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An Evaluation of the Perceptions of Socio-Humanities Students on the Skills of Critical Thinking

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Abstract: One of the fundamental objectives of higher education is to prepare students to think analytically in order to develop and create knowledge, thus going beyond receiving information and building simple knowledge. That is why higher education must adapt its teaching and learning process to cultivate critical thinking of students. In order for academia to ensure the effectiveness of the development of critical thinking skills, student perceptions cannot be neglected, given that they are the ultimate receptors. In addition, investigating students' perceptions of critical thinking skills could guide future training methods that promote their development. The purpose of this research is to explore students' attitudes and beliefs regarding critical thinking skills, as well as aspects of their development in academia and their transfer to other contexts. The study is conducted at the Dunarea de Jos University of Galaţi and uses the questionnaire survey method to assess students' perceptions of critical thinking, from several perspectives: the level of knowledge on critical thinking skills, strategies for learning critical thinking skills, the qualities of a critical thinker, the way students relate to the COVID 19 pandemic and fake news. To obtain the necessary data, the questionnaire was distributed through Microsoft Forms and subsequently analyzed to describe students' views on critical thinking. A sample of 101 students from specializations in the field of socio-humanities completed this survey. The results of the study showed that students invoke the need to overcome difficulties in developing critical thinking skills by: training teachers to use critical thinking in the classroom; including and practicing critical thinking skills in applied activities at courses and seminars; applying debates and discussions in the classroom as teaching and learning strategies; translating the theories learned in courses into different case studies; use of training skills, questionnaires, homework; participation in group projects in a collaborative environment.

Keywords: *Student perceptions; critical thinking skills; learning environment; COVID-19 pandemic; fake news.*

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1. Introduction

In the postmodern age where we are faced with a plurality of viewpoints, frames of reference and ideologies, one of the roles of critical thinking is to assess the "reasonableness" (Burbules, 1995) of these competing perspectives and positions. In the contemporary educational discourse on critical thinking the postmodern perspective on rationality is emphasized, which encourages disregard for formal rules and procedures of thought in order to force us to rethink our own methodologies and assumptions and re-examine the nature of inferences, evidence, and reasoning.

Despite the fact that postmodern ideas in the field of education have certain limitations and weaknesses, Clive Beck (1993) points out that postmodernism has implications in all dimensions of education as it promotes a critical view of education and offers a new explanation of knowledge, know-how, schooling, curriculum and educational content. Furthermore, postmodernism questioned all limitations, standards and boundaries, creating new forms of knowledge instead.

From the perspective of postmodernism, education should aim at teaching critical thinking skills, production and not reproduction of knowledge, independent learning, cooperative learning, development of individual and social identity. In postmodern education, the teacher's role is to guide students to discover new things, discuss different topics, argue their points of view, tolerate others' criticism and try to think critically. In this atmosphere, the role of the teacher changes, from transmitter of knowledge to participant in the process of change.

Addressing the relationship between critical thinking and education, Giroux finds that the role of schools in the past was only to educate a non-critical mindset and to reproduce everything that existed in society. Instead, today there is discussion about the need to think critically about the way knowledge is formed and emerges in the educational environment. Thus, students should practice critical thinking, be tolerant of others' ideas, and listen to others' voices. In *Postmodern Education*, Aronowitz and Giroux (1990) discuss the concept of *frontier pedagogy*, which suggests that the teacher should be actively involved in developing students' ability to familiarize themselves with different cultures, contexts or different texts and approach them in a critical way.

According to postmodernism, educational content should be based on problem solving, and teachers and students should take part in a journey of discovery in order to investigate things. Because in today's world, the

main need of students is the formation of the ability to solve the various problems they face in their daily life. Therefore, we believe that the postmodern curriculum should be flexible, variable and plural, with the aim of connecting it to the problems of life, but also as an opportunity for creativity and innovation.

