



Journal of Exceptional People

2025 – Volume 14; Number 27

Institute of Special Education Studies
Faculty of Education – Palacký University Olomouc



Journal of Exceptional People

2025 – Volume 14; Number 27

Institute of Special Education Studies
Faculty of Education – Palacký University Olomouc

Journal of Exceptional People

Volume 14, Number 27, 2025, published in November 2025

Scientifics Board

- Zsolt Cséfalvay, Univerzita Komenského, Bratislava, Slovakia
- Antonio Miñan Espigares, Facultad de Ciencias de la Educación, Granada, Spain
- Vlastimil Chytrý, Faculty of Education, J. E. Purkyně University in Ústí nad Labem, Czech Republic
- Milan Kubiátko, Faculty of Education, J. E. Purkyně University in Ústí nad Labem, Czech Republic
- Sharon Raver-Lampman, Old Dominion University, Norfolk, USA
- Barbora Kováčová, Katolícka univerzita, Ružomberok, Slovakia
- Janka Medová, Faculty of Natural Sciences, Constantine the Philosopher University in Nitra, Slovakia
- Karel Pančocha, Masarykova univerzita, Brno, Czech Republic
- Laima Toménienė, Šiauliai University, Lithuania
- Pavel Vacek, Univerzita Hradec Králové, Czech Republic
- Milan Valenta, Univerzita Palackého, Olomouc, Czech Republic
- Kateřina Vitásková, Univerzita Palackého, Olomouc, Czech Republic
- Peng Yan, Faculty of Education, Sichuan Normal University, China

Editor in Chief Jiří Langer

Executive Editors Pavel Svoboda, Jan Chrastina

Responsible Editor Otakar Loutocký

Editorial Board

Oldřich Müller, Lucia Pastieriková, Martin Dominik Polínek, Petra Potměšilová, Michal Růžička, Veronika Růžičková, Vojtech Regec, Kateřina Stejskalová, Jiří Kantor, Zdeňka Kozáková

Language Editors Jana Magdoňová, Roman Smutný

Cover Design Jiří Jurečka

Layout Jitka Bednaříková

Editorial Office

PDF UP, Žižkovo náměstí 5, Olomouc, 770 00, Czech Republic

Publisher

Published and printed by Palacký University Olomouc

Křížkovského 8, 771 47 Olomouc

Journal Website: <http://jep.upol.cz/>

ISSN 1805-4978 (Print)

ISSN 1805-4986 (Online)

Reg. č. MK ČR E 20769

Journal of Exceptional People

An International Journal for Education and Special Studies

Editor Pavel Svoboda

Volume 14

Number 27

2025

Journal of Exceptional People is indexed in:

- List of non-impact peer-reviewed journals (Council for Research, Development and innovation, Czech Republic)
- ERIH Plus (The European Reference Index for the Humanities and the Social Sciences)
- Ulrich's Periodicals Directory (UlrichsWeb)
- Index Copernicus International
- Bibliographia Medica Československá (BMČ) of the National Medical Library of the Czech Republic
- Central and Eastern online Library (CEEOL)
- Open Academic Journal Index (OAJI)

Content

Introduction	5
--------------------	---

ARTICLES

Implementation of support measures in primary schools in the Czech republic: The importance of cooperation with educational counseling centers.....	7
LENKA NOVÁKOVÁ	

Intersection of socio-cognitive teachers variable with inclusion of pupils with learning disabilities in basic education programme in Calabar metropolis (Nigeria)	17
UDO IDORENYIN PAULINUS, NENE AMOS WILLIAM, OJIE C. FREDLUCKSON	

Foreign language learning as a key to self-determination: a multiple case study of school-age persian-speaking students on autism spectrum disorder	29
NEDA KHODAVERDI, HASSAN ASHAYERI, PARVIZ MAFTOON	

Impact of mindfulness-based music therapy on physiological functions and subjective perception in college students: Two single case studies	51
JOSEFÍNA JANKOVÁ, ZDENĚK VILÍMEK, JIŘÍ KANTOR	

A case study of a child with orofacial cleft from the perspective of speech and language therapy intervention.....	63
ALENA HLAVINKOVÁ, MARKÉTA ŠMERKOVÁ, KATEŘINA VITÁSKOVÁ	

The development of pupils' personalities in the school environment: The use of expressive and psychotherapeutic interventions.....	77
TEREZA TELEKYOVÁ	

Even a person with intellectual disabilities has a need for self-fulfilment	89
TEREZA TELEKYOVÁ	

Options for preventing school failure among children starting regular primary schools: Theory and good practice in the Czech republic	103
BARBORA LANKOVÁ, MICHAL VOSTRÝ, ILONA PEŠATOVÁ, HANA FINKOUŠOVÁ, VLASTIMIL CHYTRÝ	

Well-being interventions for learners with special educational needs in schools: A scoping review	123
DAGMAR MAJERECHOVÁ, LENKA SOKOLOVÁ	
Experiences with inclusive education from the perspective of learners with visual impairment and their parents – a systematic reviewed protocol.....	153
LENKA HOVORKOVÁ, ALŽBĚTA SMRČKOVÁ, DAGMAR SEDLÁČKOVÁ, VERONIKA RŮŽIČKOVÁ, JIŘÍ KANTOR, LILIANA BELKIN, ZUZANA SVOBODOVÁ	
Information for authors	161

Introduction

Dear readers,

In our regular autumnal issue of *Journal of Exceptional People* we have included a total of ten contributions, which we have divided this time into several groups according to the method and form of presentation of selected topics.

The first two contributions fall into the scientific studies category. The first focuses on the quality and continuity of collaboration between schools and educational counseling centers in the Czech Republic (L. Nováková), the second we received from Calabar, Nigeria, and is devoted to the inclusion of students with developmental learning disabilities in basic education programs implemented in Nigeria (U. I. Paulinus, N. A. William, O. C. Fredluckson).

We have marked the next three contributions as case studies. A very interesting article was sent to us by N. Khodaverdi, H. Ashayeri, and P. Maftoon. Their article is a qualitative case study focusing on teaching English as a foreign language through behavioral and cognitive interventions to two verbal Iranian Persian-speaking school-age children with autism. The following contribution by Czech authors is titled *Impact of mindfulness-based music therapy on physiological functions and subjective perception in college students*. It contains two single case studies of clients with multiple sclerosis and anxiety disorder. (J. Kantor, J. Janková, Z. Vilímek J. Kantor). The following case study focuses on the problem of a child with a diagnosed orofacial cleft in connection with speech and language therapy intervention (A. Hlavinková, M. Šmerková, K. Vitásková).

The following two articles are overview essays. They were sent to us by the Czech author T. Telekyová. In the first of them she deals with the use of expressive and psychotherapeutic interventions and the possibilities of their integration in the school environment, in her second contribution she focuses on the person with intellectual disabilities and the need for their self-realization. The third overview essay was sent

to us by a team of workers from the Faculty of Education in Ústí nad Labem (Czech Republic). Their article focuses on the problem of school failure among children entering the first grade of regular primary schools. (B. Lanková, M. Vostrý, I. Pešatová, H. Finkousová, V. Chytrý).

After these contributions, we included a scoping review by D. Majerechová and L. Sokolová entitled Well-being interventions for learners with special educational needs in schools, and last issue of our Journal of Exceptional People concludes with a contribution that is a systematic reviewed protocol and focuses on experiences with inclusive education from the perspective of learners with visual impairment and their parents (L. Hovorková, A. Smrčková, D. Sedláčková, V. Růžicková, J. Kantor, L. Belkin, Z. Svobodová).

I believe that you will appreciate these articles not only for their expertise, but that they will also be a benefit and inspiration for your own special education work or study.

JEP Executive Editor Pavel Svoboda

Implementation of support measures in primary schools in the Czech republic: The importance of cooperation with educational counseling centers

(scientific article)

Lenka Nováková

***Abstract:** Effective implementation of support measures in the school environment is conditioned by a range of factors — from systemic frameworks and legislation, through the availability and cooperation of involved stakeholders, to everyday pedagogical practice. What proves crucial is not only the educational recommendations themselves but also the quality and continuity of collaboration between schools and educational counseling centers. This article focuses on how this cooperation functions within the Czech education system, how it influences the actual provision of support for students with special educational needs, and what barriers emerge in this area. It presents the experiences, perspectives, and recommendations of special education professionals from educational counseling centers regarding the implementation of support measures, collaboration with schools, and the obstacles that may negatively impact the creation of optimal learning conditions for students in need of support. The article also reflects on broader systemic frameworks and their impact on continuity of support, thereby contributing to the international discussion on the implementation of inclusive measures in education.*

***Keywords:** inclusive education, support measures, special educational needs, primary school, special educator, educational counseling center*

1 Introduction

In recent decades, education systems have shifted significantly toward an inclusive approach to education, with the core principle being the provision of equal and quality education for all, regardless of individual needs. Inclusive education is promoted as a key approach within global education systems and is supported by a framework of support measures. These measures are intended to ensure that students with special

educational needs (hereafter SEN) have equal access to education. The goal is to enable students with SEN to fully participate in learning within mainstream primary schools. In this context, the implementation of support measures plays a crucial role.

Legislation in the Czech Republic defines various levels of support and sets conditions for both the granting and provision of support measures. A key factor in their effective implementation in practice is the cooperation between schools and educational counseling centers. This collaboration can help overcome common challenges in practice—such as a lack of professional staff, limited material resources, or uncertainty and reserved attitudes among some stakeholders in the educational process. Well-structured communication and continuity in the partnership between schools and counseling centers significantly contribute to the effective provision of support for students.

The findings presented in this article are a partial outcome of a broader research study. The right to education is one of the fundamental human rights and serves as an indicator of a society's level of development. In recent decades, a significant shift toward an inclusive approach in education has been observed, emphasizing the equal right of all children to quality education, regardless of their individual abilities, health status, or socio-cultural background. This approach, anchored both in international documents (e.g., the Salamanca Statement, 1994; UN Convention on the Rights of Persons with Disabilities, 2006) and in the national legislation of many countries, has become a key element of educational policy. Inclusive education is now seen not only as a means of promoting equality and respect for human rights but also as a vital component in the pursuit of greater social justice (Slowik, 2023; Mag et al., 2017). Increasing attention is being paid to child development and the importance of childhood. Inclusive education is evolving into a complex field, addressed by numerous scholarly publications and scientific studies. The range of support services and educational programs aimed at providing quality education for all children is gradually expanding (Vítková, 2004). Research has already shown that inclusive education brings several positive aspects to the learning environment, such as the development of empathy, support for collaboration, and mutual understanding among classmates (Mag et al., 2017).

1.1 Inclusive education in the contemporary education system

Support measures represent one of the key tools for realizing inclusive principles in education. Their goal is to eliminate or at least reduce educational barriers and promote active engagement in the learning process (Vítková, 2004; Lechta, 2016). In most countries, a support system for students with special educational needs (SEN) has already been firmly established and is continuously evaluated through research

and assessment. In other countries, such as Slovakia, this system is still in the process of formation and practical implementation (Ministerstvo školstva, výskumu, vývoja a mládeže Slovenskej republiky, 2023).

Inclusive education has been a dynamic process in the Czech Republic since the 1990s, following a change in the political regime. The Czech Republic is one of the countries where the implementation of inclusive education occurred relatively late and gradually (Vítková, 2004; Michalík & Voženílek, 2022). Like elsewhere, this development is shaped by the cultural, social, and educational conditions of the particular country, while also responding to supranational demands (Němec, Květoňová & Hájková, 2024). A major milestone in improving conditions for students with SEN was the 2016 education reform, which significantly affected the system of support measures and their funding. These changes had a profound impact on the daily functioning of schools, teachers, and children. The most significant innovation was an amendment to the Education Act that introduced entitlement-based funding for support measures – such as teaching assistants, special learning aids, or individualized support. Support for students was systematized into five levels according to the degree of need. This reform expanded the range of students identified as having SEN, ensuring that support is provided to all who objectively need it. It also strengthened collaboration between schools and educational counseling centers (ŠPZ), which now play a central role by issuing recommendations that entitle students to specific support (Michalík & Voženílek, 2022). These changes marked a fundamental shift in the approach to educating children with SEN and helped move the Czech education system toward a more inclusive and systemic model. The aim was to build a transparent, stable, and fair support system for all students in need, regardless of diagnosis or social background.

According to Bartoňová et al. (2016), the success of special education support lies not only in timely and accurate identification of difficulties but also in providing appropriate interventions tailored to individual needs. A well-functioning and well-designed support system is thus a key factor. However, practice shows that the implementation of these measures is not without challenges – schools often face limited staffing, organizational, and financial resources (Národní pedagogický institut, 2022).

Educational counseling centers (ŠPZ) play a key role in providing support. They conduct assessments that lead to specific support recommendations and subsequently monitor progress in education. Throughout this process, they provide methodological guidance to teachers and other school staff and offer consultations to parents (Vyhláška č. 72/2005 Sb., o poskytování poradenských služeb ve školách a školských poradenských zařízeních).

Although special educators have a major influence on the course of inclusive education and the creation of conditions for students with SEN, their perspective is often overlooked in scholarly literature and research (e.g., Boesley & Crane, 2018).

Yet professionals working in counseling centers play a crucial role and have vital insights into the needs of students with SEN, the availability of support, and how that support is implemented in practice. They are aware of the system's limitations and know where improvement is needed. These professionals are in direct contact with all key stakeholders in the educational process and serve as intermediaries between educational institutions, parents, and other agencies. Their perspective is essential in assessing how functional and sustainable the current support model is – not only within a national context but also from an international perspective. Their insights can help identify the strengths and weaknesses of the current conditions for educating students with SEN, and as such, provide valuable input for improving inclusive education.

1.2 Support measures in the education of pupils with special educational needs

Support measures are a set of interventions, tools, and services aimed at ensuring equal access to education and active participation in the educational process. These measures can take various forms – from adjustments in teaching methods and educational organization, to personnel support and modifications of instruction and assessment. Their implementation is grounded in the principle of individualization, which takes into account the specific needs of each pupil.

In the Czech Republic, support measures are defined in § 16 of the Education Act and are structured into five levels according to pedagogical and financial demands. The first level includes measures that schools can provide independently, without the recommendation of a school counseling facility. Higher levels of support are granted based on expert recommendations and may include, for example, a teaching assistant, special education teacher, adapted textbooks, interpreter services, and more. These measures are state-funded (Zákon č. 561/2004 Sb., o předškolním, základním, středním, vyšším odborném a jiném vzdělávání).

The entire process of education involving support measures includes identification by the school, diagnosis by school counseling facilities and other professional institutions, followed by the recommendation of appropriate forms of support. This process involves administrative procedures, cooperation with the school, and ultimately the implementation of the support within the school environment. School counseling facilities play a key role—they provide expert recommendations and methodological guidance.

The effectiveness of support measures is influenced not only by their formal recommendation but also by several additional factors that may pose challenges to their successful implementation. These include attitudes toward inclusion, the

preparedness of teachers to educate pupils with diverse needs, the availability of support staff, and material resources.

1.3 The role of school counseling facilities in the support process for pupils with special educational needs

School counseling facilities are a key component of the education system and the support framework for pupils with special educational needs in the Czech Republic. Their responsibilities are defined by legislation and include professional diagnostics, intervention, and counseling services provided to pupils, their families, and schools. Their role in the education of pupils with SEN is indispensable, particularly in the implementation of support measures. The outcome of their counseling activities is the issuance of specific recommendations, and they also monitor the implementation of these measures in practice (Vyhláška č. 72/2005 Sb., o poskytování poradenských služeb ve školách a školských poradenských zařízeních).

School counseling facilities include Pedagogical-Psychological Counseling Centers (PPP) and Special Pedagogical Centers (SPC). The clientele of these institutions differs and, like their scope of activities, is defined by the relevant educational legal regulations. Both facilities have a direct impact on the pupil's educational process, based on the recommendations they issue, which serve as the foundation for support in education. Professional assessments are conducted by psychologists and special educators who evaluate the educational needs and recommend specific forms of support. They also act as important mediators between the school and the family, help develop individualized education plans, and provide schools with methodological guidance in implementing the recommended measures. Effective cooperation between the primary school and the school counseling facility is crucial in ensuring support for pupils with special educational needs. This cooperation is essential not only for setting up support measures but also for their successful implementation and subsequent evaluation (Valenta & Michalík, 2012).

Research examining the work of school counseling facilities shows that their role is sometimes burdened by systemic limitations. These primarily include personnel shortages, lack of sufficient staff capacity to provide the required support, and long waiting times for assessments (Czech School Inspectorate, 2024). These limitations can negatively affect the timeliness of support as well as the quality of recommendations. Continuity of ongoing support is also important, as it ensures stable and consistent support tailored to the pupil's individual needs, which can be disrupted by these constraints. Cooperation between the educational institution and the staff of the school counseling facility is therefore highly important.

From an international perspective, various models of counseling support exist for pupils, their parents, and educational staff regarding the education of pupils with

special educational needs—ranging from centralized systems to specialized integrated school teams or mixed models of both. The Czech system, based on school counseling facilities, is distinctive due to its institutional separation from schools, which has both advantages and disadvantages. Research focusing on the perspective of school counseling facility staff can provide valuable insights into how these institutions actually influence inclusion in mainstream schools, what challenges they perceive in their work, and what could contribute to a more effective support system.

