"Flipped Learning" Methodology in Professional Training of Future Language Teachers

Inna Nikitova*
Khmelnytskyi Humanitarian-Pedagogical
Academy, UKRAINE

Svitlana Kutova
Khmelnytskyi Humanitarian-Pedagogical
Academy, UKRAINE

Tetiana Shvets
Khmelnytskyi Humanitarian-Pedagogical
Academy, UKRAINE

Olena Pasichnyk
Khmelnytskyi National University, UKRAINE

Vitaly Matsko
Khmelnytskyi Humanitarian-Pedagogical Academy, UKRAINE

Abstract: The purpose of the study was to examine and evaluate the impact the "flipped classroom" model-based learning environment accompanied by multimedia-based textbook entitled "Ukrainian language (for professional purposes)" provides for the language proficiency and learning styles of the university students majoring in language and literature teaching. A multimedia textbook "Ukrainian for Special Purposes" was designed for the study. A multi method approach was used to gather feedback and quantitative methods were used to analyze the data. Specifically, a 2X2 split-plot design was used to analyze the quantitative data and the two-way ANOVA for Mixed Measures was used to designate the main effects for column and row factors and their interaction effect related to the efficacy of the experiment. Textalyzer software was used to process the students' responses to survey questions. The results reported a shift in student preferences in learning, including a greater desire to engage independently with computer-assisted work, quicker problem solving, increased motivation to study, and improved time management and lifelong learning skills. The study may better inform building the learning process for the students with limited learning opportunities or studying the distance learning model. Despite the experimental group involving only the students majoring in Economics, this methodology could be applicable to teaching Ukrainian for specific purposes to other majors, such as: Psychology, Educational Management, etc. The research is advancing the knowledge of integration multimedia tools into teaching, and specifically the use of multimedia textbooks in the "flipped classroom" settings to deliver the language course to the students majoring in literature and language teaching.

Keywords: *Tertiary school, teaching Ukrainian, flipped classroom model, multimedia-based textbook.*

Introduction

The use of multimedia tools in teaching has proven to enhance teaching effects (Almarabeh, Amer, & Amer, 2015; Gunawardhana & Palaniappan, 2016b). It has changed the ways instructors and researchers explore educational concepts as it provides convenience, drastically changes the learning experience of students, and it increases student involvement in the learning process. Multimedia tools support the teacher by supplying additional educational elements to students' cognitive process (Gunawardhana & Palaniappan, 2016a), therefore, using a multimedia textbook as a tool to teach Ukrainian Language to future teachers of Literature and Languages is worthy of discussion.

In this respect it is necessary to use all available methods, technologies and models, which can become an integral part of educational process. These technologies are implemented through activity that does not have only external attributes of unity, but also because its nature involves cooperation, self-development of the subjects of educational process (Tsarenko, 2007). The latter is to be more effective if traditional and innovative technologies of different types are combined (including distant and electronic).

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* **Corresponding author:**

Inna Nikitova, Khmelnytskyi Humanitarian-Pedagogical Academy, 29013, Proskurivs'koho pidpillya, 139, Khmelnitsky, Ukraine. ✉ nii@ukr.net

This research was inspired by the easy-to-adjust nature of the multimedia textbook-based "flipped classroom" model as it fits Languages for Specific Purposes and CLIL (Content and Language Integrated Learning) approaches to teaching Languages (Linguistics) at tertiary schools (Romanova, n./d.). A "flipped classroom" teaching method is often defined as the inverted classroom, or to put it simply, the flip. This teaching method or model is related to the concept of creating a hybrid, or blended learning (the verb "blend" [blend] is defined as: 1) mix; to make a mixture; 2) to combine, to harmonize; 3) to merge with another color; to fade (about features or differences) (FREE Online Translation, n./d.). The researcher Rashevska (2010) describes it as mixed, Collis and Moonen (2001) – flexible, Koval and Shunevych (2006) – combined) and problem-based learning environment to engage students in active learning through the use of new technologies (Bergmann, & Sams, 2012; Arnold-Garza, 2014). The latter moves the lecture outside of class and enables using class time more efficiently dedicating it to the practical application assignments (Educause, 2012). Therefore, flipped learning is viewed as a pedagogical approach based on reversing the roles of individual and group space resulting the latter is transformed into a dynamic, interactive learning environment guided by the educator and in which students are supported by peers as apply concepts and participate creatively in the subject matter (Giannakos, Krogstie, & Sampson, 2018).

In view of the above, the "flipped classroom" model is likely to best suit the state policy in Language teaching in Ukraine (Chao, Chen & Chuang, 2015; Bolitho & West, 2017; Hsieh, Wu & Marek, 2017) due to a number of its advantages (Arnold-Garza, 2014), such as: the efficient use of time during the class, provision the students with a more interactive learning environment, provision of increased student and teacher personal collaboration and interaction, shifting responsibility for learning from a teacher to a student, and consideration of students' learning styles (Sarumov-Atr, 2015).

Integrating multimedia tools into teaching is being widely discussed by scholars (Babiker, 2015; Udim & Etim, 2016; Norlis, Ramli, & Taib, 2018), but this discussion is still rather theoretical. For this reason, many aspects of the use of interactive multimedia tools used for teaching purposes are open to discussion (Thamarana, 2016). It was found a limited number of targeted studies such as the use of multimedia textbooks in the "flipped classroom" settings to deliver the Ukrainian Language course to the students majoring in Literature and Language teaching. Additionally, while commonly a "flipped classroom" model is associated with watching lectures preliminary recorded for students to prepare for the following class, Giannakos et al. (2018) claim that the use of lecture videos is not indispensable (Giannakos et al., 2018). Using online simulations or demonstrations, in-video quizzes or guided reading etc. are other options. Thus, it matters little how the new material is introduced to the students, but it matters a lot that they come to class "equipped" to engage in active learning.