Higher education in many parts of the world has recognized the challenges posed by the rapidly changing world and the ever-changing needs of students. That is why one of the fundamental objectives of higher education is to prepare students to think analytically in order to develop and create knowledge, thus going beyond receiving information and building simple knowledge. Because easy access to knowledge has turned them into receptors and users, thus becoming less critical in the absorption of information. As such, it is a priority for higher education to help students think in a critical manner, especially given that employers expect employees to have the ability to solve complex problems, communicate effectively and possess solid critical thinking skills.

Taking into account that higher education must adapt its teaching and learning process to cultivate critical thinking of students, Paul and Elder (1999), it stresses the need for the development of critical thinking skills to be included in the curriculum. The content of education at this level requires higher thinking, in which competences are promoted, such as the ability to critically assess information, provide evidence for the opinions expressed and argue the validity of the knowledge and facts received from teachers. Research has shown, on the one hand, that critical thinking simultaneously increases with the level of education (King, Wood, & Mines, 1990) and, on the other hand, that the university experience itself favours the development of critical thinking skills (McMillan, 1987). Also, studies have shown that the practice of critical thinking correlates significantly and positively with the academic results of students (Jenkins, 1998). Being a transversal and transferable competence, critical thinking helps students to cope with academic demands, to participate in courses actively and autonomously, and thus to be able to understand and apply the knowledge acquired in a complex world (Dwee et al., 2016, p. 632). Therefore, by practicing critical thinking skills in academia, students prepare themselves for both academic study needs and workplace needs, in which the application of these skills is widely appreciated and practiced. Which is why, the cultivation of critical thinking in students has become one of the crucial problems in higher education, being strongly recommended by education specialists.

But what is critical thinking and why is it so important for society in general and for academia in particular? We first render the way in which

critical thinking was conceptualized as a process, in the view of Scriven and Paul (2007): the intellectually disciplined process of conceptualizing, applying, analyzing, synthesizing and/or actively and deftly evaluating, the information gathered from, or generated by, observation, experience, reflection, reasoning or communication, as a guide to faith and action. Being considered one of the higher-order thinking skills, it is obvious that critical thinking is related to the cognitive development of an individual (Tew, 2015). In the same sense, Halpern (2014) defines critical thinking as the use of cognitive skills or strategies to increase the likelihood of achieving the desired result. In view of the fact that critical thinking is not a skill inherent in people from birth, it follows that critical thinking skills should be trained in the learning process.

Referring to critical thinking, Ennis (1993) defines it as reasonable reflective thinking that emphasizes decision-making about what to believe or what to do. Norris (1985) is in the same direction, defining critical thinking as the rational decision to believe or not to believe. We infer from this that critical thinking involves both the evaluation of reasoning and the factors taken into account in decision making. Tempelaar (2006) called critical thinking metacognition, and Flavell (1979), the thought process about thinking. For Elder and Paul (1994), critical thinking means "the ability of individuals to take up their own thinking and develop appropriate criteria and standards for analyzing their own thinking" (p. 34). In their view, the three dimensions specific to critical thinking are: elements of thinking (questions, information, inferences, goals, points of view, assumptions), intellectual standards (logic, coherence, clarity, correctness, precision) and intellectual traits (Paul & Elder, 1999). At the same time, we can talk about a critical thinking of critical thinking, a critical thinking that evaluates its own premises, as shown by Căstăian (2018).

Other theorists associate critical thinking with scepticism. For McPeck (1981), for example, the essence of critical thinking comes down to one's inclination and ability to engage in an activity with a certain dose of reflexive scepticism. Also, for Sofo (2004), critical thinking involves the ability to doubt ourselves and reconsider what we normally take for granted. In this way, people who practice critical thinking reassess their habits to improve the way they act, constantly taking into account different perspectives of looking at things (Sofo, 2004).

