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STRATEGIES FOR ADAPTING ONLINE TEACHING TO DIFFERENT LEARNING STYLES: AN ANALYSIS THROUGH THE COMMUNITY OF INQUIRY MODEL

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ABSTRACT

Due to the changes caused by the intensification of online teaching during the pandemic, the aim of this research was to examine the differences in students' perceptions of university online teaching in relation to their learning styles. Online university teaching is investigated in this paper based on the theoretical model known as the Community of Inquiry (CoI), developed in 2000 by Garrison, Anderson, and Archer. As the theoretical framework for learning styles, the paper used Honey and Mumford's model, which identifies four learning styles: Activist, Reflector, Theorist, and Pragmatist. This paper presents the results of an international study carried out in the academic year 2022/2023 among students (N = 808) from Serbia, Bosnia and Herzegovina, Croatia, Slovenia, Romania, and Russia. A modified version of the Community of Inquiry survey instrument was applied and tested, demonstrating high reliability (α = 0.94). The results showed that students with different learning styles perceive the Community of Inquiry framework in online learning differently. Across all CoI elements (Teaching, Social, and Cognitive Presence), students with a reflector learning style gave the highest evaluations, followed by theorists, then activists, while pragmatists gave the lowest evaluations. These findings indicate that it is necessary to improve the application of educational technology in a way that suits all students' learning styles and preferences.

***Keywords**: Community of Inquiry, online teaching, learning styles, higher education.*

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INTRODUCTION

The structural and transitional changes caused by the spread of the COVID-19 pandemic worldwide in 2020 have led to a considerable amount of research around the world on online teaching and the success of higher education in meeting these challenges. The organization of online teaching in higher education is a complex and interdisciplinary endeavor (Rapanta et al., 2020). Although some systems and institutions of higher education had more experience, as they had already introduced distance learning before the outbreak of the global pandemic, this task was particularly difficult for the vast majority of them. Teaching staff had to be trained to use digital tools for online teaching and to develop online learning materials simultaneously. In the short term, universities faced an increased demand for IT specialists, digital infrastructure, and appropriate software and hardware resources. Recent studies emphasize that the successful adoption of digital technologies significantly improves organizational performance and facilitates adaptation to rapidly changing environments (Zhou et al., 2026). Furthermore, the integration of artificial intelligence into educational and organizational processes is increasingly recognized as a driver of innovation, efficiency, and sustainable development (Sun & Zhu, 2026).

Effective online teaching is by no means something that can be organized on the fly through improvisation; it requires a different design from the traditional model. The growing importance of e-learning has also highlighted the need for the development of digital competencies among students and teachers. As noted by Vučeković, Medić, and Marković (2020), digital skills have become a prerequisite for effective participation in contemporary educational and professional environments, making the quality and adaptability of online learning systems increasingly important.

Developing online teaching that achieves good results and the desired effects does not mean transferring teaching that has been carried out in vivo to the online environment (Huang et al., 2020; Rapanta et al., 2020). The digitalization of existing teaching processes is necessary, but it is also important to develop a new process that was not possible in face-to-face teaching. "Instead of the translation of the old pedagogical practices into the new online environment, there needs to be a real adaptation of teachers to the opportunities and constraints of the online environment" (Arsenijević et al., 2022: 53).

In order for online classes to be designed in a manner that suits all students equally, it is necessary to consider the individual differences among students. Designing an effective and adaptive e-learning system represents a challenging task, as it needs to adjust to the diverse needs of learners (Alshammari, 2016). Individual differences have been identified as a key factor in numerous models predicting students' behavior in e-learning systems. Previous studies have demonstrated that factors such as age, gender, experience, and education significantly influence the implementation of e-learning systems (Baharudin, Sahabudin & Kamaludin, 2017). Educational environments that effectively integrate digital technologies can also contribute to the development of entrepreneurial and innovative competencies among students, thereby strengthening their adaptability to the contemporary labor market (Subotic et al., 2026).

