THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN FOREIGN LANGUAGE TEACHING/ LEARNING IN SCHOOL AND AT HOME: THE CROATIAN UNIVERSITY STUDENTS' PERSPECTIVE

Vladimir Legac, Krunoslav Mikulan, Predrag Oreški

ABSTRACT:

In this paper the authors present some of the results of a research into the use of information and communication technology (ICT) in foreign language (FL) teaching and learning in school and at home from the perspective of Croatian university students. The survey was conducted on a sample of 155 students from the Faculty of Teacher Education of the University of Zagreb studying to become primary school teachers. The authors used a self-constructed questionnaire in Croatian. They aimed to find out how ICT equipment is used by teachers and students to teach and learn FLs. The surveyed students are proficient in the use of laptops, mobile phones and tablets. Daily average amount of free time spent on the computer is 2.52 hours, for school purposes this time is 1.98. They spend 4.26 hours of their leisure time on their mobile phones. For school purposes the average time is three times less. Daily average amount of free time spent on the Internet is 3.45 hours and for school purposes it is 1.92. When asked about their special ICT competences for FL teaching, they claim they are most competent in using games for FL learning, followed by using computers to create multifunctional exercises and tests, and using ICT for adoption of correct pronunciation. Ranked fourth was their competence in using computer software for distance and E-learning. They were least satisfied with their competence in using ICT for creation of authentic FL environment.

Key words: students' experience in using ICT in FL learning, students' ICT practice in using computers for school purposes and for leisure activities, self-assessments of ICT competences of Croatian university student

INTRODUCTION

Information and communication technologies (ICT) are nowadays omnipresent and they offer wide possibilities for foreign language (FL) teaching and learning. Many authors have emphasised the importance of ICT as a potential tool for revolutionizing education (Johansson & Gдrdenfors 2012, Scaife & Rogers 2012, Underwood 2014) and ICT is often viewed as a kind of an accelerator which could eventually improve

the effects of learning and which could at the same time create equal opportunities for attaining education, which would ultimately lead to the transformation of the society as a whole (Kozma 2011). If the society as a whole and education authorities want to adopt these newly created opportunities, they have to enable future teacher generations to be competent to properly use new ICT equipment in school education. This means that students at teacher training colleges and universities studying to become teachers have to be offered courses where they would be given proper training and FL teachers are one of those target groups. The results of many research studies have dealt with the role and use of ICT in life and work of teachers (cf. Wu, 2014; Zervas et al., 2014; Light and Pierson, 2014; Brigas et. al., 2016), and a number of research studies have dealt with the role and use of the same equipment in FL teaching (Li & Walsh, 2011; Halvorsen, 2016, Mikulan, Legac & Oreљki, 2017). While it is fortunate that a large number of papers has been published which promote the use of ICT in foreign language teaching and learning (e.g. Ameri 2014, Sidorenko 2014, Whittaker 2014, Gretter & Gondra 2016, Mikulan, Oreљki & Legac 2016), the fact remains that the use of ICT is often sporadic and insufficient. On the other hand, some authors accentuate the challenges to the teaching process because the extensive use of ICT may lead to an unintentional loss of the primary educational objectives and student confusion (Karabayeva 2014: 209).

2. Aims of Research and Methodology

2.1 The Aim of the Study

The aims of the study presented below were the following:

a) To see what kinds of ICT equipment and to what extent it is used by teachers and students in FL classes at the Faculty of Teacher Education of the University of Zagreb,

b) To find out how ICT equipment is used by students of the same faculty in their daily activities,

c) To see what kinds of ICT equipment are used by the same students in their private FL learning,

d) To explore how they assess their own ICT competences for FL teaching.

According to Mikulan (2008), the FL teachers' ICT competences can be divided into theoretical, organizational and social, and practical competences, the last of which was of particular interest for this study.

2.2. Instrument and procedure

The authors used a self-constructed online questionnaire (http://goo.gl/forms/6TwaHMmu3L). For the purposes of this study 23 of its items will be analysed. There were multiple-choice questions and five 5-

point Likert scale items. Some multiple-choice questions had an additional blank space where students could add something else that was appropriate in their case. The survey was conducted in May and June 2015.