From Maiorana's (1992) point of view, critical thinking aims to use techniques for understanding questions, evaluating points of view and solving problems. Facione and Facione (2008) bring up the main components of critical thinking skills: analytical thinking and conscious

reflection skills, skills to monitor one's own opinions. A complement to this definition gives us Dwee et al. (2016, p. 633), which describe critical thinking as one's ability to understand self-reflecting ideas on how to learn, as well as the ability to discover solutions to a problem by analyzing it from different angles. We infer from this that one of the essential elements for cognitive development is the ability to apply skills flexibly in a completely new situation. That is why Patterson (2011) believes that to think critically it is not enough to be open-minded and willing to change our opinions, but, moreover, we must be able to apply in a new situation what we have learned elsewhere (p. 40).

These views of different theorists about critical thinking are congruent to our context, since they suggest that critical thinking is based primarily on certain skills, such as observation, deduction, generalization, reasoning and evaluation, so necessary for the professional training of students. All these definitions demonstrate that critical thinking has a complex nature, one more reason to support the argument that critical thinking needs learning to develop, and teachers can help students improve their critical thinking skills. For this reason, it is important to create a learning environment that favours the independence of students, accelerating their cognitive development (Zumbrunn, Tadlock & Roberts, 2011).

Although the literature mentions numerous researches that investigate either the use of methods to improve critical thinking among students or the assessment of their critical thinking skills, research on students' perceptions of critical thinking and the strategies that favour its development in academia is relatively few. Thus, Huber and Kuncel (2016) argue that there are not enough studies to investigate students' real understanding of the concept of critical thinking and their ability to carry out accurate self-assessments. As such, in order for academia to ensure the effectiveness of the development of critical thinking skills, student perceptions cannot be neglected, given that they are the ultimate receptors.

Starting from the recognition of the gap in the aforementioned literature and the need to explore data from opinion polls, this study intends to examine students' perceptions of critical thinking. The study of perceptions is considered to be constructive in the educational process, since it can influence current pedagogical practices. For example, teachers should take into account how they are perceived by students in the classroom in order to adapt their own attitudes towards teaching according to the expectations of the students. In addition, investigating students' perceptions

of critical thinking skills could guide future training methods that promote their development.

Given these considerations, the questions to be researched that govern the direction of the study are as follows:

1. What are the attitudes and beliefs of students regarding the skills necessary for critical thinking?
2. What are students' perceptions of the qualities of a critical thinker?
3. How students relate to the COVID 19 pandemic and fake news.

2. Method

This descriptive quantitative study was conducted at the Faculty of History, Philosophy and Theology, within the "Dunărea de Jos" University of Galaţi. An opinion polling questionnaire, developed by the researchers, was used as a tool to investigate students' perception of the level of knowledge on critical thinking skills, the learning strategies needed to develop critical thinking skills, the qualities of a critical thinker, how students relate to the COVID 19 pandemic and fake news. Perceptions provide the opportunity to evaluate not only what a person sees or hears, but also his knowledge, expectations and beliefs. That is why, in the educational process, teachers must take into account how they are perceived by students in the classroom. The development of critical thinking, given the social nature of this type of thinking, requires both reflection and interaction and communication with others.

Due to the COVID-19 pandemic, the questionnaire was distributed online by sharing the fill-in link (Microsoft Forms) and was subsequently analyzed to describe students' perceptions of critical thinking and practicing it in concrete situations. A sample of 101 students from specializations in the field of socio-humanities voluntarily participated in the completion of this questionnaire. Study participants responded to both closed and semi-closed questions and open qualitative questions (Meyer et al., 2005), with the aim of clarifying the ways in which students explain their experiences of practicing critical thinking and helping researchers understand the unique perspectives of students participating in the study.

In addition to these methodological clarifications, we must mention potential limits of the study caused by the researcher's abilities to find and analyze all possible research on this topic, despite all his efforts to explore this topic as thoroughly as possible. In addition, given that the study was also based, in part, on an interpretative approach, objectivity and neutrality could not be fully ensured in the process of data analysis. Although the results obtained may be directly relevant only to the analyzed population,

respectively the students from Galati from the socio-humanities studies, the study could provide relevant information for other populations, in similar situations.

