

# USAGE OF DIGITAL TOOLS AND SOCIAL MEDIA FOR COOPERATIVE AND COLLABORATIVE LEARNING

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## **Abstract**

*In the context of the COVID-19 pandemic, the process of higher education in many countries has been transformed into online format. Thanks to this, even in traditional universities, digital tools and technologies have become more actively used. A crucial role in this process belongs to social media, which allow more efficient use of various forms of students' Cooperative and Collaborative Learning. The article is devoted to reviewing the experience of the usage of these educational technologies in Ukraine.*

*The authors summarize the experience of colleagues and their own scientific findings. The main differences between Cooperative Learning and Collaborative Learning and their importance in the development of student competencies are analyzed. The advantages and limitations of the usage of the most popular resources among Ukrainian lecturers (Zoom, Google Meet) are considered. Case studies using these resources in conjunction with the capabilities of social networks (Facebook, Instagram, Twitter) and instant messengers (Telegram, Viber, WhatsApp) for cooperative and collaborative learning are given. The influence of these forms of training on the development of professional and social competencies of students is analyzed. The authors also pay attention to analyzing the possibilities of using services for knowledge and competencies assessment of students (Google Forms, Kahoot it!) in Cooperative and Collaborative Learning.*

## **Keywords**

*Cooperative and Collaborative Learning, Digital, Professional and Social Competencies, Digital Tools, Social Media.*

## **INTRODUCTION**

For a long time, the implementation of the latest learning technologies in the Ukrainian educational environment has been rather slow. Most university lecturers, and especially school teachers, have used modern digital tools to teach sporadically and unsystematically. However, due to the COVID-19 pandemic, the situation in the field of education has changed significantly. Under the pressure of circumstances, the learning

process was transformed into an online format. This has forced educators to quickly master new tools, resources and platforms suitable for distance learning. Restructuring of the educational process and its adaptation to new conditions was not an easy task. Not only lecturers and teachers, but also students experienced certain difficulties. As it turned out during the transition period at the beginning of quarantine, most students are quite well versed in a variety of gadgets, useful programs and applications, but mostly for fun and communication. At the same time, a significant number of students were not fully prepared to use their own digital skills in the learning process. Thus, the issues of increasing the digital competence of lecturers, teachers and students came to the fore.

However, increasing digital competence could not be the only important direction that provides transformation of the educational process into an online format. Creation and maintenance of proper motivation for learning, development of students' professional and social competence are equally important. All these things can be achieved through the use of Cooperative and Collaborative Learning technologies, which in the context of distance learning require the use of social media and messengers' potential.

The aim of our study is to reveal the features of using digital tools and social media for Cooperative and Collaborative Learning of students.

## **Theory**

In modern science, the terms "digital literacy" and "digital competence" are used simultaneously. As noted by McGarr and McDonagh (2019, p.10) in many cases they are used as synonyms, and the main differences are related to linguistic features. For example in Scandinavia, the term "competence" is used more often instead of "literacy", as the latter term is not translated into the languages of these countries (Erstad, 2015, p. 86). In addition, in different countries and parts of the world there are certain traditions regarding the use of these terms. Thus, in continental Europe, Scandinavia and South Africa, the term "digital competence" is more commonly used, while in the rest of the world the term "digital literacy" is more popular (Spante et al, 2018). At the same time, in historical retrospect, the term "digital literacy" appeared earlier (in 1997), while the term "digital competence" appeared ten years later (in 2006). Perhaps that is why the term "digital literacy" is more commonly used in most countries outside Europe. However, there are more significant differences between these terms. Thus, Almås and Krumsvik (2008, p. 280) note that the term "digital competence" is more integral and wide. In this case, the term "digital literacy" is used when referring to European policy and initiatives relating to e-inclusion, while "digital competence" is used in an educational context (Janssen et al, 2013). The authors consider that competence encompasses a wider educational conceptualization that includes knowledge, skills and attitudes towards digital technologies.

Definitions of this notion appear on this basis. Aesaert et al (2013) define digital competences as the "integrated and functional use of digital knowledge, skills and attitudes" (p. 132). Although the term "digital competence" has not existed for a long time, scientists have proposed a number of interesting models that reveal the structural and substantive features of this notion. A survey by Janssen et al. (2013), in which the authors identified twelve different areas that encompass digital competence composing of knowledge, skills, and attitudes using a Delphi study (figure 1), can be highlighted among them.

