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# PRIMARY AND SECONDARY EDUCATION CURRICULA - A STUDY ON INTERDISCIPLINARY TEACHING PRACTICES

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*Primary education, secondary education, an interdisciplinary approach, and interdisciplinary teaching are cited as key terms.*

**ABSTRACT**

*This research explored teachers' views on the advantages of interdisciplinary teaching in elementary and secondary school curriculum. A descriptive scanning model, phenomenology, the Interdisciplinary Teaching Approach Questionnaire, and a semi-structured interview form collected quantitative and qualitative data. Professional seniority and teaching level predicted instructors' interdisciplinary approach views, while gender did not.*

Humankind progresses because it wants to comprehend the cosmos. In the meanwhile, new scientific fields must create limits and apply alternative approaches (Yıldırım, 1996). Thus, each scientific subject evolves independently to survive and study more. The disciplinary method fails to manage and educate new areas of study that match today's demands (Turna et al., 2012). Thus, an interdisciplinary approach is needed to explain a complicated occurrence or phenomena (Jacobs, 1989). Interdisciplinary teaching, like holistic education, integrates information, skills, and learning outcomes from diverse subject areas to explain any topic or occurrence (Yıldırım, 1996). Global change has affected scientific research in all fields. Political, social, and economic developments affect schooling. Science and technology have also increased efficiency. Existing knowledge falls into another field, creating new disciplines and topic areas. Recent discoveries are broadening scientific domains that originated in the preceding period (Baykal, 2004). Globalization affects education. Education and curriculum help pupils adapt to a quickly changing African Educational Research Journal Vol. 10(2), pp. 200-210, June 2022 DOI 10.30918/AERJ.102.22.032 ISSN: 2354-2160 Full Research Paper Kanmaz201 society. Thus, to bring pupils up to date in all fields, interdisciplinary education techniques should be used. Our age need education transformation. Because work definitions, information, and technology change, so do the people attributes required. New information is highly important (Akkoyunlu, 2008). As knowledge becomes more important, its content changes quickly. These developments spawned the information society. Knowledge investment is the key to an information society. Prioritizing research and creative thinking studies helps students acquire knowledge throughout the school process (Yetkin and Daşcan 2006). The traditional education system has to adjust to reflect this transition, which emphasizes information and knowledge availability. To refresh educational processes, first renew education and training programs. Thus, information-age-ready people will be raised. The

Ministry of National Education regularly improves elementary and secondary school curriculum, focusing on knowledge transmission and information reconstruction (Yetkin and Daşcan 2006). Each course's learning goals were previously designed using the subject-centered curriculum. In a fast-changing information world, collaborative multidisciplinary teaching approaches will be important (Alkan and Kurt, 2007). Today, educational activities that assist the teaching-learning process and foster perspective-taking to handle everyday life situations are essential (Karakuş and Aslan, 2016). Today, the interdisciplinary approach is more effective than the disciplinary method (Wang, 2012). Interdisciplinary approaches integrate several fields to achieve sub-dimensions of a major issue. Interdisciplinary studies allow a person to discover their entire potential and expose it when required. Studies that offer diverse views improve students' critical thinking (Özçelik and Semerci, 2016). This method may be used in all curricular subjects. Thus, it seeks to expand topic views. Interdisciplinary studies incorporate knowledge and abilities from various fields to approach a topic from a new perspective (Yıldırım, 1996). Interdisciplinary curriculum design involves engaging with course material while respecting its integrity. Life Science, Turkish, Music, and Art courses all discuss Atatürk and the Republic. Thus, students may assess the material holistically. Holistic learning requires integrating any subject into elementary and secondary school curricula. Our elementary and secondary school curricula do not include an interdisciplinary curriculum, although attempts have been made to link learning goals across fields. Interdisciplinary programs link students to the actual world, unlike conventional classrooms (Yıldırım, 1996). Primary and secondary pupils need multidisciplinary learning. Due to their developmental qualities, children this age have a Gestalt (holistic) view on things. In our nation, elementary schools include multidisciplinary activities, while middle and high schools have discipline-based curriculum. It is prevalent in high school but unacceptable in secondary schools with stringent disciplinary standards (Yıldırım, 1996). D'Hainaut, 1986 quoted in Güven and Hamalosmanoğlu, 2012; Jacobs and Borland, 1986 cited in Jacobs, 1989; Roberts and Kellough, 2000 cited in Karataş-Coşkun, 2011). Interdisciplinary curriculum development may boost student achievement. Interdisciplinary education improves learning (Jacobs, 1989). Interdisciplinary curriculum creation and implementation demand more time and effort than disciplinary approaches. However, the findings show that patience and effort provide beneficial benefits (Yıldırım, 1996). Interdisciplinary learning allows students to integrate information from multiple fields and use ideas to achieve analysis, synthesis, and assessment goals. Interdisciplinary teaching and learning engages students and fosters innovative thinking. This boosts class participation (Aybek, 2001). Students take ownership of self-regulation in an integrative manner. Students should be encouraged to ask more questions and participate in learning (Roberts and Kellough, 2000). Students learn from teachers. If a teacher separates disciplines for any course and doesn't link them, pupils see them as distinct. However, when the instructor makes interdisciplinary connections for course material, students do too. Thus, instructors are the key to transdisciplinary teaching. Teachers must often interact with colleagues and stakeholders. Thus, they may allow students to tailor their learning to benefit their everyday life (Özdemir and Yalın, 2000). Since instructors are accountable for their lectures and get no help or incentive for other outcomes, they simply want to provide course material. They aren't told how often the material is applied in everyday life or other classes.

