SUPPORTING PEOPLE WITH DISABILITIES TO LEARN ENGLISH IN ON-LINE ENVIRONMENT

Nenad Glumbić, full professor, University of Belgrade – Faculty of Special Education and Rehabilitation, Serbia
Branislav Brojčin, associate professor, University of Belgrade – Faculty of Special Education and Rehabilitation, Serbia
Mirjana Đorđević, assistant professor, University of Belgrade – Faculty of Special Education and Rehabilitation, Serbia
Maja Ivančević Otanjac, English language teacher, University of Belgrade – Faculty of Special Education and Rehabilitation, Serbia

Knowledge of the English language is very significant for education, employment, and leisure time of people with disabilities. Therefore, the goal of the project "Accessible Online environment for encouraging autonomous English language learning aimed at people with disabilities" is to create a platform for autonomous English language learning aimed at people with different disabilities. In the first phase of research, it was determined whether English language teachers believed that people with different disabilities needed to learn a foreign language at all, which was followed by the assessment of their attitudes toward using virtual learning environment in teaching English to students with special education needs. The sample included 83 English language teachers aged between 25 and 61. According to their self-assessment, 47% of teachers had no or only minimum experience in teaching in virtual environment. One third of the participants used virtual environment occasionally, while only every fifth participant believed to be experienced in this field. Teachers' attitudes toward the necessity of English language learning within the population of people with disabilities were assessed by a five-point Likert scale, where 1 signified complete disagreeing, and 5 complete agreeing with the given assumptions. The participants had the most positive attitudes toward the need for English language learning of people with physical disabilities, visual impairment, and mild intellectual disability (M=4.46; 4.28 and 4.11 respectively). Most attitudes were neutral or slightly positive, and most reservations were related to the need for English language learning in people with severe forms of intellectual disability. The attitude toward using virtual environment in the process of education was similarly assessed by a five-point Likert scale. Most teachers believed that virtual environment encouraged autonomous language learning and enhanced students' learning and educational goals (M=4.05 and 4.01 respectively). Most positive attitudes referred to teachers' beliefs that teaching in virtual environment would facilitate meeting students' individual needs, and that this teaching method provided more job opportunities and encouraged social inclusion. A modest, positive, and statistically significant correlation was determined between the attitudes toward the need of people with disabilities to learn English and the attitudes that virtual environment enhanced their learning and educational goals, enabled a

teacher to meet the needs of individual students and encouraged autonomous language learning (r_s=0.282, p=0.01; r_s=0.281, p=0.01; r_s=0.296, p=0.007, respectively). The results of one-way analysis of variance did not show any significant differences in the assessed attitudes related to experience in using virtual learning environment. The obtained data indicate the need for providing additional support to English language teachers before starting the program of teaching in virtual environment.

Key words: disability, virtual environment, teaching, learning

Introduction

Although English is often considered a lingua franca of the modern world, this expression refers only to the form of communication involving individuals whose native language is not English. On the other hand, the syntagma English as an international language points to the global phenomenon of English language usage as means of communication in speakers: of the inner circle, whose native language is English; of the outer circle, who speak English as one of the official languages of the country they live in; and of the extended circle, who use English although it is not officially in use in their country of residence (McKay, 2018). The number of people who use English as a foreign language has by far exceeded the number of native speakers. The consequences of such linguistic imperialism are numerous.

In the field of research, an increasing number of scientists whose native language is not English are deciding to publish their papers only in English, thus ensuring greater chances for a larger number of citations, and consequently, a better position in the scientific community. Thus, in the field of natural sciences, more than 90% of papers published in indexed journals have been written in English (Di Bitetti & Ferreras, 2017). Hence, these authors extend the famous expression "publish or perish" into "publish in English or perish". A good knowledge of English provides greater chances in the labor market and a wider range of opportunities for useful leisure time activities. Long-term effects of language globalization are completely resistant to current political events. Thus, it is already very clear that, even after Brexit, English will remain the primary language in the official correspondence of EU members (Jenkins, 2017).

A recently conducted research on a sample of over 650 000 participants has brought into question the traditional belief that perfect knowledge of the English language can be achieved only in early childhood. According to the results of this research, the critical period for learning English lasts until 17.4 years of age followed by a stable decline in the ability to learn English in the function of age. This has brought into question all biological theories which explain younger

learners' superiority by the mechanism of neuronal death, hormonal changes in puberty, brain plasticity, etc. Instead, it is possible that the critical period ends due to accumulated effects of native language interference, and because of new social roles imposed on adults, which do not include learning a foreign language (Hartshorne, Tenenbaum & Pinker, 2018).

