

Early Childhood Research Group

Description and aim of the research group:

The international literature refers to the period from birth to age eight as early childhood. The crucial role and significance of early childhood are now widely acknowledged in professional circles. It is scientifically proven that early childhood education has a decisive impact on an individual's entire life and, consequently, on the development of society as a whole.

Investing in early childhood education brings significant social and economic benefits in the long term. International research is increasingly focusing on this period, with numerous research groups worldwide dedicated to the study of early childhood. The field not only has its own professional organizations but also features independent scientific journals in many countries around the world. The heightened interest in early childhood is primarily a development of the 21st century. However, in Slovakia, the growing international emphasis on the importance of early childhood education is not yet adequately reflected in the activities of professional organizations or in domestic research.

The research group, established in January 2021, focuses on an exceptionally sensitive period in child development: conducting research related to early childhood education, development, and intervention. During this stage, children are most receptive to change, making it the most effective period for their development and when various developmental programs can achieve the greatest success. Early intervention is also most effective during this time. Therefore, we aim to strengthen professional dialog at the national level and, in line with international trends, to conduct national-level research that has become the focus of social, professional, and scientific interest over the past two decades. We also aim to provide opportunities for active researchers, educators, and students in this field to connect, thereby fostering professional networking and facilitating the presentation of research findings. Our primary goal is to expand the range of pedagogical diagnostic tools in Slovakia, with a particular focus on Hungarian-speaking children in Slovakia.

Research areas:

- Examination of the characteristics of early childhood development and the factors influencing it;
- Investigation of various settings for early childhood education;
- Exploration of the possibilities for early intervention;
- Study of early childhood care models;
- Adaptation and standardization of measurement tools (diagnostic and research instruments)

Keywords: early childhood development, developmental support, intervention, pedagogical diagnostics, prevention, early intervention, institutional system, family background, measurement tools (diagnostic and research instruments), adaptation, standardization

Founder and Research Leader:

Prof. Dr. Józsa Krisztián, PhD., DSc.

Founding Members:

PaedDr. Borbélyová Diana, PhD.

Dr. habil. PaedDr. Horváth Kinga, PhD.

Mgr. Orsovics Yvette, PhD.

PaedDr. Nagyová Alexandra, PhD.

Members:

PaedDr. Szántó Zsuzsanna

Hajduné Holló Katalin

Research/Scientific Projects: Adaptation and Standardization of the DIFER Diagnostic Tool for Measuring the Skills of 4–8-Year-Old Children

Project Start: 2021

Project Completion: 2023

Successful Project Defense: 11 January 2024

During the project, the research group adapted and standardized the Hungarian DIFER tool, which measures the developmental levels of 4-8-year-old children, for the Hungarian-speaking child population in Slovakia.

Collaboration with Professional Organizations, Research Groups, and International Experts:

Amukune Stephen, PhD., Pwani University, Kenya

Bencéné Fekete Andrea, PhD., Hungarian University of Agriculture and Life Sciences

Oo Tun Zaw, PhD., Hungarian University of Agriculture and Life Sciences

Podráczy Judit, PhD., Hungarian University of Agriculture and Life Sciences

Szabó Norbert, PhD., Hungarian University of Agriculture and Life Sciences

Zentai Gabriella, PhD., Hungarian University of Agriculture and Life Sciences

MTA-MATE Early Childhood Research Group

Publications, Articles, Abstracts

V1- Volume

Józsa, K., & Borbélyová, D. (2024, Eds.). *Diagnostic Assessment of School Readiness*. MATE Press.

V1- Scholarly monograph

Borbélyová, D. (2023). *Prechod dieťaťa z materskej školy do základnej školy*. MATE Press.