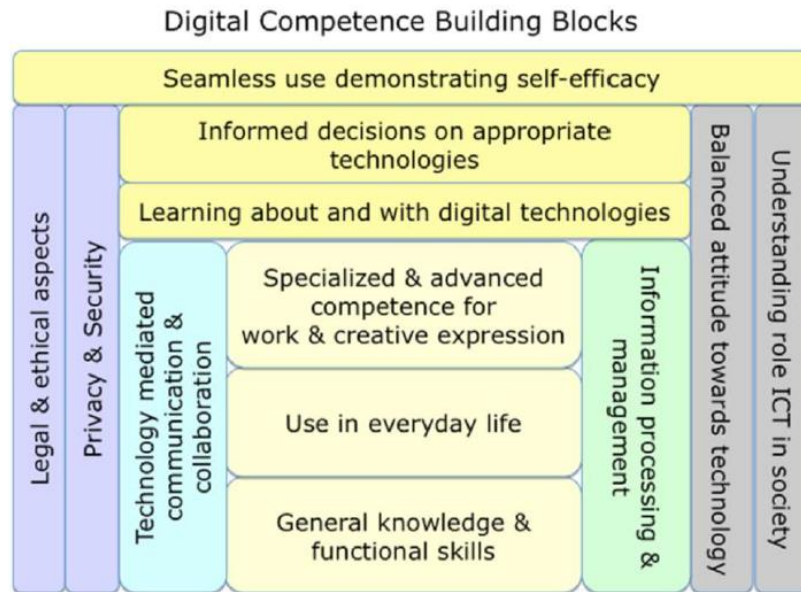


Figure 1: Digital Competence Building Blocks (Source: Janssen et al., 2013)

The model, that was developed in DigiComp project (an EU funded project aimed at identifying the key components of Digital Competence and developing an overall digital competence framework) is very important for our study. In the first version of this model 5 key areas of digital competence: Information, Communication, Content-creation, Safety, Problem-solving (Ferrari, 2012) were suggested. A few years later this model was updated. That's how DigiComp 2.0 (Vuorikari et al, 2016) variant, which is presented in a table below, appeared.

Table 1: Competence areas of DigiComp 2.0.

	Competence areas
Inter-related areas with overlapping points and cross-references	Information and data literacy (identify, locate, retrieve, store, organize and analyse digital information, judging its relevance and purpose)
	Communication and collaboration (communicate in digital environments, share resources through online tools, link with others and collaborate through digital tools, interact with and participate in communities and networks, cross-cultural awareness)
	Digital content-creation (create and edit new content (from word processing to images and video); integrate and re-elaborate previous knowledge and content; produce creative expressions, media outputs and programming; deal with and apply intellectual property rights and licences)
Cross-cutting areas across all areas	Safety (personal protection, data protection digital identity protection, security measures, safe and sustainable use)
	Problem-solving (identify digital needs and resources, make informed decisions as to which are the most appropriate digital tools according to the purpose or need, solve conceptual problems through digital means, creatively use technologies, solve technical problems, update one's own and others' competences)

(Source: Vuorikari et al, 2016)

Based on DigiComp 2.0, a number of interesting Digital Competence concepts have been developed in many European countries. Most of them were analyzed in detail in the work of McGarr and Mcdonagh (2019).

It is fundamentally important for us that DigiComp 2.0 contains elements that are related to Cooperative and Collaborative Learning. The terms Cooperative Learning and Collaborative Learning are also often used interchangeably. However, we share the view of Ian Curtis and his team (Promethean) on the differences between Cooperative Learning and Collaborative Learning (ResoursEd - A Promethean Blog, 2017).