2 Research methodology

The partial part of the research presented in this article is based on a qualitative research approach, specifically the method of semi-structured interviews. The advantage of qualitative research methods lies in their ability to delve deeper into the studied issue and to understand how individuals perceive and experience it. The data obtained are not converted into numerical form but are thoroughly analyzed in order to capture the complexity of the phenomena and provide a comprehensive understanding. The aim of the chosen approach is to understand the experiences, attitudes, and opinions (Reichel, 2007) of the ŠPZ staff.

The aim of the research is to explore how collaboration between primary schools and school counselling facilities takes place in the process of setting up and providing support measures, to identify factors that facilitate or hinder this cooperation, and to propose recommendations for its more effective implementation based on the findings. The research conclusions present experiences and attitudes, as well as the identified factors influencing the implementation of support measures.

The focus of the research is based on an analysis of academic literature and previous studies, founded on the conclusion that the perspectives of these actors in inclusive education represent an important yet insufficiently explored area. The research is grounded in the belief that this professional perspective is a valuable—and so far under-researched—source of knowledge that can contribute both to improving practice and to critically evaluating the current framework of inclusive support.

Research questions:

1. How does collaboration between school counselling facilities and primary schools take place in the process of setting up and implementing support measures?
2. What factors influence the quality and effectiveness of cooperation between the school and the counselling facility?
3. What are the experiences of teaching staff with the collaboration with the school counselling facility, and what changes would they suggest to improve it?

2.1 Research sample

The selection of the research sample represents a key phase of the entire research process. In this study, a combination of convenience and purposive sampling was applied. The inclusion criteria for participation in the research (Skutil, 2011) were based on the participants' professional specialization and workplace:

- Profession: special education teacher,
- Workplace: school counselling facility

The research sample consists of special educators working in school counselling facilities. These are key professionals involved in the planning and monitoring of support measures for students with special educational needs. The selection of participants was conducted through stratified purposive sampling, taking into account their direct experience with the studied issue. The total number of participants involved in the research was 34.

This target group was chosen because it represents key stakeholders in the education of students with special educational needs. Special educators working in counselling facilities can offer valuable insights into the current support system and provide practical information regarding the individual needs of students. Informants were invited to participate in the research through email communication, phone contact, and subsequent in-person meetings. The interviews and subsequent data analysis were carried out between June 2024 and May 2025.

Ethical considerations were strictly adhered to. Participants were informed in advance about the aim of the research, the data collection and analysis procedures, and the fact that the interview would be recorded as an audio file using a mobile application. They were also assured of the anonymity of data processing and their right to refuse to answer any question or withdraw from the research at any time. All participants signed an informed consent form agreeing to the audio recording, which also included information on the handling of the recorded material.

2.2 Analysis of the collected data

The interviews were recorded and subsequently transcribed verbatim, then analyzed using the method of thematic analysis. Thematic analysis is a qualitative research method aimed at identifying, examining, and interpreting recurring patterns—referred to as themes—within a data set (Braun & Clarke, 2006). Braun and Clarke (2006) define a theme as a collection of meanings or ideas related to the research question that appear repeatedly in the analyzed data.

With respect to the specific research focus, the goal was to identify recurring themes, patterns, and key insights related to the implementation of support measures

in the context of collaboration between educational institutions and school counselling facilities.

Thematic analysis was first applied individually to the data obtained from each participant. This was followed by a comparative analysis of the identified themes and subthemes, aiming to reveal overarching meaning units that emerged across the individual cases.

2.3 Results

The analysis of interviews with special educators from school counselling facilities clearly shows that the quality of collaboration between them and educational institutions plays a crucial role in creating the conditions necessary for educating students with special educational needs, throughout the entire process. This begins with the initial information the school provides about the student for identifying special educational needs, continues with the planning of support measures, and extends to their effective implementation.

Collaboration is typically carried out through specific individuals—most often one key staff member at the school who serves as the main point of contact. This person is usually the school's special educator, or in their absence, the guidance counsellor responsible for students with SEN.

Participants consistently mentioned that the success and continuity of cooperation are also significantly influenced by the „human factor“—that is, openness toward the counselling facility as an institution and toward its recommendations, as well as personal engagement. In cases where stable and open professional cooperation developed between the school and SPC staff, it was possible to ensure coordinated support based on the student's needs. This led to more responsive reactions to students' current needs, meaningful implementation of support measures, and thus more effective adaptation of educational conditions.

Mutual communication and methodological guidance usually take place through joint consultations via email, phone calls, and personal visits to the school. In some cities, joint meetings are also held between SPC staff—particularly from Pedagogical-Psychological Counselling Centres (PPP)—and representatives of local schools, such as special educators or guidance counsellors. This form of collaboration is seen by special educators as beneficial; however, its implementation is often significantly limited by time constraints.

Conversely, in situations where the educational institution perceived the SPC more as a supervisory authority, showed resistance to external actors, maintained only formal or interrupted communication, or frequently changed its contact person, participants reported reduced motivation for collaboration and more challenging implementation of support. These findings indicate that mutual trust between the

school and the SPC staff is a significant factor influencing the development of inclusive conditions in schools.

3 Conclusion

Inclusive education represents a pathway toward more equal opportunities for all students, regardless of their abilities or disadvantages. Its continued development requires not only systemic support and adequate resources but, above all, the cultivation of interpersonal relationships within the school environment and cross-professional collaboration. Only in this way can we achieve truly functional and equitable education that reflects the diverse needs of today's society.

High-quality and open cooperation between schools and school counselling facilities is a fundamental prerequisite for the effective support of students with special educational needs. The key elements of such collaboration include trust, willingness to communicate, and the personal engagement of all involved actors. Relationships based on respect and shared responsibility enable the creation of an environment that responds flexibly to the individual needs of students and contributes to fulfilling the principles of inclusive education.

Thus, collaboration should be understood not merely as an organizational element but as a fundamental condition for implementing inclusive strategies in practice. Strengthening long-term and trustworthy relationships between schools and school counselling services appears to be a crucial step in overcoming the well-known gap between educational policy and actual practice.

References

- [1] Bartoňová, M., Vítková, M., Bočková, B., Bytešníková, I., Hloušková, L., et al. (2016). *Inkluze ve škole a ve společnosti jako interdisciplinární téma = Inclusion in schools and society as an interdisciplinary issue* (2., upravené vydání). Brno: Masarykova univerzita.
- [2] Boesley, L., & Crane, L. (2018). 'Forget the Health and Care and just call them Education Plans': SENCOs' perspectives on Education, Health and Care plans. *Journal of Research in Special Educational Needs*, 18(4), 36–47. <https://doi.org/...416>
- [3] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://core.ac.uk/download/pdf/1347976.pdf>
- [4] Česká školní inspekce. (2024). *Kvalita vzdělávání ve školním roce 2023/2024 – výroční zpráva*. <https://www.csicr.cz/cz/Dokumenty/Vyrocní-zpravy/Kvalita-vzdelavani-ve-skolnim-roce-2023-2024-%E2%80%93-vyr>
- [5] Lechta, V. (2016). *Inkluzivní pedagogika* (přeložil Tereza HUBÁČKOVÁ). Portál.
- [6] Mag AG, Sinfield S, Burns T (2017). The benefits of inclusive education: new challenges for university teachers. MATEC Web of Conferences 121 p.
- [7] Michalík, J., & Voženílek, V. (2022). *Atlas vzdělávání žáků se speciálními vzdělávacími potřebami v České republice* (M.A.P.S. – Maps and Atlas Product Series; Měřítka různá). Univerzita Palackého v Olomouci.

- [8] Ministerstvo školstva, výskumu, vývoja a mládeže Slovenskej republiky. (2023). *Do škôl sa zavádza nový systém podpory pri vzdelávaní*. <https://www.minedu.sk/do-skol-sa-zavadza-novy-system-podpory-pri-vzdelavani>
- [9] Národní pedagogický institut České republiky. (2022). Zpráva o monitoringu zavádění a implementace společného vzdělávání v pedagogických procesech škol: Závěrečná zpráva z dlouhodobého šetření 2017–2022. Národní pedagogický institut České republiky. https://www.npi.cz/images/APIV/KA2/Zaverecna_vyzkumna_zprava.pdf
- [10] Němec, Z., Květoňová, L., & Hájková, V. (2024). *Školní speciální pedagog v perspektivě inkluzivního vzdělávání*. Pedagogická fakulta, Univerzita Karlova.
- [11] Reichel, Jiří. (2007). Úvod do obecné sociologie. Vyd. 2. (autorem upr.). Edice celoživotního vzdělávání. Praha: Mowshe. ISBN 978-80-239-9948-8.
- [12] Slowík, J. (2022). *Inkluzivní speciální pedagogika*. Pedagogika. Praha: Grada. ISBN 978-80-271-3010-8.
- [13] Valenta, M., & Michalík, J. (2012). *Diagnostika speciálních vzdělávacích potřeb u dětí, žáků a studentů se zdravotním postižením*. Univerzita Palackého v Olomouci.
- [14] Vítková, M. (2004). *Integrativní speciální pedagogika: Integrace školní a sociální* (2., rozš. a přeprac. vyd.). Paido.
- [15] Vyhláška č. 72/2005 Sb., o poskytování poradenských služeb ve školách a školských poradenských zařízeních, v platném znění
- [16] Zákon č. 561/2004 Sb., o předškolním, základním, středním, vyšším odborném a jiném vzdělávání (školský zákon), v platném znění

(reviewed twice)

Mgr. et Mgr. Lenka Nováková
 Institute of Special Education Studies
 Faculty of Education
 Palacký University Olomouc
 Žižkovo nám. 5
 779 00 Olomouc
 Czech Republic
 e-mail: lenka.novakova01@upol.cz

Intersection of socio-cognitive teachers variable with inclusion of pupils with learning disabilities in basic education programme in Calabar metropolis (Nigeria)

(scientific article)

Udo Idorenyin Paulinus, Nene Amos William, Ojie C. Fredluckson

Abstract: *Inclusive education programme for pupils with learning disabilities has been an issue of concern given the profile of the disability and how it manifests in the class-room. The success of this relies heavily on some key indices driven by critical socio-cognitive characteristics of the teachers as stakeholders in the implementation process. Therefore, this research explores the intersection of knowledge, perception and attitudes of teachers with the inclusion of children with students with learning disabilities in basic education programme in Calabar metropolis of Cross River State. A survey design was adopted, 151 respondents comprising of primary school teachers were sampled in multiple stages from two local government areas that make up Calabar Metropolis. Four hypotheses were formulated and tested at 0.05 level of significance. Self-designed instrument with reliability coefficients ranging from 0.80 to 0.87 provided initial support for the reliability. The instrument was used to garner insight into knowledge, perception and attitudes of the teachers to determine their relationship and contribution to inclusion of pupils with learning disabilities in basic education programme. The data collected were analyzed using Pearson Product Moment Correlation and regression analysis. The findings revealed that knowledge, perception and attitudes of the teachers have a significant relationship and play a vital role in the inclusion of these children. It was recommended, amongst others, that the government and other relevant stakeholders should develop and implement training programmes to equip teachers with fundamentals of learning disabilities, best inclusive practices for successful inclusion of the pupils in basic education programme in the Metropolis.*

Keywords: *Inclusion, basic education, learning disabilities*

1 Introduction

Today, Nigeria sees education as one of the fundamental rights of every child irrespective of his/her mental or physical state, ability and disability. This in fact is the basic premise on which the Federal Government directives on the Universal Basic Education (UBE) programme as it relates to children with special needs are based. Government recognizes education as the most important instrument of change. This implies that every Nigerian child has to receive at least the relevant basic education that would make him contribute meaningfully to the process of change (Adeyemi, 2020). Education is thus seen as the bedrock for successful living. For children with visual impairment, however, the opportunity to be educated alongside their sighted counterparts in an inclusive classroom is not readily available due to a number of factors.

According to Okonkwo (2021), inclusion of children with learning disabilities in basic education programme has been a topic of increasing interest and importance in recent years. Teachers are at the forefront in the implementation of inclusive education. Thus, the socio-cognitive characteristics of teachers often take the centre stage in this implementation process. Socio-cognitive characteristics of teachers encompass a range of traits and behaviors shaped by social and cognitive factors, influencing their teaching practices and interactions with students (Ude, 2022). Socio-cognitive characteristics such as knowledge, perception and attitudes collectively contribute to teachers' effectiveness in promoting pupils learning, fostering positive relationships, and creating supportive and inclusive learning environments. Therefore, the success of inclusive education relies heavily on the knowledge, perception, and attitudes of teachers towards students with visual impairment. Understanding how teachers perceive and approach the inclusion of these learners is crucial for creating an inclusive and supportive learning environment. Thus, understanding the knowledge, perception, and attitudes of teachers towards the inclusion of children with learning disabilities is crucial in promoting inclusive education. Research has shown that teachers' knowledge about the disability and their attitudes towards inclusion play a significant role in the successful integration of children with learning disabilities into basic education (Nwosu, 2023). Teachers who have a better understanding of conceptual frame work of learning disabilities are more likely to provide appropriate accommodations and support for these students, leading to better academic and social outcomes (Okeke, 2022). Their knowledge and understanding of the specific needs and challenges faced by these pupils are essential in providing appropriate support. However, studies have shown that many teachers lack the necessary knowledge and skills to effectively include children with this special need conditions in their classrooms (Ibe, 2023).

Some common areas where teachers' knowledge might be lacking include understanding the various types, manifestation and impact of disabilities on learning and development, and the use of appropriate instructional strategies and assistive technologies. Furthermore, they may not be aware of the legal rights and responsibilities associated with inclusive education (Ude, 2022). Therefore, it is vital to assess teachers' knowledge base to identify gaps and develop appropriate training programs to improve their understanding of inclusive practices for children. Similarly, perceptions of teachers towards inclusion of pupils with learning disabilities can also impact the overall success of inclusive education. Perception refers to the way individuals interpret and make sense of their experiences and the world around them. Teachers' perceptions of inclusive education can significantly influence their implementation of inclusive practices in the classroom. Positive attitudes towards inclusion can lead to a more welcoming and supportive classroom environment, while negative attitudes can create barriers to the successful integration of children in classroom (Okafor, 2021). It is important for educators to recognize and address any biases or misconceptions they may have about learning disabilities in order to create an inclusive and equitable learning environment for all students.

Research has shown that some teachers hold negative perceptions towards the inclusion of children with disabilities (Onuoha, 2020). These negative perceptions may stem from a lack of confidence in their ability to meet the needs of these children or concern about the impact on the learning experiences of other learners in the classroom. Teachers may also be apprehensive about the additional workload and resources required to support children with learning disabilities effectively (Eze, 2024). However, it is important to note that not all teachers hold negative perceptions towards inclusion. Some teachers view inclusivity as an opportunity to enhance diversity and promote empathy amongst students. They recognize that inclusion can lead to positive social and emotional outcomes for all students, including those with other disabilities (Obi, 2024). Therefore, exploring and understanding these perceptions can provide insights into the barriers and facilitators of inclusion in the classroom.

Another key factor that impact the implementation of inclusive education for children with learning disabilities is attitudes. Attitudes refer to the emotions, opinions, and evaluations individuals hold towards a particular object, person, or concept. Attitudes can shape behaviors and actions, and they play a significant role in determining the success of inclusive education for children with learning disabilities in basic education. Studies have suggested that teacher's attitudes towards inclusive education are influenced by various factors, including their personal beliefs, experiences, and training. Some teachers may hold positive attitudes towards inclusion and be motivated to create a supportive and inclusive learning environment for all students. On the other hand, teachers with negative attitudes may exhibit resistance or reluctance in accepting and implementing inclusive practices (Adeyemi, 2020).

Teachers' attitudes are also influenced by the support they receive from their schools, colleagues, and parents. Lack of support from colleagues and administrative staff can negatively impact teachers' attitudes and their willingness to engage in inclusive practices. Therefore, understanding teachers' attitudes towards the inclusion of children with learning disabilities is critical in shaping future strategies and interventions to enhance the success of basic inclusive education.

The existing literature on the knowledge, perception, and attitudes of teachers towards the inclusion of children with this disability in the metropolis is limited. While some studies have explored the general attitudes and perceptions towards inclusive education in Nigeria, very few have focused specifically on the inclusion of children with learning disabilities. Thus, there is a need for research to understand the specific challenges and opportunities associated with the inclusion of students in regular schools. This is because inclusion of children with learning disabilities is a crucial aspect of creating equal opportunities for all students. Understanding the knowledge, perceptions, and attitudes of teachers towards inclusion is essential in identifying the barriers and facilitators to the successful implementation of inclusive education. By addressing the gaps in teachers' knowledge, promoting positive perceptions, and fostering inclusive attitudes, we can create a more inclusive and equitable education system for all students, including those with learning disabilities.

2 Statement of the problem

The launching of the UBE programme by the Federal Government of Nigeria in the 90s was meant to open access to basic education for all children including those with learning disabilities. The policy was aligned with global inclusive education policy which has been recognised globally as the most effective means of providing education for children with special needs.. However, studies have corroborated experiences and have shown that pupils with learning disabilities are seemingly not maximizing their potentials and benefits of inclusion due to some of the factors poor teachers' knowledge, perception and attitudes. Inadequate understanding of and misconceptions about the disability as well as negative attitudes towards pupils and inclusive basic education programme significantly hinder the success of basic education which primarily should increase access to education for all children. These barriers have deepened the gap in access and equity to basic education consequently deny them right to quality, contribution to national and global development. It has also increased psych-social problems associated with lack access to quality basic education for productivity life in adulthood just as been responsible for poor implementation of inclusive education in area.

