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Implementing Web 2.0 Tools for Collaborative Work of Learners Studying English

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Abstract

Web 2.0 provides resources and tools that make the learning process social and collaborative as they connect students with each other and help to move from the instructor-centred methods of teaching to more contextual learning and problem-solving techniques (J.West and M.West, 2009). The aim of the paper is to introduce findings on the project of implementing Web 2.0 resources for collaborative work in the National Research University Higher School of Economics. The main objectives of the project were to 1) single out Internet resources aimed at collaboration to suit the purposes of educational programme; 2) determine how much collaborative learning background students have and their attitudes to online and face-to-face collaboration; 3) analyse the students' involvement in collaborative learning activities; 4) research the influence of web-related technologies on willingness to collaborate. The main methods used in the research were questionnaire, interview and observation as well as analyses of students' work. The results revealed a positive attitude to Web 2.0 among the majority of the students. The offered Internet resources (Tricider.com, MeetingWords.com, TodaysMeet.com) improved communication and collaboration outside of the classroom, which is vital as increasingly less time is being allocated for studying a foreign language. Besides, Web 2.0 resources make it easier for teachers to evaluate each student's contribution to task achievement and ensure fair assessment of each student's work.

Keywords: *collaborative learning, Web 2.0, studying English as a second language*

Introduction

The landscape of higher education has been changing for the past few decades due to the expansion of technology. In the 21st century, the use of technology is "no longer an activity we engage in but a space that we and our students occupy and live in" (Gerben, 2010). Application of information technology in many spheres of human activity including education is not only a distinctive feature of the modern society but also a necessity participants in the educational process have to face if they want activities and content to be relevant to the real world (Beldarrain, 2006, Lightner, 2007, Clarke, 2004). The most significant changes are happening in the way in which the educational process is arranged. Web 2.0 provides opportunities which allow students to collaborate, to become actively involved in creating content and to share information not only with teachers and peers but with everyone from around the world and, thus, it helps to move from instructor-centred methods of teaching to more contextual learning and real-world problem-solving techniques (J.West and M.West, 2009).

Literature review

Web 2.0 in education

Grosseck (2009) claims the necessity to interpret Web 2.0 technologies from a pedagogical perspective, so that students can become digitally fluent and ready for the challenges of the knowledge society.

Even drilling can be made more interactive and social if you employ Web 2.0 technology (e.g., www.drawastickman.com), which confirms the words of Hargadon (2008), who called Web 2.0 "the future of education".

Despite the large number of the definitions of Web 2.0, each of them emphasises the social use of the Web, which promotes interaction and collaboration of participants in the educational process. Wankel (2010) defines Web 2.0 tools as "any form of on-line technology or practices through which users create communities to convey information ideas, independent learning, entertainment, collaboration and personal messages and thus facilitates communication and interaction between individuals and groups".

Internet access means teachers and students can interact and collaborate quickly. Another benefit is contextual learning, as students always appreciate it when the

content is relevant to the real world, as a result it gives them an additional incentive to study. In comparison with slower paper-based courses, Web-related resources provide participants in the educational process with the opportunity to update the information much faster and more frequently.

What educators especially value about Web 2.0, besides collaboration and socialisation, are authenticity and creativity (Peachey, 2012). The content is created and shared by real people all over the world, as anyone can contribute what they know and exchange it with anyone else. Moreover, relationships built on learning platforms and websites are genuine, which is very stimulating.

Collaboration work

Barr and Tagg (1995) argued the necessity for a shift in the educational pattern from the traditional teacher-directed paradigm toward student-centred learning. Leonard P. & Leonard L. (2001) emphasised the transition from individual efforts to group work and from independence to community. Thus, a trend toward collaboration is a remarkable feature of the 21st century (Laal, M., Laal, M., & Khattami-Kermanshahi, Zh., 2012).

Panitz (1999) noted that "collaboration is a philosophy of interaction and personal lifestyle where individuals are responsible for their actions including learning and respect the abilities and contributions of their peers".

The learners who work together in cooperative teams achieve a higher level of thoughts, preserve information and keep knowledge more than the learners who work individually (Johnson, & Johnson, 1986). Samuel Totten et al. (1991) stated that joint learning and sharing of knowledge give learners the opportunity to discuss a subject, be responsible for their learning, and therefore lead to create crucial thinkers.