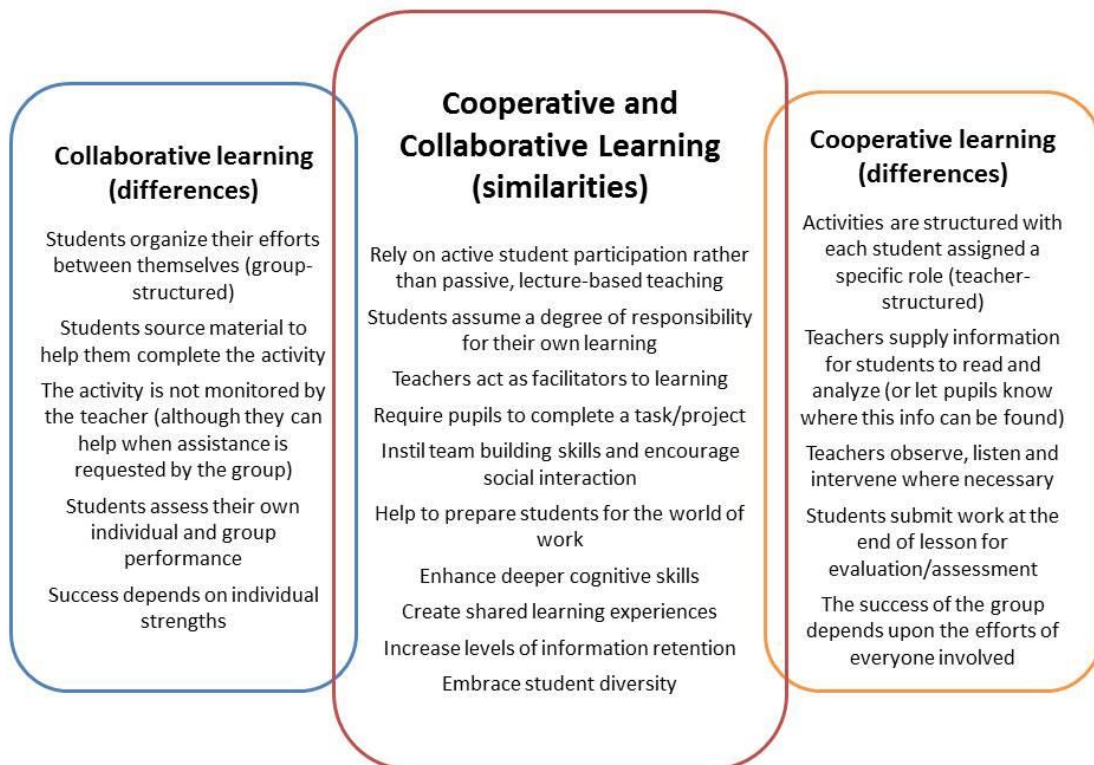


Figure 2: Similarities and Differences between Cooperative and Collaborative Learning (Source: Own, drawing on the ResoursEd – A Promethean Blog, 2017)

Specified similarities and differences between Cooperative and Collaborative Learning together with the main thesis of DigiComp 2.0 were taken into account while transforming educational process into an online format.

Also while choosing digital tools we payed attention to the results of our own research, in which prevalent types of users for the most popular social networks (Facebook, Instagram, Twitter) and messengers (Telegram, Viber) were identified. It is determined that the leading types of users are: for the Facebook – discussion initiator, active discussion participant, conformist; for the Instagram – generator of creolized content, spreader of the creolized content and a follower; for the Twitter – generator of creolized content, spreader of the creolized content and a discussion initiator; for Telegram – discussion initiator, active discussion participant, spreader of the creolized content; for Viber messenger – initiator of discussions, active participant of discussions, conformist (Sosniuk, Ostapenko. 2019, pp.160-181).

## METHODS

In the process of transformation of the educational process, we used methods of active learning, such as: web-quest, comics, project-oriented tasks, methods of creating inspiring motivation, etc. Combined with the use of resources useful for the organization of distance learning (Zoom, Google Meet) and the possibilities of popular in Ukraine social networks (Facebook, Instagram, Twitter), messengers (Telegram, Viber, WhatsApp) - it allowed to solve the problem of digital, professional and social competencies.

In addition, the use of these methods helped to create conditions for the Cooperative Learning and Collaborative Learning.

We also interviewed lecturers and teachers of various faculties of Taras Shevchenko National University of Kyiv to assess the resources useful for organization of distance learning (Zoom, Google Meet, Google Forms, Kahoot it!)

We used the in-depth interview method with lecturers and teachers. The structure of interview consisted of such blocks:

*Introduction.* Familiarization with research goals, collection of general information about the lecturer, teacher (speciality, education, work experience, experience in using distance learning methods)

*Thematic block 1.* Gathering information about digital tools for organizing and conducting online learning. What digital tools do you use for organizing distance learning (free discussion)? Describe your experience of using these tools (advantages and opportunities, disadvantages and limitations). How suitable are they for the Cooperative Learning and Collaborative Learning? Why do you think so?

*Thematic block 2.* Gathering information about digital tools for assessing students in the online learning process. What digital tools do you use to assess students in the online learning process (free discussion)? Describe your experience of using these tools (advantages and opportunities, disadvantages and limitations). How suitable are they for the Cooperative Learning and Collaborative Learning? Why do you think so?

*Thematic block 3.* Gathering information about other useful tools and applications. What other digital tools and applications can be useful in the online learning process (free)? Which of them are more helpful for the Cooperative Learning and Collaborative Learning? Which are less helpful? Explain, why do you think so?

*Final part.* Generalization of information about digital tools. Which of the digital tools do you think are most useful for online learning? Why? Evaluate these digital tools on the basis of usefulness for online learning on a scale of 1 to 5. Which of those tools would you recommend your colleagues for the Cooperative Learning and Collaborative Learning? Why? Which ones are best to use for the Cooperative Learning? Why? Which ones are best to use for the Collaborative Learning? Why?

For data analysis we used the qualitative content-analysis method. In process of analysis we used other researcher's developments (Cheng et al, 2017).

