowledge about video, audio and presentation production. Skills: Community management; content creation, event management; photo/video editing; to create consistent corporative narrative; brand management and promotion.

Indicators of authenticity: Simulates the content; field relevant skills; multi skills integrated task in which a variety of skills and knowledge must be used in combination as in real situations students will encounter in future.

Task 3: Create a political party profile handout and using this information design an election campaign item for this party: radio, television, print, Internet ad or a billboard.

Educational outcome: The task is designed to develop skills and knowledge about political system and political media system. Skills: Qualitative and quantitative media research; political advertising, information segmentation and analysis; medial relation; social and reputation management.

Indicators of authenticity: Simulates the content; there is no right answer and reliable scoring; provides students with opportunity to choose and use any resources rehearse and refine the product

Among other authentic tasks teachers employed campaign design to give a voice to a critical social issue; developing communication strategies; conducting surveys for finding right audiences etc. According to our research findings, students of the experimental group demonstrated better results of professional knowledge and skills acquisition (Table 3). It is difficult to speak about measurable academic performance due to the nature of authentic tasks which cannot be assessed by a simple typical test.

Therefore, in order to assess authentic tasks, we should use authentic assessment. That was also employed by teachers during the course conduction. Regarding the issue of authentic assessment, it is important to differentiate traditional and authentic assessment. Wiggins [21] identified some characteristics of authentic assessment: realistic nature; multifaceted and complex tasks for the solution, simulation of professional problems, personalization, and value of high-order thinking skills over remembering of facts. We consider that the key principle of assessment is justification of the solution but not only the correctness of answers. During the authentic assessment students are allowed to use reference books, consult resources, communicate with experts or group mates, and apply a range of skills to solve a complex task. Authentic assessment is a valuable tool because performing this activity students keep learning.

It is challenging to set up equal and standardize rubric for authentic assessment, moreover not all results can be easily measured. Another disputable issue is personalization of answers. There is a great variety of appropriate solutions, so even for teachers it is difficult to assess only through such criteria as “correct” or “wrong”. Furthermore, the combination of skills and resources cannot be the same for everyone. The results of the summative assessment from Table 3 demonstrate the difference in achievements between two groups. It is known that if students are not trained with the application of authentic tasks, they cannot perform properly the task given for the

authentic assessment. Students could easily answer questions about theory of the subject but experienced difficulties how to apply it.

Authentic assessment is performed through complex real-life problem-solving projects or tasks that require high level of cognitive processing skills. Each project or problem is assessed by specially created rubrics that are time-consuming process. Our finding of students' performance demonstrated that students from the control group knew theoretical foundations of the profession however experienced difficulties with multifaceted problems with a variety of solutions. On contrary authentic assessment involved real-world tasks, they were more interesting, engaging and motivating for students. Moreover, one of the benefits of authentic assessment that was noticed by teachers during our final group discussion was an idea that even during the assessment students did not stop learning as it happens while usual tests that assess the volume of memory.

As it was seen from the teachers' answers on questionnaire, they did not accept peer-assessment as a credible and reliable tool. But we should admit that this kind of assessment is often involved into the solution of real-world problems and building strategies. It is a valuable authentic tool for engaging students into the learning through creating together assessment criteria, discussing examples of successful and poor performed tasks, justifying answers or solutions, critical assessment, debating on mistakes, receiving immediate feedback and supporting other's ideas or solutions [22]. Analysing students feedback during the final group-discussion, we paid attention to their comment that peer-assessment contributed to the development of a trustful supporting learning environment.

Among challenges teachers encountered was the language level students should demonstrate to perform well while the authentic assessment as well as during standard tests that are also language depended. So, if students did not know the term of grammar construction, they failed a test even if with not bad content knowledge. It was a problem what to do with students who were not so confident language users. But the answer was in the nature of the authentic assessment that it might be a collaborative project where every student had a particular task. So it equalled students with different language level: some of them found resources and information some performed the research and together they develop strategies and presented them. By employing this strategy students demonstrated the content knowledge confirming their professional knowledge not limitations in English. As examples of such assessment, we observed that teachers used: oral interviews, persuasive or argumentative writing, presentations, conducting of negotiations, task-based projects.

According to our findings, we can state that the combination of authentic content, language tasks and assessment in CLIL proved its efficacy and positive impact on students filed related skills development despite of a number of challenges: high level of language, content and language adaptation, time consuming tasks and assessment preparation, not easily scored items for the assessment, classroom management during the projects or other authentic tasks, fair and equal assessment of all participants of the project. Some of these challenges could be eliminated with applying educational technologies., moreover technologies can enhance strong point of authenticity.