3. Results and discussions

3.1. Students' level of knowledge on the concept of critical thinking

Critical thinking is an important skill for the professional training of students from specializations in the field of socio-humanities, since it forms the basis for solving problems, adapting to the environment and making decisions in a responsible and assumed way, as well as for maintaining a healthy social climate inside democratic societies (Căstăian, 2022). Therefore, it is the responsibility of teachers to improve the critical thinking skills of students studying the socio-humanities studies since these skills are not only necessary for their intellectual development, but also to capitalize on life in nature and social life (Kurniawati & Istiyono, 2022).

Table 1. Perceptions regarding the content of the concept of critical thinking

Critical thinking means...	Frequency (F)	Percentage (%)
... an open and curious mindset	7	7,14%
... realistic, clear and free thinking	11	11,22%
... rational, objective thinking with a dose of scepticism	12	12,24%
... analytical thinking; flexible thinking, useful for making optimal decisions in situations of risk and uncertainty	6	6,12%
... a mental process of evaluation / processing / analysis / reflection of / on information, situations from all points of view, objectively; drawing your own conclusions	33	33,67%
... to ask questions, to analyze logically, to seek answers and reasoned justifications/logical thinking	9	9,18%
... to judge, to objectively analyze a problem, to examine the evidence/arguments	11	11,22%
... "to be grumpy", "to be opportunistic", to reject the ideas of others in order to impose your own ideas on them	3	3,06%
... to question what we think we know; also take into account points of view different from our own; consciously and justifiably assuming things	3	3,06%

and information		
... discovering errors in thinking /a way to learn how to recognize mistakes and how to avoid those who use various techniques of manipulation of thought	3	3,06%
Total	**98**	**100%**

Source: Author's own conception

The results of the research regarding the students' perceptions regarding the description of the concept of critical thinking are summarized in Table 1. Given the fact that the question was open, with free answers, the results show that students have a high theoretical level of knowledge on the content of the critical thinking concept, providing pertinent answers, in accordance with specialized literature: 32.67% of them consider that the critical thinking is a mental process of evaluation/processing/ analysis of information, phenomena and situations, from all points of view, objectively; this process fosters the formulation of one's own conclusions. Also, for 11.88% of students, the critical thinking means rational, objective thinking with a certain dose of scepticism, and for 10.89% of them, critical thinking is a realistic, clear and free thinking. These results provide solid evidence of the infusion of critical thinking knowledge and skills on the part of teachers, who have taken on this role in a responsible way. However, there were also answers from students that can be classified as misconceptions about the content of critical thinking: "critical thinking is a barrier that does not let me move forward, practically cuts my momentum"; "Critical thinking is an attempt to identify the mistakes of others"; "critical thinking is hard thinking".

3.2. Students' perceptions of learning strategies necessary to develop critical thinking skills

Students' critical thinking skills must be promoted and trained by the teacher in the classroom in order for them to become able to solve problems and make better decisions (Pieterse et al., 2016). Thus, the teacher can improve students' critical thinking skills by implementing active learning models or strategies. The results of our research indicated that the students identified several ways of learning appropriate for the development of critical thinking skills, the most often mentioned of which were: utilizing the pros and cons in order to make a decision (74,25%), expressing and arguing their own points of view (71,28%), formulating questions to understand things (63,36%), identifying the positive and negative aspects of an event

(59.40%), checking the authenticity of facts from reliable sources (59.40%). Clearly, these learning strategies are predominantly used in the study of the socio-humanities, which play an important role in building a creative, critical and innovative human being. However, there were students who also mentioned inadequate learning strategies for developing critical thinking skills, such as memorizing and assimilating information (28.71%) or reproducing as much information as possible (11.88%). In this context, one of the goals of studying the socio-humanities should be both the transition from the mentality based on a theoretical approach to the mentality based on critical thinking (Hapsari, 2016), and the transition from the ability of memorization to the ability to develop logic for students (Kurniawati & Istiyono, 2022). Therefore, the result of using learning strategies that develop critical thinking skills should not only take into account innovation, but also a positive effect on the reflexive thinking of students in the development and training phase.