### Participants

Students of 1st year of study (bachelors) of the Faculty of Psychology (example from educational practice 1) – 140 persons, students of 4th year of study (bachelors) of the Faculty of Psychology (example from educational practice 3) – 40 persons, students

of 1<sup>st</sup> year of study (masters) of the Faculty of Psychology (example from educational practice 2) – 8 persons.

Lecturers and teachers of various faculties of Taras Shevchenko National University of Kyiv. Total number of respondents – 28 persons.

## **RESULTS**

The semester began in usual conditions and the first modules were mastered by students in the traditional format. However, quarantine was declared in March in connection with the COVID-19 pandemic. Thus, the transformation of the educational process into an online format took place in the middle of the semester, which contained an element of surprise for both teachers and students. This encouraged teachers to find resources suitable for online learning with free access.

That is why, at first, the vast majority of teachers chose the Zoom platform (which provided benefits for educators). However, in early May Zoom exemptions were abolished. Instead, the benefits for educators were provided by another service – Google Meet. As a result, most teachers began to take advantage of its opportunities.

Some teachers did not want to make changes in the learning process and continued to work in Zoom. Thus, most lecturers (like us) have gained a variety of experience using both of these resources.

### **Example from educational practice 1: “Fundamentals of psychosemantics”**

The discipline "Fundamentals of psychosemantics" is studied by psychologists (bachelors) during 1st year of study and it is not easy for them to master the material. That is why we try to use different methods of active learning that allow students to do it well and with the right motivation.

Among them are web-quest, comics, research projects, search tasks. These methods are relevant for young people, support students' interest in learning, contribute to the development of their competencies. We use these methods in usual learning conditions.

However, this year, when the educational process has been transformed into an online format, these methods were especially useful (taking into account that they are Internet-oriented).

The procedure and methodological aspects of using comics and web-quest have been described in some detail in previous publications (Sosniuk, Ostapenko. 2018, pp.82-89). Therefore, this time we think it is appropriate to talk about the peculiarities of using this method in the context of Cooperative Learning and Collaborative Learning.

Assignment for creating comics is a common practice within this discipline. But content of the assignments is permanently changing. This year students were proposed to create a comic about how their representation system (or their personal constructs) are changing while interacting with the outside world.

Usually students use virtual resources with free access (like StoryBoardThat). Comics are posted in special groups in social media. Then, we discuss comics online. An example, in which student narrates about change of stereotypes and attitudes concerning citizens of other countries is presented below (Figure 3).

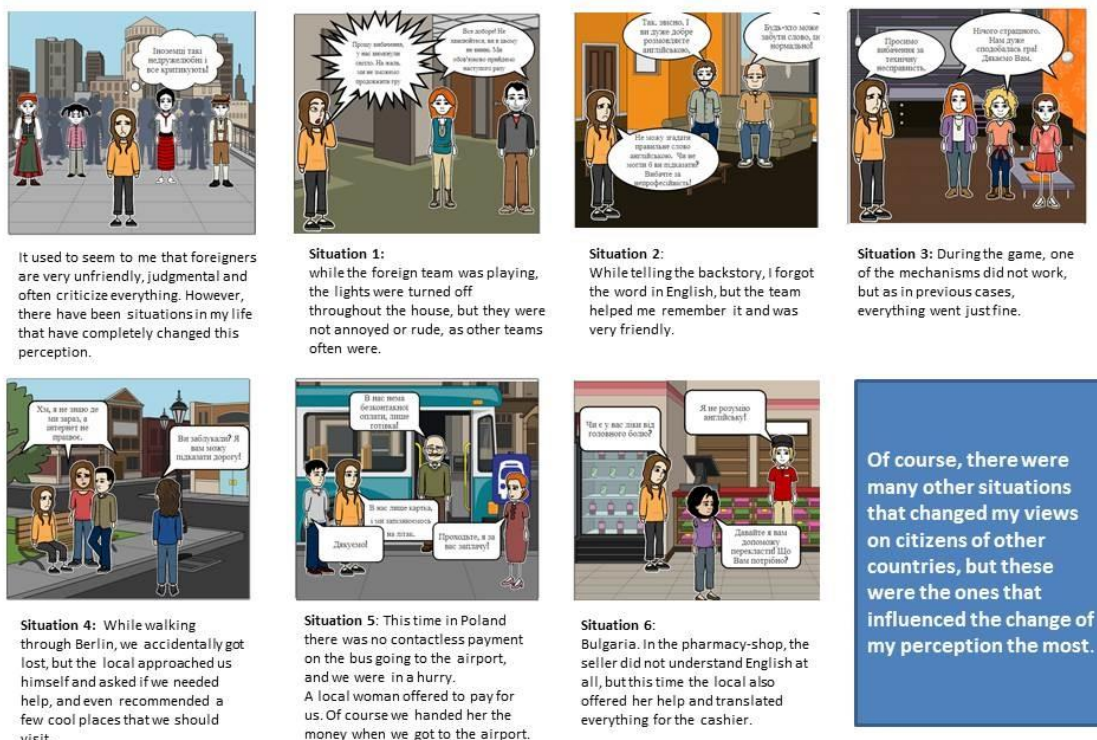


Figure 3: An example of comics about the change of stereotypes and perception related to citizens of other countries (Source: Own, 2020)