2.3. Participants

Research for this current study was carried out on a sample of 155 students from the Faculty of Teacher Education of the University of Zagreb (Croatia) studying to become primary school teachers. Eight of them (5.2%) were men, and 147 (94.8%) were women. At the time of data collection, they were all between 19 and 25 years of age.

3. RESULTS OF THE RESEARCH AND DISCUSSION

3.1. ICT in Teaching FLs at the Faculty of Teacher Education of the University of Zagreb

The six items in the questionnaire dealt with teachers' and students' use of ICT equipment in FL teaching. They were first asked about their opinion on the frequency of ICT use in teaching FLs at their faculty. The results of the survey have shown that the frequency is very satisfactory. The majority of students (105 out of 155, i.e. 67.7%, or more than two thirds) think that they are very often used. More than one quarter (42 students, making up 27.1%) claim that the use of ICT equipment occurs sometimes. Only every twentieth student thinks that the use of ICT is rare. There was no single student who thinks that ICT is never used in FL teaching at their faculty.

Then the students were asked about their teachers' use of ICT in FL Teaching according to specific technologies and services. Data from *Table 1* reveal that during their FL classes teachers most often use their laptop or desktop computer (85.2%). They are presumably primarily used to present new materials by means of PowerPoint presentations (96.1%). The percentage of use of YouTube and similar services (58.1%) as well as the use of internet sites (51.6%) is also high. DVDs and CDs are not often used (13.5%), which may mean that these materials can be easily substituted by those found in the internet. All other technologies are rarely represented, but this does not mean that teachers would not use them if they had the opportunity to do so. This could primarily be said of smart boards which do not exist in many rooms where FLs are taught or are out of service.

Table 1: Students' Opinion about Teachers' Use of ICT in FL Teaching according to Specific Technologies and Services

Technologies and Services	Number of Students	Percentage of Students
Laptop or desktop computer	132	85.2%
PowerPoint presentations	149	96.1
YouTube or similar services	91	58.7
Web pages	80	51.6
DVD or CD	21	13.5
Tablet	2	1.3
Smart phone	5	3.2
Smart board	9	5.8
Special language learning software	4	2.6
Other things	1	0.6

Students were then asked about their teachers' use of online applications. 65% of students state that they are not used. If they are used, then FL teachers use online dictionaries (28.4%). They are probably used because they are convenient and can be easily used to demonstrate the meanings of some vocabulary items that students are unfamiliar with as well as their syntactic features. From their own teaching practice, the authors know that university students often use online translators (in this item the percentage was 8.4% which is not very high). The percentage of the use of online applications like Duolingo was only 5.8%, thus revealing that they have not yet been discovered. The percentage of the use of all the other applications was 1.3%.

The fourth item in this section has revealed that for online applications teachers use primarily laptops or desktop computers (97.9%). Besides them, they use smart phones (4.2%) and tablets (1.1%).

The fifth item has shown that during FL classes computers and ICT equipment are relatively rarely used by students. 58.7% of them never use anything. If ICT equipment is used, then they mainly use laptops or desktop computers (20,6%) or smart phones (25,2%).

The last item in this section was concerned with students' opinion about the appropriate amount of the use of ICT equipment in FL teaching. More than two-thirds of the students (107 or 69%) of the Faculty of Teacher

Education in Zagreb think that the use of ICT in FL teaching at that institution should be increased, whereas slightly less than one third (47 or 30.3%) think that its presence should remain the same. No single student in the sample advocates the reduction of the use of ICT in FL classes.

3.2. Students' Daily ICT Practices and the Role of ICT in Their Own Private FL Learning

One of the aims of this paper was to learn about students' daily ICT practices both for school purposes and during their leisure activities. To answer those questions, the authors used six items in the questionnaire. Daily average amount of free time spent on the computer is 2.52 hours, and for school purposes this time is 1.98. They spend 4.26 hours of their leisure time on their mobile phones. For school purposes, the average time is three times less. Daily average amount of free time spent on the internet is 3.45 hours and for school purposes it is 1.92.

