

INNOVATIVE EDUCATIONAL RESEARCH (INNER)

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Dear Readers,

Welcome to the first issue of seventh volume of **INN**ovative **E**ducational **R**esearch (**INNER**). This issue features five scholarly articles.

First article is entitled “Investigating Middle School Students’ Perceptions of Different Types of Performance-Based Science Learning Activities” written by Ilgım Özergun-Köse and Betül Timur from Türkiye. The aim of this research is to explore middle school students’ attitudes on performance-based science education. In this descriptive survey study participants were 226 middle school students. Data was collected during 2022-2023 fall term from middle schools (5th to 8th grade). Data collection tool was adapted and implemented. The data collection tool has different types of questions including demographic, Likert types, and open ended. For this reason, as a data analysis both qualitative analysis methods were used in order to observe differences in gender and grade level. According to the results, less middle school students want to pursue career in STEM related jobs. Most boys thought that engineering is a male job whereas nursing is a female job. Also, some of the girls think that jobs have no gender. In addition, both girls and boys know more male scientists than female scientists. Almost half of the middle school students did not state any woman scientist. Other findings stated that most of them have positive perceptions about science is important but ironically most of them said that science is not for them but clever people. This research’s findings have implications to gender stereotypes and career aspirations in STEM.

Second article is entitled “Exploring Gamification: Teachers’ Attitudes and User Types in STEM, Language, Humanities, and Arts Education” written by Özlem Özbek and İbrahim Delen from Türkiye. The aim of this study is to investigate teachers' gamification attitudes (GA), gamification user types (GUT), and preferred game components across different disciplines. Quantitative data were collected from 362 elementary and secondary school teachers using three instruments: GA, GUT,

and Preferred Game Components. Additionally, semi-structured interviews with 20 purposively selected teachers provided a qualitative insight. Results indicate that teachers hold generally positive attitudes toward gamification, especially regarding acquisition and usability. Female teachers reported higher scores in both GA and GUT, while teachers with graduate degrees had slightly lower scores across sub-dimensions of GA and GUT. STEM (science, technology, engineering, mathematics) teachers reported significantly lower mean GA scores than their peers in Language, Humanities, and Arts education, indicating a more reserved stance toward gamification. On the other hand, STEM teachers' GUT scores were higher compared to other groups, suggesting disciplinary differences in gamification preferences. Differences were found in the use of gamification elements, with STEM teachers favoring levels and leaderboards, language teachers using badges and teams, and arts and humanities teachers emphasizing customization. Qualitative data further illustrates how disciplinary background shaped gamification practices: arts and humanities teachers favored narrative and feedback, while STEM educators preferred rule-based elements. Teachers' examples reflected growing curricular emphasis on design-based learning, highlighting the importance of contextualized problem solving in shaping gamified experiences across disciplines. Our results suggest differentiated professional development and discipline-aligned strategies to support sustainable use of gamification.

The third article of this issue is entitled "The Impact of Professional and Academic Variables on Teachers' Self-Efficacy and Social Problem-Solving Skills" written by Minde Demir. This study aims to examine the relationship between teachers' individual problem-solving self-efficacy and their social problem-solving skills, as well as to determine whether these competencies differ across various academic and professional variables. The research was conducted within the framework of a relational survey model, and the sample consisted of 200 subject teachers (100 female, 100 male) working across Turkey. During the data collection process, the "Problem-Solving Steps Self-Efficacy Inventory," developed by the researcher, and the Turkish adaptation of the "Social Problem-Solving Inventory (Short Form)" were employed. Data were collected online, and descriptive statistics, t-tests, ANOVA, Kruskal-Wallis H tests, and Pearson correlation analysis were applied in the analysis phase. According to the findings, there is a positive and significant relationship between teachers' individual problem-solving self-efficacy and their social problem-solving skills ($p < .01$). Furthermore, significant differences were identified in certain sub-dimensions based on teachers' subject area, professional seniority, and academic background. In particular, participants who reported being successful in mathematics or working in the mathematics field scored higher in the "planning" and "implementation" dimensions. Notably, differences were also observed in the "decision-making" sub-dimension of social problem solving according to subject area and professional experience. The study's results suggest that teacher competencies should be considered not only in terms of individual skills but also within the context of social, pedagogical, and contextual factors. It is recommended

that teacher education programs incorporate more modular content and practice-based learning experiences focused on social problem solving.

The fourth article of this issue is entitled “Investigating Foreign Language Anxiety and Attitudes Among Secondary Students in Two English Curricula” written by Elif Yalçın and Kamil Arif Kırkıç from Türkiye. This study aims to examine the relationship between foreign language anxiety and attitudes of secondary school students studying in intensive English and standard English teaching programs. The correlational model, one of the quantitative research methods, was used. The universe of the study is the secondary school students studying within the borders of Maltepe district of Istanbul province in the academic year of 2018-2019; the sample consisted of a total of 899 students who were selected from the fifth, sixth, and seventh grades through cluster sampling, who were both studying in intensive English and standard English curriculum. The "Attitude Scale Towards Primary School English Course" and "Foreign Language Learning Anxiety Scale" were used in the data collection. The data were analyzed using t-test, correlation, and regression analysis techniques. The analysis results showed statistically significant differences between the students' English anxiety and their attitudes towards English, according to the English curriculum they are taught. It was also observed that there was a statistically significant relationship between students' English learning anxiety levels and their attitudes towards English lessons, and students' English anxiety levels predicted their attitudes towards English lessons.

The last article of this issue is entitled “Strategies to Enhance the Future Role and Effectiveness of Geography Education: Expectations and Recommendations for Practice” written by Ramazan Çimen from Türkiye. The aim of this study is to identify strategies to enhance the future role and effectiveness of geography education based on teachers' perspectives and to develop practice-oriented recommendations. The significance of the study stems from the increasing importance of geography education in the context of globalization, environmental crises, and digital transformation. The research was conducted using a qualitative approach and an explanatory design, involving 508 high school geography teachers working in five provinces of Türkiye (Konya, Antalya, İzmir, İstanbul, and Gaziantep). Data were collected through open-ended questions developed by the researcher and analyzed using frequency and percentage distributions in a computer environment. Findings revealed that 65% of teachers believe the importance of geography courses will increase in the future. Prominent suggestions for more effective instruction included expanding field studies, enhancing the use of materials and technology, increasing lesson hours, strengthening visual resources, adopting flexible curricula, and establishing dedicated geography classrooms. In conclusion, it is necessary to move beyond an exam-oriented framework and transform geography education into a practice-based discipline supported by digital technologies such as Geographic Information Systems and virtual reality. Recommendations include establishing enriched geography classrooms, ensuring continuous professional development

opportunities for teachers, and promoting equity of resources across schools. These measures are expected to improve the quality and sustainability of geography education.

I wish to start by conveying my heartfelt thanks to the reviewers who generously contributed their time and expertise to conduct thorough evaluations of the submitted manuscripts on behalf of **INNER** and its Editorial Board. Additionally, I would like to express my profound appreciation to the scholars and educators whose research articles have substantially enhanced the scholarly value of this volume.

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