Usually in the process of creating comics students actively communicate in groups, especially while they are mastering virtual constructors. Therefore, the use of this method is important for Collaborative Learning. As for the use of web-quest, this method, on the contrary, is more important for Cooperative Learning, because it conveys a clear division of roles and collective responsibility. This year we invited students to develop a repertory grid to explore preferences for places to rest, study or work. After listening to the lecture, students were invited to read the necessary sources and take an online tour with links to materials from other scholars and teachers on YouTube: Personal constructs (repertory grids) – from Graham R Gibbs<sup>1</sup>; Helen Jones talks about Personal Construct Psychology<sup>2</sup>; What is REPERTORY GRID? What does REPERTORY GRID mean? REPERTORY GRID meaning & explanation – from The Audiopedia<sup>3</sup>; Competency Assessment | Repertory Grid – Rep Grid | Role Profile Competency Interviewing – from David Sharpley.<sup>4</sup>

<sup>1</sup> Personal constructs (repertory grids) – from Graham R Gibbs: Personal Constructs. Part 1 of 2 on Personal Construct Psychology – <https://www.youtube.com/watch?v=SeRv62ugJFc>; The Repertory Grid. Part 2 of 2 on Personal Construct Psychology – <https://www.youtube.com/watch?v=YFlwt1aSxjo>

<sup>2</sup> Helen Jones talks about Personal Construct Psychology – <https://www.youtube.com/watch?v=J0bNBP5tH4g&list=PLwdAvrGLtEAhTQujd099UgnZxRmg2oXOT&index=36&t=0s>

<sup>3</sup> What is REPERTORY GRID? What does REPERTORY GRID mean? REPERTORY GRID meaning & explanation – from The Audiopedia – <https://www.youtube.com/watch?v=MEOok7xzLp8>

<sup>4</sup> Competency Assessment | Repertory Grid – Rep Grid | Role Profile Competency Interviewing – from David Sharpley – <https://www.youtube.com/watch?v=ErAJE4NUxqI>

Students were then divided into triads. Each of them performed a personal task, using colleagues as subjects. Thus, each of them acted as a researcher and respondent. After that students were given a list of links to resources that provide free access to specialized programs for statistical treatment of repertory grids<sup>5</sup>.

Students were required to test these program's features and process their own repertory grids. Based on the experience gained, each group as experts made an analytical reference and recommendations for the application of these programs for the entire academic group.

We also used research projects. Project management was carried out by master students for insufficient of professional experience 1<sup>st</sup> year of study students. This year, there were projects concerning the study of the perception's features of social advertising of environmental orientation and the artworks perception. Within these projects, students participated in the creation of research tools (semantic differential), Google Forms, online research and processing of its results<sup>6</sup>. This approach allowed bachelor students to gain their first research experience, and master students – the experience of research projects management.

In addition, we used searching tasks in teaching. For example, aimed at finding potentially discordant names of foreign brands for further phonosemantic analysis. Presence in groups of foreign students (from China, Turkey, Iran, Azerbaijan, Georgia) was extremely useful. In some cases, it gave unexpected results. In particular, Chinese students have dispelled marketing myths about the perception in China names of some well-known international brands.

During the teaching we revealed that for operative communication with Ukrainian students the most useful is Telegram, and with foreign students – Viber and WhatsApp messengers. It was also found that it is better to discuss the results of certain tasks in closed groups on Facebook, presentations of creative developments – on Instagram, searching tasks – on Twitter.

### **Example from educational practice 2: “Psychology of Political Consulting”**

The discipline "Psychology of Political Consulting" is studied by master students (speciality "Political Psychology") during 1st year of study. These students have a higher level of professional, social and digital competencies. In addition, the number of students is much smaller – 8 persons. That is why we often use a project-oriented approach to better teaching of this discipline.

One such project-oriented task is to develop the concept of the politician's image and political party's image. To perform this task students are divided into 2 groups (teams of political party candidates). Usually students choose the option of creating a new political party and choose its leader among their team members. Then the roles of other team members are defined and work on the project begins. The project consists of many stages, at each of which students perform local creative tasks (Figure 4).