Due to all of the above, many countries pay great attention to learning English as a foreign language, including the USA where 2.5 million children who attend public schools cannot speak English (Porter, 2017). Vulnerable social groups, including persons with disability, are at particular risk of exclusion. Despite the fact that these people often need specialized support in foreign language learning, very few research studies deal with methodological approaches in teaching English to students with different disabilities. Once they leave the regular schooling system, people with disabilities very rarely have the opportunity to learn and improve English.

Therefore, the ERASMUS+ project "Accessible Online environment for encouraging autonomous English language learning aimed at people with disabilities" has been developed. The aim of this project is to encourage people with disabilities to learn English independently in both formal and informal learning environment. It has been planned to create an English language learning platform for adults with disabilities based on the innovative Virtual Learning Environment (VLE) methodology and universal design principles. VLE will be built on the basis of a sequenced learning process which can be adapted to individual characteristics of users with special education needs. By improving their language competence, these people will be provided with more job opportunities and better participation in the local community. They will also have greater mobility and generally be more socially included. The project is implemented by University of Burgos, as the project coordinator, and University of Belgrade (Serbia), University of Aveira (Portugal), University Galati (Romania) and Dublin City University (Ireland) as partners. Apart from the mentioned Universities, two partner organizations from Spain are also involved in the project: Prometeo Innovations, whose experts will create the platform for English language learning, and SEAS organization (La Sociedad Española de Asistencia Sociosanitaria) from Valencia, which deals with protecting the rights and welfare of vulnerable social groups at risk of exclusion. The expected intellectual outputs are the following: an English language learning platform, toolkit (accessible multimedia language learning resources), guidelines on development and VLE aimed at software developers, and pedagogical guidelines aimed at English language teachers and end-users.

Along with the development of software solutions, the process of international cooperation has been in progress with the aim to provide a clearer picture of the laws supporting the education of people with disabilities, and particularly of previous experience in using VLE for English language teaching in this population. In Serbia, the system of education for all levels, except the university level, is regulated by the Law on the Fundamentals of the Education System (Official

Gazette of the RS, 88/17). Rights of children and students with disabilities are regulated by this law as well as by The Rulebook on Additional Educational, Health and Social Support for Children and Students (Official Gazette of the RS, 63/10) and The Rulebook on detailed guidelines for determining the right to the Individual Education Plan, its implementation and evaluation (Official Gazette of the RS, 76/10). Rights of persons with disabilities outside the educational context are regulated by The Law on the Prevention of Discrimination Against Persons with Disabilities (Official Gazette of the RS, 33/06). Unlike Spain and Portugal, which have certain experience in using virtual environment in the process of English language learning in persons with disabilities, no relevant scientific studies on this issue have been published in Serbia or neighboring countries. Thus, we redefined the initial phase of the research by conducting an exploratory study instead of a literature review, in order to get an initial insight into previous experience of English language teachers in using VLE, especially in students with different disabilities.

Method

The sample included 83 English language teachers, aged between 25 and 61 (M=38.87; SD=9.028). Most participants were women (75 or 90.4%) which reflects the global dominance of female teachers in many fields of education worldwide. It should be kept in mind that female English language teachers have a higher level of efficiency than their male colleagues, which is reflected in their students' achievements on standardized English language assessment tests (Burusic, Babarovic & Seric, 2012). It was not possible to determine the influence of gender in the areas tested in this research due to a small subsample of male participants.

Most of our participants had a BA (39 or 47%) or an MA (36 or 43.4%) in English. With regard to the Common European Framework of Reference for Languages, 69.9% of participants considered their English language knowledge to be at C2 level, somewhat less than a quarter of participants (24.1%) believed to be at C1 level, while 6% of participants stated that their knowledge of English was at B2 level. More than a third of the participants (37.3%) taught English for more than 15 years, followed by participants with one to five years of teaching experience (23 or 27.7%); 16 (19.3%) participants had between 6 and 9 years of teaching experience, while 13 (15.7%) participants taught English for 11-15 years. More than half of the participants taught in regular schools or foreign language schools; every tenth participants was a university teacher, while 13 (15.7%) participants taught in special schools.

