



## MUSEUM AS A PLACE OF INFORMAL LEARNING

MARIJA BRAJČIĆ<sup>1</sup> & DUBRAVKA KUŠČEVIĆ<sup>1</sup>

<sup>1</sup> Faculty of Humanities and Social Sciences, University of Split, Split, Croatia

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CORRESPONDING AUTHOR/KORESPONDENČNI AVTOR/

mbrajcic@ffst.hr

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**Abstract/Izvleček**

Museum pedagogy is a museological and pedagogical discipline that deals with communication between artifacts and the public, and the interpretation of cultural heritage content to satisfy cognitive and experiential interests while accepting cultural and civilizational achievements. This paper discusses theoretical knowledge about the nature of learning in the context of the modern division into formal, non-formal, and informal learning. The research includes the museum as a place of non-formal and informal learning and analyses indicators of visitor engagement. The research was conducted among students of the Faculty of Humanities and Social Sciences in Split.

**Ključne besede:**

muzej, formalno, neformalno in priložnostno učenje, kazalniki angažiranosti, študenti

**Muzej kot kraj neformalnega učenja**

Muzejska pedagogika je muzeološko-pedagoška disciplina, ki se ukvarja s komunikacijo med artefakti in javnostjo ter interpretacijo vsebin kulturne dediščine z namenom zadovoljevanja kognitivnih in izkustvenih interesov ob sprejemanju kulturnih in civilizacijskih dosežkov. Prispevek obravnava teoretično znanje o naravi učenja v kontekstu sodobne delitve na formalno, neformalno in priložnostno učenje. Raziskava vključuje muzej kot prostor neformalnega in priložnostnega učenja ter analizira kazalnike angažiranosti obiskovalcev. Izvedena je bila med študenti Filozofske fakultete v Splitu.

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## Introduction

The word museum (Greek *museion*) comes from ancient Greece and means a home of the Muses, the goddesses of art and science, which houses objects made in their honour. Precise definitions of museum have been given by various authors and organizations, all of which emphasize the value of the museum as an institution that collects and preserves valuable museum heritage, but also emphasize the purpose of the museum as a place of teaching, education, and entertainment. Maroević defines the museum as a place of collecting, preserving, studying, and communicating the material world with the aim of improving humans and their lives (Maroević, 2004). Museums have existed for several centuries now, and during this period museums have been science-oriented and focused on monumental presentation in accordance with the understanding of the museum as “a temple of art and guardian of the greatest cultural and artistic values” (Bauer, 1975, 101). The established status of the museum as an institution visited with great respect and making its greatest contributions to science through the internal work of its employees has not changed significantly over the centuries.

The twentieth century saw a redefinition of this attitude toward museums, questioning their role and task in society (Bauer, 1975, 101). In the last few decades, museums have undergone more intense and greater transformation than in the past four centuries. The number of museums has multiplied, with over 17,000 museums in the world, and the number of visitors has increased proportionally.

The attitude and interest of the public toward museums demanded that the role of the museum be reconsidered, new criteria introduced, and new forms of work and action sought (Bauer, 1975, 102). This foregrounded the public activities of the museum, i.e., cooperation with the public.

The first revolution in museology took place in Paris in 1931, with the publication of “Musée”, where the 41st author in his article called for a new concept of the museum, foregrounding the relationship with the public. The main theme of the ICOM General Conference held in 1954 in Athens was educational and pedagogical issues in museums. After a series of conferences and discussions, summarizing all that had been said, the concept of *museum pedagogy* was devised. This term summarizes the complex issues of the museum’s active attitude toward visitors, from the museum’s active cooperation with schools and active role in education and cultural life of the museum surroundings (Bauer, 1975, 106).

Museology is the area of information sciences concerned with objects, whether they are museum objects or human heritage objects as complex documents. The information that emerges in communication with the object is twofold: scientific and cultural. "Museology opens new forms of knowledge when it comes to heritage, and also opens space for new forms of pedagogical teaching, learning, and knowledge in relation to heritage" (Tuđman, 1983, 92-101).