In this context, learning styles are particularly important as individual characteristics of students. A learning style is the way in which an individual organizes, processes, presents, and combines information, stores it in his or her cognitive system, and then retrieves information and experiences in a style that reflects his or her communication technique (Fleming & Baume, 2006; Pashler et al., 2008; Jaleel & Thomas, 2019). Learning styles can also be described as methods and strategies by which students individually respond to the set requirements and curricula of higher education in accordance with their intellectual autonomy, independent thinking, and the way they approach learning and problem solving.

Previous studies have shown that little attention has been paid to students' individual needs and preferences in the design of online courses and that students have generally been treated equally (Shi et al., 2008; Lee & Kim, 2012; Alshammari & Qtaish, 2019; Yalcinalp & Avcı, 2019). Since students differ in their approaches to acquiring and processing knowledge, educational strategies should be sufficiently flexible to support the development of competencies among learners with different preferences and learning styles. This need becomes even more important in digitally mediated environments where adaptability and continuous learning represent essential components of individual competitiveness (Radović-Marković et al., 2019).

More research needs to be conducted on how educational technologies can affect the development of skills and the performance of different learners (El-Sabagh, 2021). Studies examining the extent to which online teaching meets different learning styles, which represent a broader dimension and cross-section of

learning styles in higher education during the pandemic, when education was urgently shifted to the online environment (especially in developing countries), are still relatively rare. A comparative study conducted before the pandemic showed that students with a particular learning style exhibit different behaviours and perform differently in traditional and online courses (Downing & Chim, 2004). This paper aims to do just that by presenting the results of an investigation of differences in the Community of Inquiry framework in online higher education during the 2021/2022 academic year, according to students' learning styles.

The theoretical basis for the learning styles used in this paper is Honey and Mumford's model, which is a modified version of Kolb's Learning Style Inventory (Kolb, 1984), conceptualized under the influence of John Dewey, Piaget (1950, 1952), and Lewin (1951, 1957). According to this model, learning styles are divided into four categories: Activist, Reflector, Theorist, and Pragmatist (Honey & Mumford, 1992). An activist learns best through activity, seeking practical solutions and enjoying new experiences and opportunities that enable active engagement and collaboration with others in the learning process. Activists learn best through short, interactive tasks. A reflector learns best by gathering and evaluating new information, tending to observe information and reflect on it before acting. Reflectors learn best by observing others and need sufficient time for careful reflection. Theorists learn best by reasoning and constructing logical models, asking questions, examining things from different perspectives, studying meticulously, thinking incrementally, and seeking logical explanations. Theorists are analytical, learn like reflectors, and like to apply their own concepts. A pragmatist learns best through hands-on activities and experiments, especially when faced with a difficult problem. Pragmatists learn similarly to activists but prefer having a practical goal and tend to interact with others while learning. While reflectors and theorists are oriented towards thinking and independent learning, activists and pragmatists learn by doing and interacting with others.

The Community of Inquiry (CoI) framework was used in this research because it is the most widely accepted theoretical framework in professional and academic circles dealing with online teaching. It was developed in 2000 by Garrison, Anderson, and Archer (Garrison, Anderson & Archer, 2003) and is based on John Dewey's progressive understanding of education (Dewey, 1933, 1938, 1959), which relates to the very process of knowledge formation and creation. According to the CoI model, online teaching supports an inquiry-based learning community that enables learning through interactive and meaningful inquiry and knowledge sharing while integrating a collaborative and constructivist approach to learning. The model includes three types of presence: teaching, social, and cognitive presence, and their interaction provides the structure needed for a dynamic online environment conducive to learning and experience. Teaching presence includes a wide range of pedagogical activities, roles, forms, and interventions that teachers undertake to facilitate interaction with students in an online environment. It involves designing the teaching process and learning environment while directing cognitive and social processes in order to achieve learning outcomes. Social presence is the extent to which students feel socially and emotionally connected to others and to the online learning environment, that is, their ability to communicate purposefully and develop interpersonal relationships by projecting themselves socially and emotionally into the learning community through the medium used in online teaching (Garrison, 2009). Cognitive presence represents the process of students' interaction with the learning content, that is, the extent to which students are able to construct meaning through reflection and communication. Its foundation lies in reflection, which leads to inquiry and the practical application of knowledge, according to the teachings of John Dewey (Dewey, 1933).