The "Flipped classroom" and multimedia textbook

Both the "Flipped classroom" learning model and multimedia textbook can be viewed from two perspectives: technical and instructional. Technically, the "Flipped classroom" is addressed as the type of "blended learning" approach, which "has garnered more media attention, reported more tangible results, and gained the support of more educators" (Panopto, 2015). The "flipped classroom" mode focuses on practical application rather than passively listening to a lecture, which optimizes class time use (Bergmann, Overmyer & Wilie, 2013; Flip Learning, 2015). There are, at least, seven tested and cited flip classroom concepts which are used in schools and tertiary settings, that encourage instructors to use different styles of teaching, diverse information sources, and a wide range of student interaction modes. They are the standard inverted classroom, the discussion-oriented flipped classroom; the demonstration-focused flipped classroom, the faux-flipped classroom, the group-based flipped classroom, the virtual flipped classroom, flipping the teacher model (Panopto, 2017). With regard to teaching Languages for Specific Purposes to the students majoring in Literature and Language teaching, it was found the discussion-oriented, the faux-flipped and the group-based models of flipped classroom to be of particular interest for our study as they provide the context for the further discussions, they allow revision of what has been learnt at the student's own pace, these models involve students in knowledge exchange. Additionally, the models extend time to dedicate to classroom discussions which provides students with more purposeful speaking and writing practice, they increase both the quantity and quality of teacher-student and student-student collaboration and students' academic performance. The latter was experimentally proved by Zhonggen & Wang (2016) when delivering the courses in English writing and by Cabi (2018), who used a "flipped classroom" model in English Language Teaching and Turkish Language Teaching Programs.

Form the instructional perspective, scientists report that the "flip classroom" model satisfies their pedagogical needs. While Findlay-Thompson & Mombourquette (2014, p. 65) stated flipped course met their needs in "application, analysis, and evaluation", Wiginton (2013) and Cabi (2018) asserted that the model accelerates student responsibility, motivation, self-organisation, and the skills of research-based and autonomous learning.

A key technical perspective of the multimedia textbook is an interactivity component and its composition including a content and graphics, the parts like audio, multi-media, interactive elements (Gu, Wu, & Xu, 2014; Krotky & Honzikova, 2013) accompanied by gamification elements (Jackson, 2016). Amaral (2014) classifies interactivity parenthesis here as a three-level-controlled by the user environment. The first level is reactive which is a low interaction supposing the User to make choices pre-defined by the producer. The second level is coactive allowing the User to exercise control

over choices and take sequential steps. The third level is proactive providing a teacher-student or student-student interactivity of a high level with the opportunity for the User to make changes to the configuration or the content so that the User acts as a producer of a content or the structure.

The primary purpose of multimedia textbooks, which is software, is educational. For this reason, they should involve the components and the structural elements typical for a paper-based textbook. In terms of teaching Languages for Specific Purposes, multimedia textbooks should combine texts, audio and video, specifically structured activities with software components like an easy navigation, animation, hyperlinked glossary, internal and external text links, visualized data, searching etc. (Krotky & Honzikova, 2013).

From the instructional perspective, multimedia textbooks – contrary to the three suppositions of Cognitive Theory of Multimedia Learning (CTML) (Amaral, 2014; Park, Plass, & Brunken, 2014) holding that: people use channels (visual and verbal) to perceive information separately; processing of information is limited by the channel; the multimedia-based learning is only possible when the student is self-involved in selecting, organizing, and integrating the obtained information with the previous knowledge – are leading students towards learning as long as the materials are designed and presented by the teacher appropriately (Amaral, 2014). In the view of the above, "situational interest", "positive emotions", or "confusion" (Leutner, 2014) have been revealed to have impact on cognitive processing and learning outcomes when learning through multimedia tools. Additionally, efficiency of material comprehension can be fostered by positive emotional design (Park et al., 2014).

The above literature review shaped theoretical and methodological basis of our work. While being a "hot" research topic abroad, the application of "flipped learning" in the professional training of future linguistic teachers in higher educational institutions of Ukraine has not been the subject of a separate research yet.

The purpose of the study is to examine and evaluate the impact the "flipped classroom" model-based learning environment accompanied by multimedia-based textbook entitled "Ukrainian language (for professional purposes)" provides for 1) the language proficiency and 2) learning styles of the university students majoring in language and literature teaching.

Materials and Methods

This research relies on empirical and statistical methods used for conducting an experimental study of some aspects of teaching "Ukrainian language (for professional purposes)" to the Language and Literature teachers-to-be using the multimedia textbook.

To meet the research objective, this study used a mixed-methods approach based on collection quantitative data to obtain the overall picture of a problem and qualitative data to reveal explanatory details. The flipped classroom and traditional teaching use resulted data were considered independent variables of the research while students' academic achievements were the dependent variable.