3 Purpose of the study

The thrust of the study was to examine the knowledge, perception and attitudes of teachers toward the inclusion of pupils with learning disabilities in basic education programme in Calabar Metropolis, Cross River State Nigeria. Specifically, the aims are:

- i. To find out the relationship between teachers' knowledge and inclusion of pupils with learning disabilities in basic education programme.
- ii. To determine the relationship between teachers' perception and inclusion of pupils with learning disabilities in basic education programme.
- iii. To examine the relationship between teachers' attitudes and inclusion of pupils with learning disabilities in basic education programme.
- iv. To examine the joint contribution of teachers' knowledge, perception and attitudes to inclusion of pupils with learning disabilities in basic education programme.

4 Statement of hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance

1. There is no significant relationship between teachers' knowledge and inclusion of pupils with learning disabilities in basic education programme
2. There is no significant relationship between teachers' perception and inclusion of pupils with learning disabilities in basic education programme
3. There is no significant relationship between teachers' attitudes and inclusion of pupils with learning disabilities in basic education programme
4. There is no significant joint contribution of teachers' knowledge, perception and attitudes to inclusion of pupils with learning disabilities in basic education programme

5 Methodology

This study adopted the descriptive survey research design. This approach was considered most appropriate for this study because it focuses on the collection of factual information that describes an existing phenomenon. Survey researches focus on people, the vital facts about people and their beliefs, opinions, attitudes, motivations and behaviour. This research design is therefore very relevant here since this was a study on people's attitudes.

Population and sampling technique

The population for the study was all the primary schools’ teachers in Calabar Metropolis of Cross River State with an estimated number of about 111,290 in 2022/2023 school session (dokuo, 2022). The sample for the study comprised one hundred and fifty-one (151) male and female teachers sampled through multiple stages from two local government areas that make up Calabar Metropolis. Random sampling technique by balloting was used to select the 10 schools from each selected ward in the two local government areas. Simple random sampling was used to select at the least 5 teachers from each of the selected schools.

Instrument for data collection

A 25 item self- designed questionnaire titled Indices of Classroom Inclusion (ICI) was designed to measure teachers’ knowledge, perception and attitudes towards the inclusion pupils with learning disabilities in basic education programme. This instrument consisted of section A and B. Section A required the respondents to supply their demographic information while Section B consisted of 25 statements that required the respondents to rate their opinions across a 4- point scale from Strongly Agree to Strongly Disagree to allow for better understanding of the situation.

Validation of the instruments

The instrument was presented to two professionals in the Department of Special Education, submitted to Directorate of Research, University of Calabar and Quality Assurance of Ministry of Education for vetting and compliance to ethical issues and approved.

Reliability of the instruments

The Cronbach Alpha reliability method was used to establish the reliability of the instrument for this study. Indices of Classroom Inclusion (ICI) was administered to 10% of the sample sampled from schools that was not to be selected for the study in the same local government area. The instrument was administered and retrieved within two days. The responses were coded in SPSS and using Cronbach Alpha reliability method. The reliability estimates are presented in the table below:

Table 1: *Summary of the reliability estimates of SESS*

S/No	Variable	N	Cronbach's Alpha
1	Inclusion of children with learning disabilities	10	0.80
2	Teachers' knowledge	10	0.87
3	Teachers' perception	10	0.81
4	Teachers' attitudes	10	0.84

Procedure for Data Collection

The researcher trained and made use of 3 research assistants from the local government area. The purpose of the study was explained to respondents before they were invited to fill in the questionnaire. Out of the 170 questionnaires distributed, 151 usable responses were returned (88.8% response rate).

Method of Data Analysis

Descriptive statistics was used to analyse the demographic data in section A, while inferential statistics of Pearson Product Moment Correlation were used to determine the significant relationship while Multiple Regression Analysis (MRA) was used to determine the joint constitution.

6 Presentation of results

This study examined knowledge, perception and attitude of teachers towards inclusion pupils with learning disabilities in basic education programme in Calabar Metropolis Cross River State, Nigeria. The results are presented in a descriptive form using tables of frequencies and percentages, Pearson Product Moment Correlation (PPMC) and Multiple Regression Analysis.

6.1 Demographic data

Table 2: Distribution of the respondents by gender

Gender	Frequencies	Percentage
Male	54	35.8
Female	97	64.2
Total	151	100.0

Table 2 above shows that the male respondents are 54 (35.8%) while their female counterparts are 97 (64.2%). This implies that majority of the respondents were female.

6.2 Testing hypotheses

1. There is no significant relationship between teachers' knowledge and inclusion of children with learning disabilities in basic education programme
2. There is no significant relationship between teachers' perception and inclusion of children with learning disabilities in basic education programme
3. There is no significant relationship between teachers' attitudes and inclusion of children with learning disabilities in basic education programme

The three hypotheses, (1–3) were analyzed in a single model of the regression analysis and presented in a single table below:

Table 3: *Correlation between (teachers' knowledge, perception and attitude) and inclusion of pupils with learning disabilities in basic education programme Calabar Metropolis, Cross River State*

Variables	Mean	Std. Deviation	N	Df	R	P	Remark
Inclusion of children with visual impairment	10.94	2.705	151	3	-	-	-
Knowledge	10.98	3.42			.685*	.000	Sig.
Perception	9.72	3.32			.812*	.000	Sig.
Attitude	10.30	1.59			.255*	.000	Sig.

* Correlation Significant at 0.05 level

Table 3 revealed that there was significant relationship between the independent variables (Teachers' knowledge, perception and attitude) and inclusion of pupils with learning disabilities. That is acceptance of inclusive education programme has correlation with Knowledge ($r = 0.685$, $P < 0.05$), with Perception ($r = 0.812$, $P < 0.05$) and Attitude ($r = 0.255$, $P < 0.05$), since P was lesser than 0.05 level of significance, therefore, there was significant relationship between the independent variables (knowledge, perception, attitude) and acceptance of inclusive basic education programme in Calabar Metropolis of Cross River State.

Hypothesis 4: There is no significant joint contribution of teachers' knowledge, perception and attitudes to inclusion of pupils with learning disabilities in basic education programme.

Table 4: *Summary of regression analysis of the combined prediction of the independent variables and the dependent variable.*

R		R Square		Adjusted R Square		Std. Error of the Estimate	
0.859		0.738		0.737		1.386	
SUMMARY REGRESSION ANOVA							
	Sum of Square	Df	Mean Square	F	P	Remark	
Regression	5636.809	3	1878.936	977.486	.000	Sig.	
Residual	2001.023	1041	1.922				
Total	7637.832	1044					

Table 4 above showed that there was a significant joint contribution of the independent variables (knowledge, perception, attitudes) and acceptance of inclusive education in Calabar Metropolis, Nigeria. The table also shows a coefficient of multiple correlations (R) of 0.859 and a multiple R Square of 0.738. This means that 73.7% ($\text{Adj. } R^2 = 0.737$) of the variance in the acceptance of inclusive education is accounted by the independent variables, when taken together. The significance of the composite contribution was tested at $p < 0.05$ using the F -ratio at the degree of freedom ($df = 3/1041$). The table also shows that the analysis of variance for the regression yielded a F -ratio of 977.486 (sig. at 0.05 level).

7 Discussion of results

The findings in this study indicated that knowledge, perception and attitude correlate with inclusion of children with learning disabilities for basic education. In essence, it implies that the knowledge, perception and attitude of teachers predetermine the inclusion of learners with the disability in Nigeria. This supports the findings by Bunch & Valeo (2004) that indicated positive influence on the attitude of teachers towards inclusive programmes as it predicts the academic performance of students with special needs, who need support in their education. The present result however supports the outcome of the study by Ali, Mustapha & Jelas (2006) in a study of teacher's perceptions towards inclusive education where it was found that teachers have positive perception about the implementation of inclusive education, hence, it promotes how well children with learning disabilities are accommodated in basic education programme to promote access to learning. Furthermore, the present result supports the result by Berry, Berst, Jund, Overton, Rondina & Tate (2011) who reported that there is a correlation between years of teaching experience and views on inclusion of children with special needs. The present study therefore brings to the fore the need for teachers to change their negative attitude, and perception towards inclusive programmes of pupils with learning disabilities in Nigeria.

The findings in the present study corroborate the findings by Tumbo (2010), Kanpinga (2010) and Barners (2011) respectively. They both found out that positive perception towards persons with disabilities in an inclusive setting yields success on the part of the students. That is, the more teachers in an inclusive school see or perceive inclusion of persons with learning disabilities the more a good result is yielded from these students.

The study in Calabar Metropolis found that teachers' knowledge, perception, and attitudes all play a significant role in the inclusion of pupils with learning disabilities in basic education programme. Teachers who had a better understanding of learning disabilities had positive attitudes towards inclusion, and perceived themselves as capable of teaching children with learning disabilities were more likely to successfully include these pupils in their classrooms for the programme. This highlights the importance of teacher training and support in promoting inclusive education for children with learning disabilities. The findings in this study corroborate the opinion of Concordia, Forlin & Sharma (2007) that attitude of teachers towards inclusive education is being influenced through training and retaining. This means that no matter the attitude that could be put up by a teacher, inclusive education can be influenced when special trainings are put in place. The present study showed that knowledge of teachers, perception towards inclusion and that attitude of teachers jointly influence inclusion of pupils with learning disabilities. To strengthen attitude and perception, therefore, capacity building is necessary. However, the issue of

capacity building should not be limited to teachers but have to include other stakeholders to ensure the true practice of inclusion. Past research has also shown that teachers' knowledge, perception, and attitudes are important factors in the inclusion of children with learning disabilities in the basic education programme. However, the current study in the Metropolis adds to this body of literature by specifically examining the joint contribution of these factors. This provides a more nuanced understanding of the role that teachers play in inclusive education for pupils with learning disabilities. Attitude, perception and knowledge of teachers determine the extent to which children with learning disabilities were welcomed in the programme in the classroom. The present result shows that the three variables predetermined the inclusion of children with learning disabilities. This finding therefore negates the study conducted by Kilanowski-Press, Foote & Rinaldo (2020) which found out that attitude of teachers does not necessary determine the inclusion of persons with special needs in the regular classrooms. It can therefore be inferred that attitude, knowledge and perception of all and sundry predetermine the inclusion of pupils with disabilities in the regular classroom setting for uninterrupted learning. The findings of the study have important implications for policy and practice in inclusive education. By highlighting the joint contribution of teachers' knowledge, perception, and attitudes, this study emphasizes the need for targeted interventions to support teachers in including children with pupils with learning disabilities in basic education programme. This could include professional development opportunities, resources and materials, and ongoing support from school administrators and special education professionals.

While the findings of the study are valuable, it is important to acknowledge some limitations. The study was conducted in a specific region and may not be generalized to other contexts. Additionally, the study relied on self-report measures from teachers, which may introduce bias. Moving forward, future research could use more objective measures of teachers' knowledge, perception, and attitudes, and could explore the impact of other factors on the inclusion of children with learning disabilities.

8 Conclusion and Recommendations

In conclusion, the study has provided valuable insights into the joint contribution of teachers' knowledge, perception, and attitudes to the inclusion of children with learning disabilities in basic education programme in the classrooms. By comparing and contrasting these findings with past research, we can see the importance of teacher support and training in promoting inclusive basic education programme. It is therefore important to recommend among that Government should support teachers and other stakeholders in training and creating inclusive environments for all students especially those with learning disabilities to access basic education.

References

- Adeyemi, T. (2020). "Inclusive Education for Children with special needs in Nigeria: Challenges and Opportunities." *Journal of Special Education*, 45(2), 78–92.
- Ali, M. M., Mustapha, R. and Zelas, Z. M. 2006. An empirical study on teachers' perceptions towards inclusive education in Malaysia. *International Journal of Special Education*, 21(3).
- Berry, G.; Berst, T.; Jund, A; Overton, M.; and Rondina, A; Tate, M. (2011). *What are teachers' attitudes towards inclusion in the general education classroom?* Retrieved from <http://emurillo.org/classes/class2/documents/AttitudesInclusion.doc>
- Bunch, G., and Valeo, A. 2004. Student attitude towards peers with disabilities inclusion and special education schools. *Disability and Society*, 19(1): 61–75.
- Concordia, T. L., Forlin, C. and Sharma, U. (2007). An international comparison of pre-service teachers attitudes towards inclusive education. *Disability studies quarterly*, 27(4), 1–4.
- Eze, M. (2024). Collaboration between Regular and Special Education Teachers in Inclusive Education of Children with special needs in Nigeria. *Journal of Inclusive Education*, 32(2), 123–137.
- Ibe, G. (2023). Community Support for Children with Visual Impairment in Inclusive Education Programs in Nigeria. *Journal of Community Psychology*, 28(2), 156–170.
- Kilanowski-Press, L., Foote, C. J. & Rinaldo, V. J. (2020). Inclusion classrooms and teachers: A survey of current practices. *International Journal of Special Education*, 25(3), 43–57.
- Nwosu, A. (2023). "Assistive Technology for Children with disabilities in Inclusive Education Settings in Nigeria. *Journal of Assistive Technology*, 15(3), 210–225.
- Obi, J. (2024). "Empowering Parents of Children with special needs for Inclusive Education Advocacy in Nigeria. *Journal of Family Studies*, (4) 345–359.
- Okafor, D. (2021). Social Inclusion of Children with learning disabilities in Nigerian Schools: A Case Study. *International Journal of Disability, Development and Education*, 35(1), 45–58.
- Okeke, U. (2022). Teacher Perception of Inclusive Education of Children with Visual Impairment in Nigerian Schools. *Journal of Visual Impairment & Blindness*, 40(1), 56–68.
- Okonkwo, C. (2021). Parental Involvement in the Education of exceptional Children in Nigeria. *International Journal of Inclusive Education*, 30(4), 345–359.
- Onuoha, B. (2020). Inclusive Curriculum Adaptation for Children with disabilities in Nigerian Schools. *Journal of Curriculum Studies*, 25(4), 289–302.
- Tumbo, J. (2010). Teachers' Attitudes and Support towards Teaching Pupils with Intellectual Impairment in Tanzania School, unpublished M.A (ED) dissertation. University of Dar-es-Salaam.
- Ude, F. (2022). Policy Implementation for Inclusive Education of Children with Visual Impairment in Nigeria: A Critical Analysis. *Journal of Educational Policy*, 18(3), 201–215.

(reviewed twice)

Udo Idorenjin Paulinus, Nene Amos William, Ojie C. Fredluckson
College of postgraduate studies,
University of Calabar,
Nigeria

Foreign language learning as a key to self-determination: a multiple case study of school-age persian-speaking students on autism spectrum disorder

(case study)

Neda Khodaverdi, Hassan Ashayeri, Parviz Maftoon

Abstract: Making individuals ready for future adult life is the basic premise of education. Self-determination can help individuals with disabilities to be ready to make choices. Learning a language other than one's first language can promote self-determination by providing more job opportunities. This qualitative case study focuses on teaching English as a foreign language through behavioral and cognitive interventions to two verbal Iranian Persian-speaking school-age children with autism. Sam was taught based on behavioral intervention and Mani based on cognitive intervention techniques. 239 language items including 120 tacting, 93 writing, 13 language functions, and 13 spelling items were taught during 24 sessions. The results show that cognitive intervention with a 2.9% difference is more effective. A model is proposed as a result of this study. The insights from the present study pose practical implications for the theory and pedagogy of teaching a foreign language to individuals with autism.

Keywords: autism spectrum disorder, behavioral intervention, cognitive intervention, foreign language learning, self-determination

1 Introduction

Our understanding of disability has altered significantly since the late 19th century. Disability used to be seen as “menaces to society, threats to racial hygiene, and links to crime, poverty, promiscuity, and the decline of civilization.” (Wehmeyer, 2014, p. 5) Wehmeyer (2014) discusses the three disability movements of the professional, parent, and self-advocacy eras during which the definition of disability, as well as, people's and professionals' perspectives towards the concept of disability have changed. It has taken decades to move from the ideas of institutionalization and even deinstitutionalization to self-determination, empowerment and disability rights. In our

recent understanding of disability within the third wave of the disability movement, individuals with disabilities started to claim their voice (Wehmeyer, 2014). Thinking about Hegel's triad of thesis, antithesis, and synthesis, mentioned by Vandenberg (1992), one can picture the similarities of Wehmeyer's (2014) three movements and Hegel's triad. The anomalies of the concept of disability began to show up during the second movement wave -parents' era- which is in line with Hegel's idea of antithesis. Kuhn (1962) discusses that a crisis can cause the stereotypes to loosen up and this can cause a paradigm shift to occur. Regarding the disability concept, stereotypes have been loosening up and our 21st-century understanding of disability has changed. Foreign language teachers can play a life-altering role within this current period of self-advocacy.