When asked how often they taught students with special education needs, most of our participants answered *never*. Somewhat more than a third of our participants never taught persons with dyslexia or communication disorders; almost half of the participants had no experience with

students with below average intelligence; 54% never taught persons with motor disorders, and 59% never taught persons with visual impairments. About two thirds of the participants had no experience in working with persons with autism or persons with hearing impairments. The answers *frequently* or *very frequently* were selected by our participants in 10-14% of cases, except in the case of students with intellectual disability with whom every fifth participant had frequent or very frequent contact. Almost half of the participants had no experience in using VLE. One third of the participants used virtual environment occasionally, while only every fifth participant believed to be experienced in this field.

We tried to answer two questions in the research process: whether teachers believed that persons with different disabilities should learn English at all, and whether they believed that VLE needed to be used in the teaching process. In order to obtain the answers to these two questions, we created two five-point Likert type scales, where 1 signified complete disagreeing, and 5 complete agreeing with the given assumptions. Higher scores indicated a more positive attitude, with the exception of one assumption (*VLE distracts students from the content of the lesson*), where a higher score indicted possible negative effects of using VLE in English language teaching.

The survey was conducted online. Potential participants were given two options: to fill in the questionnaire in google form or to complete it in Word and then send it back to the author's email address. The purpose of this research was explained in the accompanying letter, including the fact that the survey was anonymous. Since the questionnaires were not sent only to individual teachers, but also to educational institutions including foreign language schools, it was not possible to determine the exact response rate. If we consider the relation among the number of sent emails, personal contacts and the size of the sample, we can assume that the response rate was not particularly high.

The obtained results were processed by descriptive statistics techniques. Spearman's correlation coefficient was used to determine the correlation between variables, while one-way analysis of variance was used to determine possible differences in the scores of participants with different experience in using VLE.

Results and discussion

Table 1 shows average score values on the questionnaire assessing attitudes of English teachers toward the necessity of language learning in specific subsamples of persons with different disabilities. The average score 3 indicates a neutral attitude, higher scores indicate a positive, and lower scores a mainly negative attitude.

Table 1 – To what extent do you agree with the idea that students with the following disabilities should learn English as a foreign language?

Students with	M	SD
a delayed speech and language development	3.76	1.206
specific learning disabilities (e.g. students with specific difficulties in reading, writing, mathematics…)	3.94	1.052
mild intellectual disability	4.11	1.104
more severe forms of intellectual disability	2.86	1.260
ADHD	3.90	1.165
visual impairment	4.28	1.063
hearing impairment	3.88	1.273
physical disabilities	4.46	0.967
mental disorders	3.28	1.310
behavioral disorders	3.93	1.113
brain injury/neurological disorders	3.34	1.242
autism spectrum disorder	3.59	1.210

Data presented in Table 1 indicates that English language teachers had mainly neutral or slightly positive attitudes toward English language learning in different subsamples of persons with disabilities. The most positive attitudes are related to persons with visual impairment and physical disabilities, which was expected, since these students do not usually have significant language disorders. Next are students with mild intellectual disability, which is often referred to as socio-cultural disability. Foreign language learning can be a great challenge for these students, not only due to cognitive limitations, but also because of specific living conditions and motivation factors. Success in mastering English requires a culturally responsive teacher, who has the ability to connect learning situation with students' life experiences and interests, thus making the knowledge of English relevant (Klingner, Boelé, Linan-Thompson & Rodriguez, 2014). Relatively high scores also refer to students with ADHD. Although the very nature of this disability presents a challenge in the education process, these students do not have special limitations in foreign language learning. University students with ADHD who have taken an exam in a foreign language, do not differ from typically developing students either in learning speed or average grades (Sparks, Javorsky & Philips, 2004). Similar average scores are also related to students with specific learning disabilities who, unlike students with ADHD, have significant difficulties in learning both native and foreign languages. Multiple problems these students have in processing verbal and written content, as well as short-term memory deficits suggest the need for applying metacognitive strategies in foreign language teaching (Schneider & Crombie, 2012). According to these authors, the fact that these issues are not addressed at all in standard English teacher training courses at university level is a significant problem.

It is interesting that our participants more positively assessed English language learning ability of students with autism than of those with mental disorders. It is known that autism spectrum disorders are characterized by significant limitations in social communication, as well as by the occurrence of limited, repetitive, and stereotyped activities. There are people within the spectrum with the so called high-functioning autism who have preserved speech and whose communication deficits are mainly limited to pragmatic functioning. Their ability to learn English is not substantially different from the capacities of typically developing students (Moghadam, Karami & Dehbozorgi, 2015). We assume that, while completing the questionnaire, most of our English language teachers had high-functioning individuals in mind. Lower scores related to persons with mental disorders probably reflect teachers' underlying fears of facing significant challenges in the process of teaching these people. Research shows that mentally ill patients are usually perceived as strangers, which leads to creating a social distance toward these people (Baumann, 2007). Potential students with mental disorders were given lower scores even than students with hearing impairment, although foreign language teaching would be a significantly greater challenge in this population.