The study was a continuous flow of three stages: (1) empirical – to study the current state of teaching "Ukrainian language (for professional purposes)" to the Language and Literature teachers-to-be at tertiary institutions using the multimedia-based tools, developing and piloting a content of a multimedia textbook; (2) experimental – to do placement tests, needs analysis questionnaires, face-to-face sessions, tutorials, project-based learning conducted both traditionally (offline), and with the multimedia book to have been integrated; (3) analytic – to process the experimental data collected.

Empirical surveys were conducted among the teachers/tutors and students majoring in language and literature teaching to investigate the state of teaching "Ukrainian language (for professional purposes)".

1041 second-year-students, lecturers and teachers/tutors were surveyed at universities located in Dnipro (Alfred Nobel University), Zhytomyr (Zhytomyr State University named after Ivan Franko), Nizhyn (Mykola Gogol Nizhyn State University) and Khmelnitsky (Khmelnitskyi Humanitarian-Pedagogical Academy) to explore the state of Ukrainian language (for professional purposes)" teaching.

Due to application of exclusion criteria list such as: student age, major, Ukrainian learning purpose, lecture/teacher/tutor willingness to implement a flipped class model and multimedia textbook it their studies, location of the institution, the population was reduced by 972 people and it was obtained the population size of 69 people. In order to determine the sample size to ensure the quality and reliability representativeness, the Sample Size Calculator (Google Apps) was used. It was established that N (population size) = 69, prevalence (as a decimal number, for example: 1% = 0.01) and e=.05 at 95% confidence level. Therefore, the required sample size obtained was 65 people and this number was used to form the experimental group for this study.

Therefore, the experimental group involved 61 (16 males and 45 females) students who were doing the course in "Ukrainian language (for professional purposes)" and were in their second year at the Khmelnytskyi Humanitarian-Pedagogical Academy, which meets the requirements for ensuring sufficient volumes of sample population in the study.

Two groups of students were formed to participate in this experiment (with the total number of 61students) which were the control group (CG) involving 30 students, specialty reference #014, Secondary education (Foreign language and literature (English)) and the experimental group (EG) of 31 students, specialty reference #014, Secondary education (Ukrainian language and literature).

At the pre-experimental stage, there were studied the preferences in the learning activities of the experimental group students, their needs and results of the placement test and final test in Ukrainian for Special Purposes Course. Concurrently, the development and piloting a multimedia textbook entitled "Ukrainian language (for professional purposes)" occurred. It comprised short educational video series (e.g. "Application as a type of business document. Types of applications and requirements for their completion"), and the modules: Module 1: "Modern business documents" that covers such topics as: "Business papers as a means of written professional communication"; "Documentation on personnel and contract issues"; Module 2: "Reference and information documents"; Module 3: "Etiquette of official correspondence" (Shevchuk & Klymenko, 2014); Module 4: "Legislative and normative-style fundamentals of professional communication" followed by the individual assignments like: 1) "Shoot a video showing communicative situations on a variety of issues then show your video presentations to the group (Topic: "Communication as an instrument of professional activity", "Rhetoric and the art of presentation"). 2) Make a presentation for the board of educators to report on the topic of "Using innovative technologies in Ukrainian language and literature lessons" (student can also suggest optional topics), report it in class. 3) When studying the topic of "Forms of team discussions of occupational problems" the students are involved into the role plays. (Eg. You (a student) have been working in an institution for a short period of time, but have already noticed a lot of flaws, have your ideas on their elimination. Go to the head master's office… Make suggestions on how to manage these drawbacks. (Take a video of the situations and present it in class)); 4) Role play the situation: You want to get a job at school and attend an interview with the school principal; you are invited to the office. Enter, greet him, and introduce yourself. If necessary, develop a conversation (you can bring a video to the class to show it) (Topic: "Culture of oral professional communication").

Throughout the first semester of 2017-2018 academic year, the adapted methods were applied (Adeniyi & Yusuf, 2016; Krotky & Honzikova, 2013), module-structure-design methodology borrowed from Behnke (2016), Zhang and Yang (2017) and involved IT specialists to design each module in our multimedia-based textbook using such multimedia software as iSpring, Director, Photoshop, Cool Edit Pro, Video Studio, Active Textbook, etc.

The questionnaire on preferences in learning consisted of four options to choose among. Those were to explore whether a student a) likes working in the class under the teacher's control, b) gives reference to study using written materials independently, c) inclines to computer-assisted work independently or d) enjoy doing exercises and tasks cooperatively (in mini groups).

Students' Needs Analysis Questionnaire used closed-ended and semi-closed-ended questions with suggested options the students should choose among. Those were aimed to discover 1) the purpose a student studies Ukrainian for; 2) the areas the student will use it the most; 3) the students' idea of the use of the coursebook (as a reference point or to do every exercise in it); 4) the students' idea of the use of lesson time; 5) the students' idea of being assigned to do the home task.

Throughout the experimental stage, the control group students were taught through a traditional mode (offline) of interaction (face-to-face, classroom activities), while the learning process of the experimental group was based on the "flipped classroom" model. Under the latter mode, the greatest proportion of their learning workload was supposed to be done as a self-study assignment (see the design of the study in Table 1). The students' learning outcomes were measured by administering an achievement test before and after the treatment (See the assessment criteria in Appendix A).

Table 1. Design of the study

Pre-treatment stage	*Treatment stage (duration of 1 semester)*	*Post-Treatment stage*
Unbiased assignment, Students' Needs Analysis Survey & Achievement Test	Traditional mode "Flipped classroom" model-based mode	Achievement Test & Course Satisfaction Questionnaire

The necessary learning environment was designed for the students to perform the treatment. The general features of the traditional and a "flipped classroom" model-based learning environments are shown in Figure 1.