### *Learning and types of learning*

The term learning certainly encompasses a broader context than learning experiences in formal education. People learn during their lifetimes, and learning permeates almost all human activities. It takes place in various settings and continues after an individual has completed formal schooling. Therefore, learning is often divided into formal and non-formal, terms which appeared in the 1950s. Education researchers have begun to discuss the need to replace the terms non-formal education and non-formal learning, which have gained the favour of museum educators and scholars (Dierking et al., 2003; Falk and Dierking, 1998; Falk, 2001a), to free the terms from problematic contrasts with formal education. The growth of research on learning in all settings has increased significantly in the 21st century (Bell et al. 2009; Cash, 2001; Dillon et al., 2013; Falk and Dierking, 2000; Phipps, 2010; Thoron and Myers, 2008), resulting in a new or renewed direction. The more various activities that support learning can be complementary, rather than competing with each other, the better the learning outcomes (Falk, 2001b; Fallik et al., 2013). Etling suggests that the main differences between the concepts of formal and non-formal education are related to the structure of the curriculum in various programs (Etling, 1993; 73). He also suggests that non-formal education is based on experiences that are neither planned nor organized, such as when a child learns to speak and is being understood or corrected by someone outside. In fact, neuroscientists and educational psychologists now know that learning how to speak, even imitative learning, trial and error learning, is a highly structured process, although perhaps not consciously so (Davis and Bedore, 2013). Other scholars describe non-formal education as activity to promote learning outside the formal school context, in science centres and museums, in camps, with schoolchildren and those not attending school (Luke et al., 2001). Non-formal education was characterized and formalized by Phipps (Phipps, 2010). Today's theories of learning widely accept a three-level classification: formal, non-formal, and informal education.

These terms have also been used by museum professionals to define and distinguish between activities that take place in museums and those that take place in formal educational institutions. The World Bank document distinguishes between formal, non-formal, and informal (spontaneous) education as follows:

Ways of providing – formal, non-formal, and spontaneous – are today considered not alternative but complementary activities within the same system. Formal education is an institutionalized, divided into classes, and hierarchically structured education system that covers primary, secondary, and higher education and is also the most prominent form of education. Spontaneous education is a non-organized, lifelong process of acquiring knowledge, skills, and attitudes through experience and through contact with others – it provides an important basis, but it cannot function as a substitute for formal and non-formal education and training. Non-formal education – an organized and systematic learning activity that takes place outside the formal system – is neither an alternative to the education system nor a shortcut to accelerated education of the population. Non-formal education and training are another learning opportunity for those who have missed formal schooling; it enables the rural and poor urban population to acquire useful knowledge, attitudes, and abilities. It provides various learning activities that are directly related to work (Bhola, 1987, as cited in Milutinović, 2010).

According to this document, informal education takes place in social institutions such as family, marriage, peer groups, working groups, etc. In modern societies of high technology and mass culture, informal education is also provided by mass media, public information institutions, and cultural institutions (Bhola, 1986 as cited in Milutinović, 2010). Informal education refers to systematic and cumulative aspects of everyday experiential learning. In determining the characteristics of informal education, Smith (Smith, 1988) states the following:

“Informal education can take place in different settings, most of which are not primarily educational in nature. Informal education is a thoughtful and purposeful process because people are guided by the desire to acquire certain knowledge, skills and/or attitudes. However, much of what happens in informal education is unplanned and can lead to unexpected outcomes. Informal education does not have a form of time organization such as school (schedule, holidays, school, and academic years), but forms of structuring time are present and depend on the dynamics of the institution in which education takes place. People choose to participate in informal

education by free choice, and therefore their participation is voluntary” (Milutinović, 2010: 218).