Table 2. Educational resources needed to develop critical thinking skills

	Frequency (F)	Percentage (%)
Courses in statistics, philosophy, logic, critical thinking	17	16,83%
Books / textbooks / scientific articles / case studies / video-audio materials	45	44,55%
Training tests / quizzes / homework	10	9,90%
A specific subject taught in gymnasium / high school	3	2,97%
Teacher training / reorganization of the educational process / university curriculum	6	5,94%
Courses/ applied activities within seminars containing elements of critical thinking	23	22,77%
Group Projects / Personal Development	9	8,91%
Debates / free discussions / interactive lessons specific to the development of critical thinking	22	21,78%
Information resources	4	3,96%
Total	**101**	**100%**

Source: Author's own conception

The results of the descriptive analysis of the educational resources that students consider necessary to improve critical thinking skills are presented in Table 2. Given the students' free answers to this open question,

we find that a variety of educational resources are appreciated that give them the opportunity to reflect, evaluate and analyze arguments, to prioritize and verify criteria, among many others. Most of the students (44.55%) consider that they need books, textbooks, scientific articles, case studies or video-audio materials to develop these critical thinking skills. Choy and Cheah (2009) consider that some of the students lack the skills to apply critical thinking because they do not understand how to translate the theories learned in the courses into different case studies. From this study, it follows that students are aware of the need to move from memorization and recalling, considered lower mental functions, to practicing within the teaching activities of critical thinking skills, considered higher mental functions. Thus, 22.77% of respondents consider that critical thinking skills should be incorporated by teachers in the applied activities of courses and seminars, while 16.83% of them believe that a specific training is needed within the framework of statistics, philosophy, logic and critical thinking. On the one hand, these findings are in line with the arguments of Choy and Cheah (2009) that critical thinking is a learning process that should be practiced and included in daily lessons. On the other hand, the results of the study support the arguments put forward by Duron et al. (2006), according to which students should be taught critical thinking to help them gain a thorough understanding of the contents they have to learn and thus be able to apply what they have learned in real life.

Another educational resource invoked by 21.78% of the participants in the study is the need to apply debates and free discussions as teaching and learning strategies in order to develop students' critical thinking skills. This finding is in line with Gervey, Drout and Wang's research (2009) that debates are a means of stimulating the development of critical thinking skills, as challenging and more demanding learning activities could contribute to the achievement of higher-order connections in the process of learning critical thinking. Shaheen (2016) also believes that debates and discussions in the classroom can encourage learners to practice critical thinking skills on versatile and controversial topics, even if they are uncomfortable or demanding (p. 29). As such, these strategies would help students become proactive learners and independent thinkers, allowing them to practice active learning.

Duron et al. (2006) observed that there is a tendency of teachers to deliver learning content and materials to students, but this structured approach to teaching does not sufficiently encourage the development of critical thinking skills among students. Our research shows that 5.94% of respondents consider that it is necessary both to train teachers in order to

use critical thinking in the classroom and to design the curriculum in order to incorporate critical thinking into different modules in university education. A similar view was expressed by Beyer (2008) that the development of critical thinking skills among students involves the training of teachers in this regard.

Another important aspect is the development of an assessment of critical thinking skills and how this type of thinking is encouraged through activities applied both in the classroom and outside the classroom. The students participating in the study consider, in a percentage of 9.90%, that training tests, questionnaires, homework both for the practice of critical thinking skills and for the evaluation of their ability to apply what they have learned in other contexts are necessary. These findings are consistent with the distinction made by Williams and Burden (1997) between teachers who limit themselves to the role of information distributors and teachers who assume the role of mediators of learning, interested in helping students learn how to learn.