The authors of this paper also aimed at finding some facts about students' use of ICT equipment in their own learning of FLs. A whole section of the questionnaire containing six items was devoted to that question. The first one asked students to circle the reasons why they use online dictionaries. Only the three most important ones were mentioned in the survey: to find the meanings of the lexemes, to check their syntactic patterns and their pronunciation. The results of the survey reveal that for two of them students in the sample do not use online dictionaries well enough: only about a third of them use them to verify syntax (33.5%) and little less than a third (31.6%) use them to learn the correct pronunciation. As expected, the vast majority (91%) of the surveyed students use them to find the meaning of the words they are not familiar with. It remains questionable whether the rest of the students are not familiar with the potentials provided by online dictionaries or whether they think they know how to pronounce all words correctly and everything else about their syntax or whether they check those things exclusively in classical hardcopy dictionaries. This item in the questionnaire gave additional option – "any other uses" and the blank space to add some of them. It is noted that no one wrote down any other uses of the dictionary, such as finding the correct preposition, or specifying parts of speech, or whether a noun is countable or uncountable, whether a verb is regular or irregular, etc. More information should be given to students about the usefulness of online dictionaries and to encourage students to use that kind of dictionaries more often. It should also be mentioned that 5.8% of the surveyed students do not use online dictionaries at all.

The second item in this section asked students about the languages they learn by means of ICT equipment. Almost two thirds of the students

(100 students or 64.5%) do not learn any foreign language in that way. The highest percentage (14.8%) learn English, which is followed by Spanish (9.7%), German (7.1%) and Italian (3.9%), whereas all the other languages were negligibly represented. This hierarchy most likely reflects the current practical benefits of these languages as well as their popularity in Croatia among the student population. It seems that additional efforts will have to be done to emphasize the importance of usefulness of learning FLs with the aid of ICT.

As nearly two thirds of the students participating in this research study do not learn any FL by using ICT, we could not expect high percentages of responses when they were asked about their particular use of individual applications. It was apparent from the students' answers to the third item in this section that nearly 60% of students do not learn FLs by using any of the offered applications. Memrise, HiNative, Brainscape and Babbel are used by only one student. 34 students, which is just over one fifth of the surveyed, use Duolingo. Google Translator is used by one quarter, but it should be reiterated that while this application can be useful, it is not possible to learn a FL by using it. It can only be used in situations when there is an urgent need for a translation of a text or a word and there is nothing else at disposal. Google translator can also be used to remember some of the words we have forgotten or as a draft text to speed up the correct translation from one language to another. No single student recorded the use of Busuu or Mindsnacks.

The fourth item in this section of the questionnaire was used to ask students what they think about the effectiveness and usefulness of online applications for independent private FL learning. It can be seen from the chart in Figure 1 below that 87 students gave their answer. We can only assume that they are answers from students who really use those applications. Among them, most students (37, or 42.53%) have evaluated this efficiency by value 3. It is positive that there are many more who have opted for value 4 (33 respondents or 37.9%) than for value 2 (14 students or 16.1%). Only two students (2.3%) think ICT applications are fully effective and useful. Only one respondent thinks that they are not useful at all. It can be concluded that among the students who have tried these applications there are more positive than negative opinions, but we cannot overlook the fact that there is a large number of those who are somewhere in the middle regarding their approval and disapproval of the effectiveness of the applications in question.
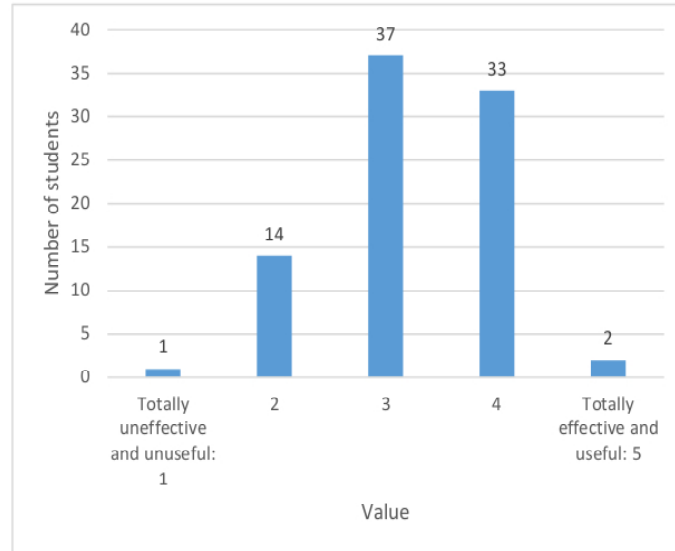
64