Quite expectedly, the lowest scores are related to students with more severe forms of intellectual disability. By additional analysis of individual responses, we determined almost normal distribution of scores, from the lowest to the highest values. Although more than 40% of participants had negative attitudes toward the need of students with more severe forms of intellectual disability to learn English, we also recorded 24.1% of neutral and almost a third of positive attitudes. This finding could be the reflection of insufficient knowledge of the intellectual disability phenomenon, as well as political correctness of our participants who chose neutral attitudes instead of negative ones.

Table 2 – To what extent do you agree or disagree with the following statements about using virtual environment in teaching English to students with special education needs?

Statements	M	SD
Using VLE enhances their learning and educational goals.	4.01	0.917
VLE enables a teacher to meet the needs of individual students.	3.98	0.950
VLE distracts students from the content of the lesson.	2.05	0.987
VLE encourages autonomous language learning.	4.05	0.896
VLE provides more job opportunities.	3.64	1.077
VLE encourages social inclusion.	3.63	1.056

Although our participants generally did not have experience in using VLE in English language teaching, they expressed moderately positive attitudes on all items presented in Table 2. Low, positive, and statistically significant correlations were determined between the attitudes toward the need for English language learning and the belief that using VLE enhances learning and

educational goals of students with disability (r_s=0.282; p=0.01), that VLE enables a teacher to meet the needs of individual students (r_s=0.281; p=0.01) and that VLE encourages autonomous language learning (r_s=0.296; p=0.007). The results of one-way analysis of variance did not show any significant differences in the assessed attitudes related to experience in using virtual learning environment.

Conclusion

The obtained results indicate moderately positive attitudes of English teachers toward the need for English language learning in students with disabilities, as well as positive attitudes toward using VLE in working with this population. English language teachers need additional support in learning methodological approaches in working with people with disabilities, and in using VLE. This support has to be provided, both in the system of formal university education and in the system of informal education.

Ackowledgement

References

1. Baumann, A. E. (2007). Stigmatization, social distance and exclusion because of mental illness: The individual with mental illness as a 'stranger'. *International Review of Psychiatry*, *19*(2), 131-135.

2. Burusic, J., Babarovic, T., & Seric, M. (2012). Differences in elementary school achievement between girls and boys: Does the teacher gender play a role?. *European Journal of Psychology of Education*, *27*(4), 523-538.

3. Di Bitetti, M. S., & Ferreras, J. A. (2017). Publish (in English) or perish: The effect on citation rate of using languages other than English in scientific publications. *Ambio*, *46*(1), 121-127.

4. Hartshorne, J. K., Tenenbaum, J. B., & Pinker, S. (2018). A critical period for second language acquisition: Evidence from 2/3 million English speakers. *Cognition*, *177*, 263-277.

5. Jenkins, J. (2017). English in Post-Brexit EU: A non-variety perspective from English as a lingua franca. *World Englishes*, *36*(3), 343-346.

6. Klingner, J. K., Boelé, A., Linan-Thompson, S., & Rodriguez, D. (2014). Essential components of special education for English language learners with learning disabilities: Position statement of the Division for Learning Disabilities of the Council for Exceptional Children. *Learning Disabilities Research & Practice*, *29*(3), 93-96.

7. McKay, S. L. (2018). English as an International language: What it is and what it means for pedagogy. *RELC Journal*, *49*(1), 9-23.

8. Moghadam, A. S., Karami, M., & Dehbozorgi, Z. (2015). Second language learning in autistic children compared with typically developing children: "Procedures and difficulties". *Ανακτήθηκε στις*, *30*(1), 1-13.

9. Porter, R. (2017). *Forked tongue: The politics of bilingual education*. Routledge.

10. Schneider, E., & Crombie, M. (2012). *Dyslexia and foreign language learning*. David Fulton Publishers.

11. Sparks, R. L., Javorsky, J., & Philips, L. (2004). College students classified with ADHD and the foreign language requirement. *Journal of Learning Disabilities*, *37*(2), 169-178.