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## ***ICT in religious education as a factor in fostering empathy***

### **Extended summary**

The aim of the exploratory quantitative research presented in the paper was to examine how and to what extent the use of ICT in religious education is a significant factor in fostering empathy, based on students' assessments. The research included 125 students of the Academy of Serbian Orthodox Church for Fine Arts and Conservation and the Faculty of Orthodox Theology at the University of Belgrade, most of whom had attended religious education during their previous schooling. A systematic non-experimental observation method was used – data were collected and interpreted using a three-part online Likert-type questionnaire developed specifically for this study. The first part gathered general sociodemographic information about the participants; the second part examined students' opinions on the use of ICT in religious education; and the third part assessed the Interpersonal Reactivity Index (IRI) (Davis, 1983) to obtain a multidimensional measure of empathic responsiveness. The analyses included frequency, correlation, and regression approaches, along with checks of factor structure and instrument reliability. In determining the optimal number of factors, the criteria of interpretability, the Guttman–Kaiser criterion, and the scree plot elbow method were applied. Two factors were identified: 1. INRE – Integration of ICT into interactive teaching for the purpose of developing empathy ( $\alpha = .80$ ), 2. GIMR – Group interaction and moral development through ICT ( $\alpha = .66$ ). The results suggest that students moderately perceive ICT as useful in foster-

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ing empathy, with integrative and group activities showing the greatest potential for enhancing empathy and moral development. The INRE factor reflects the extent to which information and communication technologies are integrated into interactive teaching activities to develop empathy among students. This factor showed a significant correlation with higher levels of empathic responses, indicating that interactive activities in religious education enabled by ICT may be an effective method for developing students' empathy. When students have the opportunity to actively participate in tasks such as discussions on moral topics using interactive tools, they are more motivated and engaged, which enhances their understanding of moral and empathic values. These findings are consistent with those of Jensen (2008), who emphasized the importance of debate in developing historical empathy in the classroom. The GIMR factor reflects the extent to which information and communication technologies are used to encourage group activities and moral development through collaboration and exchange of opinions among students. It includes group work, online discussions, debates, and projects aimed at addressing moral issues and developing shared values such as empathy and tolerance. This factor correlates with higher levels of moral development and a sense of collective responsibility. Through group activities, students have the opportunity to hear others' viewpoints and reflect on their own values in relation to those of others. These experiences help them develop empathy for different people and situations, and to build personal moral standards aligned with group values and social norms. This aligns with Gair's (2011) findings, which highlight the positive aspects of implementing empathic programs in education for developing critical reflection and action in social work students. The conclusions suggest that introducing structured ICT activities, interactive tools, and thematic discussions into the teaching process can significantly improve the effect of religious education on the development of empathy among young people. The study recommends teacher training in ICT use, the enhancement of digital content, and a greater emphasis on group work as key steps for optimizing teaching. Limitations of the study include a relatively small sample size and reliance on self-assessment by participants, while future research could include a broader sample, longitudinal approaches, and deeper analyses of specific ICT tools.

**Keywords:** ICT, religious education, empathy

## References

- Batson, C. D. (2014). *The altruism question: toward a social psychological answer*. Psychology Press.
- Bruneau, M., & Saxe, E. (2011). Us and Them: Intergroup Failures of Empathy. *Current Directions in Psychological Science*, 20(3), 149. <https://doi.org/10.1177/0963721411408713>
- Cress, S. W., & Holm, D. T. (1998). *Developing empathy through children's literature*. <https://eric.ed.gov/?id=ED427316>
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. <https://doi.org/10.1037/0022-3514.44.1.113>

- 
- Dimitrijević, D. (2020). Radioničarski rad u nastavi u kontekstu razvijanja empatije. *Godišnjak za pedagogiju*, 5(1), 93–104. <https://doi.org/10.46630/gped.1.2020.07>
  - Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4(3), 272–299. <https://doi.org/10.1037/1082-989X.4.3.272>
  - Gair, S. (2011). Creating spaces for critical reflection in social work education: Learning from a classroom-based empathy project. *Reflective Practice*, 12(6), 791–802. <https://doi.org/10.1080/14623943.2011.601099>
  - George, D., & Mallery, P. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference, 17.0 Update* (10th ed.). Allyn & Bacon.
  - Goleman, D. (2007). *Socijalna inteligencija*. Geopoetika.
  - Goretzko, D., Pham, T. T. H., & Bühner, M. (2019). Exploratory factor analysis: Current use, methodological developments and recommendations for good practice. *Current Psychology*, 40(7), 3510–3521. <https://doi.org/10.1007/s12144-019-00300-2>
  - Hoffman, M. L. (1984). Interaction of Affect and Cognition in Empathy. In C. E. Izard, J. Kagan, & R. B. Zajonc (Eds.). *Emotions, Cognition, and Behavior* (pp. 103–131). [https://books.google.rs/books?hl=sr&lr=&id=PvQ4AAAAIAAJ&oi=fnd&pg=PR9&dq=emphaty+hoffman&ots=Km3R3vgguy&sig=V\\_0ZRHIBvDUeWq1O3imV4Rugz2U&redir\\_esc=y#v=onepage&q=emphaty+hoffman&f=false](https://books.google.rs/books?hl=sr&lr=&id=PvQ4AAAAIAAJ&oi=fnd&pg=PR9&dq=emphaty+hoffman&ots=Km3R3vgguy&sig=V_0ZRHIBvDUeWq1O3imV4Rugz2U&redir_esc=y#v=onepage&q=emphaty+hoffman&f=false)
  - Hyman, H. H., Wright, C. R., & Reed, J. S. (1975). *The enduring effects of education*. The University of Chicago press.
  - Jensen, J. (2008). Developing Historical Empathy through Debate: An Action Research Study. *Social Studies Research and Practice*, 3(1), 55–67.
  - Jevtić, B., i Jovanović, A. (2018). Razvijanje prosocijalnosti u nastavi veronauke i građanskog vaspitanja. *Naša škola*, 2, 29–49.
  - Kačarić, N. (2021). Kako učenici ocenjuju doprinos pojedinih elemenata verske nastave njihovom moralnom razvoju. *Inovacije u nastavi*, 34(2), 162–173.
  - Kalliopuska, M. (1983). *Empathy in school students*. <https://files.eric.ed.gov/fulltext/ED240423.pdf>
  - Kuburić, Z., i Dačić, S. (2004). *Metodika verske nastave*. Centar za empirijska istraživanja religije.
  - Lasswell, H. (1963). *Politics: who gets what, when, how*. The World Publishing Company.
  - Midić, I. (2004). *Pravoslavni katihizis: priručnik za nastavnike osnovnih i srednjih škola*. Zavod za udžbenike i nastavna sredstva.
  - Radojković, M., i Stojković, B. (2009). *Informaciono komunikacioni sistemi*. Clio.
  - Radovanović, V. (1993). Empatičnost srednjoškolskih nastavnika. *Psihologija*, 26(1–2), 11–50.
  - Rozenberg, M. (2002). *Jezik saosećanja: nenasilna komunikacija*. Zavod za udžbenike i nastavna sredstva.
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- 
- Stojilković, A, Anđelković, I., i Stojiljković, J. (2013). Empatija, optimizam/pesimizam i psiho-somatsko reagovanje kod obolelih od ulkusnih bolesti. *Godišnjak za psihologiju*, 10(12), 133–152.
  - Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>