Figure 1: Students' opinion on the effectiveness and usefulness of online applications for independent, private FL learning

In the fifth item of this section the students were asked about the type of application they use for private online FL learning. The majority of the surveyed students use mainly laptop or desktop computer (73.5%). Almost half of the students (49.7%) use for that purpose smart phones. According to the percentages in this item, tablets are not popular, as only 3.9% of the students in this sample use them. There are 18.7% students who do not use anything. All the students should be encouraged to use at least one type of computer for this purpose.

The last item in this section asked students about the applications they use for direct online live communication to learn FLs. One cannot be satisfied with the results obtained for this item because nearly four fifths of students (78.7%) from the sample do not use any application. The highest percentage of the surveyed students use Skype (19.4%). Hangouts and FaceTime have recorded only one answer (0.6%). Students should be much more informed about the usefulness and effectiveness of live words as well as free face-to-face communication offered through the respective FL learning apps.

3.3. Students' Self-Assessments of Their Own Practical ICT Competences for FL Teaching

There was a section consisting of five items where students had to assess their own practical ICT competences for FL teaching by circling one of the values from "1" (bad) to "5" (excellent). The first competence

regarded the use of computers for creation of multifunctional exercises and tests. Nearly three fifths of the participants in the study (92 or 59.35%) think it is very good or excellent (see *Figure 2*), 51 students of 155, i.e. almost one third think it is mediocre. Only nine students (5.8%) have assessed that competence with value "2", and only three students (1.94%) think that it is bad.
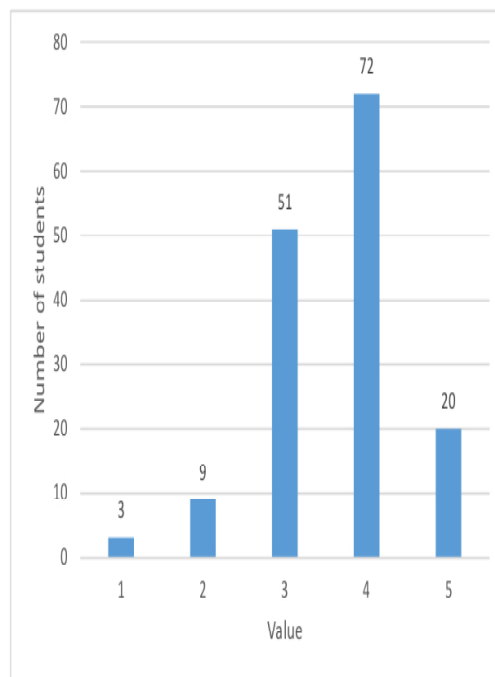

Figure 2: Students' self-assessment of their own competence in using computer for creation of multifunctional exercises and tests

Regarding the students' competence in using computer software for distance and e-learning, Figure 3 bellow shows that students are almost equally divided into three groups: one third of those who are dissatisfied (47 who have circled values "1" and "2"), one third are moderately satisfied (51 students), and one third are satisfied (57 who have circled the values "4" and "5"). Even the number of those on the extreme left side (12 students – value bad) is almost identical with that on the extreme right side (13 students - value excellent). Obviously, there is a large number of students here who need further training in this competence.
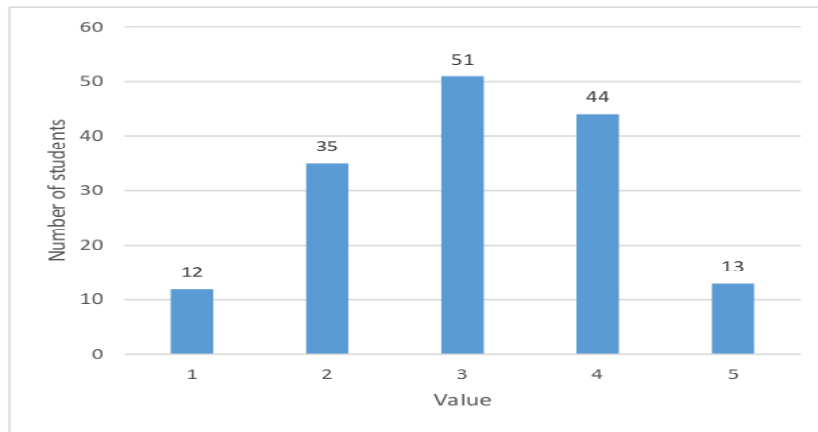
Figure 3: Students' self-assessment of their own competence in using computer software for distance and e-learning