### *Learning in museums*

Emotional intelligence develops directly by encouraging experience in the museum. If we accept the thesis that the rational mind is expressed in words and the emotional mind nonverbally (Goleman, 1997), then the messages and meanings stored in objects can in their own way contribute to the development of emotional intelligence if we develop the ability to read nonverbal language. In this context, museums have already been called the theatre of memory (Hooper-Grenhill, 1989). Modern psychology based on anatomical and neurological research says that our emotions have a mind of their own, with which they can develop attitudes completely independent of the rational mind. The hypothalamus remembers the bare facts, the amygdala (the brain centre for emotions) retains the emotional framework of those facts, and the more intense the stimulus of the amygdala, the stronger the impression; the experiences that frighten or excite us the most in life belong to the list of memories that are the most difficult to erase (Goleman, 1997). Accordingly, in addition to promoting the values, knowledge, experiences, and worldviews of the past, museums should focus broadly on people’s emotional lives, seeking to develop those elements that contribute to reducing trauma, with particular emphasis on developing emotional intelligence in children, where emotional problems manifest as attention problems, anxiety and depression, delinquency, or aggression (Goleman, 1997). Museums can contribute to correcting or preventing certain deficiencies in children’s emotional abilities based on difficult problems by keeping as many children as possible on the right path (Maroević, 2002).

According to George E. Hein, the theoretical basis of museum education consists of cognitive theories and theories of learning, i.e., what should be learned (cognitive theories) and how to learn (learning theories). There are also pedagogical theories that influence education, such as the choice of methods of work and activities in museums (Hein, 1998). Museums are institutions where spontaneous education takes place. However, such education is still structured and guided by museum educators, who use pedagogical methods, and that is why learning in a museum is classified in the category of informal learning.

An encounter with artifacts in a museum encourages an experience that is the foundation of affective learning or experiential learning that encourages cognition (Brajčić et al., 2013). Of course, museum education does not have the characteristics of formal education, but this is not necessary, because in the museum, the learning process itself is more important than the outcomes.

The question of how to evaluate informal learning in museums poses many difficulties. Many scholars have discussed problems concerning the use of traditional approaches to evaluating learning in museums. Visitors often learn information which may not be revealed through formal tests (Birney, 1995). Falk and Dierking found that museum visitors can rarely remember certain facts or concepts after visiting a particular museum and suggested that the problem of measuring learning in museums in a formal, school-like way be ignored. They point out that learning is incremental and that a visit to a museum forms only part of the consolidation and growth of ideas, neglecting the real aspects of learning (Falk and Dierking, 1992).

Falk et al. (1986) also discuss the difficulty of measuring learning in a museum because of the unstructured nature of learning possibilities and opportunities, pointing out that quantitative learning measures can only be achieved by manipulating the system. These authors emphasize that significant differences between the museum and the school classroom should be considered when measuring learning in these different settings. What are the characteristics that should be considered when learning in a museum setting?

### **Museum engagement indicators**

Scholars concerned with indicators of engagement in learning in an informal environment generally describe them as visitor behaviours that occur in those environments. Some scholars have dealt with observing the behaviour of visitors and students in a museum that can contribute to learning. Summarizing the literature in this area, Borun cites several behaviours that can be useful indicators of the learning process: asking questions and giving answers, discussing the exhibition, focusing on a particular part of the exhibition, reading a text describing the artifact, engaging in various activities, and even simple observation of the exhibits (Borun et al., 1996,135). These descriptions of behaviour are very similar to the components of the true motivation of the museum experience cited by Perry, including curiosity, trust, challenge, control, performance, and communication (Perry, 1993).

In their research from 2013, Brajčić et al. present results showing high levels of interest by students in informal museum learning (Brajčić et al., 2013), and research by Kušćević et al. from 2019 also presents results according to which students of humanities and social sciences highly evaluate the importance of learning in a museum setting.