We also note that there is no unanimity among researchers on the effectiveness of individual or group methods in promoting critical thinking and evaluating the abilities of this type of higher-order thinking. However, our research shows that 8.91% of respondents claim that they want to participate in group projects and personal development activities that give them multiple opportunities to collaborate and cooperate when exchanging ideas and beliefs. These results are in line with the view expressed by Florea and Hurjui (2015), according to which better learning outcomes are achieved if teachers use methods to stimulate critical thinking skills from a group perspective and create learning situations that help this process.

Taking into account the results of the research, we find that the respondents understand the importance of the critical attitude specific to the social sciences, beyond their role in providing students with knowledge. In this era of globalization, the stimulation of reflective thinking becomes the most important thing in the learning process, which is why the teacher has the responsibility to improve the critical thinking skills of students in learning the socio-humanities in particular.

3.3. Perceptions of the qualities of a critical thinker

In higher education, students must first of all have a good conceptual foundation about critical thinking in order to improve their ability to understand, build and make decisions. From this perspective, this section analyzes students' perceptions of the qualities of a critical thinker, as well as the extent to which study participants provide or not a correct

interpretation of critical thinking skills. After encoding the participants' responses, the results are presented in Table 3.

Table 3. Qualities of a critical thinker

A person who thinks critically...	**Frequency (F)**	**Percentage (%)**
... is objective, rational, realistic, with logical thinking, with an open mind, curious, sceptical, reflective	27	29,35%
... analyzes/evaluates each information it receives, before accepting it, even if the source appears to be credible	15	16,30%
... is aware that he/she does not have all the answers and always asks herself questions, studies related sources, informs herself	6	6,52%
... is willing to look for answers from as many sources as possible, to eliminate her own prejudices, to show interest in several areas	11	11,96%
... is intelligent, eager for knowledge, informed, attentive, self-confident	10	10,87%
... has his/her own opinions, which he/she can argue thoroughly, he/she does not take anything ready, but verifies any information and passes it through the filter of his/her own thinking	8	8,70%
... is balanced, calculated, correct, responsible, reliable, adapted for life	9	9,78%
... has pros and cons for a certain situation	6	6,52%
Total	**92**	**100%**

Source: Author's own conception

Most respondents have a solid knowledge of critical thinking, describing the critical thinker according to the literature (Facione & Facione, 1996). Thus, the participants described the critical thinker as an objective, rational, realistic person, with logical thinking, with an open mind, curious, sceptical, reflective (29.35%); a person who analyzes/ evaluates each information he receives, before accepting it (16.30%); a person willing to look for answers from as many sources as possible, to eliminate his own prejudices, to show interest in several areas (11.96%) etc.

Although most of the respondents provided correct definitions, there were also misconceptions that contradict these results. Thus, some of the participants in the study defined the critical thinker as "a tough person who does not care about the consequences", "a mysterious person", "an

amazing person"; "a severe person"; "the critic seeks to somehow assault the one he criticized". In this last definition, the word "critical" is associated, taken from the concept of "critical thinker", with a negative meaning, being used in order to blame alleged shortcomings or mistakes. However, "criticism" generally means evaluating arguments and evidence, constructing one's own arguments, and examining one's own reasoning (Bruning, 1994).

Although students are able to think naturally, there are some obstacles that prevent them from becoming critical thinkers, such as prejudice, selfishness, or bias. That is why it is important for teachers to guide students to think critically (Choy & Cheah, 2009), thus obtaining benefits both in the classroom and in the world of work or in social life. Even more so, teachers who teach socio-humanities should pay special attention to the implementation of critical thinking strategies in the classroom so that their students improve their decision-making skills, be able to build their own knowledge and become good citizens.

3.4. How students report to the COVID-19 pandemic and fake news

Given that critical thinking is a tool and a higher-order thinking ability, it is obvious its usefulness to make students active citizens, either when operating with socio-scientific information or when making decisions that affect the quality of their lives, but also that of others. In the latter case, the COVID-19 pandemic provides the opportunity to analyze the extent to which students turn to critical thinking skills to relate to fake news on various aspects of this pandemic. Especially since these fake news stories have been spread especially through social networks, causing a lot of confusion and misinformation among the citizens of Romania, and not only.