The highest number of students (73 respondents, which is almost half of the sample - 47.1%) rated their ability for creation of authentic FL environment by means of ICT with value "3" (see Figure 4). Nevertheless, there were more students who rated themselves with values higher than this one (52 respondents, or 33.55%) than those who gave themselves lower grade (30 students or 19.35%). In conclusion, we could say that the average grade is prevalent with a tendency towards the higher degree of competence. Again, there was almost the same number of completely satisfied (7 respondents, or 4.52%) and totally dissatisfied respondents (8 students or 5.16%).
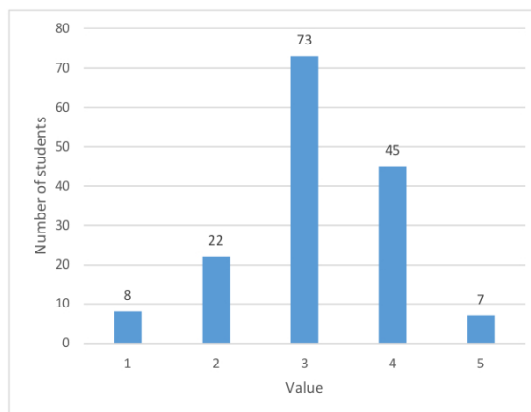

Figure 4: Students' self-assessment of their own competence in using ICT for creation of authentic FL environment

It can be seen from the Figure 5 that most students have given themselves the value "3", i.e. the average grade for their competence in using ICT for the adoption of correct pronunciation. However, one can also notice a tendency towards higher values. Again, we have the highest column in value "3" (64 respondents, or 41.29%) and the same number of respondents (8 and 5.16%) for the end values "1" and "5". This tendency towards higher values is the consequence of the higher number of respondents (44 or 28.39%) who have chosen value „4" than those who have opted for the value „2" (31 or 20%).
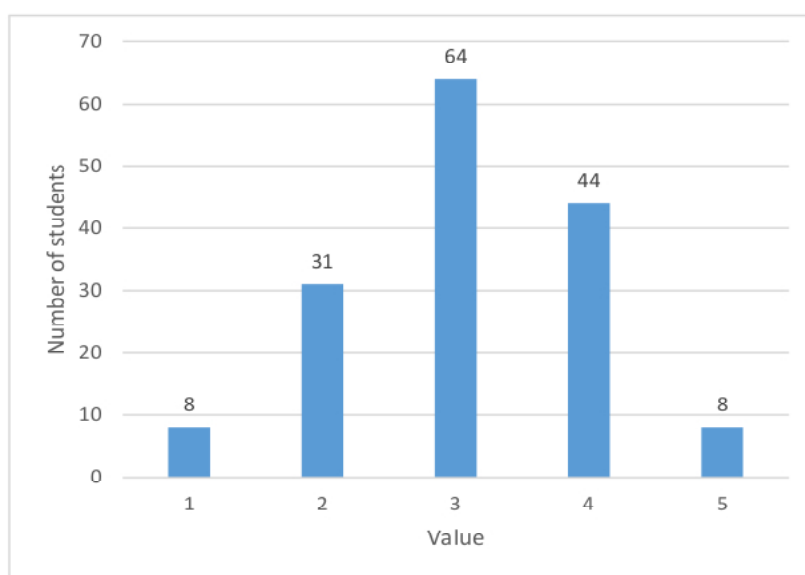

Figure 5: Students' self-assessment of their own competence in using ICT for adoption of correct pronunciation