Some scholars have tried to measure visitor engagement in a museum setting. An example is the research of Janette Griffin, who took a group of 100 students to a museum and investigated their behaviour during the visit (Griffin, 1998). The students were filmed with a video camera by a technician who was not instructed in the research; using no special organization, he recorded the students' actions as they walked through the museum. The 60 minutes of the video were later analysed. The first analysis of the recording reveals students or groups of students doing the same things. When group or individual behaviour changed, this was considered a separate action. For example, several students take notes, and this is considered one action. If they start talking about what they see, this is considered another action. Each of their actions was recorded and, in the end, there were a total of about 100 actions. Their actions were then categorized and showed the following:

- responsibility and encouragement of their own learning – 20 students
- active engagement in learning – 20 students
- sharing the learned content with colleagues and experts – 26 students
- connecting and sharing ideas – 13 students
- confidence in their own learning possibilities – 9 students
- mastering objects and ideas – 7 students
- acceptance of new information – 3 students.

Two non-engagements were also recorded: one student was looking at the other room, and one was sitting and resting. This study indicated that many students were actively engaged in learning.

Following this research, we designed a study with students of the Faculty of Humanities and Social Sciences in Split to determine indicators of engagement and the level of student activity in the museum setting.

## **Methodology**

In this research, we employed a qualitative methodology i.e., an important qualitative technique – the method of observation.

Observation as a research method can be both quantitative and qualitative. This technique involves observing a phenomenon, in this case, behaviour, in a predefined way to ensure uniformity in data collection. Here, the observation was direct and was conducted by the authors at the research site, which in this case was a museum. This research also has a quantitative feature because the results of the observation are presented numerically and in percentages.

*Research objective:* To determine the indicators of student engagement during education in a museum.

Based on this objective, the following hypotheses were formed:

H1 According to engagement indicators, we will find that students in the museum setting mostly show moderate engagement.

H2 Most students will show high engagement by participating in the workshop.

H3 No major student non-engagement is expected.

H4 Non-engagement of students will be mostly expressed through their refusal to participate in the museum workshop.

In determining the indicators of student engagement, we relied on authors who had previously researched this topic. We used the engagement indicators they included in their research (Perry, 1993; Griffin, 1998; Borun et al., 1996), but we also added some that we considered significant.

We devised twelve indicators of engagement and divided them into three groups: indicators of high engagement, indicators of moderate engagement, and indicators of student non-engagement. There were six indicators of high engagement, two of moderate engagement, and four indicators of non-engagement.

The research used the method of observation, i.e., the authors observed the behaviour of students during a visit to the museum and recorded indicators of engagement according to a previously created pattern. The students stayed in the museum for 60 minutes and were divided in two groups, which were guided three times because of the limited number of visitors and epidemiological measures. Participants included a total of 143 students from the Faculty of Humanities and Social Sciences in Split, the Department of Teacher Education and the Department of Early and Preschool Education. The research was conducted at the Emanuel Vidović Gallery in Split in December 2021.



## Research results

Diagram 1. Previous visits to a museum

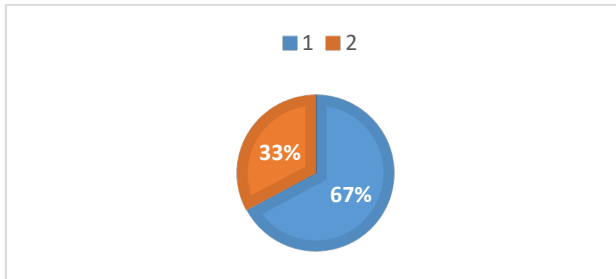


Diagram 1 shows the percentage of students who had previously visited a museum. Unfortunately, as many as 67% of students were in a museum for the first time. This is worrying because it implies that most students were never taken to a museum during their childhood and youth by their family members, but also that educational institutions failed to include this type of education.