Autism Spectrum Disorder (ASD) with the prevalence of 1 in 36 (Centre for Disease Control and Prevention, 2019) has been defined as a disability with signs of social communication impairments and restricted, repetitive patterns of behavior by the American Psychiatric Association (2013) in DSM-5. As it is to be shown in this article, language intervention can have a crucial role in alleviating the effects of the social impairments of individuals with ASD via promoting self-determination and choice-making, both of which are recommended practices (Agran & Hughes, 2014). Learning a language other than one's first language can also create future job opportunities. Furthermore, disability can be seen as both the cause and the consequence of poverty due to their overlap (Blanchett, 2008; Emerson, 2007). In a country like Iran, as well as, in many other non-English speaking countries where knowing English is a privilege concerning job opportunities, individuals with ASD should also have the choice of learning it.

Of the two unique characteristics of human beings -tool-making and language skills- the latter plays an instrumental role in communication as Balconi (2010) states. Delving into the ASD literature, one realizes that the number of studies on first language acquisition of individuals with ASD outweighs the ones on second/foreign language learning. Although there are studies on disability and second language learning (Alemi & Bahramipour, 2019; Alemi, Meghdari, Mahboub Basiri & Taheri, 2015; Kleinert, Klyde, Rego & Gibson, 2007; Sparks, 2016), as well as, studies on ASD and second language learning (Iarocci, Hutchison & O'Toole, 2017; AUTHOR; Oda, 2010; Padmadevi & Artini, 2017; Velisek-Brasko, 2014; Wire, 2005; Yahya, Yunus & Toran, 2013) none of them compares the effectiveness of behavioral and cognitive language interventions concerning the seven skill types of motor imitation, echoic, manding, tacting, writing, role-playing, and spelling. A recent study in the Czech Republic aims at exploring foreign language learning experience of individuals with autism (Zerzova, 2025), but it has not focused on practical aspects of teaching. The current study attempts to investigate the capability of Persian-speaking school-age children with ASD to learn English as a foreign language through practical classroom

teaching and the effectiveness of the behavioral and cognitive intervention in teaching English to them.

Verbal Behavior Analysis (VBA), which is rooted in behaviorism, is based on Applied Behavior Analysis (ABA), and it also expands to include Skinner's ideas (Barbera & Rasmussen, 2007). As Reichow and Volkmar (2010) state, ABA interventions receive much support from researchers. Prompting and reinforcement are the most common features of ABA which are being used in interventions (Schertz & Odom, 2007). Barbera and Rasmussen (2007) categorize language skills into expressive and receptive skills. The former includes tacting, echoic, intraverbal, and manding skills and the latter includes two major categories of imitation and visual performance skills. The imitation skill by itself consists of motor-imitation skills and object-imitation skills.

Contrary to behaviorism, learning is not seen as a process of habit formation in cognitivism. Communicative Language Teaching (CLT) which "in reality consists of a family of approaches" (Nunan, 2004, p. 7) with Task-Based Language Teaching (TBLT) as a way of translating its principles into practice (Vilches, 2003) was used in this study as the cognitive intervention. TBLT, as Nunan (2004) emphasizes, empowers need-based approaches, learning through interaction, learning processes, enhancement of the learner's personal experiences as a contributing factor to learning, and the link between learning and using the learned items outside the classroom. The present study suggests behavioral and cognitive language interventions to teach English as a foreign language to children with ASD.

The current study presents the results of the second phase of a longitudinal six-month study by referring to the results of the first phase as well. The original study was conducted in two phases. The focus of the first phase was motor imitation, echoic, tacting, and manding skills. In the second phase the focus shifted to alphabet teaching, letter and word writing, and language function learning in addition to the first phase's skills. To get the bigger picture, the author summarizes the first phase's results and processes.

2 Method

2.1 Setting

All the sessions were held on two specific weekdays at a regular time at a private language institute. Each teaching session lasted 45 minutes. The days and the time of the class were kept unchanged all through the study. Every aspect of the physical atmosphere of the classroom such as its furniture, props, teaching materials, and even the snacks were considered meticulously to lower the probability of the learner's distraction. A camcorder was fixed on a tripod, and a voice recorder was

placed on a chair close to the teaching table. Since the floor of the classroom was parqueted in dark brown, a wooden table and two easily-portable stools with the same color were made specifically for the course to decrease distraction. A cotton bag and a colorful bucket were used to keep the teaching papers and props inside, out of the learner's sight. A photo of the teacher was sent to the learners some weeks before the course began to help them become familiar with her in advance.

2.2 Participants

Yin (2003) emphasizes that multiple case studies, even with two participants, are preferable over single case studies; therefore, two verbal Persian-speaking boys with ASD were invited to participate. As Yin (2014) argues, the term purposive sampling can be misleading as it may make the false impression that cases come from a population of a very similar nature, which in case of individuals with ASD, is impossible. Therefore, the use of this term is avoided here.

Sam is a ten-year-old boy who received his autism diagnosis when he was three and Mani is a nine-year-old boy who got his diagnosis when he was 18 months. Both participants were born in Persian-speaking families and none had received any formal English instruction before. The usage of the participants' real name is avoided.

2.3 Instruments

The first questionnaire is a researcher-made one, which includes various sections of biography, history, medical assessment, limitations and disabilities, the amount of social interaction with family members, friends, and school teachers, the onset of autism symptoms, previous rehabilitation courses, favorite snacks, games, and toys, in addition to other specific issues that their mothers felt the need to explain more about.

A researcher-made first language assessment tool which was inspired by the book entitled *The Verbal Behavior Approach: How to Teach Children with Autism and Related Disorders* by Barbera and Rasmussen (2007) was used to assess the participant's expressive and receptive language skills capability. The former includes tacting, echoic, intraverbal, and manding skills and the latter includes the two major categories of imitation and visual performance skills. Imitation skills consist of motor-imitation and object-imitation skills. Visual performance skills include the four subcategories of matching to identical samples, sorting, completing puzzles, and designing with LEGOs. This instrument was used once before the first session of the course to assess the cases' first language and once after the course to assess participants' progress in both Persian and English.

A consent form was signed by learners' parents before the commencement of the course. They were informed that they could quit the study in case of experiencing any problem concerning their child's first language progress.

2.4 Research design

A case study is used to gain holistic and meaningful characteristics of a real-life event (Yin, 2003). The present one is a qualitative, embedded multiple case study since two learners participated in it. As Yin (2014) states these case studies are preferred over single-case studies because it increases the chances of carrying out a representative case study.

3 Procedure

The researcher developed dynamic short-term and long-term protocols, incorporating a holistic view of lesson plans. Since the main aim of this study was conducting a course as typical as possible compared to an everyday language course, both expressive and receptive language skills were considered. Motor imitation or following the language commands, echoic or repetition, tacting or labelling, manding or asking, as well as, writing and spelling were taken into consideration while writing the protocol.

Color-coding was implemented to ensure the clear differentiation of each participant's documents. For each session, two lesson plans were developed- one utilizing VBA for Sam's class and another employing TBLT for Mani's class. Having watched each session's recording, the researcher wrote a memo card. All teaching materials were prepared session by session based on the researcher's reflection on the previous session.

The assessment was conducted in two ways. Every session all the language items which were taught during the previous session were assessed. Two comprehensive end-of-the-phase assessments were also administered. One after three months or the end of the first phase, and the other one after six months by the end of the second phase. For every single language item, which was taught, three successful consecutive sessions were considered as the criteria to count it as learned. If the learner had inconsistency in remembering any language item, the process of teaching that item and the three follow-up assessment sessions were repeated. The two categories of learned and unlearned were considered for every language item. A tick mark stood for learned and a cross for unlearned. Every three consecutive sessions were tallied by a highlighter in the assessment forms. All the assessment data has been archived for future reference.

Before starting the course, one session was arranged for assessing the participant's first language regarding all the receptive and expressive skills. To this end, a researcher-made assessment inspired by Barbera and Rasmussen's (2007) book, which was written originally for teaching a first language to individuals with ASD, was used.

The sessions were held individually. Participants attended 14 teaching sessions during the first phase and 24 teaching sessions during the second phase, as well as one comprehensive assessment during session 15 and another one in sessions 40 and 41. The first language assessment was replicated after nearly a year.

Sam was taught based on full prompting, partial prompting, and no prompting. M&Ms and jellybeans were used for strengthening the desired behavior, but since he received too many snacks per session, the reinforcement was substituted with beads of various colors of a wooden abacus after three sessions. Sam received one bead for every correct answer. He received a red bead for every ten correct answers.

In contrast, TBLT in the context of CLT was used to teach Mani. Each language item was introduced through labelling its picture. Then the teacher-made flashcards were laid on the table, and Mani was asked to point to the ones which were referred to by the teacher. Afterward, the teacher stuck all the cards on the board. Mani was asked to run to the board and touch the ones that the teacher referred to and come back quickly or slowly. Various other tasks were used in Mani's class.

4 Results

The main research questions which had inspired the research team to undertake this qualitative case study were: Are Iranian Persian-speaking school-aged students with ASD able to learn English as a foreign language? And if yes, which type of language intervention is more effective?

The results reveal that the answer to the first question is yes. Evidence exists which indicates that the process which had been happening in the learner's mind was learning and not just mechanical repetition. The data accumulated from different sources including recorded videos and audios, the teacher's reflection, formative and summative assessments, and learners' mothers' weekly and sometimes session by session reports show a convergence of the result. The results of the first phase show that among 103 language items including 23 motor imitation, 22 echoic, 50 tacting, and 8 manding items Sam had 9 and Mani no instances of failure (AUTHOR). Motor imitation, echoic, tacting, and manding skills were introduced during the first phase on the first, second, fourth, and sixth week, respectively. Writing skills, role-playing/manding skills, and spelling skills were introduced during the second phase on the tenth, eleventh, and eighteenth week, respectively. The results are presented in three sections of first language assessment, formative, and summative assessments. The formative assessments include the results of all the session by session assessments and the summative ones present the assessment results which were carried out after three months -the end of the first phase-, after six months- the end of the second phase-, and after nearly a year.

4.1 First language assessment

The first language assessment was carried out in Persian during the first session of the course in six main categories and their related subcategories. In the tacting or labelling section, the teacher showed some flashcards and 3-dimensional objects to the learners to label. In the echoic part, the learners were asked to repeat after the teacher while looking at some other new flashcards. Both learners labelled and repeated all the items successfully.

For the intraverbal or fill in the blank part, the learners were asked to complete four sentences in Persian which start with their names. Their answers can be seen in parentheses in Table 1. Sam's answers are typical; however, Mani completed the first sentence with a bit odd ending. Sentence three shows that he had problems with Persian suffixes which must agree with the subject. As it can be seen, when there is no need for any suffix, as in sentence four, he successfully filled in the blank.

In order to check whether learners can mand or not, the teacher showed a red box of M&Ms to them, and while she was shaking it, she motivated them to ask for some M&Ms. The same procedure was followed with a bottle of water and a big green bucket with a red ball inside. The results can be found in Table 2. It can be recognized from Sam's sentences that he had problems with the correct usage of verbs. Sam used the verb "دادن" (to give) instead of "گرفتن" (to take), and he used the prefabricated pattern of "آیا می‌توانم ...؟" (Do you let me ...?) for every request that he wanted to make.

It can be concluded that Mani had serious problems with manding or asking for things. He was not able to use a complete sentence to ask for the bottle of water. He even did not have any cliché way of asking for things. He, desperately, was using wrong verbs, too.

Table 1: *Fill in the blanks or intraverbal skill in Persian*

English translation	Original Persian sentences
Sam	
Sam ... in his bed. (slept)	سام توی تختش ... (خوابید)
Sam ... an ice-cream. (ate)	سام بستنی را ... (خورد)
Sam eats his food with... (a spoon)	سام با ... غذا می خورد. (قاشق)
Sam plays with... (a ball)	سام با ... بازی می کند. (توپ)
Mani	
Mani ... in his bed. (looked)	مانی توی تختش ... (نگاه کرد)
Mani ... an ice-cream. (ate)	مانی بستنی را ... (خورد)
Mani eats his food with... (my mom)	مانی با ... غذا می خورد. (مامانم)
Mani plays with... (Amirali -a Persian name)	مانی با ... بازی می کند. (امیر علی)

Concerning the receptive language skills, the assessment started with object imitation skills. The teacher tapped the pencil on the table and instructed the learners in Persian to do so. The teacher threw the ball and asked them to do so. For assessing motor imitation skills, the teacher stood up and jumped, clapped her hands and snapped her fingers and instructed the learner with the simple sentence of “Do it please.” For visual performance skills, four activities of matching, sorting, completing a puzzle, and designing with LEGOs were considered. Both participants did all of them successfully.

Table 2: *Manding in Persian*

English translation	Original Persian sentences
Sam	
A bean, M&M, Do you let me eat an M&M?	لوبیا، اسمارتیز، اجازه می دی اسمارتیز بخورم؟
Madam, do you let me give water?	خانم اجازه می دی آب بدم؟
Do you let me give the ball?	اجازه می دی توپ رو بدم؟
Mani	
In summer I have to eat. I have to eat a brown M&M. I have to eat a blue M&M.	تابستون باید بخورم. اسمارتیز قهوه ای باید بخورم. باید اسمارتیز آبی بخورم.
I have to shoot it. No No No ... I have to keep it.	باید شوت کنم. نه نه نه ... باید نگهش دارم.

All in all, Sam was successful in all the skills except for manding to some degree and the usage of correct lexical items. Mani showed no serious problem in the above-mentioned skills except in filling in the blanks and manding. Hence, the researcher decided to start the course with receptive skills, and postponed the productive ones to the sessions when the learners feel ready for production.

4.2 Formative assessments

The second phase of this study started with teaching English alphabets and related vocabularies. 120 language items were taught via tacting skills. As Figures 1, 2 and 3 show, Sam has nine instances of failure; however, Mani has three. Sam spent four sessions learning boy, carrot, cap, cow, the name of letter D, kitten, mango, and paper and five sessions for learning the word vase. Mani spent four sessions learning ball, frog, and goat. Both learners spent three successive sessions for the rest of the items.

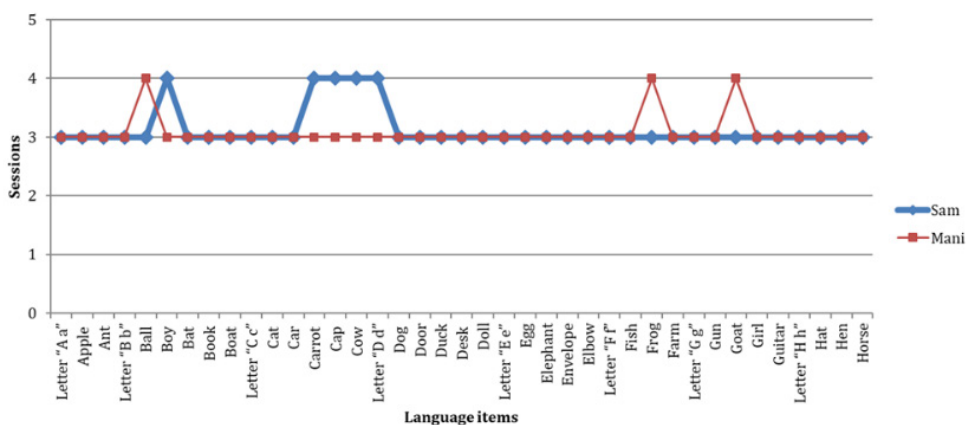


Figure 1: Tacting skill progress, phase 2

As Figures 4 and 5 show, 93 language items including numbers from 1 to 28, all English letters, the teacher's name, both learners' names, and 13 lexical items were taught as the writing skill. Sam had six instances of failure. He spent four sessions learning how to write uppercase I, lowercase l, lowercase q, and the word doll.

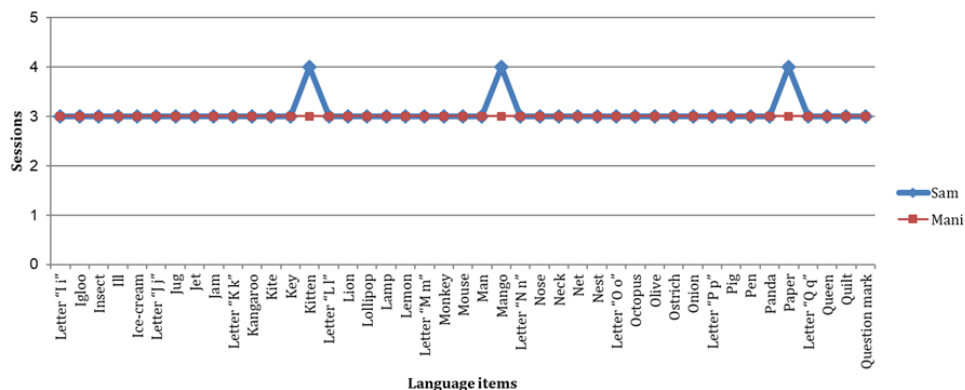


Figure 2: Tacting skill progress, phase 2

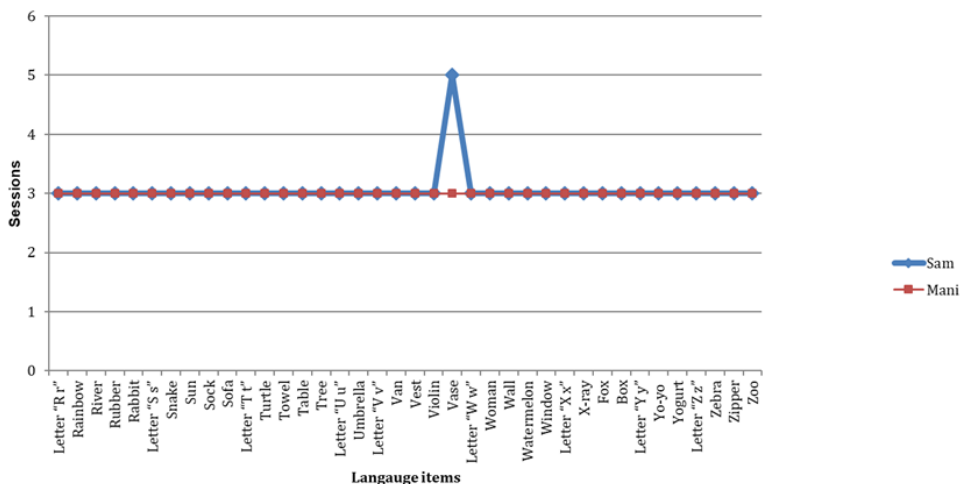


Figure 3: Tacting skill progress, phase 2

Sam, also, spent five sessions learning how to write lowercase b. He had and developed strong resistance to learning the spelling and writing of Mani's real name; consequently, he Refused to write it. This was the only instance of language items that Sam did not learn at all. Mani had seven instances of failure. He spent four sessions learning how to write lowercase g, number 9, upper case M, lowercase m, lowercase p, and lowercase q, and he spent six sessions on lowercase b.