MATERIALS AND METHODS

The aim of this research is to examine whether there are differences in the perception of the *Community of Inquiry* and its elements in relation to the students' learning styles (*activist, reflector, theorist, and pragmatist*). The research hypothesis is that there are statistically significant differences in the assessment of the CoI model and its elements in relation to the students' learning styles.

The SPSS 20.0 software package was used for data entry and processing. To investigate the differences in the assessments of the Community of Inquiry in relation to the students' learning styles, within the framework of comparative statistics, a one-way analysis of variance (ANOVA) was used.

THE RESEARCH INSTRUMENT

The research instrument used in this paper is an adapted version of the *Community of Inquiry Questionnaire* (Arbaugh et al., 2008). A detailed description of the instrument, an analysis of the main components, and a reliability analysis are presented in another paper by the same authors (Arsenijević & Andevski, 2022). The instrument has high reliability, as Cronbach's alpha coefficient was $\alpha = 0.941$.

In order to describe the latent structure of the measurement space, factor analysis was used. Three factors meeting the Kaiser-Guttman criterion of having an eigenvalue greater than 1 were identified, explaining 64.78% of the total variance. All three factors fully correspond to the CoI elements. The first factor is composed of items related to *teaching presence*; the second factor refers to *cognitive presence*; and the third factor refers to *social presence*.

In addition to the modified CoI instrument, a shorter questionnaire constructed for the purposes of this research was used to obtain basic data about the sample (country, field of education, level of representation of online teaching), including a question regarding the respondents' dominant learning style. It is a closed-ended question with four possible answers, and each answer directly describes one learning style from Kolb's theoretical model (1984).

THE RESEARCH SAMPLE

The research was conducted from October 2022 to January 2023 at universities in six countries: Serbia, Bosnia and Herzegovina, Croatia, Slovenia, Romania, and Russia. A convenience sampling method was used.

Table 1. A comparative view of respondents by country

Country	Frequency	Percent
Serbia	249	30.8
Bosnia and Herzegovina	69	8.5
Croatia	72	8.9
Slovenia	38	4.7
Romania	176	21.8
Russia	204	25.2
Total	808	100.0

The largest number of students included in the research were from Serbia, followed by Russia and Romania, while the smallest number were from Slovenia (Table 1).

Table 2. Fields of education of students included in the research

Field of education	Frequency	Percent
Social Science & Humanities	438	54.2
Engineering & Technology	210	26.0
Natural Sciences	35	4.3
Medical and Health Science	71	8.8
Creative Arts and Interdisciplinary Fields	24	3.0
Missing	30	3.7
Total	808	100.0

When it comes to the field of education, the sample consists of students from all fields of education (Table 2). More than half of the students who participated in the research studied Social Sciences and Humanities, while more than one-quarter studied Engineering and Technology. Medical and Health Sciences and Natural Sciences followed. Respondents studying Creative Arts and Interdisciplinary Fields represented the smallest share of the total sample.

Table 3. Presence of online teaching in the observed sample

Mode of teaching	Frequency	Percent
Completely	420	52.0
To a greater extent	203	25.1
As much as in vivo	106	13.1
To a lesser extent	75	9.3
Missing	4	0.5
Total	808	100.0

Teaching had been organized completely online for more than half of the respondents, while it was organized predominantly online for approximately one-quarter of the respondents. About 13% of respondents attended classes online to the same extent as in vivo, while only 9.3% stated that they attended their classes predominantly in vivo (Table 3).