Schools separate skill and knowledge groups. The Gestalt theory's most fundamental result, which underpins the multidisciplinary approach, is that learned information cannot be transferred to other settings (Demir, 2009). Today's most significant success component is awareness of the variables that affect the issue and holistically addressing them. Raising well-equipped people is crucial. For this reason, the multidisciplinary approach, which centers any subject and facilitates thinking across disciplines linked to it, should be used successfully at all school levels. Thus, the opinions of transdisciplinary educators—teachers—are crucial. Interdisciplinary studies should also be included in the curriculum to identify curriculum gaps and help teachers understand the interdisciplinary approach so they can conduct these studies well. This research examines teachers' perceptions on the advantages of interdisciplinary teaching techniques in primary and secondary school curricula, the extent of interdisciplinary usage, and its role in the curriculum. Thus, these sub-problems were addressed:

1) How do instructors feel about interdisciplinary learning in elementary and secondary education?

2) Do gender, professional seniority, and teaching level affect teachers' attitudes on interdisciplinary approaches in primary and secondary school curricula?

3) How much transdisciplinary teaching do instructors do?

**METHOD**

The explanatory mixed design was used to assess teachers' views on interdisciplinary methods in elementary and secondary school curriculum and their utilization of them. Qualitative data corroborated quantitative findings to help instructors understand and solve their issues. Interdisciplinary Teaching Approach Questionnaire and semi-structured interview form were measuring instruments. Qualitative data followed quantitative data. Compliance was assessed using data analysis findings.

**Concluding remarks**

This survey seeks to determine instructors' thoughts on interdisciplinary education and if they use it. According to studies, instructors like the multidisciplinary approach. The data show that instructors find the interdisciplinary approach valuable, but they don't employ it in class since the curriculum doesn't support it. The multidisciplinary approach has favorable benefits, according to the accumulating literature. Doan (2014) found that interdisciplinary teaching improved geography curriculum acquisition and permanent learning. Interdisciplinary teaching techniques affect second-grade academic outcomes, according to Demir (2009). White and Carpenter (2008) found that multidisciplinary approach principles improved student biology understanding. Interdisciplinary teaching techniques improve learning connections, according to Courtney (2006). Interdisciplinary education helped disinterested pupils learn, according to Suraco (2006). The majority of studies confirm these results (Aytar and zsevgeç, 2019; ahin et al., 2018; Ürey et al., 2015; Konukald, 2012; Alp, 2010; ray, 2010; Matthews et al., 2009; Michelsen, 2008; Furner and Kumar, 2007; zkök, 2005; Powers and Jones-Walker, 2005; Boakes, 2000; Elliott et al., 2001; Yldrm, 1996; Few studies found the reverse of the multidisciplinary approach's advantages. Diker (2004) used the Kanmaz 209 multidisciplinary approach to construct projects and study how it affected students' learning. The investigation found no direct connections between courses, no way to apply course content to other courses, and no connection to contemporary situations. The

research found that the curriculum lacks transdisciplinary content. Several studies corroborate this study's conclusion. Karakuş and Aslan (2016) found that the elementary school curriculum lacks transdisciplinary education.In the research, instructors' perspectives on the interdisciplinary approach varied by professional seniority and teaching level, but not by gender. According to Delier's (2005) study, "Interdisciplinary Approaches in Art Education," gender did not affect instructors' evaluations of the interdisciplinary approach. However, elik (2014) found that male instructors' perspectives on multidisciplinary approaches varied considerably from female teachers' gender-wise but not seniority-wise.In education, people generate meaningful and comprehensive information, transfer it to other situations, and apply it appropriately.This knowledge enhances problem-solving abilities (Duman and Aybek, 2003). Interdisciplinary education achieves holistic education. Teachers facilitate interdisciplinary learning (Htiyarolu, 2018). Even if they employ the interdisciplinary method in their classes, instructors may not know enough about it to apply it successfully. Thus, instructors need in-service training and encouragement to learn about the interdisciplinary approach, particularly in education faculties.

**RECOMMENDATIONS**

Teachers must understand the multidisciplinary approach before applying it. In-service training might include multidisciplinary approaches. These trainings include theoretical knowledge and transdisciplinary planning applications.Interdisciplinary education should be incorporated into teacher guidebooks.Interdisciplinary teaching should occur during certain class hours.The interdisciplinary approach requires all courses at the same level to develop relationships between a few curricular outcomes.This research is for elementary, secondary, and high school instructors, taking into consideration student growth.

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