V2- Book chapter

Borbélyová, D., Józsa, K., & Nagyová, A. (2024). Adaptation and standardization of the DIFER tests in Slovakia. In K. Józsa, & D. Borbélyová (Eds.), *Diagnostic Assessment of School Readiness* (pp. 13–30). MATE Press. 10.54597/mate.0104

- Podráczky, J., Hajduné Holló, K., Borbélyová, D., Nagyová, A., & Józsa, K. (2024). A comparative analysis of Hungarian and Slovakian preschool curricula. In K. Józsa, & D. Borbélyová (Eds.), *Diagnostic Assessment of School Readiness* (pp. 31–62). MATE Press. 10.54597/mate.0105
- Zentai, G., Borbélyová, D., Bencéné Fekete, A., Nagyová, A., Horváthová, K., Orsovcics, Y., & Józsa, K. (2024). A comparative analysis of Slovakian and Hungarian primary school curricula. In K. Józsa, & D. Borbélyová (Eds.), *Diagnostic Assessment of School Readiness* (pp. 63–83). MATE Press. 10.54597/mate.0106
- Józsa, K., Oo, T. Z., Borbélyová, D., & Zentai, G. (2024). Reliability, validity and measurement invariance of the DIFER tests. In K. Józsa, & D. Borbélyová (Eds.), *Diagnostic Assessment of School Readiness* (pp. 85–139). MATE Press. 10.54597/mate.0107

V2- Journal Article

- Józsa, K., Oo, T. Z., Borbélyová, D., & Podráczky, J. (2024). Deductive Reasoning Skills in Children Aged 4–8 Years Old. *Journal of Intelligence*, 12(3), 33. <https://doi.org/10.3390/jintelligence12030033>
- Zentai, G., Borbélyová, D., Bencéné Fekete, A., Nagyová, A., Horváth K., Orsovcics, Y., & Józsa, K. (2023). A szlovákiai és a magyar általános iskolai tantervek összehasonlító vizsgálata a DIFER-készségek fejlesztése szempontjából. *Eruditio-Educatio*, 18(3), 78–94.
- Józsa, K., Oo, T. Z., Borbélyová, D., & Zentai, G. (2023). Exploring the Accuracy and Consistency of a School Readiness Assessment Tool for Preschoolers: Reliability, Validity and Measurement Invariance Analysis. *Journal of Intelligence*, 11(10), 189. <https://doi.org/10.3390/jintelligence11100189>
- Józsa, K., Oo, T. Z., Borbélyová, D., & Zentai, G. (2023). Exploring the Growth and Predictors of Fine Motor Skills in Young Children Aged 4–8 Years. *Education Sciences*, 13(9), 939. <https://doi.org/10.3390/educsci13090939>
- Borbélyová, D., Józsa, K., & Nagyová, A. (2023). Adaptácia a štandardizácia diagnostického nástroja DIFER na zisťovanie aktuálnej vývinovej úrovne 4–8 ročných detí na Slovensku. *Eruditio-Educatio*, 18(1), 3–15.
- Podráczky, J., Hajduné Holló, K., Borbélyová, D., Nagyová, A., & Józsa, K. (2022). A magyarországi és szlovákiai óvodai nevelési program összehasonlító elemzése. *Danubius Noster*, 10(4), 107–132.
- Borbélyová, D., Nagyová, A., Józsa, K., Hajduné Holló, K., & Podráczky, J. (2022). Štátne výchovno-vzdelávacie programy predprimárnej edukácie Slovenskej republiky a Maďarska. *Disputationes Scientificalae*, 22(4), 15–25. http://disputationes.ku.sk/wp-content/uploads/2022/12/Dspt4_22_s_obalkou.pdf

V2- Conference Papers and Abstracts

- Józsa, K., Oo, T. Z., Borbélyová, D., & Józsa, G. (2023). Social skills development in children aged 4-8 years: A cross-country comparison of Hungary and Slovakia. In L. Gómez Chova, C. González Martínez, & J. Lees (Eds.), *ICERI2023 Proceedings. 16th International Conference of Education, Research and Innovation* (pp. 3326–3335). International Association of Technology, Education and Development (IATED Academy). doi: 10.21125/iceri.2023.0870