Table 1. Indicators of student engagement in the museum setting

Engagement indicators	f	%
<b>High engagement</b>		
The student listens and asks questions of the museum educator.	6	4.2%
The student comments on the exhibits.	23	16%
The student comments on what she/he sees with others.	35	24.4%
The student makes notes.	12	8.4%
The student has her/his own ideas.	21	14.6%
The student wants to participate in the workshop.	82	57.4 %
<b>Moderate engagement</b>		
The student observes artifacts without commenting.	79	55%
The student listens to the museum instructor and does not ask questions.	137	95.8%
<b>Non-engagement</b>		
The student separates from the group and looks at other exhibits.	2	1.3%
The student stays briefly next to each exhibit and moves on.	4	2.7%
The student does not want to participate in the workshop.	61	42.6
The student generally shows no interest in what she/he sees.	0	0
$\Sigma$	143	

An analysis of Table 1 shows that high student engagement was expressed in lower percentages. The largest number of students comment on what they have seen with other students (24.4%). A slightly smaller number of students (16%) comment on the exhibits, 8.4% of students make notes, and only 4.2% of students listen and ask questions of the museum educator. It is interesting that 14.6% of students have their own ideas regarding museum exhibition and presentation. High engagement is shown through participation in the workshop, which was chosen by 57.4% of students.

Moderate engagement is most prevalent among students, with 95.8% of them listening to the museum educator without asking questions, and 55% of them observing the artifacts without commenting.

Student non-engagement was mostly expressed through their refusal to participate in the workshop (42.6%). Other indicators were less pronounced; thus only 1.3% of students separated from the group and looked at other exhibits, and 2.7% briefly paused next to each exhibit and moved on, while no student showed a complete lack of interest in what they were seeing.

Based on the analysis of student engagement in the museum setting, we can conclude that the first hypothesis was confirmed because most students showed moderate engagement in the museum. The second hypothesis, which says that most students will express their engagement through participation in the workshop, was also confirmed because 57.4% of students participated in the workshop. The third hypothesis, which assumes that there will be no major non-engagement of students in the museum, also proved to be correct, and in fact is mostly expressed through the refusal to participate in the museum workshop, which confirms the fourth hypothesis.

To better interpret the results of this research, they need to be put in context with previous research on learning in the museum as an informal place of learning (Brajčić et al., 2013 and Kušević et al., 2019) in which participants showed a high degree of preference for learning in the museum. The research conducted by Brajčić et al. in 2013 included respondents of both genders who spoke about the importance of learning in a museum. Although respondents of different genders did differ statistically significantly in terms of their answers to the question, a high percentage of female respondents (72%) said that learning in a museum was effective, while for male respondents the percentage was significantly lower (55%).

A negative answer to this question was given by 13% of women and 15% of men, while the answer “I do not know” was given by 15% of women and 30% of men. This shows that women attach far more importance to learning in the museum than men, but in general they rated the effectiveness of learning in the museum highly. The research by Kušević et al. from 2019 examined the attitudes of students of social sciences and natural science about visiting museums and conducting classes in museum settings. The results of the research showed that students of social and natural sciences do not differ in assessing the importance of museums in teaching and that students generally have positive attitudes about learning in the museum. A comparison of these studies with our research, which tried to determine indicators of student engagement in the museum, shows that students declare the effectiveness of informal learning in the museum, yet this is not consistent with the observed behaviour, where assumed indicators of engagement are more in favour of moderate student engagement. This can be considered a guideline to investigate this issue even more extensively to come to more valid conclusions.

## **Conclusion**

In addition to their primary function, modern museums are increasingly visitor-oriented, and the museum is becoming a place of relaxation, entertainment, and education, or informal learning. Research on museum learning indicates that such learning is effective because it is based on affective or experiential learning that, by its nature, creates longer-lasting memory. But at the same time, learning in the museum is fundamentally different from learning in the classroom and is therefore defined as semi-structured learning and called informal learning.

In this research, we tried to determine the indicators of engagement among students who were brought to the museum purposely and whose behaviour was observed during the visit. Since students had shown a high degree of preference for learning in the museum in previous research on the topic of learning in the museum, we came up with the idea of observing their behaviour to determine indicators of their engagement. The first big disappointment occurred when 68% of students said this was their first time in a museum. This means that throughout their formal education from preschool to high school, a huge percentage of students had not visited a museum at all.