Traditional mode → Theoretical Concepts / Coursebook-based learning / Individual work / Group interactions **In-class** → Vocabulary / Grammar / Writing assignments / Brainstorming ideas / Projects / Presentations **Out-of-class**

"Flipped classroom" model → Theoretical Concepts / Grammar/Vocabulary / Writing assignments / Brainstorming ideas / Web-based Research work / Projects / Presentations **Prior-the-class** → Team-work / Group interactions / Problem-solving tasks / Feedback sessions / Role-plays **In-class**
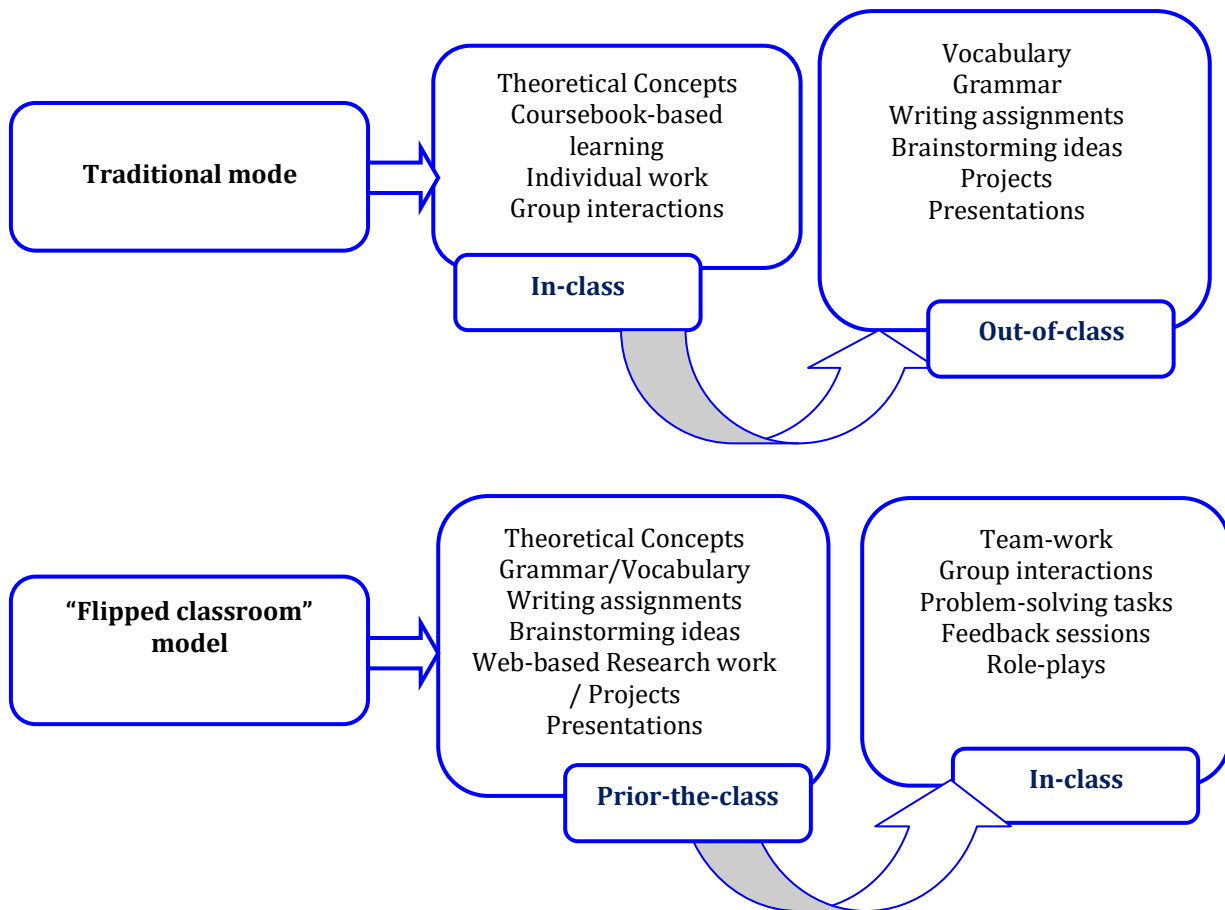
Figure 1. Features of features of a traditional mode and "flipped classroom" model-based learning environments.

At the after-experimental (analytic) stage (the beginning of 2018 year), there were studied the results of experimental group students obtained in their final test in Ukrainian for Special Purposes Course, Course Satisfaction Questionnaire responses and used the qualitative method to process the data collected experimentally.

The above questionnaire used five closed-ended questions asking 1) whether the learning mode met the student's expectations; 2) whether the course content was adequate to the student's professionalism-related needs; 3) whether the student benefited professionally from doing the Ukrainian Language course accompanied by media textbook; 4) whether the instructor delivered the course using a variety of methods and activities; 5) whether the instructor challenged the student to do your best in learning.

Achievement Test

Given the time allocated to each topic, the 22 multiple-choice-item test was designed and then evaluated by four knowledge field experts and the expert in the field of measurement and evaluation. The test items were aimed to to distinguish between students who are masters and non-masters. To validate the test internal reliability, it was run the Kuder-Richardson Formula 20, resulted in a reliability coefficient, which was 0.74 and indicates internal reliability.