- Józsa, K., Borbélyová, D., Oo, T. Z., Nagyová, A., Podráczky, J., & Zentai, G. (2023). Measurement invariance and latent mean differences of social skills as a school readiness test for Hungarian preschool children in Hungary and Slovakia. In L. Gómez Chova, A. López Martínez, & I. Candel Torres (Eds.), *EDULEARN23 Proceedings: 15th International Conference on Education and New Learning Technologies* (pp. 7483–7491). International Association of Technology, Education and Development (IATED). Palma de Mallorca, Spain.
- Borbélyová, D., Nagyová, A., Horváthová, K., Józsa, K., Orsovics, Y., Zentai, G., & Bencéné Fekete, A. (2023). Komparatívna analýza štátnych vzdelávacích programov pre 1. stupeň zš Slovenskej Republiky a Maďarska. In K. Kéri, K. Józsa, K. Kanczné Nagy, A. Tóth-Bakos, D. Borbélyová, & T. Mészáros (Eds.), *14th International Conference of J. Selye University Pedagogical Sections: Conference Proceedings* (pp. 27–36). Janos Selye University.
- Borbélyová, D., & Józsa, K. (2023). A magyarországi DIFER tesztek adaptálása Szlovákiában a KEGA projekt keretén belül. Selye János Egyetem XV. Nemzetközi Tudományos Konferenciája. Komarno, Slovakia, 2023. szeptember 13–14.
- Oo, T. Z., Józsa, K., Borbélyová, D., Horváthová, K., Orsovics, Y., & Nagyová, A. (2023). The psychometric properties of the DIFER test in Slovakia and Hungary. Selye János Egyetem XV. Nemzetközi Tudományos Konferenciája. Komarno, Slovakia, 2023. szeptember 13–14.
- Józsa, K., Borbélyová, D., & Zentai G. (2023). A DIFER készségek fejlődése a 4-8 éves szlovákiai magyar gyermekek körében. Selye János Egyetem XV. Nemzetközi Tudományos Konferenciája. Komarno, Slovakia, 2023. szeptember 13–14.
- Józsa, K., Oo, T. Z., Borbélyová, D., Zentai, G., Nagyová, A., & Podráczky, J. (2023). Psychometric Properties of Cognitive Ability Tests for Young Hungarian Children in Hungary and Slovakia. In E. Juhász & R. Kattein- Pornói (Eds.), *Az oktatás határdimenziói. Absztraktkötet. Hungarian Conference on Educational Research HuCER 2023* (pp.212–213). Magyar Nevelés- és Oktatáskutatók Egyesülete.
- Zentai, G., Nagy, A., Bencéné Fekete, A., Horváth, K., Borbély, D., Orsovics, Y., & Józsa K. (2022). A magyar és a szlovák iskolai tartalmi szabályozó dokumentumok összehasonlító elemzése 1-2. osztály esetében. In *Oktatás egy változó világban – Kutatás, innováció, fejlesztés. Hungarian Conference on Educational Research, HuCER 2022. Absztraktfüzet.* (pp. 172–173.) Budapest: Budapesti Műszaki és Gazdaságtudományi Egyetem.
- Podráczky, J., Hajduné Holló, K., Borbélyová, D., Nagyová, A. & Józsa, K. (2022). A magyar és szlovák óvodai nevelési program összehasonlító elemzése. In Kéri, K. Kissné Zsámboki, R., Németh, D. K., & Pásztor, E. (Eds.), *Egy nyelvet beszélünk? Gyermeklét és pedagógia a nyelvi, kulturális és társadalmi terek kontextusában* (pp. 62–63). Sopron: Soproni Egyetem Kiadó.
- Hajduné Holló, K., Borbélyová, D., Zentai, G., & Józsa K. (2022). Magyarországi és szlovákiai magyar gyermekek elemi kombinatív képességének fejlődése 4-8 éves korban. In Kéri, K. Kissné Zsámboki, R., Németh, D. K., & Pásztor, E. (Eds.), *Egy nyelvet beszélünk? Gyermeklét és pedagógia a nyelvi, kulturális és társadalmi terek kontextusában* (pp. 64–65). Sopron: Soproni Egyetem Kiadó.
- Borbélyová, D., Nagyová, A., Horváth, K., Józsa, K., Orsovics, Y., Zentai, G., & Bencéné Fekete, A. (2022). Komparatívna analýza štátnych vzdelávacích programov pre 1. stupeň ZŠ Slovenskej republiky a Maďarska. In Ambrus Attila Józsefné et al. (Eds.): *14th International Conference of J. Selye University: Pedagogical Sections.* (p.27-36). Komárno: Univerzita J. Selyeho.