Individuals increasingly need to think and work together on critical subjects in societies (Austin, 2000; Welch, 1998).

Silberman (1996) developed an adjustment to what Confucius said and called *The Active Learning Credo,* which shows the opinion of further learning by individuals as follows:

- What I hear, I forget
- What I hear and see, I remember some
- What I hear, see, and ask questions about or discuss with someone else, I begin to understand
- What I hear, see, discuss and do, I acquire knowledge and skills
- What I teach to others, I master.

His idea correlates with Vygostsky's theory of the zone of proximal development (ZPD), according to which working with others leads to an increase in the level of a learner's own capacity, because collaboration with those who know a little more can boost achievement (Vygotsky, 1978).

Panitz (1999) shares this point of view and claims that learning is "a two-way street with teaching and learning being two components of the same educational system." (Panitz, 1999, p.12)

Many researchers and educators (Johnson, D., Johnson, R., 1986; Laal et al., 2012, 2013) admit that not every group- or team-learning can be called collaboration. They claim that at least five elements are essential to name some work collaborative:

- Positive interdependence,
- Considerable interaction,
- Individual accountability and personal responsibility,
- Social skills,
- Group self-evaluating

Collaboration provides a lot of benefits. Laal et al. (2013) followed Johnsons (1989) and Pantiz (1999), who categorized them into four major groups:

- Social (develops social interaction skills and responsibility among students for each other)
- Psychological (builds self-esteem in students, actively engages them in the learning process)
- Academic (encourages diversity understanding, promotes critical thinking)
- Assessment advantages (observation of the group, self-assessment of the group and individual assessment of its members)

Shift of the teacher's role

Since the advent of Web-based technology, the role of the teacher has undergone significant changes. The most evident shift has occurred from a knowledge transmitter to a facilitator who helps students to both discover the larger community of scholars in a particular topic and evaluate their own beliefs and understanding compared with the generally accepted conceptions (Kuswara, 2011).

Teaching involves performing several functions: teaching itself, educating, organizing and researching. Nowadays, the list of professional skills of teachers include different abilities, e.g., the ability to design their own training technologies, the ability to develop and use non-standard methods of solving educational problems, and set achievable goals (Malinina, 2012).

The ability to analyze their own teaching activities is also of high priority, as it helps to correct, improve and adjust them to modern requirements. It is impossible to imagine a successful teacher who does not implement methods and technologies into the learning process providing constant development of students, encouraging the growth of their creativity and initiative.

A partial loss of the managerial authority of the learning process is an inevitable mark of the technology-based educational environment. Learners are gradually becoming more "self-regulated" and more responsible for managing their own learning tasks (Collins, 1989; Perkins, 1992).

A lot of attention nowadays is paid to implementing Web-related technologies into the educational process at all levels (state, regional, university, etc.). However, the most important thing is not the governmental policy but teachers themselves, their attitude towards technology in education, their knowledge and skills to work with it, their willingness to use it and readiness to further their education in this domain.

Research objectives

We decided to implement Web 2.0 tools for collaborative work to provide evidence on their efficiency to foster collaboration among students of Higher School of Economics.

Our project on introducing Web 2.0 resources suitable for collaboration was intended to

1) single out Internet resources aimed at collaboration to suit the purposes of our educational programme;
2) determine how much collaborative learning background students have and their attitudes towards online and face-to-face collaboration;
3) analyse students' involvement in collaborative learning activities;
4) research the influence of web-related technologies on willingness to collaborate.

The main methods used in the research were questionnaire, interview and observation as well as analyses of students' work.

Organisational Environment

Our project on implementing Web 2.0 tools in the educational process for fostering collaborative work involved 42 participants. All of them were students

of the 3rd course of the Economic Faculty of the National Research University Higher School of Economics Nizhny Novgorod Campus. Everyone agreed to participate.

Having analysed different Web 2.0 resources we decided on Tricider.com, MeetingWords.com, TodaysMeet.com.

Tricider is an educational tool for brainstorming and sharing ideas (Peachey, 2012). Besides, it provides an opportunity to vote for or against the suggested idea and give one's own arguments. Thus, tricider.com promotes interaction and collaboration of students and helps to move from the instructor-centred methods of teaching to student-directed learning.