This data, although based on a small sample of respondents (since the primary goal of the research was not to determine how often students visit museums), is certainly overwhelming. Not only had the family never taken them to a museum for a large part of their childhood and youth, but educational institutions also failed to include museums in their overall education. A moderate level of engagement is most prevalent among students; thus 95.8% of them listen to the museum educator but do not ask questions, and 55% of them observe the artifacts without commenting. High engagement is shown through participation in the workshop, which was chosen by 57.4% of students.

Based on the analysis of student engagement in the museum setting, we can conclude that the first hypothesis was confirmed because the largest number of students show moderate engagement in the museum. The second hypothesis, which states that most students will express their commitment through participation in the workshop, was also confirmed because 57.4% of students participated in the workshop. The third hypothesis, which assumes that there will be no major non-engagement of students in the museum, also proved to be correct, and in fact is mostly expressed through the refusal to participate in the museum workshop, which confirms the fourth hypothesis.

A comparison with previous research on student attitudes about the importance and effectiveness of learning in the museum (Brajčić et al., 2013; Kuščević et al., 2019) indicates a discrepancy between students' statements about the importance of this form of learning and the results of the observation. In fact, students find this form of learning significant, yet most show only moderate engagement in a museum setting. This finding points to the need for continuing research on engagement in the museum setting, where more valid conclusions could be made on a larger sample.

## References

- Bauer, A. (1975). Muzejska pedagogija. *Muzologija*, 17, 101-111. Retrieved from <https://hrc-ak.srce.hr/101345> (Accessed: 17. 12. 2021)
- Bell, P., Lewenstein, B., Shouse, A. W., and Feder, M. A. (Eds.). (2009). *Learning Science in Informal Environments: People, places, and pursuits*. Washington, DC: National Academies Press.
- Birney, B. A. (1995). Children, Animals, and Leisure Settings. *Society and Animals*, 3(2), 171-187.
- Borun, M., Komore, M. and Cleghorn, A. (1996). Families are learning in science museums. *Curator: The Museum Journal*, 39(2).
- Brajčić, M., Kovačević, S., and Kuščević, D. (2013). Learning at the Museum, *Croatian Journal of Education*, 15, Sp. Ed. 2.
- Cash, D. W. (2001). "In order to aid in diffusing useful and practical information": Agricultural Extension and boundary organizations. *Science, Technology, & Human Values*, 26(4), 431-453. Doi: 10.1177/016224390102600403