Table 4. Students' learning styles

Learning style	Frequency	Percent
Activist	183	22.6
Reflector	219	27.1
Theorist	235	29.1
Pragmatist	171	21.2
Total	808	100.0

Among the students who participated in the research, the largest group consisted of those whose learning style was *theorist*, followed by *reflectors* and *activists*, while *pragmatists* were the least represented (Table 4). Bearing in mind the structure of the respondents in relation to the field of education, the distribution of learning styles is expected because the majority of students study Social Sciences and Humanities, which correspond to the learning styles of *theorists* and *reflectors*—characterized by methodical thinking and analysis—rather than the more practical, experimental, and active approach to learning that is characteristic of the *activist* and *pragmatist* learning styles.

RESULTS

The students' perceptions of the presence of the *Community of Inquiry* in online teaching and its elements are shown in Table 5.

Table 5. Community of Inquiry in online teaching

CoI element	Mean	Standard deviation
Teaching Presence	3.69	0.96
Social Presence	3.64	0.93
Cognitive Presence	3.45	0.98
Total CoI	3.59	0.86

The *Community of Inquiry* is moderately well expressed in the entire sample. Of all the elements, *teaching presence* was rated the best, followed by *social presence*, while *cognitive presence* was rated the lowest.

A one-way analysis of variance (ANOVA) was used to examine the assessments that students of different learning styles gave to the *Community of Inquiry*. Table 6 shows the F-test values and the level of significance, as well as arithmetic means and standard deviations.

Table 6. Significance of the model and arithmetic means with standard deviations

Domains		AS	SD	F	df1(df2)	*p-level*
Teaching Presence	Pragmatist	3.55	0.99	7.411	600(3)	.000
	Theorist	3.67	0.94			
	Activist	3.46	0.99			
	Reflector	3.93	0.86			
Social Presence	Pragmatist	3.52	0.90	4.390	600(3)	.005
	Theorist	3.51	0.99			
	Activist	3.51	0.90			
	Reflector	3.84	0.90			
Cognitive Presence	Pragmatist	3.21	0.93	6.260	600(3)	.000
	Theorist	3.40	1.02			
	Activist	3.22	0.98			
	Reflector	3.64	0.92			
Community of Inquiry	Pragmatist	3.43	0.83	7.273	600(3)	.000
	Theorist	3.53	0.89			
	Activist	3.40	0.83			
	Reflector	3.81	0.81			

Students with different learning styles evaluate the *Community of Inquiry* in online teaching differently. In other words, there are statistically significant differences in all three elements and in the CoI model as a whole in relation to students' learning styles, which confirms the research hypothesis. *Reflectors* consistently evaluate the presence of the *Community of Inquiry* more positively than students with other learning styles. *Theorists* follow *reflectors*, then *activists*, while *pragmatists* give the lowest assessments of the *Community of Inquiry* (Table 6). This pattern is evident in all CoI elements.

Table 7. Post hoc tests between individual groups (LSD)

			Average difference (I-J)	Standard error	*p-level*
Teaching Presence	Pragmatist	Theorist	-0.127	0.121	0.294
		Activist	0.090	0.106	0.392
		Reflector	-0.388*	0.118	0.001
	Theorist	Pragmatist	0.127	0.121	0.294
		Activist	0.217*	0.108	0.044
		Reflector	-0.261*	0.120	0.029
	Activist	Pragmatist	-0.090	0.106	0.392
		Theorist	-0.217*	0.108	0.044
		Reflector	-0.478*	0.104	0.000
	Reflector	Pragmatist	0.388*	0.118	0.001
		Theorist	0.261*	0.120	0.029
		Activist	0.478*	0.104	0.000
Social Presence	Pragmatist	Theorist	0.010	0.117	0.933
		Activist	0.007	0.102	0.943
		Reflector	-0.323*	0.114	0.005
	Theorist	Pragmatist	-0.010	0.117	0.933
		Activist	-0.002	0.104	0.981
		Reflector	-0.332*	0.116	0.004
	Activist	Pragmatist	-0.007	0.102	0.943
		Theorist	0.002	0.104	0.981