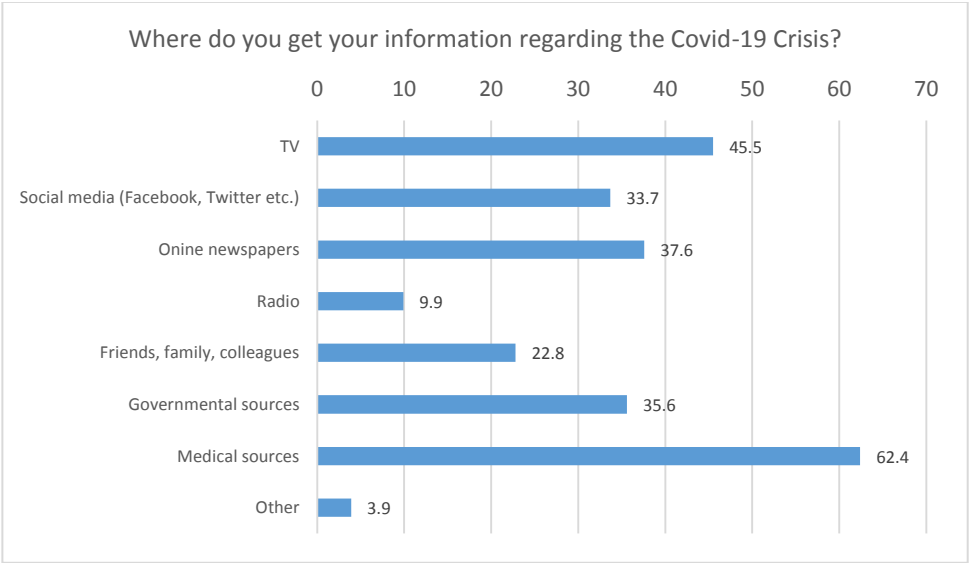


Fig. 1. *Sources of information on the COVID-19 pandemic*
Source: Author's own conception

Our research shows that students turn to various sources of information to document themselves about the COVID-19 pandemic (Fig. 1). The sources from which students inform themselves about COVID-19 are diverse, so each respondent informs themselves, on average, from about 2.4 sources, which means that most of them get information from TV plus one or two other sources, generally other people. First of all, students use official sources of documentation, especially medical (62.4%) and government (35.6%), which proves that they prefer the explanations provided by the scientific community regarding the natural causes of the appearance of the COVID-19 virus. Secondly, young people spend a lot of time online, in general, and to find out information in the context of the pandemic, in particular: 45% of the students participating in the study say that they get information from TV, and 37.6% of the online press, while social media is the channel that 33.7% of respondents turn to. Third, 22.8% of respondents are kept up to date by relatives, friends and colleagues about the latest developments in the pandemic. For Dillon and Abrahamidou (2020), the COVID-19 pandemic has brought new challenges for science education, highlighting the importance of developing critical thinking skills to respond in a responsible way to the overabundance of information on the pandemic, referred to by the World Health Organization (2020) as *infodemic* COVID-19 in social networks. In this context, socio-scientific training to

develop critical thinking skills among students is of crucial importance for their professional and citizen training.

In the event of controversial issues and to counter misinformation, fake news about COVID-19 and vaccine hesitation (Rotilă, 2022), society needs literate citizens (Jiménez-Aleixandre & Puig, 2021) to make critical decisions and act responsibly for the well-being of human society and the environment. Also, given that fake news aimed at the general public was disseminated by social networks and access to real news was more difficult than misinformation about the virus, it became crucial to critically engage students in assessing the credibility of information about COVID-19.