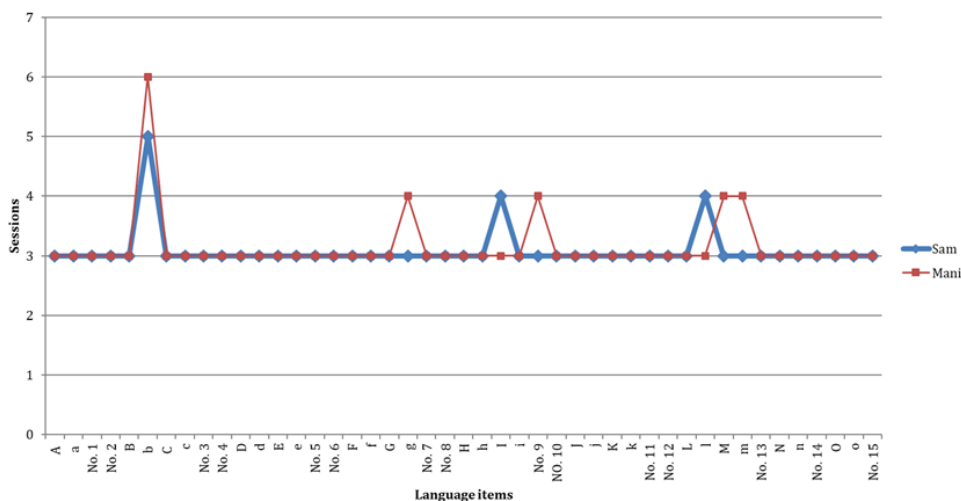


Figure 4: Writing skill progress, phase 2

It should be noted that alphabet teaching started during the 10th week. Letter writing was run parallel.

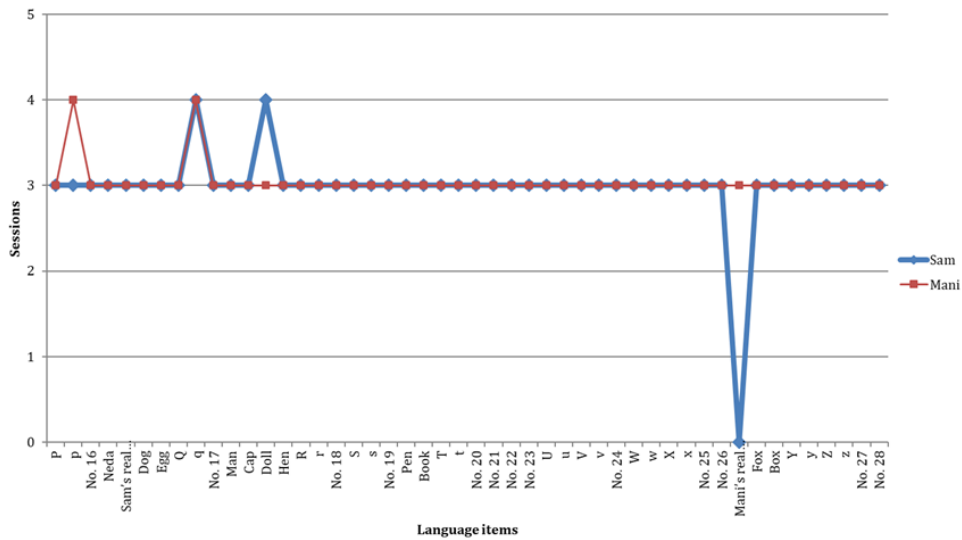


Figure 5: Writing skill progress, phase 2

Role-playing activities focused on language functions were integrated into the lesson plans in week 11. Language functions can be considered as manding skills since most of the time the person who is involved in a dialogue will ask for something then he/she receives an answer. Table 3 shows the functions. As Figure 6 illustrates, both learners had only one case of failure, and that was about the usage of the article an in asking the question is it an ...? They both spent four sessions learning that.

Spelling skills were introduced in the 18th week of the course. It was run parallel with writing the thirteen words which were the teacher's name, learners' names, dog, egg, man, cap, doll, hen, pen, book, fox, and box. Sam, as Figure 7 shows, had just one instance of failure which was the word book for which he needed four sessions to be able to spell it correctly. Besides, he did not spell *Mani's real name*. Neither did he write it. On the contrary, Mani was 100 percent successful regarding this skill as Figure 7 shows.

Table 3: *Language functions*

No.	Language Functions
1	A: Hello. What's your name? B: Hello. I'm ... A: Goodbye. B: Goodbye.
2	A: Hello. What's your name? B: Hello. I'm ... A: Nice to meet you. B: Nice to meet you. A: Goodbye. B: Goodbye.
3	A: How are you? B: Fine, thank you. And you? A: Fine, thank you.
4	A: What's your first name? B: ... A: What's your last name? B: ...
5	A: Where are you from? B: I'm from Tehran.
6	A: What's your address? B: 18, Jordan Street. A: What's your telephone number? B: 88 78 98 12

No.	Language Functions
7	A: How old are you? B: I'm ten years old.
8	A: Is it a ...? B: Yes, it is.
9	A: Is it a ...? B: No, it isn't.
10	Is it a ...?
11	Is it an ...?
12	How do you spell ...?
13	Please write ...

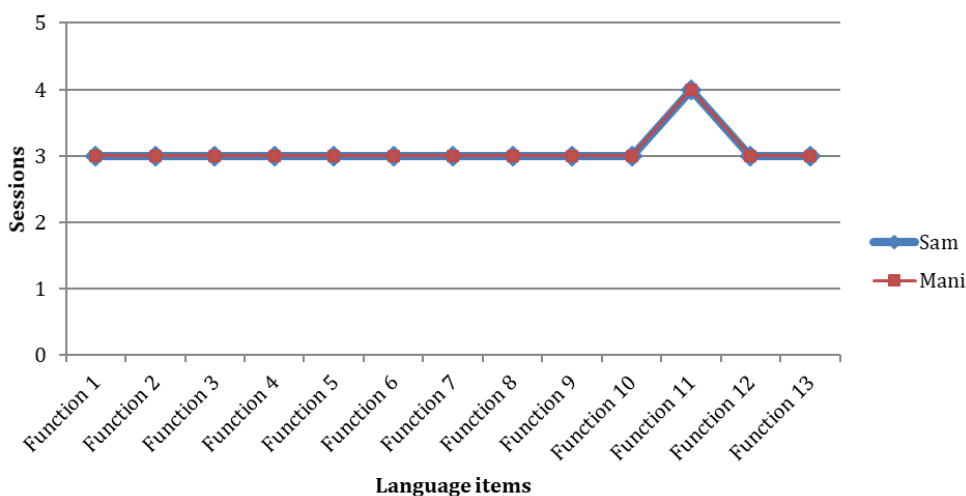


Figure 6: Manding skill progress, phase 2

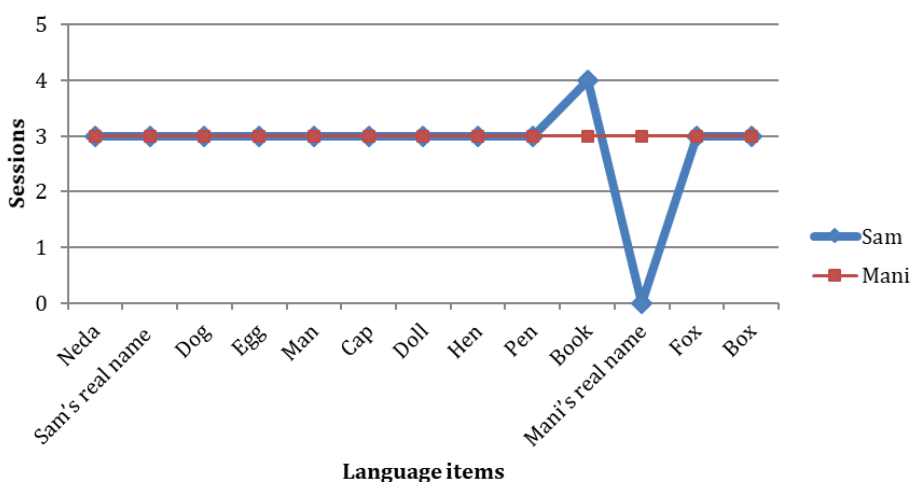


Figure 7: Spelling skill progress, phase 2

It is notable that Sam was not able to write doll, but he successfully spelled it as it can be seen in Figure 7. On the other hand, he had problems with spelling the word book although he faced no problems with its writing. Regarding *Mani's real name*, Sam faced 100 percent failure in both spelling and writing it. The final results show that Sam had 18 instances of failure out of 239 language items which is 5.4 % of all.

He had 9 tacting failures out of 120, 6 writing failures out of 93, 1 role-playing or manding failure out of 13 and 2 spelling failures out of 13 items. Mani had 3, 7, 1 and 0 instances of failure, respectively, which all in all is 11 out of 239 or 4.6% of all language items.

All through the two phases of the study, 342 language items were taught based on different skill types. During the first phase, 23 motor imitation language items, 22 echoic items, 50 tacting, and 8 manding items were taught (AUTHOR). During the second phase, which lasted three months, 120 tacting items, 93 writing items, 13 language functions, and 13 spelling items were taught as Table 4 shows. Sam had only 9 instances of failure and Mani no cases of failure during the first three months of the course (AUTHOR). Concerning the second phase, Sam's cases of failure surged from 9 to 18 and Mani's from 0 to 11. All in all, Sam had 27 instances of failure, and Mani had 11 considering both phases.

Table 4: *Instances of failure*

Skill type	Number of language items	Instances of failure	
		Sam	Mani
Tacting	120	9	3
Writing	93	6	7
Manding	13	1	1
Spelling	13	2	0
Total	239	18	11

Based on the general numeral findings of the study, it can be concluded that cognitive intervention is more successful since among all the 342 language items which were taught in various skill types of motor imitation, echoic, tacting, role-playing, writing, and spelling, Sam had 27 instances of failure which is 7.8% of all; on the other hand, Mani had only 11 instances of failure which is 3.2% of all. Therefore, it can be concluded that cognitive intervention with about 4% fewer instances of failure appeared more successful than behavioral intervention. It should be noted that this finding can be influenced by many other environmental factors including the therapy sessions, art courses, school activities, parent's guidelines and activities at home, etc. which are all unavoidable while having human beings as participants of a study since a human being cannot be placed in an experimental condition for learning.

From a language teacher's perspective, instances of failure in both cases are rare. Both learners, eventually, learned the language items. As mentioned, Sam had 27 and Mani 11 instances of failure which does not mean that they had not learned these items. It, however, means that they needed more sessions to learn some of the items. From this viewpoint, it can be concluded that both cognitive and behavioral

interventions are highly effective for teaching English as a foreign language to children with ASD.

Based on the findings of the current study and the researcher's intuition as the teacher of this study, the research team concluded that for presenting the new objectives of every session, it is better to start with behavioral intervention techniques but for the practice and production parts of the session cognitive interventions yield better results. At the same time the method of presenting the lessons, which should be item by item and in a piecemeal fashion, is more important than the type of intervention. Accordingly, the following model has been proposed.

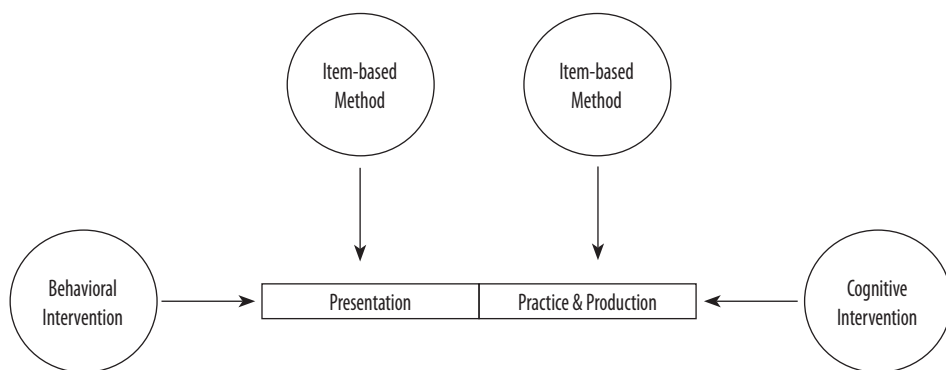


Figure 8: A model for teaching English as a foreign language to individuals with ASD

4.3 Summative assessments

4.3.1 First summative assessment – After 3 months

The results of the first summative assessment reveal that among 23 motor imitation, 22 echoic, 50 tacting, and 8 manding language items, the only language item that Sam was not able to recall was the word finger. However, Mani successfully remembered all items (AUTHOR).

4.3.2 Second summative assessment – After 6 months

The second summative assessment was conducted after a six-month exposure to English at the end of phase two. Because of high numbers of language items, this assessment was run in two consecutive sessions. In the first session, the first nine letters of the alphabet, their sounds, all their related words, all the thirteen language functions, as well as all the twenty-three commands, were assessed. In the second session, letters from J to Z, their sounds, and their written format, as well as their related vocabularies, were assessed. Sam and Mani both recalled all the language items, except for the words envelope and pig; Mani failed to remember them. They were able

to write all the English letters, and role play all the 13 language functions, regardless of who the initiator was. They also recalled all the commands from phase one.

4.3.3 Peer assessment – After 6 months

Both participants attended this session together. Sam started to assess Mani the way that the teacher used to do. The teacher had the role of an assistant while they were assessing each other. Both learners were successful in using classroom language. They were speaking English together. Concerning the language functions, except for their first trial which was a failure, because they began echoing each other instead of reacting to one another, the rest of their conversations were successful. When Mani made a mistake, Sam sang the “no no no” song for him -the song that the teacher sang for them when they made a mistake. They were interacting in English- an instance of socialization that might never occur in their first language. As another activity, which was also performed successfully by both, the teacher asked Sam to write the capital letters and Mani to write the small letters on the board. Then, they were asked to provide the teacher with one oral example for each. Mani wrote “d” instead of “b;” consequently, Sam corrected him by saying “No.” Peer correction was happening in that session. At the end of this activity, Sam looked at Mani and said, “Give me a high-five.” As these instances show, natural interaction occurred between them in English. Hence, it can be concluded that Persian-speaking school-age children with ASD are capable of learning English as a foreign language.

4.3.4 Third summative assessment – After 1 year

The third assessment was run nearly a year after participants finished their course. Although this session was the replication of the first language assessment administered before the course, using English as the medium of interaction instead of Persian during this session, can be considered as strong evidence that both learners can understand and communicate in English. The first obvious piece of evidence was the natural English greeting of learners with their teacher, and the second one was the natural English interaction that occurred between the teacher and each learner. Four letters of the alphabet were chosen randomly for the labelling step. Both learners remembered the letters, as well as their related words. With regard to fill-in-blanks or intraverbal skills, English sentences as well as Persian sentences, were chosen for which both learners gave correct answers. With respect to manding skill, in which Sam and Mani faced problems in the Persian pre-test, it can be said that they both successfully manded for the M&Ms and the ball in English. Sam manded for the ball by saying, “Let’s have ball,” “Please ball,” and “Give me the ball.” He asked for M&Ms by saying, “Please give it to me” and “Please give me chocolate.” After having some M&Ms, he said, “These are chocolates. They are green, red, yellow, and blue.” Mani manded for the ball by saying, “Do you have ball?” “Give to me ball,”

and “Give me the ball.” When the teacher showed him the M&M’s box, Mani said, “Give it to me.”

The language functions, as well as the spelling of some words, were also assessed in this session. Both participants were successful.

The results of this assessment session which had been held after nearly a year have been compatible with the previous results. Hence, this convergence of results can lead the research team again to this conclusion that Persian-speaking school-age children with ASD are capable of learning English as a foreign language.

5 Discussion

The current research aimed to address the gap identified in the literature regarding teaching English as a foreign language to school-aged children who are on the autism spectrum by making use of behavioral and cognitive approaches of teaching, and scrutinizing the issue by first investigating whether foreign language learning happens in them or not. Second, if learning happens, it is to what extent? Third, this study extended the research pertaining to a comparison of the behavioral approach and the cognitive approach in teaching a foreign language to these learners.