Data Analysis

In order to analyze the quantitative data, a 2X2 split-plot design was used. There was used two-way ANOVA for Mixed Measures to designate the main effects for column and row factors and their interaction effect related to the efficacy of the experiment (Buyukozturk, 2016). The data obtained through the survey were organized according to the themes and were analyzed though descriptive analysis. When analyzing, to ensure validity, a coding list was formed, and these codings were peer reviewed. Upon finishing analyses, another expert coded and interpreted some parts of the interview data by means the same coding list. The results of the two analyses were compared, and the differences were discussed and negotiated.

Study Group Homogeneity

The control and experimental groups of students were mostly homogeneous in terms of demographic and performance indicators, namely the control group numbered 30 people, of which 22 were young women aged 19-20 and 8 young men aged 20-21. Of 31 individuals in the experimental group, 17 were young women aged 19-21 and 14 were young men aged 20-22. All participants of the study were students of the 2nd year full-time, the Khmelnytskyi Humanitarian-Pedagogical Academy as it explained above. The *t-test* was administered to identify whether there were any statistically significant differences between the pre-test scores of the two groups (see Table 1).

Table 1. The Results of the t-test According to the Pre-test Scores of the Groups

Group	n	Measurement				
		M	*SD*	*SE*	*t*	*p*
Experimental group	30	3,5110	1,14845	56	0.71	0.477
Control group	31	3,2802	1,12395			

Note. P<.05; *n* - the number of students; *M* - arithmetic average; *SD* - standard deviations; *SE* - standard error.

Table 1 shows that both groups can participate in the experimental process as there were no statistically significant inconsistences between the mean scores of the students (t(56) =0.71, p>0.05).

Results

The experiment was carried out in the natural conditions of the educational process and the suggested model contributed to the student's academic achievements. The below table (see Table 2) illustrates the standard deviation values and the means of the pre-and post-test scores of the students in the experimental and control groups.

Table 2. Achievement Test Scores of the Experimental and Control Groups

Group	Pre-test		Post-Test	
	M	*SD*	*M*	*SD*
Experimental	59.31	18.876	54.22	16.14
Control	55.48	18.46	57.62	12. 97

Note. SD - standard deviations; M - arithmetic average.

It is noteworthy that while the figures (mean scores) for pre- and post-test for the experimental group decreased (from 59.31 to 54.22), the figures (mean scores) for the control group increased (from 55.48 to 57.62).

The below figures show the test result conducted at the pre-experimental stage and which made it possible to determine the level of students' language proficiency in the subject "Ukrainian language (for professional purposes)" (see Figure 2, see Appendix A for assessment criteria).
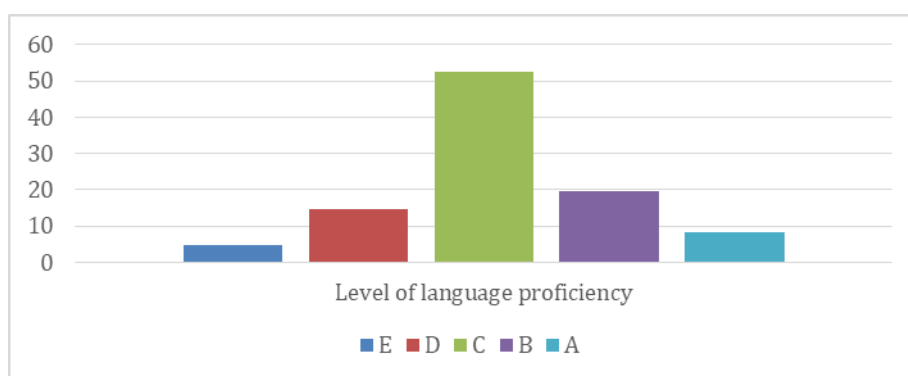

Figure 2. Levels of language proficiency in linguistic students formed in the conditions of traditional learning environment

The obtained test results showed that within traditional methodology the vast majority of students (52.5%) have achieved C level of language proficiency in "Ukrainian language (for professional purposes)" and only 19.7% can boast B level. Accordingly, it is concluded that traditional methods in studying "Ukrainian language (for professional purposes)" has low efficiency in terms of acquiring knowledge and practical skills.

Assessment results the effectiveness of "flipped technology" are graphically represented in the diagram below (see Figure 3).
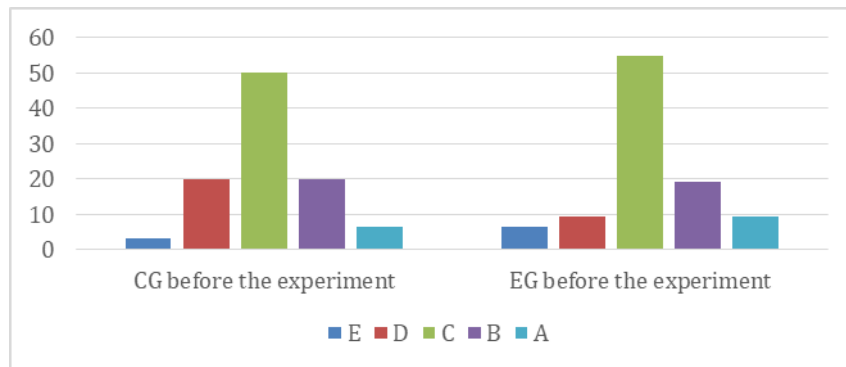

Figure 3. Distribution of linguistic students of control and experimental groups by levels of their language proficiency at the beginning of the educational stage of the experiment