	Reflector	Reflector	-0.330*	0.101	0.001
		Pragmatist	0.323*	0.114	0.005
		Theorist	0.332*	0.116	0.004
		Activist	0.330*	0.101	0.001
Cognitive Presence	Pragmatist	Theorist	-0.183	0.122	0.135
		Activist	-0.007	0.107	0.948
		Reflector	-0.426*	0.119	0.000
	Theorist	Pragmatist	0.183	0.122	0.135
		Activist	0.176	0.109	0.107
		Reflector	-0.243*	0.121	0.046
	Activist	Pragmatist	0.007	0.107	0.948
		Theorist	-0.176	0.109	0.107
		Reflector	-0.419*	0.106	0.000
	Reflector	Pragmatist	0.426*	0.119	0.000
		Theorist	0.243*	0.121	0.046
		Activist	0.419*	0.106	0.000
Community of Inquiry	Pragmatist	Theorist	-0.100	0.106	0.347
		Activist	0.030	0.093	0.745
		Reflector	-0.379*	0.104	0.000
	Theorist	Pragmatist	0.100	0.106	0.347
		Activist	0.130	0.095	0.170
		Reflector	-0.279*	0.105	0.008
	Activist	Pragmatist	-0.030	0.093	0.745
		Theorist	-0.130	0.095	0.170
		Reflector	-0.409*	0.092	0.000
	Reflector	Pragmatist	0.379*	0.104	0.000
		Theorist	0.279*	0.105	0.008
		Activist	0.409*	0.092	0.000

A more detailed comparison using the post hoc LSD test (Table 7) showed that there were statistically significant differences between *reflectors'* assessments of the *Community of Inquiry* and those of students with other learning styles. This applied both to the individual CoI elements and to the overall scale. Apart from this consistent difference across all CoI domains, a statistically significant difference between *theorists'* and *activists'* assessments of *teaching presence* was also observed.

DISCUSSION

Before starting the analysis of the differences in the way students with different learning styles evaluated the Community of Inquiry, it is necessary to clarify to what extent the CoI model was generally represented in online university teaching. The results of the descriptive statistics showed that, according to the responses of the students who participated in the research, the Community of Inquiry was moderately high, but that there was room for improvement (Table 5). Teaching presence was represented to the greatest extent (moderately high presence), followed by social presence (also moderately high), while cognitive presence was represented the least (partial presence). In the observed international sample, in online university teaching during the COVID-19 pandemic, teachers undertook a moderately high degree of pedagogical interventions to design an online teaching process so that students' cognitive processes were encouraged and guided: they set clear deadlines and responsibilities, formulated learning objectives, directed students to create learning tasks, emphasized and led discussions about the material, encouraged students to independently research the learning content, and provided feedback to students about their progress. Social presence was also moderately high, but slightly lower than teaching presence, and there

was a moderately high level of mutual, free, and independent communication and interaction among students. This communication and interaction contributed to students feeling emotionally and socially connected to the online community, which in turn contributed to their learning and allowed them to gain new insights and ideas through interaction with others and to check and improve their knowledge. According to the students' responses, they expressed their opinions to a moderately high extent, listened to the reactions and objections of others, jointly shaped and refined ideas, made comments, and found arguments in the joint search for knowledge. Cognitive presence was rated the lowest, which means that students' interaction with the learning content was only partially present and that students were only partially able to construct meaning through research and reflection, by combining prior and new knowledge, and through communication with others. There is the greatest room for improvement within this CoI element.

The results show that there is a statistically significant difference in how students with different learning styles perceive the Community of Inquiry and its elements in the realized online university teaching (Table 6). It is evident that reflectors, followed by theorists, rate the Community of Inquiry the highest, while activists rate it lower, and pragmatists the lowest. This pattern is evident across all CoI elements as well. We can search for an explanation in the way online classes were organized during the period covered by this research, but also in the very nature of the students' learning styles.