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<sup>5</sup> Links to resources that provide free access to specialized programs for statistical treatment of repertory grids: <https://pages.cpsc.ucalgary.ca/~gaines/replus/>, <http://www.psycyc.org/grids/default.htm>, <https://www.idiogrid.com>, <http://openrepgrid.org>

<sup>6</sup> Links to special Google Forms – <https://forms.gle/omYNMXa8aYmjhkoY9>, [https://docs.google.com/forms/d/e/1FAIpQLScVsRcZEmgm3ukdBc3qk\\_zoqS5jzjBuKvAG\\_o2U2myStmCBHg/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLScVsRcZEmgm3ukdBc3qk_zoqS5jzjBuKvAG_o2U2myStmCBHg/viewform?usp=sf_link), <https://forms.gle/CVT7cJG42qz31Yen9>,



## Technological scheme of image concept development

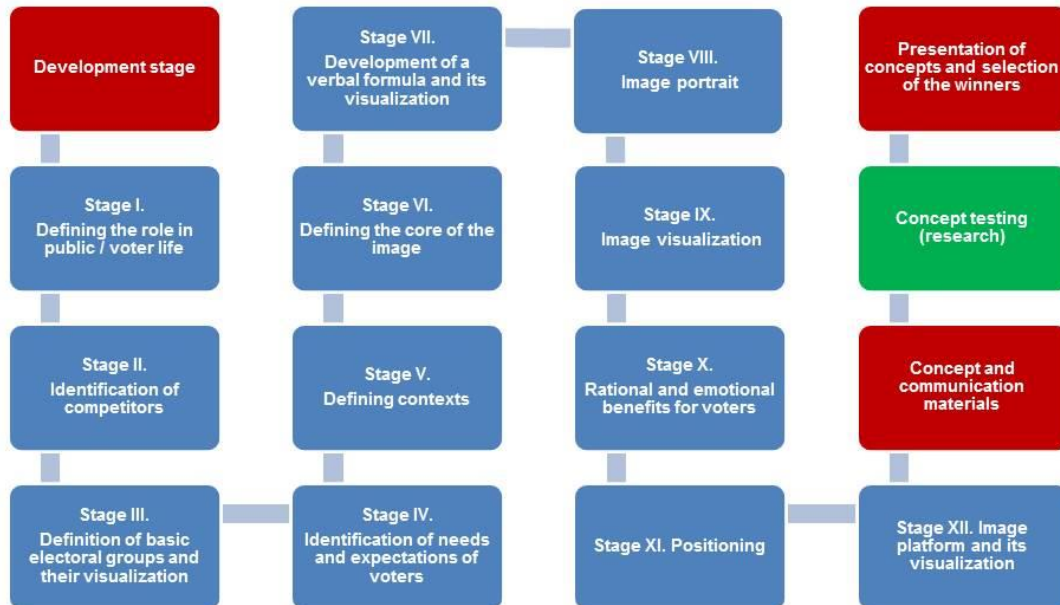


Figure 4: The main stages of image concept development (Source: Own, 2020)

Usually, a creation of a concept finishes by generation of MoodBoards, party name, slogans, communicational materials (photomatics, digimatics, video and prints materials). After this stage, concept testing in qualitative research occurs, participants are bachelor students. This year, we conducted online FG in Zoom, because potential of this platform allows to receive both discussion record, and the scripts, which makes preparation of the report much easier.

At the final stage all teams, taking into account the results of the research, adjust the concept and materials and make presentation. The results of presentation allow to define team-winner.

The use of this approach is more in line with Cooperative Learning, although the use of Collaborative Learning elements is possible for local tasks. At the same time, we try to develop the creativity of students. Students love to prepare creative content using digital tools. This allows them to maintain appropriate motivation and develop digital, professional and social competencies.

### Example from educational practice 3: “Psychology of Advertising”

Due to quarantine restrictions, imposed in consequence of COVID-19 epidemic the second content module of “Psychology of Advertising” discipline (bachelors, 4<sup>th</sup> year of study) was taught remotely. Such resources as Google Meet, Google Classroom and YouTube were primarily used for this. Rapid communication with students and solving organizational issues was carried out in a chat in Telegram messenger.

In the course of teaching of “Psychology of Advertising” discipline we provided conditions for Cooperative Learning and Collaborative Learning. The course topics, selected within the curriculum, were divided into smaller content blocks. Every such content block was presented separately via Google Classroom and contained a pre-recorded and uploaded to YouTube lecture (the record was made in Google Meet), additional theoretical materials (the teacher’s author’s material, excerpts from books and textbooks, articles, links to interesting material on the Internet), illustrative samples of advertising, grouped according to the topic’s content, tasks for seminars, control questions.

Tasks that summarized the completed topic also contained self-check tests (created in Google Forms) and a presentation (prepared in PowerPoint), in which material on the topic was systemized. Thematic blocks were taught in Google Classroom according to the class schedule (once a week). Thus, every student could master the material at a convenient time and in their own tempo during the week (Figure 5).