- Davis, B., and Bedore, Lisa M. (2013). *An Emergence Approach to Speech Acquisition*. Hoboken: Taylor and Francis. Retrieved from <http://public.eblib.com/EBLPublic/Pu-blicView.do?ptiID=132-3303> (Accessed: 12. 01. 2022)
- Dierking, L. D., Falk, J. H., Rennie, L., Anderson, D., and Ellenbogen, K. (2003). Policy statement of the “informal science education” ad hoc committee. *Journal of Research in Science Teaching*, 40(2), 108–111. Doi:10.1002/tea.10066
- Dillon, J., Brody, M., and Stevenson, R. (2013). *International Handbook of Research on Environmental Education*. Routledge.
- Etling, A. (1993). What is nonformal education? *Journal of Agricultural Education*, 34(4), 72–76. Doi:10.5032/jae.1993.04072
- Falk, J. H. (Ed.). (2001a). *Free-choice Science Education: How we learn science outside of school*. New York: Teachers College Press.
- Falk, J. H. (2001b). Free-choice science learning: Framing the discussion. In *Free-Choice Science Education: How We Learn Science Outside of School* (pp. 3–20). New York: Teachers College Press.
- Fallik, O., Rosenfeld, S., and Eylon, B.-S. (2013). School and out-of-school science: a model for bridging the gap. *Studies in Science Education*, 49(1), 69–91. Doi:10.1016/030572-67.2013.822166
- Falk, J. H., and Dierking, L. (1992). *The Museum Experience*. Washington, D.C.: Whalesback Books.
- Falk, J. H., and Dierking, L. D. (1998). Free-choice learning: An alternative term to informal learning? *Informal Learning Environments Research Newsletter*, 2, 2.
- Falk, J. H., and Dierking, L. D. (2000). *Learning From Museums: Visitor Experiences and the Making of Meaning*. Lanham, MD: AltaMira Press.
- Goleman, D. (1997). *Emotional Intelligence*. New York: Bantam Books.
- Griffin, J. (1998). *Finding Evidence of Learning in Museum Settings*, Change in Education Research Group, University of Technology, Sydney.
- Hein, G. E. (1998). *Learning in the Museum*, New York: Routledge.
- Hooper-Greenhill, E. (1989). The Museum in the Disciplinary Society. *Museum Studies in Material Culture*, Ed. S. Pearce. Leicester University Press: Leicester.
- Luke, J. J., Camp, B. D., Dierking, L. D., and Pearce, U. J. (2001). The first free-choice science learning conference: From issues to future directions. In J. H. Falk (Ed.), *Free-choice Science Education: How we learn science outside of school* (pp. 151–162). New York, NY: Teachers College Press.
- Milutinović, J. (2010). Učenje u muzeju. *Povijest u nastavi*, VIII (16 (2)), 217–229. Retrieved from <https://hrcak.srce.hr/82545>. (Accessed: 20. 1. 2022)
- Phipps, M. (2010). Research trends and findings from a decade (1997–2007) of research on informal science education and free-choice science learning. *Visitor Studies*, 13(1), 3–22. Doi:10.1080/10645571003618717.
- Perry, D. (1993). Designing exhibits that motivate. What Research Says about Learning in Science Museums, *ASTC Newsletter*.
- Thoron, A. C., and Myers, B. E. (2008). Agriscience: Sustaining the future of our profession. *The Agricultural Education Magazine*, 80(4), 9–11. Retrieved from: <http://www.n-aae.org/prof-development/magazine/> (Accessed: 19. 1. 2022).
- Tuđman, M. (1983.). *Struktura kulturne informacije*. Zavod za kulturu Hrvatske, Zagreb.
- Rosić, V. (2005). Pedagoško značenje muzeja. Zavičajno blago u funkciji razvoja Zabiokovlja, Zbornik radova.
- Smith, K. M. (1988). *Developing Youth Work. Informal Education, Mutual Aid and Popular Practice*. Milton Keynes: Open University Press.
- Stofer, Kathryn, A. Informal, Nonformal, or Free-Choice Education and Learning? Toward a Common Terminology for Agriscience and Ag-STEM Educators. Retrieved from: [academia.edu/17164206/Informal\\_Nonformal\\_or\\_Free\\_Choice\\_Education\\_and\\_Learning\\_Toward\\_a\\_Common\\_Terminology\\_for\\_Agriscience\\_and\\_Ag\\_STEM\\_Educators?auto=download](https://academia.edu/17164206/Informal_Nonformal_or_Free_Choice_Education_and_Learning_Toward_a_Common_Terminology_for_Agriscience_and_Ag_STEM_Educators?auto=download) (Accessed: 7. 6. 2021)

**Authors****Dr. Marija Brajčić, PhD**

Associate Professor, University of Split, Faculty of Humanities and Social Sciences Split, Poljička cesta 35, 21000 Split, Croatia, e-mail: mbrajcic@ffst.hr

Izredna profesorica, Univerza v Splitu, Filozofska fakulteta v Splitu, Poljička cesta 35, 21000 Split, Hrvatska, e-pošta: mbrajcic@ffst.hr

**Dr. Dubravka Kušević, PhD**

Assistant Professor, University of Split, Faculty of Humanities and Social Sciences Split, Poljička cesta 35, 21000 Split, Croatia, e-mail: dkuscevic@ffst.hr

Docentka, Univerza v Splitu, Filozofska fakulteta v Splitu, Poljička cesta 35, 21000 Split, Hrvatska, e-pošta: dkuscevic@ffst.hr