Figure 6 shows considerable satisfaction of students with their competence in using computer games in FL learning. 80 respondents, more than half of the total number of respondents in our sample (51.61%) have circled the values "4" or "5", with the dominant value being "4" with 56 respondents (36.13 %). 48 respondents (30.97%) rated the same competence with value "3", 22 respondents (14.19%) with "2" and five (3.23%) with "1" .
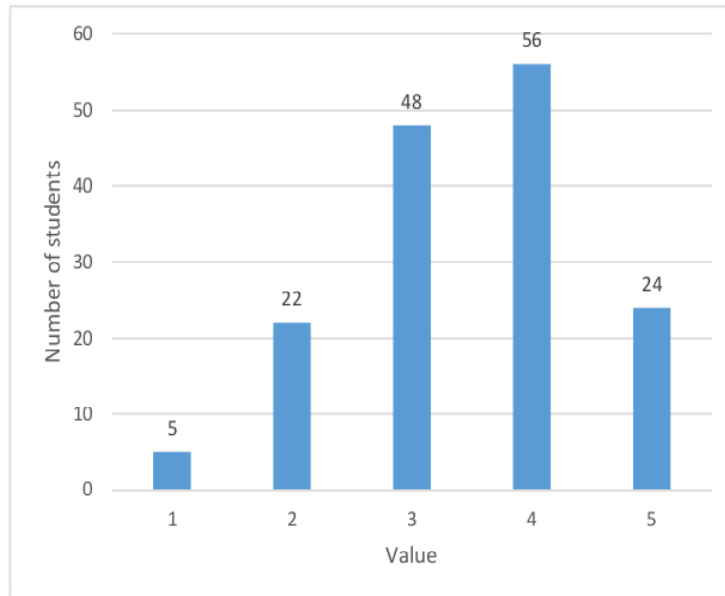
Figure 6: Students' self-assessment of their own competence in using computer games in FL learning

The values of arithmetic means show that students from the sample think they are most competent in using games for FL learning, followed by using computers to create multifunctional exercises and tests, and using ICT for adoption of correct pronunciation. Ranked fourth was their competence in using computer software for distance and E-learning. They were least satisfied with their competence in using ICT for creation of authentic FL environment.

CONCLUSION

The results of this study have shown that surveyed Croatian students from the Faculty of Teacher Education in Zagreb are prone to use ICT and that they are proficient in the use of laptops, mobile phones and tablets. They spend 1.98 hours on the computer and 1.98 hours on the Internet for school purposes. However, it was also seen that they do not use enough all the potentials offered by ICT for individual, private FL learning. Items dealing with self-assessments of their special ICT competences for FL teaching, have shown that they think they are most competent in using games for FL learning, followed by using computers to create multifunctional exercises and tests, and using ICT for adoption of correct pronunciation. Ranked fourth was their competence in using computer software for distance and E-learning. They were least satisfied with their

competence in using ICT for creation of authentic FL environment. The results of this study have also shown that teachers from the Faculty of Teacher Education are also prone to use ICT equipment during FL classes. Teachers do not have all the equipment they need and they do not use all the potentials of those limited ICT resources.

REFERENCES

Ameri, J. (2014). Harnessing Technology to Achieve Total Immersion in the Classroom (pp. 205-208). In: Pixel (Ed.). ICT for Language Learning. Padova: libreriaunivesitaria.it edizioni

Brigas, C. (2016). Use of ICT in School Context: Pupils', Parents' and Teachers' Perceptions (pp. 97-114). In: Marcellino, M. J., et al. (Eds.): ICT in Education: Multiple and Inclusive Perspectives. Cham: Springer

Gretter, S. & Gondra, A. (2016). Teaching Foreign Languages in the Twenty-First Century: Lessons from Spanish Hybrid Education (pp. 92-113). In: Lin, Chin-Hsi, et al. (Eds.): Preparing Foreign Language Teachers for Next-Generation Education. Hershey: IGI Global

Halvorsen, A. D. (2016). Divergent Teacher Viewpoints of Technology Integration in the Language Classroom (pp. 130-152). In: Lin, Chin-Hsi et al. (Eds.): Preparing Foreign Language Teachers for Next-Generation Education. Hershey: IGI Global