Reflectors tend to have divergent thinking, and theorists are inclined to cognitive assimilation, so they are most suited to classes in which they can combine observation, experience, reflection, and analysis. Reflectors are inclined to inductive reasoning and theorists to deductive reasoning, but both of them prefer the teacher in the role of a knowledge source and teaching that emphasizes observation and independent learning. The fact that reflectors and theorists are most satisfied with the CoI elements (Table 6) clearly explains what kind of online teaching was implemented at the observed faculties during the pandemic. The results regarding the representation of the CoI model also support this, according to which Teaching Presence was the most strongly represented of all elements.

Reflectors and theorists are more inclined toward traditional learning with clearly defined goals, an emphasis on learning content, and the presence of systematic instructions. They are more suited to online teaching that focuses on literature, logical tasks, and case studies and offers opportunities for individual and collective analysis and reflection on the learning content, with periodic knowledge tests (Kanninen, 2009). The online teaching that was realized during the pandemic partially follows the needs of students, and reflectors and theorists give higher scores both on the entire Community of Inquiry scale and on the CoI elements. In contrast, activists and pragmatists, whose learning style is dominated by action, interaction, and the application of knowledge, have a greater need for experimentation and the practical application of their own ideas, as well as for more liberal and less conventional forms of learning and thinking. Students who are pragmatists and activists are most focused on action and interaction in the learning process. Analogy and deduction are present in their thinking process, and they are more suited to a teacher who acts as an observer and coach, guiding them through the practical application of knowledge and providing the necessary feedback (Honey & Mumford, 1992). According to the research presented in this paper, activists, followed by pragmatists, give lower assessments of the Community of Inquiry in online teaching and all its elements, in which they clearly do not find the desired challenges.

Reflectors and theorists are more inclined toward reflection, while activists and pragmatists focus on practice and experience. For activists and pragmatists, group and interactive work, interaction, and conversation are important (Honey & Mumford, 1992). It is possible that the lack of interactivity, in addition to the lack of activity and the practical application of knowledge, contributed to the consistently low scores given by activists and pragmatists to the CoI scale and all three of its elements. The online teaching realized by the observed faculties obviously did not meet the needs arising from their learning styles.

Therefore, in online teaching, teachers mostly used activities and traditional methods from the analogue learning environment. Traditional ex cathedra teaching patterns with clearly defined goals and deadlines, systematic teacher instructions, and a focus on learning content were predominantly represented (teaching presence), while interaction among students (social presence) and students' interaction with the learning content (cognitive presence) were represented to a lesser extent. It is obvious that the application of knowledge, practical lessons, experimentation, and interactive and project-based learning were the weak points, while teaching instruction was the strongest point. Therefore, under such conditions, in which self-directed and independent learning was the most reliable, it is logical that reflectors and theorists evaluate

online teaching better than pragmatists and activists. It is known that "students appreciate direct online communication with the teacher, expressed in direct guidance and instructions, correspondence, feedback, assessments, monitoring, and including even comments, humour, and other forms of active and immediate interaction" (Arsenijević et al., 2023: 11). The online teaching investigated in this paper does not respect the individual learning styles of students and does not sufficiently apply didactic, methodological, and organizational strategies and methods that would contribute to greater efficiency of online learning while respecting the dominant learning styles of individuals.

These results confirm the findings of some earlier studies, although they were conducted before the pandemic and used a different methodology. According to one comparative study conducted before the pandemic, it was shown that reflectors were the most successful in online education programmes, unlike in traditional programmes, thanks to the fact that online programmes provided them with sufficient opportunity and time to think (Downing & Chim, 2004). The fact that online teaching favours a reflective learning style was also shown in a study by another group of authors. Namely, a study on the correlation between students' learning styles and behaviour in e-learning showed that reflectors demonstrated the greatest interest in the e-learning system, followed by theorists, while activists showed less interest and pragmatists the least interest (Baharudin, Sahabudin & Kamaludin, 2017). Moreover, Mestre pointed out that most online situations best serve students who can learn in a text-based, logical, and passive environment (Mestre, 2006).