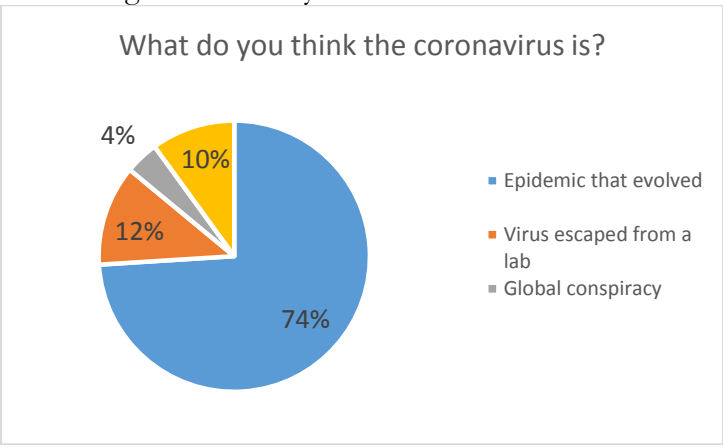


Fig. 2. *Perceptions of the causes of the COVID-19 pandemic*
Source: Author's own conception

Our research shows that the majority of students participating in the study (74%) believe that COVID-19 is an epidemic that has evolved (Fig. 2), which shows us that they have the ability to turn to informal reasoning and elements of criticism to evaluate evidence-based claims as part of the development of critical thinking. However, some of the respondents mistakenly consider that the current health crisis is due to a virus escaped from the laboratory (12%) or is the result of a global conspiracy (4%). In order to train students on how to critically evaluate information and statements shared on social media, we need to involve them in the classroom in the practice of argumentation and critical thinking. In addition, students should be encouraged to support their opinions in a reasoned and reasonable manner (Puig & Ageitos, 2021), especially when they have to assess the validity of information that affects not only them personally, but also the entire society. Since there is almost no filter on information (Sperber et al., 2010), students must be trained to become vigilant and informed

readers, aware of their own cognitive biases, but also of the risk of becoming victims of misinformation and fake news themselves. In this regard, Rotilă (2021) proposed the use of a few critical thinking principles in identifying the limits of knowledge specific to the COVID-19 pandemic, the starting point being the belief that knowing what you do not know (outlining uncertainty as appropriately as possible) is an essential part of knowledge.

According to Kuhn (2019), critical thinking skills can be developed by involving students in argumentation practices. But in the post-truth era there are many challenges in terms of evaluating the sources of information and scientific evidence circulated on social networks. Our research shows that the students participating in the study resort to several strategies to avoid fake news: adopting a critical attitude and questioning (65%), consulting several sources of information (51%) or ignoring the news (5%). Although at a declarative level most students seem to know how to avoid fake news, we have doubts that they will succeed in all contexts in putting these strategies into practice without special training. Bråten, Brante and Strømsø (2019) have shown that it is necessary to train students to prepare them for the critical assessment of scientific information coming from a variety of online sources. But more than that, students need to be trained to critically evaluate the connections between different sources of information and the alleged knowledge they promote (Sinatra & Lombardi, 2020). For this reason, we believe that students should be trained to practice argumentation as a critical assessment, especially in relation to the information they will encounter on social media.

4. Conclusions

This research was conducted with the aim of revealing the perceptions of students from socio-humanities majors about critical thinking skills. The results of the study showed that (1) although there were also students who had some problems understanding the concept of critical thinking, most of them have a high theoretical level of the content of this concept, while still citing the need for educational strategies to put these critical thinking skills into practice; (2) students invoke the need to overcome difficulties in developing critical thinking skills by: training teachers to use critical thinking in the classroom; including and practicing critical thinking skills in applied activities at courses and seminars; applying debates and discussions in the classroom as teaching and learning strategies; translating the theories learned in courses into different case studies; use of training skills, questionnaires, homework; participation in group projects in a collaborative environment; (3) students are aware of their limitations on the

knowledge held and the sources of information used for a critical assessment of controversial topics, such as, for example, the COVID-19 pandemic. These findings suggest the need to systematically implement and practice critical thinking strategies in order to increase students' reflective thinking in the learning process, but also to guide them in the critical evaluation of controversial topics as a way to fight disinformation and fake news.

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