- Borbélyová, D., Józsa, K., Orsovics, Y., & Horváth, K. (2021). Pedagógiai diagnosztika kurzus az óvópedagógus képzésben. In Ábrahám, G. et al. (Eds.) Kárpát-medencei magyar tannyelvű pedagógusképzők 1. kongresszusa (p.21.). Pécs: Pécsi Tudományegyetem.
- Borbélyová, D., & Korcová, M. (2021). A tanulók kritikus elemi alapkészségeinek mérése az első évfolyamban. In Csehiová, A. et al. (Eds.) 13th International Conference of J. Selye University: Pedagogical Sections. (p.105-123). Komárno: Univerzita J. Selyeho.

University Representation at Scientific Events and Conferences:

2021

Name of the event: XIII. International Scientific Conference of J. Selye University – 2021

Type of the event: Scientific Conference

Date: 8-9 September 2021

Organizer of the event: J. Selye University

Title of the presentation: Assessment of Critical Basic Skills in First-Year Students

2022

Name of the event: Hungarian Conference on Educational Research HuCER 2022

Type of the event: Scientific Conference

Date: 26-27 May 2022

Organizer of the event: HERA, Hungarian Educational Research Association, Budapest

Title of the presentation: Comparative Analysis of Hungarian and Slovak Curriculum Regulatory Documents for Grades 1-2

Name of the event: 15th Training and Practice International Conference on Educational Sciences

Type of the event: Scientific Conference

Date: 28 April 2022

Organizer of the event: Benedek Elek Faculty of Pedagogy, University of Sopron and the Hungarian University of Agriculture and Life Sciences

Title of the presentations:

1. Comparative Analysis of Hungarian and Slovak Preschool Education
2. Development of Basic Combinatorial Skills in Hungarian Children Aged 4 to 8 in Hungary and Slovakia

Name of the event: XIV. International Scientific Conference of J. Selye University - 2022

Type of the event: Scientific Conference

Date: 12-13 September 2022

Organizer of the event: J. Selye University

Title of the presentation: A Comparative Analysis of National Educational Programs for Primary Schools in Slovakia and Hungary

2023

Name of the event: ICERI2023 (16th annual International Conference of Education, Research and Innovation)

Type of the event: Scientific Conference

Date: 13-15 November 2023

Organizer of the event: IATED- Seville (Spain)

Title of the presentation: Social Skills Development in Children Aged 4-8 Years: A Cross-Country Comparison of Hungary and Slovakia

Name of the event: XV. International Scientific Conference of J. Selye University - 2023

Type of the event: Scientific Conference

Date: 13-14 September 2023

Organizer of the event: J. Selye University

Title of the presentations:

1. Adaptation of the Hungarian DIFER Tests for Use in Slovakia within the KEGA Project
2. The Psychometric Properties of the DIFER Tests in Slovakia and Hungary
3. Development of DIFER Skills in Hungarian Children Aged 4 to 8 in Slovakia

Name of the event: EDULEARNE 23; 15th International Conference on Education and New Learning Technologies

Type of the event: Scientific Conference

Date: 3-5 July 2023

Organizer of the event: IATED (online)

Title of the presentation: Measurement Invariance and Latent Mean Differences of Social Skills as a School Readiness Test for Hungarian Preschool Children in Hungary and Slovakia

Name of the event: Hungarian Conference on Educational Research HuCER 2023

Type of the event: Scientific Conference

Date: 26-27 May 2023

Organizer of the event: HERA, Hungarian Educational Research Association, Budapest

Title of the presentation: Psychometric Properties of Cognitive Ability Tests for Young Hungarian Children in Hungary and Slovakia

2024

Name of the event: 17th Training and Practice International Conference on Educational Sciences

Type of the event: Scientific Conference

Date: 25 April 2024

Organizer of the event: HERA, Hungarian Educational Research Association, Budapest

Title of the presentation: Curriculum Reforms in Slovak Preschool Education in the 21st Century