During the post-experiments interview with teachers, we discussed the role of technologies in terms of authenticity. Teachers admitted that technologies were beneficial and without them it would be impossible to create authentic tasks and assess-

ment. Moreover, technologies provide students with more expanded content research that is crucial for solving real-word problems [23].

Our findings are in a line with conclusions made by Porter et al [20] who states that public relation practitioners with high level of digital literacy become leaders and are bale to use technologies to better approach to target audience and resources management. The examples of tools are presented in Table 5.

Table 5. Online technologies used during the course

Function	Technology
Out of class communication	Flowdock (https://www.flowdock.com/) GoToMeeting (https://www.gotomeeting.com/) WebEx (https://www.webex.com/) Appear.in (https://appear.in/) Skype (https://www.skype.com/uk/) Hipchat (https://www.stride.com/)
Project design and management	Asana (https://asana.com) Jira (https://ru.atlassian.com/software/jira) Trello (https://trello.com/) Flow (getflow.com) Lino.it (linoit.com) Edmodo (edmodo.com)
Collaborative work	Google Docs Office Online (https://www.office.com/) Wiki (https://www.wikipedia.org/) Quip (https://quip.com/) Concept Inbox (http://conceptinbox.com/) Padlet (https://uk.padlet.com)
Visual presentation of results	RealtimeBoard (https://realtimeboard.com) Mural (https://mural.co/) MindMaps (https://mindmup.com) Google presentations Flipgrid (flipgrid.com)
Interactive activities	LearningApps (https://learningapps.org) Playbuzz (https://playbuzz.com) Wizer.me (wizer.me)
Polls to determine target audience or get feedback	Mentimeter (mentimeter.com) Slido (slido.com)

Analysing the requirements to public relation practitioners, we selected the most demanded technical skills: web publishing, new software operation, web analytics, and online information quality assessment and information management. All these skills can be practiced at universities through authentic, real-life tasks in technically - enhanced environment, otherwise, learning will not correspond students’ and stakeholders’ needs. As examples of such authentic tasks through technologies we suggest: public information dissemination through communication nets about the same product but with changes of the communication strategies depending on target audience; reputation management using online information sources and differentiating true or false facts; provision of marketing online communication and creating online questionnaires and polls; crisis management through analysing social media for quick alert and finding real-time decision-making information. Thus, the application of technologies

in the CLIL course foster interdisciplinary and multifunctional cooperation among teachers and students as well [24].

5 Conclusion

The aim of the present research was to examine how technology integration impacts the authenticity in CLIL classes. The finding of our research evidence that authenticity is impossible without technologies in current educational process because authenticity means real and technology penetrates all spheres of our real life. However, not only resources or materials should be authentic. The way we teach should also be authentic in order to make the learning process holistic, engaging and thus more motivating for students. Through the integration of technologies into authentic classes, students improve their communication skills in a foreign language, expand content knowledge and become aware of a variety of resources that contribute to the solution of a problem. Technologies helped manage such challenges as time-consuming tasks or projects preparation, searching for relevant authentic resources, video or images, communication and collaboration out of class, personalizing of teaching according to students' needs or background. Students appreciated such innovation as it allowed to work on a task without time or place limitation and at own pace, to share ideas and receive immediate feedback. Technologies turn learning into a real-world simulation that captures students and creates an illusion of profession immersion. That is the key focus of authenticity. Moreover, regarding CLIL in particular, we should highlight those technologies also contribute to four pillars of CLIL strategy: content (resources, material), cognition (critical and system thinking through web-based projects), communication (language skills through communication tools and culture (intercultural issues).

Following the key ideas of our research, we came to the conclusion that authentic educational environment in combination with technologies transforms the educational process from learning for graduate examination into long life learning. If the debate is to be moved forward, a better understanding of combination of traditional and emerging educational strategies needs to be developed because new media formats and communication online strategies will appear and a clear algorithm how to integrate them into the authentic educational practice will be beneficial.

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7 Authors

Yuliana Lavrysh is currently working as an Associate Professor of the Department of English for Engineering, Faculty of Linguistics, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic University”. She has an experience of more than twenty years in the field of ESP and CLIL teaching and research. She holds a PhD in Education. Her scientific interests include digital didactics, ESP, adult education, personalized and autonomous learning.

Nataliia Saienko is currently working as a Professor and the Dean of the Faculty of Linguistics, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic University”. She has been teaching at the university for more than thirty years. She holds a PhD in Education. She is a teacher trainer and a research supervisor in foreign language methodology. Her main research interests are ESP, cognitive linguistics, elaboration and implementation of educational technologies.

Andrii Kyrychok is an Associate Professor of the Department of Publishing and Editing, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic University”. He holds PhD in Education. He is an expert in Public Relation and Mass Media Communication teaching. He has published papers in the field of mobile assisted learning and e-learning, PR teaching, online course design, curriculum development.

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