Comparison of the results showed similar levels of language proficiency both in the control and experimental groups at the beginning of the experiment. The next step was to expose of experimental group (specialty 014 Secondary education (Ukrainian language and literature)) to "flipped learning" technology while studying "Ukrainian language (for professional purposes)". At the final stage of the experiment, both control and experimental groups were tested again. The comparative analysis of students' language proficiency in control group at the beginning and at the end of the experiment is represented in the diagram below (see Figure 4).
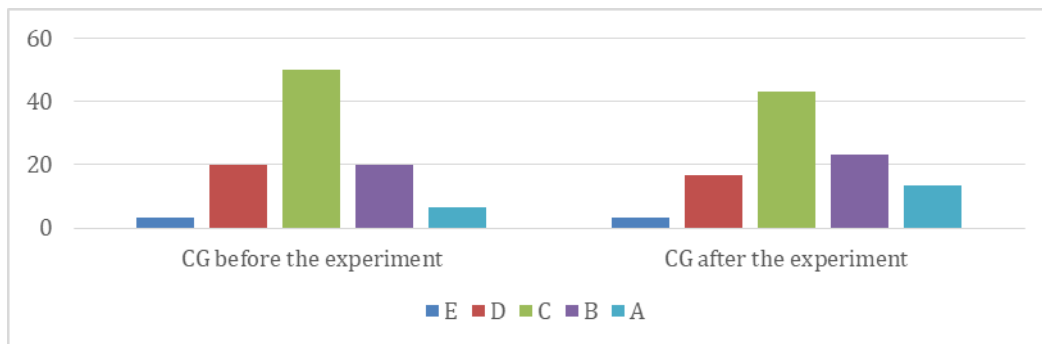

Figure 4. Distribution of students of the control group according to the levels of their language proficiency at the beginning and at the end of the formation stage of the experiment

The results of comparative analysis of students' language proficiency (in experimental group) at the beginning and at the end of the experiment are represented in the diagram below (see Figure 5).
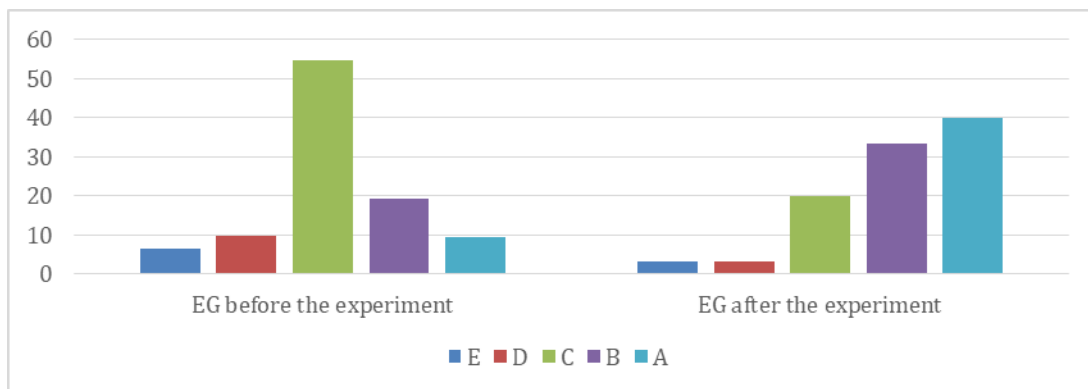

Figure 5. Distribution of students of experimental group according to the levels of their language proficiency at the beginning and at the end of the formation stage of the experiment.

The results of comparative analysis of students' language proficiency (in experimental and control groups) at the end of formation stage of the experiment are represented in the diagram below (Figure 6).
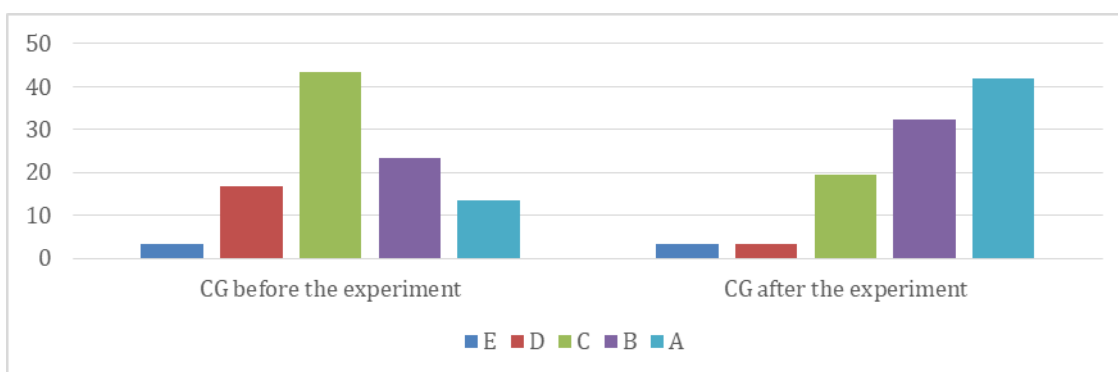
Figure 6. Distribution of students of the control and the experimental groups according to the levels of their language proficiency at the end of the experiment

As it can been seen, the use of "flipped learning" technology in the process of studying the discipline in experimental group greatly contributed to enhancing the level of students' language proficiency, which, consequently, favourably affects the overall quality of professional training of future language teachers. This suggests that it is effective and its efficiency is supported statistically.

Table 3 shows whether the changes in the students' scores show statistically significant differences and depend on the model used to teach them: "flipped classroom" model-based learning environment.