The findings of the research show that individuals with ASD have the capability of learning English as a foreign language (Alemi, Meghdari, Mahboub Basiri, & Taheri, 2015; Bogdashina, 2004; AUTHOR, Padmadevi & Artini, 2017, Yahya, Yunus, & Toran, 2013). Exposure to a new language other than the mother tongue did not impede participants’ first language improvement; on the contrary, it pushed them to communicate with the teacher, other staff members of the language institute, as well as each other in both Persian and English. A study by Iarocci, Hutchison, and O’Toole (2017, p. 1818) confirms this finding by concluding that “second language exposure in children with ASD is not associated with the delay in cognitive and functional communication skills.” What can promote the idea of communicating with others is providing other peers and other staff members with disability-related information. As Carter, Bottema-Beutel, and Brock (2014) discuss this can lead to new and sustainable relationships.

To sum up, it can be said that both behavioral and cognitive techniques proved to be successful. As Creswell (2007, p. 154) discusses, when a researcher engages with a qualitative study, he/she starts to interpret the findings. This interpretation can be based on “hunches, insights, and intuition.” During the process of interpretation, “researchers step back and form larger meanings of what is going on in the situations or sites.” (Creswell, 2007, p. 154) For researchers, “these interpretations are seen as tentative, inconclusive, and questioning.” (Creswell, 2007, p. 154) Based on the researcher’s intuition and the findings of this study, a teacher who is willing to teach English to children with ASD can start an English course with behavioral

techniques, remove the reinforcements step by step, and insert tasks little by little to the short-term and long-term lesson plans. This approach can be followed every session or it can be pursued during the whole course. The whole curriculum of the course is not a one-size-fits-all; as a result, it should be tailored for each individual very patiently based on the procedural generation of the lesson plans which emphasizes the effects of feedback from various aspects of the course including the learner, teacher, materials, and physical environment.

6 Conclusion

Item-based language teaching stands at the heart of English teaching to verbal learners with ASD. This approach can follow VBA or TBLT. Early linguistic development in typically developing children, as Tomasello (2000, p. 156) states, is “organized around concrete and particular words and phrases, not around any system-wide syntactic categories or schemas.” ASD children need to be triggered linguistically in a piecemeal fashion as they need more time for learning items of the new language.

The real-life implication of this study is that individuals with ASD should be given the life-altering opportunity of learning a language other than their mother tongue. The basic premise of research in the realm of English language teaching is helping all individuals learn a second/foreign language; hence, preparing them for future life which goes hand in hand with participating in society and having a job. Employment is a critical aspect of every individual's life and it should be the outcome of the educational process even when students are still educating at schools (Callahan, Butterworth, Boone, Condon, & Luecking, 2014) so that they can have a successful transition to adult life. Knowing English in non-English speaking countries can be a great help, accordingly.

At the same time, learning a language other than the first language can help the promotion of self-determination and choice-making in individuals with ASD. To discover preferences and desires, self-determination which can meet the need of their autonomy is considered as the key to adult life for individuals with disabilities (Agran & Hughes, 2014). Learning a second/foreign language can promote self-determination by providing individuals with disabilities with a means to have more choices for their future adult life. The more individuals become self-determined and self-regulated, the more the idea of relatedness which “addresses feelings of connection and closeness to significant others” (Agran & Hughes, 2014, p. 91) will be promoted.

Half-way through the research, Sam and Mani began greeting each other in English and since that day they greeted the institute's staff members, and other teachers in English. This has been one of the most significant achievement of this study since it demonstrates with even limited exposure to a new language, the cases

developed enough self-confidence or gained the necessary tool to communicate with others through their new identity. Although the participants in this study were too young to express this, some of the participants in another study conducted by Zerzova (2025) clearly talked about how learning a foreign language helped them to have higher self-confidence and lower shyness while conversing in public or with a foreigner.

Although future research is needed to explore the learning path of a new language by individuals with autism, the following concluding principles can help future teachers practically:

- itemizing the language,
- looking at a learner as a whole with all of his/her specificities,
- considering the learner's pace of learning,
- keeping track of the student's learning process item by item,
- keeping the lesson plans dynamic,
- being ready to make sudden changes to the long-term or short-term schedule of the course,
- not forcing a learner to learn the language items that he/she is not comfortable with; especially at the beginning of the course,
- making the learner aware of any upcoming changes of the procedure or even the physical place of things in advance,
- tailoring the material for the learner and not using the colorful and attractive books available in the market especially during the first year of teaching a foreign/second language,
- answering the learner's "why" questions logically and patiently,
- decreasing the visual, auditory, olfactory, and tactile distractors as much as possible,
- providing the learner with a happy and fun atmosphere by using games and songs,
- letting the learner move in the class rather than sit and learn,
- preparing physically and not just mentally challenging tasks and activities for the learner,
- and above all, being patient enough to let the learner lead the teacher in his/her learning process.

Acknowledgements

The research team would like to thank X for all the effective cooperation during the project. We would also like to express our profound gratitude to X for her exemplary guidance and constant encouragement throughout this study. Her valuable suggestions, as a mother of a child on autism spectrum disorder, were of immense help.

Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References

- Agran, M., & Hughes, C. (2014). Promoting self-determination and self-directed learning. In M. Agran, F. Brown, C. Hughes, C. Quirk, & D. Ryndak (Eds.), *Equity and full participation for individuals with severe disabilities* pp. 75–97. Baltimore: Paul H. Brookes.
- Alemi, M., & S. Bahramipour (2019). An innovative approach of incorporating a humanoid robot into teaching EFL learners with intellectual disabilities. *Asian-Pacific Journal of Second and Foreign Language Education*, 4(1), 2–22. doi: <https://doi.org/10.1186/s40862-019-0075-5>
- Alemi M., Meghdari A., Basiri N.M., Taheri A. (2015) The Effect of Applying Humanoid Robots as Teacher Assistants to Help Iranian Autistic Pupils Learn English as a Foreign Language. In: Tapus A., André E., Martin JC., Ferland F., Ammi M. (eds) Social Robotics. ICSR 2015. Lecture Notes in Computer Science, vol 9388. Springer, Cham. https://doi.org/10.1007/978-3-319-25554-5_1
- American Psychiatric Association, (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington: American Psychiatric Publishing. <https://doi.org/10.1002/9780470479216.corpsy0271>
- Balconi, M. (2010). *Neuropsychology of Communication*. Milan: Springer.
- Barbera, M. L., & Rasmussen, T. (2007). *The Verbal Behavior Approach: How to Teach Children with Autism and Related Disorders*. London: Jessica Kingsley Publishers.
- Blanchett, W. (2008). We've come a long way but we're not there yet: The impact of research and policy on racially/ethnically and culturally diverse individuals with disabilities and/or those affected by poverty. *TASH Connections*, 34, 11–13.
- Bogdashina, O. (2004). *Communication Issues in Autism and Asperger Syndrome: Do We Speak the Same Language?*. London: Jessica Kingsley Publishers.
- Callahan, M., Butterworth, J. Boone, J. Condon, E., & Leucking, R. (2014). Ensuring employment outcomes: Preparing students for a working life. In M. Agran, F. Brown, C. Hughes, C. Quirk, & D. Ryndak (Eds.), *Equity and full participation for individuals with severe disabilities* pp. 75–97. Baltimore: Paul H. Brookes.
- Carter, W. E., Bottema-Beutel, K., & Brock, E. M. (2014). Social interactions and friendships. In M. Agran, F. Brown, C. Hughes, C. Quirk, & D. Ryndak (Eds.), *Equity and full participation for individuals with severe disabilities* pp. 75–97. Baltimore: Paul H. Brookes.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. London: SAGE Publications.
- Emerson, E. (2007). Poverty and people with intellectual disabilities. *Mental Retardation and Developmental Disabilities Research Reviews*, 13(2), 107–113. doi: <https://doi.org/10.1002/mrdd.20144>
- Iarocci, G., Hutchison, M. S., & O'Toole, G. (2017). Second language exposure, functional communication, and executive function in children with and without autism spectrum disorder (ASD). *Journal of Autism and Developmental Disorders*, 47(6), 1818–1829. doi: <https://doi.org/10.1007/s10803-017-3103-7>
- Kleinert, H. L., Cloyd, E., Rego, M., & Gibson, J. (2007). Students with disabilities: Yes, foreign language instruction is important! *Teaching Exceptional Children*, 39(3), 24–29. doi: <https://doi.org/10.1177%2F004005990703900304>

AUTHOR

- Kuhn, T. S. (1996). *The Structure of Scientific Revolutions* (Vol. 2). New York: University of Chicago Press.
- Nunan, D. (2004). *Task-Based Language Teaching*. Cambridge: Cambridge University Press.
- Oda, T. (2010). Tutoring an American autistic college student in Japanese and its challenges. *Support for Learning*, 25(4), 165–171. doi: <https://doi.org/10.1111/j.1467-9604.2010.01462.x>
- Padmadewi, N. N., & Artini, P. L. (2017). Teaching English to a student with autism spectrum disorder in regular classroom in Indonesia. *International Journal of Instruction*, 10(3), 159–176. doi: <https://doi.org/10.12973/iji.2017.10311a>
- Reichow, B., & Volkmar, F. R. (2010). Social skills interventions for individuals with autism: Evaluation for evidence-based practices within a best evidence synthesis framework. *Journal of Autism and Developmental Disorders*, 40(2), 149–166. doi: <https://doi.org/10.1007/s10803-009-0842-0>
- Schertz, H. H., & Odom, S. L. (2007). Promoting joint attention in toddlers with autism: A parent-mediated developmental model. *Journal of Autism and Developmental Disorders*, 37(8), 1562–1575. doi: <https://doi.org/10.1007/s10803-006-0290-z>
- Sparks, R. L. (2016). Myths about foreign language learning and learning disabilities. *Foreign Language Annals*, 49(2), 252–270. doi: <https://doi.org/10.1111/flan.12196>
- Tomasello, M. (2000). The item-based nature of children's early syntactic development. *Trends in Cognitive Sciences*, 4(4), 156–163. doi: [http://doi.org/10.1016/s1364-6613\(00\)01462-5](http://doi.org/10.1016/s1364-6613(00)01462-5)
- Vandenberg, D. (1992). Metaphysics, dialectical materialism, Maxine Greene, and education. *Phenomenology and Pedagogy*, 10, 107–124. doi: <https://doi.org/10.29173/pandp14902>
- Velisek-Brasko, O. (2014). Bilingualism in a child with asperger's syndrome in inclusive educational conditions. *Research in Pedagogy*, 4(2), 62–74. doi: 10.5937/socpreg1501095v
- Vilches, M. L. C. (2003). Task-based language teaching: The case of EN 10. *RELC Journal*, 34(1), 82–99. doi: <https://doi.org/10.1177%2F003368820303400106>
- Wehmeyer, M. (2014). Seeking a future of equity and full participation. In M. Agran, F. Brown, C. Hughes, C. Quirk, & D. Ryndak (Eds.), *Equity and full participation for individuals with severe disabilities* pp. 75–97. Baltimore: Paul H. Brookes.
- Wire, V. (2005). Autistic spectrum disorders and learning foreign languages. *Support for Learning*, 20(3), 123–128. doi: <https://doi.org/10.1111/j.0268-2141.2005.00375.x>
- Yahya, S., Yunus., M. M., & Toran, H. (2013). Instructional practices in enhancing sight vocabulary acquisition of ESL students with autism. *Procedia-Social and Behavioral Sciences*, 93, 266–270. doi: <https://doi.org/10.1016/j.sbspro.2013.09.187>
- Yin, R. K. (2003). *Case Study Research Design and Methods* (3rd ed.). London: SAGE Publications.
- Yin, R. K. (2014). *Case Study Research: Design and Methods* (5th ed.). Los Angeles: SAGE Publications.
- Zerzova, J. (2025). Learning English as a foreign language with autism spectrum disorder: Reflection of Classroom practices and experience(s) [Habilitation thesis, Faculty of Education, Masaryk University].

(reviewed twice)

Neda Khodaverdi Ph.D., Hassan Ashayeri Ph.D., and Parviz Maftoon Ph.D.
 Technical University of Liberec
 Studentská 1402/2,
 461 17 Liberec, Czech Republic
 neda.khodaverdi@tul.cz; ashayeri.iums@gmail.com, pmaftoon@srbiau.ac.ir

Impact of mindfulness-based music therapy on physiological functions and subjective perception in college students: Two single case studies

(case studies)

Josefína Janková, Zdeněk Vilímek, Jiří Kantor

Abstract: Mantra singing or listening is a typical part of mindfulness-based music therapy. Despite its growing popularity, it lacks support in research findings that would demonstrate the effect of these interventions on physiological functions and subjective perception. The aim of these two single case studies was to investigate the potential of mantra singing/listening in two female university students. **Methods:** Participant 1 was diagnosed with multiple sclerosis, while participant 2 had an anxiety disorder. Both completed 4 therapy sessions, during which the effect of mantra singing/listening on heart rate variability (HRV), perceived stress, muscle tension, and fatigue was assessed. While HRV was measured with a VLV Lab device, other outcomes were measured with visual analogue scales. **Results and discussion:** The results indicate the potential of these interventions to achieve clinically significant changes in all monitored outcomes (the changes were most consistent in perceived muscle tension, while they were least consistent in perceived fatigue). However, further research on larger sets of participants, optimally experimental studies or quasi-experiments with a control group, is needed to verify the potential effect of this intervention.

Keywords: Mindfulness, music therapy, singing, heart rate variability, stress

1 Introduction

Mindfulness-based music therapy has become one of the trends in music therapy in recent decades, which is related to the interest in mindfulness-based interventions in psychotherapy. The foundations of this treatment system are based on the Buddhist teaching of Abhidhamma, which has been transformed into a concept culturally close to the Western world. Kabat-Zinn [1] defines mindfulness as a specific mode of attention characterized by intentional alert awareness of phenomena occurring in

the present moment with an attitude of acceptance and non-judgment. In the field of art therapies, there are a number of approaches that are based on Mindfulness principles [2–3].

An important part of mindfulness-based music therapy is the chanting of mantras. Mantras are statements, verses, or syllables that, as a tool of the mind, allow “communication between individual levels of human existence and communication with what transcends man” [4, p. 68]. The chanting of mantras permeates the tradition of various healing, spiritual, and mystical approaches, especially within indigenous healing systems [5]. The chanting of mantras is also a typical part of some music therapy traditions, such as Indian music therapy [6].

The aim of previous research studies on mantra chanting has been to determine their effect on the nervous system [7], insomnia [8], resilience and conscience [9], improvement of memory and cognitive functions [10] or stress and fatigue [11]. Some studies deal only with the recitation of mantras, others with their singing, which can take place both individually and in groups. Group chanting of mantras is widely used in the practice of Indian kirtans and bhajans. Heinonen [12] describes kirtans as an experience that is associated with positive emotions, feelings of increased psychological well-being and therapeutic processing of emotions in collectively created musical and ritual spaces and conditions. In the case of kirtans and bhajans, the singing of mantras is typically accompanied by musical instruments, e.g. the Indian harmonium.

Despite the popularity of mindfulness-based music therapy, research on the effects of mantra singing is still lacking, and studies investigating some culturally specific and popular forms of mantras, such as bhajans and kirtans, are rare. However, based on previous studies [13], one can expect an effect of mantra singing and listening on stress and on physiological correlates of stress perception, such as heart rate variability (HRV). Therefore, we conducted two case studies to investigate the effect of mantra singing/listening in two female university students on HRV, subjective stress perception, and other outcomes (muscle tension and fatigue) that may be closely related to the experience of stress. Stress reduction is a highly socially relevant outcome in this population, as stress can be a significant complication of studies with significant negative impacts on mental health [14]. The rationale for choosing music therapy as an intervention that can positively influence stress and related problems is based on a number of studies conducted in this area [13, 15–18].

Research questions:

- What is the effect of active chanting of mantras on heart rate variability, subjective stress perception, muscle tension and fatigue in university students?
- What is the effect of listening to mantras on heart rate variability, subjective stress perception, muscle tension and fatigue in university students?

2 Methodology

To answer the questions, a descriptive research study based on two case studies (single-case studies) was conducted. The research took place from October to November 2023 at Palacký University in Olomouc. The study participants were informed about the aims and methodology of the research and signed an informed consent approved by the ethics committee of the Faculty of Education of the University of Olomouc (B-23/07). Their participation in the study was voluntary and all research data were processed anonymously.

The inclusion criteria for inclusion in the study were a previous positive experience with chanting mantras and voluntary participation in the research. Two full-time students at Palacký University in Olomouc were selected. Both girls were 21 years old. Participant 1 had been diagnosed with multiple sclerosis, but her condition was fully stabilized and there were no symptoms of the disease during the study (medication Gilenya). In her free time, she taught yoga and has experience with chanting mantras from her own yoga practice and under the guidance of a lecturer. During the study, she did not actively participate in the chanting, she only listened. Participant 2 had been diagnosed with an anxiety disorder (medication Venlafaxine and Trittico), she attended psychotherapy, needed a lot of rest and space for herself. Anxiety states did not occur regularly. She had experience with singing in a choir, but also from practicing yoga. She liked to sing and actively participated in chanting mantras during the study.