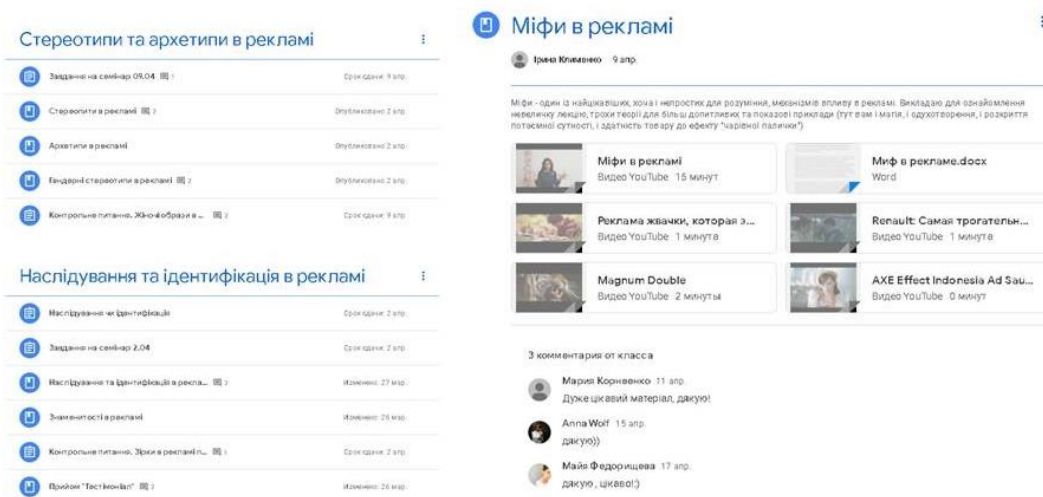


Figure 5: Example of thematic blocks (Source: Own, 2020)

While mastering the material students could ask the teacher clarifying questions both in private messages and in the main Google Classroom feed. Private messages were also used for feedback regarding quality of individual tasks fulfillment, certain teacher’s clarifications, remarks or wishes.

Since not all students had stable Internet connection to participate in the seminars online, an alternative way was suggested. Students could prepare PowerPoint presentations on the seminar issues, that were then posted in Google Classroom, discussed and evaluated in the main feed. In the main Google Classroom feed students could also share interesting samples of advertising and cases, that caught their attention, discuss them with each other and with the teacher.

For knowledge control and assessment Google Classroom’s possibilities were used: all tasks were formed with a specification about the deadline and maximum possible grade and returned to the students after a check. Thus, the electronic journal of the class was automatically filled in, and students could monitor their academic performance. Google Classroom also generated automatic notifications about the deadline for students.

The answers to control questions of every content block, preparing to seminars and completed creative tasks were assessed. Self-examination tests were also monitored. For the final assessment we used modular tests (thematic and attribution), formed in Google Classroom on the Google Forms platform, completion of which was limited in time. Group feedback was carried out in the main feed of the class after completing certain tasks (clarifying certain problematic moments, discussing typical mistakes etc.)

### **Advantages and limitations of the usage of the most popular tools**

After analysing the results of colleagues' survey and their own experience we can determine advantages and limitations of use of the most popular tools among Ukrainian lecturers (Zoom, Google Meet).

Both platforms provide approximately the same functionality for online learning. However, there are some differences. Zoom provides free connection for members no matter where they have an account, while Google Meet requires members to have a Google account. Zoom also allows you to make digital records for free, while Google Meet provides such functions only in paid versions.

However, Google Meet has its advantages. First of all, this is the duration of classes in the free versions – 60 min, while Zoom provides only 40 min. In addition, Google Meet provides better privacy (through data encryption).

### **Possibilities of using services for knowledge and competencies assessment**

Possibilities of using services for knowledge and competencies assessment of students such as Google Forms and Kahoot it! deserved autonomous treatment. According to our colleagues, each of them has its advantages and disadvantages.

***Kahoot it!*** *Main advantages:* in the form of tests you can check the level of students knowledge, you can set time limits for each question (from 20 to 240 seconds); you can set the time until which testing will be open; you can upload a picture or a graphic to a text question. *Main disadvantages:* a free account allows you to use only two types of tasks: tests (Quiz) and approval / refutation of a thesis (True / False); in tests (Quiz) there are only 4 answer options, but you can choose a few correct answers.

***Google Forms.*** *Main advantages:* uses many more question options: open-ended question, tests (one from the list, several from the list, scale, etc.); integrates with Google Classroom; the results come with analytics; open questions can be checked automatically by keywords. *Main disadvantages:* there is no time limit for a certain task (in order for the form to be limited in time – you need to install an add – form Limiter – PROD; if the student has not sent a response by the specified time and the form is closed –the answers are not saved.