Johansson, P. & Gдrdenfors, P. (2012). Introduction to Cognition, Education, and Communication Technology (1-21). In: Gдrdenfors, P. & Johansson, P. (Eds.): Cognition, Education, and Communication Technology. New York/London: Routledge

Karabayeva, K. (2014). Hazards of Teaching with Technology in SLA Classroom (pp. 209-212). In: Pixel (Ed.). ICT for Language Learning, Padova: libreriaunivesitaria.it edizioni

Kozma, R. B. (2011). Transforming Education: The Power of ICT Policies. Paris: UNESCO

Li & Walsh, S. (2011). 'Seeing Is Believing': Looking at EFL Teachers' Beliefs through Classroom Interaction. Classroom Discourse, 2:1, 39-57

Light, D. & Pierson, E. (2014). Case Studies of Russian Educators Transforming Classroom Practices Through ICT-Rich School Environments (pp. 47-65). In: Huang, R., et al. (Eds.). ICT in Education in Global Context: Emerging Trends Report 2013-2014. Berlin-Heidelberg: Springer

Mikulan, K. (2008). Multimedia Competences of Primary Foreign Language Teachers (pp. 137-146). In: H. Sarter (Ed.). Teacher Competences and Successful Learning in Early Foreign Language Classrooms. Aachen: Shaker Verlag

Mikulan, K; Legac, V; Орељки, P. (2017). Comparison of Croatian Foreign Language Teachers' General Propensity towards the Use of ICT and Its Impact on the Foreign Language Teaching Process. Athens Journal of Education, 4, 1; 39-61

Mikulan, K; Орељки, P; Legac, V. (2016). ICT and Multimedia Competences of Foreign Language Teachers in View of Current Technological Trends and Developments (pp. 821-829). In: Timovski, V. (Ed.). 10th International Balkan Congress on Education and Science „EDUCATION AND GLOBALIZATION". Skopje: University "Ss. Cyril and Methodius", Faculty of Pedagogy "St. Kliment Ohridski"

Scaife, M; Rogers, Y. (2012). External Cognition, Innovative Technologies, and effective Learning (pp. 181-202). In: Gдrdenfors, P. & Johansson, P. (Eds.): Cognition, Education, and Communication Technology. New York/London: Routledge

Sidorenko, T. (2014). Can MOOCs Be a New and Effective Instrument in Teaching Languages (pp. 139-143). In: Pixel (Ed.). ICT for Language Learning, Padova: libreriaunivesitaria.it edizioni

Underwood, J. (2014). Digital Technologies: An Effective Educational Change Agent? (pp. 3-14) In: Karagiannidis, C., et al. (Eds.). Research on e-Learning and ICT in Education: Technological, Pedagogical and Instructional Perspectives. New York: Springer

Whittaker, C. (2014). Blended Learning in EFL: Adopting a Principled Approach to Integrating Technology (pp. 8-29). In: al-Mahrooqi, R. & Troudi, S. (Eds.). Using Technology in Foreign Language Teaching. Newcastle: Cambridge Scholars Publishing

Wu, D. (2014). An Introduction to ICT in Education in China (pp. 65-84). In: Huang, R., et al. (Eds.). ICT in Education in Global Context: Emerging Trends Report 2013-2014. Berlin-Heidelberg: Springer

Zervas, P., et al. (2014). Towards Modelling Teachers' ICT Competence Profile in Europe (pp. 163-184). In: Huang, R., et al. (Eds.). ICT in Education in Global Context: Emerging Trends Report 2013-2014. Berlin-Heidelberg: Springer

Author Info:
Vladimir Legac, assistant professor, Ph.D.
Faculty of Teacher Education of the University of Zagreb, Čakovec,
Republic of Croatia
Vladimir.legac@ufzg.hr

Krunoslav Mikulan, assistant professor, Ph.D.
Faculty of Teacher Education of the University of Zagreb, Čakovec,
Republic of Croatia
Krunoslav.mikulan@ufzg.hr

Predrag Oreški, assistant professor, Ph.D.
Faculty of Teacher Education of the University of Zagreb, Čakovec,
Republic of Croatia
Predrag.oreski@ufzg.hr