Table 3. The Results of ANOVA for Mixed Measures on the Students' Pre- and Post-test Scores depending on the use of either "flipped classroom" or traditional (paper course-book-based) models
Variance Source

	SS	df	MS	F-value	p	η^2	n
Between-Groups	23011.27	56					
Group (Experimental/Control)	32.44	1	33.34	.082	.773	0.001	61
Error	22849.48	55	412.49				
Within-Groups	10841.72	58					
Measurement /Pre-test/Post-test)	11.24	1	11.24	.059	.797	0.001	61
Group*Measurement	158.31	1	168.31	.899	.343	0.016	
Error	10569.03	57	186.165				
Total	20593.07	117					

Note. p>.05; ANOVA, analysis of variance; SS – sum of squares; df – degrees of freedom; MS – mean square; η^2, measure of strength of relationship (eta squared); n – the number of students.

It cannot be observed statistically substantial difference between the mean scores of the students learning through the "flipped classroom" model and traditional mode. There was even a small decrease observed in the mean scores of the students taught through the "flipped classroom" model-based learning environment as seen in Table 2.

To address the relationship between the "flipped classroom" model-based learning environment and improvement of students' learning activity, the descriptive statistics related to the variables of the research (learning readiness, academic motivation, and perceived learning) and the correlations between them were examined (see the results in Table 4).

Table 4. Descriptive Statistics and Correlations between Variables

Variables	**1**	**2**	**3**
1. Learning Readiness (LR)	1.00		
2. Academic Motivation (AM)	.41**	1.00	
3. Perceived Learning (PL)	.69**	.43**	1.00
Mean (Likert type mean score)	74.13 (4.11)	140.03 (5.00)	17.37 (3.47)
Standard Dev.	11.70	24.29	3.97

*p > .05. **p< .01.

As it is seen in the Table 4, there are positive and significant correlations between LR, AM and PL figures. It was found that there is a positive noteworthy relationship between LR and AM (r=.41, p> .05); a positive substantial relationship between LR and PL is also observed (r = .69, p> .05); and there is a positive noteworthy relationship between AM and PL (r = .43, p>.05). All correlation values are positive which means that the simulation-based gamified model stimulate students' learning activity.

The below are results revealing the second research question regarding the impact of the "flipped classroom" model-based learning environment on the students learning styles.

Results clearly suggest that students have experiences a dramatic change in perception of benefits of learning through self-performing multimedia-based assignments (see Table 5).

Table 5. Shift in student preferences in learning

Preferences in Learning	Pre-experimental stage	After-experimental stage
	Traditional learning/teaching model	The "flipped classroom" model with multimedia-based textbook
learning in the class under the teacher's control	24%	9%
using written materials independently	28%	10%
doing computer-assisted work independently	37%	67%
doing assignments cooperatively (in mini groups)."	11%	14%

In the view of the above, the experimental group students found interactive methods like web-cases, web-quests, non-adapted video and audio materials effective as they developed their job skills like problem solving, increase motivation to solve the problem, time management skills, and lifelong learning skills. The results obtained from both the final test in Ukrainian for Special Purposes Course, Course Satisfaction Questionnaire proved a potential of the "flipped classroom" model accompanied by multimedia textbook to bring positive changes in terms of student involvement, their commitment, motivation and practical use of what has been learnt (see Table 6).

Table 6. Shift in aspects of learning

Learning aspects	Traditional learning/teaching model	The "flipped classroom" model with multimedia-based textbook
Involvement	43%	51%
Commitment	45%	63%
Motivation	49%	87%
Practical application	32%	68%

With regard to the impact of "flipped classroom" model with multimedia-based textbook to the shift in learning aspects, the above table looks suggestive for this study. When asked how much time they studied outside the classroom, 7 students reported that they dedicated one-two hours to their studies outside the classroom, 6 students spent three-four hours, the other students (17 (51%)) – four-five hours. When asked about the positive aspects of the "flipped classroom" model combined with multimedia-based textbook, 29 (87%) students stressed the fact that a group work in the class was more motivating than doing activities individually at home, in contrast to 2 (13%) students who stated that they were challenged with the content or had procrastination problems or did not like this teaching approach. The implication from this seems to be that the model crucial contributes to forming both student preferences and learning aspects.

It is still a challenge to face for the Ukrainian language teachers of the tertiary institutions of Ukraine to use technology to build the students' learning process on which limits students' learning opportunities. University teachers/lecturers mostly use classroom activities, but we found that, though less commonly used, paper-based materials are becoming less popular than electronic ones. Moreover, it is a problem that the teachers/lecturers of tertiary institutions in Ukraine prefer using reproductive activities, as their students lack motivation to study and they force them (not motivate) to study.

Discussion

The multimedia textbook-based "flipped classroom" learning model is a competency-based one as it focuses on the variety of activities aiming at intriguing and retaining the learner's concentration and maintain their interest and motivation to learn.

The model also intends to develop learner's skills for life-long learning, to suit learning styles of every student. The methods used to assess the progress of student in learning under the 'flipped classroom' do not directly assess the performance resulted from the flip.

In this study, we identified tangible (seemingly measurable) and intangible (difficult to measure) improvements. Final test grades in Ukrainian for Special Purposes Course, results of quizzes, projects, responses from the Course Satisfaction Questionnaire were the ones considered to be tangible improvement indicators. Students' engagement,

their confidence, self-reliance, commitment, motivation were, in our view, intangible factors (improvements) but they were important learning progress indicators.