MeetingWords is a text editing program. The text is stored on the web so it can be accessed from any computer, up to 32 people can type on the same document at the same time.

MeetingWords is intended for real-time collaboration between learners. It is not meant for long-term document storage, that is why pads are deleted if they have not been used for more than seven days (http://meetingwords.com/).

TodaysMeet is a backchannel chat platform for teachers and learners. Participants can learn from each other and share their insights. The resource is aimed at improving collaboration and expanding learning practices. Besides, TodaysMeet enables immediate feedback and assessment (https://todaysmeet.com/).

It must be admitted that all the chosen resources are free and do not need downloading or installation.

Findings

To determine how much collaborative learning background students have we asked what percentage of time they spent learning English. The response was about 82 % of their time; meaning they spent 18% of time working with others. Open-ended questions revealed that collaboration occurred when making up dialogues (97%) and working on joint assignment (78%). In other words, the students collaborate only if they cannot avoid it. Another question was about how much time they would like to spend working with others. The response was 47%, which implies a significant difference between the observed and desired amount of time spent on collaboration.

Then students were asked about the benefits and drawbacks of teamwork. The results are represented in Tables 1 and 2.

Table 1. Benefits of working alone

Response	frequency
Less distraction	38
Better concentration	31
Own pace	27
Time flexibility	36
Time efficiency	28
No slow-down	39
Independence	24
No need to share success	29
Satisfaction with personal achievement	27
Fair assessment	21
Less conflict	40
Convenience	34

Table 2. Benefits of collaboration

Response	frequency
More fun	21
Help	25
Time saving	23
Different perspectives	33
Mistake correction	19
Sharing responsibilities	23
Ideas	34
Better understanding	23
Communication	29

It is worth mentioning that the students could choose some variants. The students' attitude to time is very interesting, as 28 consider working alone to be time efficient, but at the same time 23 respondents say collaboration helps to save time.

For tasks involving collaboration, 31 preferred to meet with their peers face-to-face, while only 11 would prefer to participate online. The results were not surprising, as when similar questions were asked in the research on "Collaborative Learning Using Affordances" (Kuswara, 2011) the results were 63 and 39 (out of 103 respondents) respectively, though the students were learning computing.

The predicted anxiety among students was the assessment of collaborative work. But after getting acquainted with the Web resources they changed their attitude, as they became sure that each contribution can be evaluated separately, because it is apparent who started completing the task, what amendments and by whom were made to it, etc. (Figure 1).

After getting acquainted with Web 2.0, the students' attitudes to using tools for arranging collaborative work changed, as they became convinced of their advantages. The open-ended questionnaire completed after the project demonstrated the positive trend. The most frequently given answer was convenience, as there was no need to decide on a fixed time and place to complete the task. Everyone can do

their own part, see the responses of other team members, agree or disagree with them. What the majority of students admitted while using Web 2.0 was great help with ideas peers share and comments they provide (Figure 2).

