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ИМПУЛЬС

ЦЕНТР НАУЧНОЙ  
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МЕЖДУНАРОДНЫЙ СОВРЕМЕННЫЙ НАУЧНО-ПРАКТИЧЕСКИЙ ЖУРНАЛ

# НАУЧНЫЙ ФОКУС



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*Международный современный научно-практический журнал*

# Научный Фокус

№ 1 (100)  
май 2023 г.

**Часть 1**

Издается с мая 2023 года

Москва 2023

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**Научный Фокус:** научный журнал. – № 1(100). Часть 1. М., Изд. «МЦНО», 2023.

Журнал «Научный Фокус» освещает сферу духовно-просветительского мышления человека, общественно-политическую жизнь человека, институты гражданского общества, глобальные проблемы, проблемы образования, новые технологии, производимые сегодня, реформирование системы образования и публикуются научные статьи, посвященные открытому научно-популярному анализу.

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## THE IMPORTANCE OF TEACHING CRITICAL THINKING IN HIGHER EDUCATION INSTITUTIONS

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Critical thinking is a type of ability that students need in their personal and professional life. Therefore, universities must do their utmost to include it in the syllabus, curriculum, and programs. However, since there is no clear definition of this ability, there is still much work to be done, and new positive methods need to be strengthened to develop this ability. This article first reviews the main methods used to teach this ability and then analyzes the main methods used in the classroom by 600 university teachers from Pakistan and the methods they believe are more effective for developing critical thinking. This information contrasts with these teachers' critical thinking concepts and is based on twelve different conceptual categories that have been discovered in previous studies. Chi-square test and Cohen's Kappa test were used for data analysis. The research results show that there are three main methods that teachers practice and cogitate the most helping: Telling lecture, storytelling, discussion; Argumentation, presentations (verbal reports and speeches), and Writing assignments, essays; no matter what, kind of critical thinking they have. There are some other tendencies observed in critical thinking, despite the difference in methodology and concepts. Also, the teachers use and find the most effective methods have a significant relationship between them. Finally, this research proposes the enlightenment of critical thinking on curriculum design and its implementation.

Nowadays, it is an age of artificial intelligence; individual abilities and potentials are more in demand, such as teamwork, individual abilities, and emotional intelligence. In this study, for solving problems, attitude and values, skills and abilities, mobilization of knowledge, and competence are understood key. One thing to keep in mind is that the term "competence" is commonly referred to as "skill" in the Anglo-Saxon world and is associated with general or horizontal skills (Drayton, 2014; Duron et al., 2006). Over the past two decades, higher education students have been increasingly exposed to critical thinking, improving personal abilities and professional skills as global society members (Quitadamo et al., 2009). Teaching students to think critically and think effectively is vital because it warns us to quickly gain large amounts of knowledge with a single click (Saiz & Rivas, 2016). Critical thinking is usually associated with students' learning process in the 21st century, with stakeholders and other skills such as metacognition, motivation, and creativity necessary in everyone's family life (Nold, 2017). In 2012 the European Higher Education Area highlighted the worth of student critical thinking. Critical thinking is a reflective activity that leads to action (González-González & Jiménez-Zarco, 2015). Drayton (2014) finds that the

comprehensive text reading program significantly improved students' critical thinking. Lack of student experience can be overcome by reading and thinking from different sources. Critical thinking is a method, which takes time to find. University teachers must be aware that teaching methods need to adapt their teaching methodologies according to their learning situation (Carter et al., 2016). The researchers have researched critical thinking in nursing, especially healthcare, in the past few years. Bezanilla et al., (2019) pointed out that there are more than 2,800 critical thinking articles in the nursing field's title or abstract. Although people are interested in this, they found no universal description of this capability (Condon & Kelly-Riley, 2004). There is a public discussion about whether higher education improves this ability or not. Contrary to this, (Egege & Kutieleh, 2004) points out few studies on critical thinking and its effectiveness in teaching. Those with "good" thinking seem to have more options in professional, academic, and everyday life. It seems to be so. In higher education, Gul et al. (2014) emphasized the development of critical thinking is strongly correlated to teaching factors, including active development activities, research, group work projects, essay exam patterns. Improving critical thinking in the classroom is to know the value of writing and rewriting; data analysis strategies and case studies are mostly used for education purposes (Khan et al., 2012). The literature review focuses on the methodologies of teaching critical thinking in higher education, rather than the concepts of evaluation or critical thinking. Therefore, after searching the metasearch engine web of sciences and Google Scholar, only papers involving methodologies, training, and education strategies for critical thinking progress were considered.

According to Lauer (2005), for consideration of critical thinking, the development of the following methodologies must be promoted. Referring to these authors, the wise use of critical thinking is that students expect that affirmative action to promote such abilities should be included in planning educational skills and activities required for such behavior. Miri, et al., (2007) also insisted on the necessity and value of critical thinking in the subject curriculum strategy. They are confident that theoretical aspects need to be combined with professional practice to obtain critical thinking. Besides, given the terms' complexity and ambiguity, some authors emphasize the importance of clarifying the meaning of critical thinking from the outset in the outline of a specific topic (Origue & McCarthy, 2015). Shim & Walczak (2012) explained that there are countless approaches for developing critical thinking, but when teachers ask students questions, the level of the question must be proportional to the level of the thinking. Quitadamo et al. (2009) pointed out that it is problematic to distinguish between two approaches that help students think critically. Their belief for problem-solving elections must be held, so this may help students know how to be critical of their choices. A study by Kowalczyk et al., (2012) showed that pupils who use problem-based learning methods for education form higher stability between deductive and inductive thinking. Compared with traditional teaching methods, using problem-based learning does not develop students' critical thinking skills. The development of critical

thinking and educational activities should be appropriate and based on active learning principles, such as: to provide evidence and new ideas built on the use of primary and secondary sources, the experience of performing, observing, or modeling activity. Khan et al., (2012), Suggested that teachers use various activities' concepts that teachers use in the classroom to improve critical thinking. Cargas et al. (2017) also demonstrated that argument mapping could improve critical thinking. For effective teaching strategies, teachers should help students to develop critical thinking, they say. Angel et al. (2000) pointed out the feedback's importance for the development of critical thinking is examined through face-to-face meetings and electronic media means. Alwehaibi (2012) added the principles to the above methods, such as create an educational environment in which students can participate and practice dialogues, strive for reliability in course objectives, training activities, and assessment procedures. Gujjar et al. (2010) suggested the need to define teaching methods, including various critical thinking development activities. Table 1 provides methods and activities to enhance critical thinking based on many authors' opinions and can be used as a guide for teachers who demand to teach these skills. Table 1 is partially modified from the study of Bezanilla et al., (2019)

Actions are needed to be taken care of to promote and advance teachers' training in terms of worth, importance, and value of critical thinking and the methodology that can build a structure of this ability in academic students' development. It is a critical issue because not all educators can realize the importance of the methodologies they apply and the application form that is the research limitation in the same way. Also, to authenticate, compare the part of universities in the critical thinking development, it is necessary to conduct more research based on this research or in complementary fields because critical thinking is a crucial ability for university students to grow individually and professionally.

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