Music therapy exercises were applied in the form of 4 interventions over a period of one month. Each intervention lasted 20–25 minutes, starting with introductory breathing techniques, followed by the chanting of the ÓM mantra and two other mantras accompanied by an Indian harmonium. The intervention took place in a soundproof and undisturbed environment of a research laboratory, which was functionally and aesthetically adapted for research purposes. During the intervention, participants sat on a carpet, the room was well ventilated and glasses of water were available to the participants at all times.

Procedure of the measurement and music therapy exercises (max. 55 minutes)					
1) QUESTIONNAIRE BEFORE	2) PRE-TEST MEASUREMENT	3) MEASUREMENT DURING THE INTERVENTION	4) POST-TEST MEASUREMENT	5) QUESTIONNAIRE AFTER	6) AUDIO RECORDING-VERBAL REFLECTION
Questionnaire before intervention - visual analogue scales	Measurement of heart rate variability before the intervention - device VLV Lab • 5 minutes standing • 6 minutes lying down	Measurement during music-therapy • 20–25 minutes sitting on the carpet	Measurement of heart rate variability after the intervention - device VLV Lab • 5 minutes standing • 6 minutes lying down	Questionnaire after intervention - visual analogue scales	• Bodily perceptions • Emotional experiencing • Mental associations
2 MINUTES	12 MINUTES	20–25 MINUTES	12 MINUTES	2 MINUTES	2 MINUTES

Figure 1 *Flow of the research procedure at each meeting*

Outcomes monitored:

- Heart rate variability – measured with the VLV Lab device [19] through an orthostatic test with a standing phase (5 minutes) and a lying phase (7 minutes, including a change of position).
- Subjective perception of stress, muscle tension throughout the body and fatigue (measured using visually analogue scales with segments in the range of 10 centimeters with a minimum at point 0 on the left side of the segment [20]).
- Experience with the intervention through verbal reflection after the end of the post-intervention measurement. An audio recording of these reflections of the participants was made, which was subsequently transcribed and analyzed.

The course of the research procedure during each meeting is shown in Figure 1. In addition, the effect of the intervention on long-term stress perception was assessed in both participants using the ten-item version of the Czech version of the Perceived Stress Scales [21]. The PSS-10 was administered before the start of the research study (at the beginning of the first meeting) and at the end of the study (at the end of the last meeting).

3 Data analysis

The data for all outcomes were evaluated descriptively, with the clinical significance of the changes assessed. The SWC (smallest worthwhile change) method was used to evaluate HRV. The standard deviation (SD) was calculated from the pre-test values, which captures the inter-subject variability (the difference found in one participant in multiple repetitions of the same or similar intervention). SWC is calculated from this according to the formula $0.5 \times \text{SD}$. SWC then serves as a criterion for substantive significance, according to the assessment of post-pre test differences. If the difference is less than SWC, then it is clinically insignificant. If it is greater than or equal to SWC, then it is clinically significant. A coefficient of 0.5 is suitable for HRV indicators [22]. RMSSD (Root Mean Square of Successive Differences) is the root mean square of the differences between consecutive heart rate intervals. This parameter expresses the activity of the vagus nerve and is related to the parasympathetic activity of the nervous system. Higher RMSSD values indicate the predominance of the parasympathetic (part of the autonomic nervous system) and a greater reserve of the organism for adaptation to stress and strain. VS (HR) indicates the heart rate indicator during the measurement. The hypothesis before starting the research study was that singing and listening to mantras would stimulate the predominance of the parasympathetic from the point of view of regulating the autonomic nervous system, i.e. higher RMSSD values.

For all measurements on visual analogue scales, the differences in data between pre-test and post-test were analyzed. For the interpretation of clinically significant differences, we found evidence in the literature only for pain measurements, and even in this case there are significant differences between the individual recommendations – according to the systematic review by Olsen, Bjerre, Hansen et al. [23], this is a range of 8–40 mm for the absolute minimum clinically significant difference. Therefore, we decided to set the clinically significant difference for these case studies at min. 13 mm, as this threshold was perceived as a meaningful and important change for our outputs by consultants in the field of clinical psychology. Transcripts of the participants' verbal reflections were processed through thematic analysis.

4 Results

Participant 1, who only listened to mantras during the study, had clinically significant changes in HR measurements during the second, third, and fourth sessions, both in the standing and supine positions (results from the first session are not available for technical reasons). RMSSD measurements were clinically significant in the standing position during the first and third sessions and in the supine position during the second. Participant 2, who actively chanted mantras during the study, had clinically

significant changes in both HR and RMSSD measurements during the second and third sessions, both in the standing position. Lying down measurements showed clinically significant changes in HR and RMSSD measurements during the third session and in RMSSD only during the fourth session (data on HRV measurements are in Appendix 1).

The results of the measurements on the VAS scales are presented in Table 1. In the case of the results of the subjective experience of stress, the highest levels of stress occurred during the pretests at the first two meetings, as a result of which the largest difference between the input and output values was also measured. At the beginning of the study, the level of stress from the unknown and new could be manifested, when the research participants did not know exactly what to expect. During the meetings, the level of stress decreases for both research participants (it is lowest during the last meeting), while in the last three meetings the difference in values for the second participant was no longer clinically significant.

The results for muscle tension show a recurring trend that muscle tension significantly decreases after the intervention in both participants. The only exception is the third intervention in participant 1, when the data shifted to a negative value (increase in muscle tension after the intervention). Participant 1 explained this in her verbal reflection by experiencing cold during the intervention.

The subjective experience of fatigue differed between the two participants. Both participants experienced at least one clinically significant reduction in fatigue, but in participant 2, fatigue even worsened twice (participant 2 actively sang during the intervention).

Table 1: *Measurement results on visual analogue scales*

Date	Participants	Pre-test/post-test	Difference	Clinical significance
VAS – stress (measured in mm; 0 = min.; 100 mm = max.)				
09 October 2023	1	70/11	59	✓
16 October 2023	1	87/30	57	✓
30 October 2023	1	48 /33	15	✓
13 November 2023	1	17/3	14	✓
Mean	1	55.5/19.25	36.25	✓
09 October 2023	2	76/30	46	✓
16 October 2023	2	71/62	9	
30 October 2023	2	61/55	6	
13 November 2023	2	25/24	1	
Mean	2	58.25/42.75	15.5	✓

Date	Participants	Pre-test/post-test	Difference	Clinical significance
VAS – muscle tension (measured in mm; 0 = min.; 100 mm = max.)				
09 October 2023	1	57/56	11	
16 October 2023	1	70/19	51	✓
30 October 2023	1	30/44	–14	Significantly worse
13 November 2023	1	29/14	15	✓
Mean	1	46.5/33.25	15.75	✓
09 October 2023	2	59/8	51	✓
16 October 2023	2	52/25	27	✓
30 October 2023	2	47/7	40	✓
13 November 2023	2	39/28	11	
Mean	2	49.25 /17	32.25	✓
VAS – fatigue (measured in mm; 0 = min.; 100 mm = max.)				
09 October 2023	1	86/75	11	
16 October 2023	1	30/24	6	
30 October 2023	1	87/71	16	✓
13 November 2023	1	56/46	10	
Mean	1	67.75/54	10.75	
09 October 2023	2	51/51	0	
16 October 2023	2	46/50	–4	
30 October 2023	2	56/62	–6	
13 November 2023	2	61/38	23	✓
Mean	2	53.5/50.25	3.25	

The Perceived Stress Scale (PSS-10), which was assessed at the beginning and then at the end of the study, was used to determine the possible long-term impact of the intervention on stress. Participant 1 increased from 19 to 21 points (+2 points), while participant 2 decreased from 28 to 24 points (–4 points). Thus, both participants were predominantly in the medium level of stress during the study, which is defined by points 14–26 [21]. The impact of the intervention on the perception of stress in the long term was not confirmed, but the results must be interpreted with considerable caution. The participants were before their university exams (participant 2 also after breaking up with her partner), and therefore stress and increased demands may have been more pronounced for them than at other times during the year. Questionnaire data for both participants are available in Appendix 2.

The participants’ statements during verbal reflections concerned:

- Bodily sensations: Participants similarly described in which parts of the body they felt the vibrations of the mantras: “OM vibrated the most in the chest; during OM

and the first mantra, a pleasant feeling around the heart and in the chest, a kind of tingling..." (participant 1). After chanting the mantras, there was a feeling of relaxation (typically described in various parts of the torso), a relaxation of the back, a pleasant pressure between the eyebrows, etc. After some interventions, the participants experienced cold, which can be explained by a decrease in metabolic activity during relaxation.

- Mental activities: During chanting, both participants typically experienced mental peace, even a state of no thoughts: "I completely switched off today, I didn't really think about anything; I just felt comfortable doing nothing." (Participant 1). However, in moments of silence, e.g. after the mantra chanting had ended, stressful thoughts occurred more frequently (usually in Participant 2, who suffered from anxiety).
- Associations, e.g., to another friend with whom they sang a specific mantra (participant 2), the dynamic nature of the mantras (participant 1), instructions (participant 2), and fear of the new (participant 1) or feelings of boredom (participant 2).

4 Discussion

The case studies described above offer the following conclusions:

Listening to mantra chanting (Participant 1) produced clinically significant changes in HR measurements during the second to fourth sessions (standing and supine in the orthostatic test) and clinically significant changes in RMSSD at the first and third measurements (standing) and at the second measurement (supine). These key HRV parameters indicate activation of the parasympathetic part of the ANS, which is associated with relaxation of the individual [24]. These results correlated with a reduction in subjective stress perception (clinically significant differences in all measures) and to a large extent also with a reduction in muscle tension and fatigue, although the results here were more heterogeneous.

Active chanting of mantras (participant 2) can be compared to the technique of slow singing, which, unlike regular singing, helps to activate the parasympathetic part of the ANS [25]. Also, the study by Harbola [11], which investigated the effect of chanting of mantras, shows similar trends in the effect of active chanting of mantras (mantra japa) on reducing the perception of stress. We also expected similar trends in relation to therapeutic listening to chanting of mantras (participant 1). According to a recent systematic review [26], therapeutic listening has a significant effect on the activation of the parasympathetic part of the ANS, although this systematic review examined a wider range of musical interventions than just mantra listening. However, this trend of influence on HRV is very typical for sedative and relaxation music in general [13].

In relation to muscle tension, previous studies [27] have suggested that group singing may have an effect on lower muscle tension scores. Both participants in this study show a similar trend, with both singing and listening to mantras typically decreasing muscle tension after the intervention, in most cases with a clinically significant difference. Although previous studies support the effects of both mantra singing [11] and therapeutic listening [28, 29] on reducing fatigue, in this study the effect of the intervention on perceived fatigue was ambiguous. While participant 1 consistently experienced a reduction in fatigue after each intervention, this trend was inconsistent for participant 2. Furthermore, verbal reflections suggest that the intervention may have induced a meditative state of mind similar to flow, in which participants experienced reduced mental activity. This state is typical of the meditative experience with music, such as in body-monochord therapy [30]. Participants also experienced characteristic changes in body perception, which is also typical of the effects of music and vibrations [31].

For further research into the effects of mindfulness-based music therapy, consistent research focusing on different techniques of listening/chanting mantras could be recommended based on the results of this study. The effect of the intervention implemented in this study suggests the potential of these techniques also for clinical practice, as the participants in this study were diagnosed with multiple sclerosis (participant 1) and anxiety disorder (participant 2). In particular, within the framework of psychiatric treatment, the potential of mantra intervention can be used to reduce stress and increase self-regulation and self-control of patients. These techniques are of course applicable in a much broader context of health care, stress management, etc.

The results of this study should be interpreted with caution due to its limitations, which are given by the small number of participants, the case study design and the descriptive nature of the study. No external control was obtained to compare the results (with the exception of pre and post measurements on the participants themselves) and factors emerged during the research that could not be controlled for (e.g., the experience of the participants between the individual interventions, the possible influence of the presence of menstruation and other factors that affect HRV). The results of the two cases (and therefore the results of the two interventions) cannot be compared due to the different clinical status of the participants.

5 Conclusion

These two case studies in female university students found the potential of chanting and listening to mantras to increase parasympathetic ANS activity, reduce perceived stress and muscle tension (results in relation to fatigue are less consistent). Given the limited availability of conclusions regarding the mantra intervention, the results of these two case studies may be useful in guiding further research needed in this area

to demonstrate the impact of this intervention on heart rate variability (in terms of promoting parasympathetic activity), on perceived lower levels of stress, muscle tension and fatigue.

The authors declare that there was no conflict of interest in the conduct of this study and the authors received no financial support from any external source.

Appendix 1, Appendix 2: <https://osf.io/xvtbw/>

Reference

1. KABAT-ZINN, J. *Mindfulness pro začátečníky*. 1.vyd. Praha: Portál, 2022, 136 s. ISBN 978-80-262-1867-8
2. HWANG, M. Integrative perspectives on mindfulness, music and music therapy: A literature review. *Approaches: An interdisciplinary journal of music therapy*. 2023; 15(1), 96–121.
3. STERN, A.; SCHAAL, R. F.; RABINOWITCH, T. C. 'Just Play': Developing a drama therapy dyadic play intervention for children with intellectual developmental disabilities and their parents. *Drama Therapy Review*. 2024; 10(2), 163–171.
4. MRNUŠTÍKOVÁ, M.. *Sanskrtský slovník jógových termínů*. 2.vyd. Brno: Pavel Křepela, 2018, 129 s. ISBN 978- 80-86669-35-9.
5. PRAJAPATI, N., KOTECCHA, M., MISHRA, A et al. Importance Of Cantillation (Chanting) –A Divine Remedy in Ayurveda. *International Research Journal of Ayurveda and Yoga*. 202; 3(7), 242–251.
6. DRĀGULIN, S., ENIU, V. Understanding indian traditions in music therapy. *Studia Universitatis Babes-Bolyai: Musica*. 2015; 60(2), 109–120.
7. SONTI, V. J. K. Impact of Signal Energy from Vedic Chanting on Human Neurological System. *International Journal of Innovative Technology and Exploring Engineering*. 2019; 9, 102–105.
8. BEHERA, Ch. K., REDDY, T. K., BEHERA, L. et al. A Meditation Based Cognitive Therapy (HMBCT) for Primary Insomnia: A Treatment Feasibility Pilot Study. *Applied Psychophysiology*. 2023; 48(3), 369–378.
9. SAHARE, P., KOTNALA, A. Effectiveness of spiritual augmented psychotherapy on resilience and conscience on juvenile delinquents. *Yoga Mimamsa*. 2022; 54(2), 56–61.
10. KUMARI, M G. W. R., KARUNARATNE, H. K. B. M. A Review on Therapeutic Effect of Kirtan Kriya Yoga. *International Journal of Health Sciences and Research*. 2021; 11(1), 240–247.
11. HARBOLA, R. A study of psycho-spiritual therapy for the management of psycho-pathological symptoms of women. *Indian Journal of Positive Psychology*. 2021; 12(2), 155–159.
12. HEINONEN, T. Kirtan: Music, Emotion, and Belonging in Finnish Holistic Spirituality. *Eastern Practices and Nordic Bodies: Lived Religion, Spirituality and Healing in the Nordic Countries*. 2023; 9. 12. 2024. Dostupné na: https://research.abo.fi/ws/portalfiles/portal/59055071/Kirtan_Heinonen_final.pdf
13. DE WITTE, M., SPRUIT, A., VAN HOOREN, S. et al. Effects of music interventions on stress-related outcomes: a systematic review and two meta-analyses. *Health Psychology Review*. 2020; 14(2), 294–324.
14. OKU, A., OKU, O., OWOAJE, E. et al. Prevalence of stress, stressors and coping strategies among medical students in a Nigerian medical school. *Afr. J. Med. Health Sci*. 2015; 14, 29–34.
15. LABBÉ, E., SCHMIDT, N., BABIN, J. et al. Coping with stress: the effectiveness of different types of music. *Appl Psychophysiol Biofeedback*. 2007; 32(3–4):163–8.