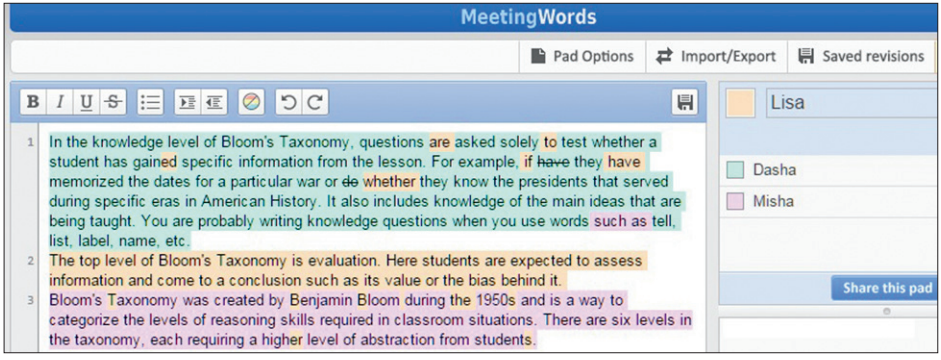

Figure 1. Text-editing in MeetingWords.com

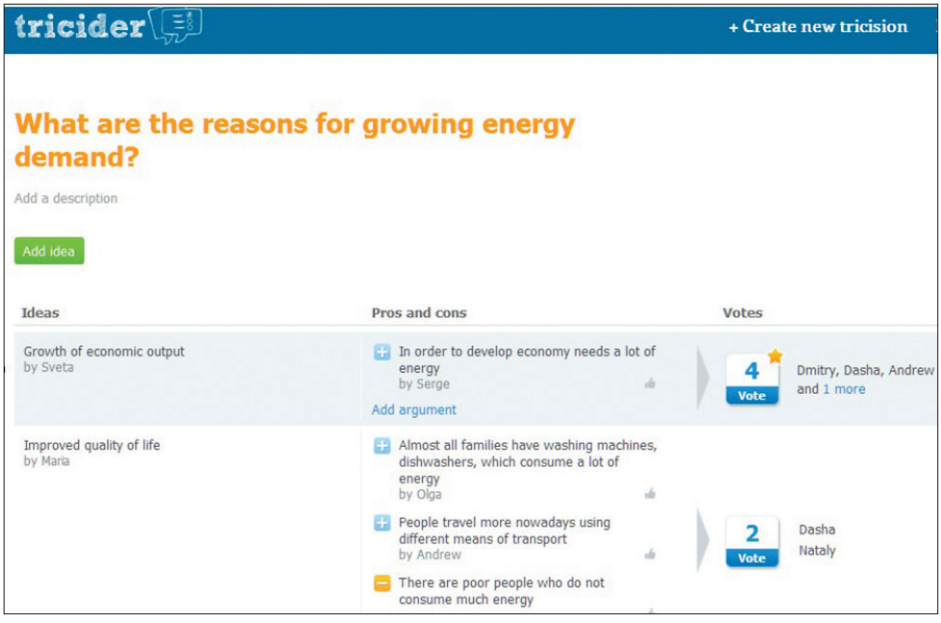

Figure 2. Sharing ideas on Tricider.com

One more interesting fact was discovered during the project: the number of students unable or unwilling to collaborate was on the increase. A similar questionnaire was carried out 4 years ago and according to the results and observations only 2 students could not do teamwork (less than 3%). This year the number was 3 out of 42 participants, which means more than 7%.

Very often students name unreliable team members as one of the main barriers to online collaboration. Other results of the questionnaire are shown in Table 3.

Table 3. Students' views on online collaboration (after the pilot project)

Response	Strongly disagree	Disagree	Maybe	Agree	Strongly agree
Distraction	10	14	5	6	7
Time consumption	6	8	8	12	8
High productivity	2	1	9	14	16
Fun	2	4	12	18	6
Fair assessment	1	4	7	18	12
Unreliability (on peers)	3	6	5	20	8
Convenience	2	1	0	14	25
Help	2	3	8	11	18
More ideas	0	1	4	12	25
Better understanding	2	6	4	7	23

During the project, the students' attitudes to online collaborative learning activities were gradually changing from unwilling, through cautious and suspicious to convenient and effective. Having got experienced in the use of Web 2.0, they saw their advantages, such as more ideas, brainstorming, and discussion. What many students really appreciated was fair assessment according to everyone's contribution, because very often while completing written collaborative assignments the most responsible students had made the largest contribution, but every team member got equal results, as it was impossible to determine what part of the task was completed by each peer. Despite some obstacles (distraction, poor concentration), the students admitted that advantages outweighed these negative aspects.

Conclusion

The conducted project proved a positive influence of web-related technologies on students' willingness to collaborate, as their involvement in collaborative learning activities increased during the project.

Web 2.0 tools make the educational process

- social, as they help create a collaborative learning atmosphere,
- individualised, as they allow students to study at their own pace, at a convenient time, and in a suitable place.
- monitored, as teachers and peers get access to and can amend, direct and assess the work done.

Opportunity to combine learner autonomy with collaborative work leads to increasing the flexibility of the educational environment, which stimulates motivation and encourages development of learners, including professional, personal and psychological growth (divergent thinking, creativity, information culture, problem solving skills, ability to work in a team, reliability, etc.).

The most distinctive feature of Web 2.0 (in comparison with Web 1.0) is socialization, which we, teachers, cannot ignore, on the contrary, we should use their potential in order to build a student-centred system of education aimed at meeting students' requirements and needs.

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