## **DISCUSSION AND CONCLUSION**

In the process of transforming learning into an online format, it is important to use active learning methods, such as: web-quest, comics, project-oriented tasks, methods of creating inspiring motivation, etc. In combination with the use of resources useful for the organization of distance learning (Zoom, Google Meet) and the possibilities of popular in Ukraine social networks (Facebook, Instagram, Twitter), messengers (Telegram, Viber, WhatsApp) – it allows solving problems of development of digital, professional and social competences. In addition, the use of these methods helps to

create conditions for Cooperative Learning and Collaborative Learning. In our view, the methods that correspond to Collaborative Learning are more useful for work involving bachelor students of the first years of study. To work with undergraduate and graduate students, it is better to use methods that are consistent with Cooperative Learning. Such priorities take into account the degree of readiness of students and the level of development of their competencies.

Table 2: Possibilities and limitations of using digital services for Cooperative Learning and Collaborative Learning.

Apps		Cooperative Learning		Collaborative Learning
Zoom	<i>Opportunities.</i> Students organize their efforts between themselves, students source material to help them complete the activity etc.	<i>Main advantages:</i> Zoom allows us to make digital records for free, which's really helpful while using quantitative methods of research. <i>Main disadvantages:</i> duration of classes in the free versions – only 40 min, limited opportunities for cooperation in performing project-oriented tasks.	<i>Opportunities.</i> Activities are structured with each student assigned a specific role, teachers supply information for students to read and analyze etc.	<i>Main advantages:</i> Zoom provides free connection for members no matter where they have an account, which simplifies communication in the learning. <i>Main disadvantages:</i> duration of classes in the free versions – only 40 min, limited opportunities to perform individual and group tasks of high complexity
Google Meet		<i>Main advantages:</i> duration of classes in the free versions – 60 min, which provides broader opportunities for cooperation in the learning process. <i>Main disadvantages:</i> Google Meet allows us to make digital records only in paid versions.		<i>Main advantages:</i> integrates with Google Forms, which provides additional opportunities for the use of quantitative research methods. <i>Main disadvantages:</i> Google Meet requires members to have a Google account, that imposes restrictions on communication.
Google Forms	<i>Opportunities.</i> Students submit work at the end of lesson for evaluation etc.	<i>Main advantages:</i> uses many more question options: open-ended question, tests (one from the list, several from the list, scale, etc.). <i>Main disadvantages:</i> there is no time limit for a certain task (in order for the form to be limited in time – we need to install an add – form Limiter –PROD.	<i>Opportunities.</i> Students assess their own individual and group performance etc.	<i>Main advantages:</i> integrates with Google Classroom; the results come with analytics; open questions can be checked automatically by keywords. <i>Main disadvantages:</i> if the student has not sent a response by the specified time and the form is closed –the answers are not saved.
Kahoot it!		<i>Main advantages:</i> in the form of tests we can set the time until which testing will be open; we also can upload a picture or a graphic to a text question. <i>Main disadvantages:</i> a free account allows us to use only two types of tasks: tests (Quiz) and approval / refutation of a thesis (True / False).		<i>Main advantages:</i> in the form of tests we can check the level of students knowledge, we can set time limits for each question (from 20 to 240 seconds). <i>Main disadvantages:</i> in tests (Quiz) there are only 4 answer options, but we can choose a few correct answers.

(Source: Own, 2020)

For operative communication with Ukrainian students the most useful is Telegram, and with foreign students – Viber and WhatsApp messengers. It was also found that it is better to discuss the results of certain tasks in closed groups on Facebook, presentations of creative developments – on Instagram, searching tasks – on Twitter.

Google Forms and Kahoot it! can be equally useful for assessing students' knowledge and competencies. Each of them has certain shortcomings, so they should be used as complementary.

Zoom, Google Meet platforms provide approximately the same functionality for organizing online learning. However, the education sector is sensitive to free access. Conditions for free use of Zoom, Google Meet are constantly changing, which leads to the dependence of educators on the marketing policy of these services. That is why the specialists of Taras Shevchenko National University of Kyiv have developed their own educational platform for online learning. Taking into account the disappointing predictions of the COVID-19 pandemic, the online format of education may become the main one for a long time. We are currently testing our platform and hope to report on its features in the future.

## **AUTHORS` NOTE**

OS and IO – INTRODUCTION, METHODS, RESULTS; IK – CASE STUDY 3;  
All – DISCUSSION AND CONCLUSION.

## **ACKNOWLEDGEMENT**

Authors thank colleagues and students of Taras Shevchenko National University of Kyiv, Jan Beseda and all members of Organization committee of DisCo 2020 for attention and support.

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