When considering the diversity of students' needs in online learning environments, it is important to note that in recent years efforts have been made to adapt online teaching methods and content to students' learning styles and other preferences in so-called adaptive learning environments (Normadhi et al., 2019). Modern AI-based tools adjust and personalize learning content and the pace of learning based on students' interests, capacities, and even learning styles. A personalized learning approach focuses on providing an effective, customized, and efficient learning path so that each student can participate in the learning process (Hussein & Al-Chalabi, 2020).

The potential of digital work is therefore primarily seen in optimizing the use of online learning technology that follows and respects individual learning styles, as well as in teachers' pedagogical competencies to differentiate teaching strategies and activities according to the different needs of students. In this sense, educational technology is understood as an infusion, a catalyst for analogue learning practices (Taisir Subhi Yamin, 2014; Maksimović et al., 2021).

In order to be more effective in online teaching and learning, reflectors and theorists should be encouraged and given more time to think, question ideas, analyse phenomena, and use rationality and logic. Reflectors benefit the most from studying online learning materials, listening to online lectures, and participating in forum discussions, while theorists benefit from well-prepared classes that analyse case studies and connect cause and effect, with occasional knowledge tests (Kanninen, 2009). Pragmatists and activists should be allowed to make a correlation between the problems they investigate and real life and practice, to be placed at the centre of problem solving, and to try out their own ideas. They need teachers in the role of coaches to give them feedback and encourage their group activities in solving problems. Pragmatists need practical exercises, opportunities for experimentation, and real-time conversation, while activists need practical problem-solving and interactive activities such as role-playing. Both activists and pragmatists need engagement in project work and real-time interaction and conversation (Kanninen, 2009). In order to engage activists and pragmatists, it is therefore important that teachers involve students in as wide a range of different learning activities as possible, such as "online projects in teams, small groups and pairs, assign tasks in which students need to apply theoretical knowledge in solving practical and professional problems ... these can be projects, case studies, discussions, forums, debates, and other forms of online communication that create conditions for active interaction" (Arsenijević et al., 2023: 11; Arsenijević et al., 2023: 114).

CONCLUSION

In this study, the Community of Inquiry in online university teaching during the pandemic was examined. The research was conducted among students from different educational fields in developing countries who had no previous experience with online higher education and were adapting to the transition to digital teaching. The results indicate that the online teaching implemented during the pandemic did not align with students' preferences and learning styles.

The results lead to the conclusion that, during the pandemic, online teaching in higher education was approached with the dominance of didactic materialism, characteristic of the analogue learning environment. This is inferred from the low scores for the Community of Inquiry given by students who are activists and pragmatists, as they are the ones who are inclined to combine action, experiential learning, and interaction in their learning. Obviously, online teaching at universities did not provide opportunities for this type of learning. In contrast, reflectors and, to a lesser extent, theorists, who learn passively through observation and reflection, rated the Community of Inquiry in online teaching the highest. It is clear that online university teaching was designed to accommodate the learning styles of reflectors and theorists. This indirectly indicates that higher education in the observed countries is not adapted to the student and that online education, as a major socio-technological experiment worldwide, fits into this context.

There is a widespread belief that online learning in higher education will continue to expand in the post-pandemic era, which consequently means that it will involve an increasing number of users. The development of technology towards so-called adaptive learning environments allows the adaptation of online teaching, methods, and content to different preferences and learning styles of students (Normadhi et al., 2019), and modern artificial intelligence-based tools adjust the content and the pace of learning based on students' interests and cognitive abilities. This means that the future will undoubtedly be marked by the technologically based individualization of learning. However, for this to happen, not only is technological development important, but also the support of higher education as a system, as well as the support of people, especially teachers. This research has shown that, at least in the initial stage of implementing online education, this was not the case. It is important to design online learning environments that are tailored to the needs of all learning styles, that use diverse teaching strategies and techniques, that incorporate different teaching materials, and that adapt technological solutions so that each student can participate equally.

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