In the view of the above, the assessment method used in this study is almost identical to a method for assessment used Boucher et al. (2013), Findlay-Thompson and Mombourquette (2014). They compared grade data obtained from exams, tests quizzes to measure the learning progress of their students.

This study proved that teaching Ukrainian to students majoring in language and literature teaching on the basis of multimedia textbook-based "flipped classroom" learning model would result in improving students' overall learning performance as they consume and save their time, get instant feedback and assessment, and have an opportunity to experience self-paced learning. Additionally, the results of this study indicate that students who were trained through application of the "flipped learning" technology had a higher result of language proficiency (respectively, higher quality of professional training).

There are some methodological peculiarities of the use of multimedia textbook in teaching. These are as follows:

- the use of multimedia textbook should be aimed at meeting not only the educational but didactic requirements;

- a multimedia textbook design is supposed to be interactive;

- a multimedia textbook content should be based on the activities, such as: video, audio, interactive games, quizzes, etc;

a multimedia textbook should provide the hyperlinks to the reference sources.

Overall, our experimental output proved that students' educational gains form learning Ukrainian through application of multimedia textbook-based "flipped classroom" learning model are more apparent and far greater than those obtained through a traditional educational model. Moreover, providing learners with opportunities to satisfy their increasing learning needs educational institutions are able to strengthen their image and to increase attractiveness among potential students.

Conclusion

The multimedia textbook-based "flipped classroom" learning model of teaching Ukrainian to the students majoring in language and literature teaching is able to bring distinct benefits for both students and instructors. This model focuses on efficient use of time in the class, encourages both stakeholders of educational process to a deeper interaction. It pushes students to taking responsibility for their learning outcomes and accommodates them with different learning styles, involves them in problem-based learning. The model engages students' critical thinking, research and problem solving skills.

Thus, the above model allows taking a shift from a teacher-centered approach with a focus on linguistic and socio-cultural competencies to a student-centered approach that aims at developing students' communicative competency. In this regard, teaching Ukrainian at the higher educational establishment's changes form merely being a knowledge transfer of memorizing vocabulary, grammar rules in different oral and writing situations to solving true-to-life, problem-based cases and acquiring professionalism-related skills.

Limitation and study forward

The major limitation to this study is a single institution involvement. The age of the experimental group students seems to be another limitation – second-year-students of Bachelor programmes were involved. The major (specialisation) of the students can be also regarded as a limitation – students majoring in Literature and Language teaching were involved as an experimental group while methodology is applicable to other majors, such as: Psychology, Educational Management, etc. The researcher bias might be regarded a limitation as well as some of the members of our research group were involved in the course design.

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Appendix A. Assessment Criteria

1) level E (60-63 points). Student:

- has considerable knowledge gaps; does not use variety of linguistic means according to their communicative intentions, has difficulties with expressing opinions; in writing the student has 5-6 spelling and 3-4 punctuation mistakes;

- cannot prepare a business document of a particular type, makes a number of grammatical and lexical mistakes in the text, does not take pride in style of speech.

- 2) level D (64-73 points). Student:

- performs the task, but not in full, has superficial knowledge of theoretical material, argumentation is partly vague; does not always successfully choose the terms and clichés according to the context, the answer lacks unity of style, the statement is generally coherent, but the variety of vocabulary is below standard;

- shows the knowledge and understanding of the main aspects of the topic; nevertheless, material presentation is not sufficiently detailed; makes occasional mistakes while doing practical tasks; is not able to profoundly and convincingly motivate his or her thoughts and has difficulties in providing relevant examples; material presentation is rather inconsistent; is confused in the details of the document and has not more than 5-7 mistakes in the text.

3) level C (74-81 points). Student:

- performs the task in general, shows sufficient level of knowledge in "Ukrainian language (for professional purposes)"; has knowledge of the structure of documents, is able to consistently reproduce their own texts, but makes occasional mistakes that he or she corrects after teacher's comments; some flaws in the sequence of material presentation are observed but the overall text corresponds to generally accepted linguistic norms;

- can operate terminological vocabulary in accordance with stylistic norms, but makes some inaccuracies in the sequence of presentation structural elements; superficiality is observed in providing arguments. There can be 3-4 linguistic inaccuracies in the speech product.

4) level B (82-89 points). Student:

- has high level of knowledge in "Ukrainian language (for professional purposes)";

- has knowledge of the structure of business documents and is able to consistently reproduce their text; minor mistakes and occasional inaccuracies in the sequence of material presentation occur; generally, student's statements correspond to language norms; mistakes are promptly corrected after teacher's remarks; possesses terminological vocabulary, speech product corresponds to stylistic norms, minor inaccuracies in the sequence of presenting material may occur. There can be 1-2 language inaccuracies.

5) level A (90-100 points). Student:

- has profound knowledge in the subject of "Ukrainian language (for professional purposes)";

- has complete understanding of material, motivates his or her thoughts, puts theory into practice, provides the necessary examples both from the textbook and based on own experience;

- presents the material consistently and correctly according to the norms of the literary language; uses the lexicographic sources (dictionaries) and other reference literature, necessary for independent improvement of own linguistic culture;

reproduces orally and in writing the proposed samples of documents, the answer is marked by the richness of the vocabulary, grammatical correctness, adherence to style unity and expressiveness of the analysis of texts of documents, practical tasks are performed correctly, competently.