16. FINNERTY R, McWEENY, S, TRAINOR, L. Online group music therapy: proactive management of undergraduate students' stress and anxiety. *Front Psychiatry*. 2023; 21(14), 1183311.
17. VILÍMEK, Z., UHRINOVÁ, Z., BUCHAROVÁ, M. et al. Effect of vibroacoustic therapy on spasticity and heart rate variability in two young adults with cerebral palsy. *Rehabilitácia*, 2023; 60(2): 158–168.
18. KANTOR, J., CAMPBELL, E.A., KANTOROVÁ, L. et al. Exploring vibroacoustic therapy in adults experiencing pain: a scoping review. *BMJ Open*, 2022; 12, E046591.
19. SMRČKA, P. Využití biotelemetrických systémů v medicíně. 2023. Dostupné na: <https://op3v.fbmi.cvut.cz/sites/default/files/2023-11/Vyuz%CC%8Citi%CC%81%20biotelemetricky%CC%81ch%20syste%CC%81mu%CC%8A%20v%20medici%CC%81ne%CC%8C.pdf>
20. LESAGE, F. X., BERJOT, S., DESCHAMPS, F. Clinical stress assessment using a visual analogue scale. *Occupational medicine*. 2012; 62.
21. BURŠÍKOVÁ BRABCOVÁ, D., KOHOUT, J. Psychometrické ověření české verze Škály vnímaného stresu. *E-psychologie*. 2018; 12(1), 37–52.
22. BUCHHEIT, M. Monitoring training status with HR measures: do all roads lead to Rome? *Front Physiol*. 2014 27; 5: 73.
23. OLSEN, M.F., BJERRE, E., HANSEN, M.D. et al. Pain relief that matters to patients: systematic review of empirical studies assessing the minimum clinically important difference in acute pain. *BMC Med*. 2017; 20; 15(1): 35.
24. BOTEK, M., KREJČÍ, J., MCKUNE, A. J. Variabilita srdeční frekvence v tréninkovém procesu: historie, současnost a perspektiva. 1. vyd. Olomouc: VUP, 2017, 178 s. ISBN 978-80-244-5202-9.
25. TANZMEISTER, S., ROMINGER, C., WEBER, B. et al. Singing at 0.1 Hz as a Resonance Frequency Intervention to Reduce Cardiovascular Stress Reactivity? *Front Psychiatry*. 2022; 27(13): 876344.
26. MOJTABAVI, H., SAGHAZADEH, A., VALENTI, V.E. et al. Can music influence cardiac autonomic system? A systematic review and narrative synthesis to evaluate its impact on heart rate variability. *Complement Ther Clin Pract*. 39, 101162.
27. KOUFMAN, J. A., RADOMSKI, T. A., JOHARJI, G. M. et al. Laryngeal biomechanics of the singing voice. *Otolaryngol Head Neck Surg*. 1996; 115(6), 527–37.
28. GUO, W., REN, J., WANG, B. et al. Effects of Relaxing Music on Mental Fatigue Induced by a Continuous Performance Task: Behavioral and ERPs Evidence. *PLoS One*. 2015; 25; 10(8): e0136446.
29. QI, Y., LIN, L., DONG, B. et al. Music interventions can alleviate cancer-related fatigue: a metaanalysis. *Support Care Cancer*. 2021 29(7), 3461–3470.
30. RITTNER, S., FACHNER, J. Klang und trance im EEG – Brainmapping mit dem Ganzkörpermonochord im therapeutischen setting. *Musiktherapeutische Umschau*. 2004; 25(1), 70–80.
31. FENDEL, U., SANDLER, H., PAPACHRISTOU, Ch. et al. Bodily experiences of patients diagnosed with anorexia nervosa during treatment with the body monochord—A modified grounded theory approach. *The Arts in Psychotherapy*. 2018; 59, 7–16.

(reviewed twice)

Bc. Josefina Janková, Mgr. Zdeněk Vilímek, doc. Mgr. Jiří, Kantor Ph.D.
 Institute of Special Education Studies
 Faculty of Education of Olomouc
 Žižkovo nám. 5
 771 40 Olomouc
 Czech Republic

A case study of a child with orofacial cleft from the perspective of speech and language therapy intervention

(case study)

Alena Hlavinková, Markéta Šmerková, Kateřina Vitásková

Abstract: *The primary focus of this article is a case study of a child diagnosed with an orofacial cleft. The primary objective of this study is to analyse the effectiveness of the speech and language therapy intervention implemented over a period of 14 months. In the initial entry, the basic and essential anamnestic data of the examined child are summarised. A significant area of focus is the determination of initial and final diagnoses of communication ability. The central section is dedicated to a comprehensive exposition of the direct speech and language therapy intervention, including diagnostic tools used, assessment procedures and assistive devices.*

Keywords: *case study, speech and language therapy intervention, speech and language therapy diagnosis, child with orofacial cleft, orofacial cleft*

1 Introduction to the issue

It has been reported that orofacial clefts are among the most prevalent congenital developmental defects in humans. In the Czech Republic, the prevalence of orofacial cleft is approximately one in 600 live births (Koťová, 2024). The consequences of this condition are not limited to physical appearance. It has been demonstrated that it can also have a significant impact on an individual's ability to process food through the orofacial system and to develop communication skills (Šmerková, 2025).

Abnormalities in development and disorders manifest in the domains of articulation, respiration, phonation, and speech resonance, necessitating tailored and customized speech and language therapy interventions (refer to Kerekrétiová, 2008 or Oravkinová, 2018 for further details). This is part of a comprehensive intervention for orofacial clefts, which includes targeted preventive, diagnostic, and therapeutic procedures (Fiala et al., 2017). A systematic study employing meta-analysis of individual

measurements of speech production, language ability, intelligibility of oral speech, and patient-reported outcomes was conducted by Sand, Hagberg, & Lahmander (2022). The results indicated that the incorporation of speech and language therapy (SLT) in the treatment of orofacial clefts can result in substantial enhancement in speech production for most individuals with orofacial cleft palate (up to 87%), although only 10–34% achieve the same level of speech production as their peers.

The subsequent text is designed to offer a thorough and comprehensive overview of the subject matter. In this article, we present a case study of a boy with a complete or total orofacial cleft palate affecting both the primary and secondary palate (see, for example, Fiala et al., 2017). Specifically, it is a total right-sided cleft of the lip, jaw, hard and soft palate. At the time of the initial diagnosis, the child was 28 months old, and at the time of the final diagnosis, he was 41 months old, meaning that a total of 14 months of the child's development was observed. In the period between the initial and final diagnoses, the child underwent speech therapy intervention aimed at developing auditory perception and oromotor and articulation skills. The study was developed as part of Markéta Šmerková's diploma thesis defended in May 2025 (Šmerková, 2025).

From a methodological point of view, the main objective of the study was to evaluate the effectiveness of SLT intervention in the child with an orofacial cleft between the age of 28 and 41 months. The specific objectives were:

- To collect and describe the medical history of the child under observation.
- To implement and describe direct speech therapy intervention in the child under observation, including the aids used.
- To analyse and evaluate the communication skills of the child under observation.

As part of the research investigation, a combination of qualitative and quantitative methods was used in the sense of a mixed research design – anamnestic investigation, observation, and application of selected diagnostic tools.

2 Description of the current state and case history

Medical History

The observed boy was born during the second pregnancy. According to the mother's statement, the pregnancy was planned and without complications. The infant's delivery occurred at the anticipated time and was spontaneous. (40th week + 6 days of gestation), Apgar score was 10-10-10, birth weight was 3530 grams, and birth length was 54 cm. The parents learned of the possible presence of a orofacial cleft in the child at 21st week of pregnancy. The lip surgery was performed on the 11th day after birth and the palate surgery eight and half months after birth. The child is under the care of a paediatrician, an otolaryngologist, a plastic surgeon, and, since the age of

31 months, also a clinical speech and language therapist. For a brief period, he was also under the supervision of a physiotherapist. No genetic predisposition has been identified within the family.

No discrepancies were observed in psychomotor development when compared to established norms. According to the anamnestic questionnaire, the boy began crawling at the age of 7 months, achieved independent sitting without support at the age of 9 months, and attained independent walking without support at the age of 11 months. At the age of 24 months, the child demonstrated increased confidence in walking and running and began to ascend and descend stairs with his feet.

The boy presented with a complex cleft palate, which resulted in significant feeding difficulties. After birth, the infant was unable to suckle. The bottle used for this purpose was equipped with a bottle nipple. The commencement of infant formula supplementation and spoon-feeding occurred at 4 to 5 months of age. Solid foods, such as vegetables and meat, were introduced to the subjects at 7–8 months of age. At the age of 18 months, the boy began to consume beverages from a cup.

In relation to the enhancement of communication skills, the following assertion has been proffered by the child's mother. During the preverbal communication period, a so-called imitative form of vocalisation, also known as "babbling", emerges, indicating the use of acoustic (or acoustic-visual) feedback, present around the age of 6–7 months. The boy began to utilise gestures as a means of communication from the age of 7–8 months and waving and clapping emerged as a mode of expression from the age of 11 months. At two years of age, the boy showed great interest in communication and attempted to repeat words or hand gestures. Communication was primarily non-verbal. For example, he would grab an adult's hand and lead them in the desired direction. He responded to simple verbal instructions ("Sit down.", "Pass me...", "Show it to granny.", and "Put the toy back in the box."). Vocal speech clearly predominated in verbal communication – he omitted most consonants, e.g., in the case of the word "kykyryky" (IPA transcription: ['kɪkɪrɪki:] – means "cock-a-doodle-doo", as onomatopoeic word), it was articulated [i-i-i-i], "taky" (IPA transcription: ['takɪ] – "also") produced as [a-i], "kačenka" (IPA transcription: ['katʃɛŋka] – means "duckling") as [a-e-a]. Of the consonants, he produced the sound *m* (IPA: [m]) best and exceptionally also the sounds of Czech *n* ([n]), *ň*, ([ɲ]), and *j* ([j]).

3 Speech Therapy Intervention

The total duration of the SLT intervention was 14 months, with sessions held twice a month. Each session lasted one hour and took place in an informal setting outside the home without the parents present.

The first step was to establish cooperation with the child, find out his interests and favourite activities, and motivate him to cooperate. Motivational, supportive,

illustrative, recording, and multi-purpose aids were used (Vitásková, 2025). The following strategies were used during the intervention: creating opportunities, simple speech, modelling, and verbal bombardment. In addition, good questions were alternated and asked.

Between the age of **24 and 27 months**, the main objective was set – to establish cooperation and motivate the boy to communicate. The development of his social skills, thinking, motor skills, food intake, communication, and play was observed. Auditory perception was also developed, with a focus on localizing and recognizing sounds. Imitation of basic orofacial movements and teaching blowing, which the boy was unable to do, were also supported.



Figure 1: *A frog-shaped mirror and motivational cards depicting some basic movements of the speech organs (source: Šmerkóvá, 2025, p. 46)*

Between the age of **28 and 30 months**, we focused primarily on fixing and automatizing the sound M, which the boy was omitting. We also developed oromotor skills and focused on the strength of the lip closure – holding a spatula between the lips. We also encouraged blowing – for example, blowing on dried flowers or blowing into water using a straw.

Between the age of **31 and 33 months**, The SLT intervention was focused on enhancing jaw and lip strength, as well as on the oral direction of the expired air stream. We also focused on strengthening the jaw (see Figure 2). A wooden spatula was used to strengthen the lips and bilabial closure, and at the same time, cheek puffing was practised. An activity aimed at holding a button on dental floss in the oral cavity in the space between the teeth and lips behind the place of bilabial closure and printing lips painted with red lipstick on paper was also included. It was considered essential to complement the training with the intentional expiration of air through the mouth, in combination with the articulation of oral bilabial sounds “p” (IPA: ([p])) and “b”

(IPA: [b]). However, according to Oravkinová (2022), during early intervention, we do not teach the child isolated sounds, but use meaningful words with the target sound (e.g., “*papá*” (IPA: [ˈpa.pa:] – means “bye”), “*pipi*” (IPA: [pipi] – means “little hen”), “*Pepa*” (IPA: [ˈpɛpa] – means “Joe”), “*babi*” (IPA: [ˈbabi:] – means “granny”), “*bubák*” (IPA: [ˈbuba:k] – means “bogeyman”), etc.). The method of nasal occlusion using a nasal clip was also tried.



Figure 2: Red chewing tube (taken from logopediecervenkova.cz, in Šmerková, 2025, p. 48)

Between the age of **34 and 36 months**, SLT intervention focused on stimulating tongue movements in all directions within the oral cavity and strengthening the tongue muscles. Another important activity was to hold the tip of the tongue behind the lower incisors (a prerequisite for the correct formation of the sounds *k*, *g*, *ch* (IPA: /k/, /g/, /x/)). We used a stick, which the boy had to hold between the tip of his tongue and his lower lip. Exercises for tongue elevation and short-term fixation of the tip behind the upper incisors were also included. We continued with exercises focused on blowing through a straw into a thickened liquid, and the use of a therapeutic whistle was also included. The primary objective was to strengthen the muscles in the orofacial area, direct the exhaled air flow orally, and gradually prolong it.

Between the age of **37 and 39 months**, articulation therapy focused on the production/fixation of the sounds *p*, *b*, *t*, *d*, and the production of the sound *k* came to the fore. The sound *p* was first found in the final position so that its pronunciation could be eliminated from the word and with minimal action, i.e., “blowing” into the palm (e.g., “*ka-p*” (IPA: /kap/ – means “drip”), “*ko-p*” (IPA: /ˈkop/ – means “kick”), “*ho-p*” (IPA: /hɔp/ – means “leap”), “*zi-p*” (IPA: /zɪp/ – means “zip”), “*co-p*” (IPA: [ˈtsɔp] – means “braid”), “*mo-p*” (IPA: /ˈmɔp/ – means “mop”). Soon, other positions of the sound in the word were also used and the sound was fixed. The sound *b* was spontaneously derived from the sounds *p* and *m*.

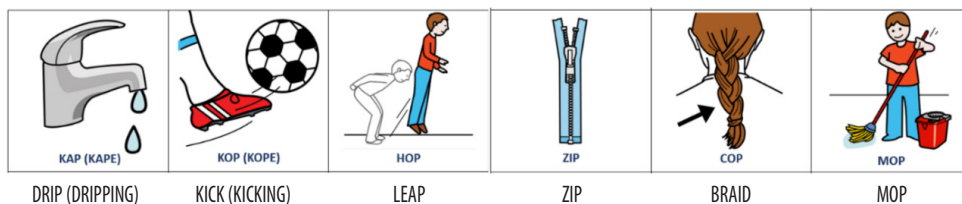


Figure 3: Example of stimulus material used in teaching/fixing the sound “*p*” (taken from www.arasaac.org, modified, in Šmerková, 2025, p. 50)

Subsequently, the sounds *t* and *d* were derived (using the interdental method when whispering *t* with the tip of the tongue placed between the teeth). Another sound was *k*, which the child was able to pronounce in some words only in the final position.

Between the age of **40 and 41 months**, further exercises focused on the orofacial area were carried out – sucking paper through a straw and transferring it, puffing the cheeks, and auditory differentiation.

4 Speech therapy diagnosis and its results

For diagnosis purposes, developmental scales (Strassmeier, 2011), graphomotor skills assessment according to Bednářová (2015; 2022), orofacial motor skills assessment according to Oravkinová (2018), the Isolated Oral Movements Test (LaPointe, Wertz in Lechta, 1987) and MFT 4–8 sTArS (2024), speech comprehension assessment according to Lechta et al. (2003), and comprehension assessment according to Bednářová (2015) were used. The Brief Children's Vocabulary Questionnaire (SDDS 16–42) was used to diagnose vocabulary (Smolík, Bytešníková, 2017), and speech intelligibility was mapped using the ICS questionnaire "Scale for assessing speech intelligibility in context" (McLeod, Harrison, and McCormack, 2012; Vitásková et al. 2023). To determine resonance, we used the Bardach assessment (1984 in Kerekrétiová, 2008), and for the VFM (velopharyngeal mechanism) assessment, we used the cheek puffing test, the water blowing test, and perceptual assessment.

Initial Diagnosis

As already mentioned, the initial diagnosis was made at the age of 28 months. As part of this, we mapped areas related to motor skills, orofacial motor skills, lexical-semantic language level, articulation and speech intelligibility, speech resonance, and VFM. The tests mentioned above were used. Here we present the results, which are discussed in more detail in Šmerková (2025).

The results show that the level of gross and fine motor skills and graphomotor skills was appropriate for the child's age. The boy was able to perform basic self-care activities and simple orofacial movements were also performed correctly – opening the mouth (mandibular depression), smiling (bilateral bilabial extension), and sticking out the tongue (lingual protrusion). On the other hand, the selected muscle activity of the jaw, lips, and tongue appeared to be limited. Chewing pieces of food took longer, lip protrusion was only slight, as was smiling with bared teeth. It was also very difficult for him to "bite" his lower lip and puff out his cheeks. When protruding his tongue, the tip was directed downward. Lingual lateral movements and lingual elevation were problematic.

With respect to the comprehension of speech, the boy has demonstrated an understanding of a select number of isolated words. The subject did not adhere

to more complex instructions, partly due to his young age. According to the Brief Children’s Vocabulary Questionnaire (Bytešníková, & Smolík, 2022; Smolík, & Bytešníková, 2017) completed by his mother, the boy says 20/40 words and understands 29/40 words. His production level corresponds to average to below-average values (25th–50th percentile) and his comprehension level is below average but still within the normal range (15th–25th percentile).

Table 1: *Sample of SDDS 16–42 questionnaire completed at the age of 28 months (questionnaire authors: Smolík, Bytešníková, 2017, in Šmerková, 2025, p. 41–42)*

SDDS 16–42 (Brief Children's Vocabulary Questionnaire)							
Word		He says	He understands	Word		He says	He understands
1	Cock-a-doodle-doo	x	x	21	Sky		x
2	Good night	x	x	22	Tree	x	x
3	Car	x	x	23	Evening	x	x
4	Crayon		x	24	Here	x	x
5	Marmalade			25	A lot		
6	Roll	x	x	26	Mine	x	x
7	Pea			27	Where		x
8	Clothing		x	28	None		
9	T-shirt	x	x	29	Long		
10	Shower		x	30	Dry		
11	Window		x	31	Small	x	x
12	Drawer		x	32	Want		x
13	Brush	x	x	33	Go	x	x
14	Nose	x	x	34	Give		x
15	Nail	x	x	35	Break		
16	Friend			36	Cry	x	x
17	Granny	x	x	37	Throw	x	x
18	Dog	x	x	38	Repair		
19	Turtle	x	x	39	Live		
20	Fox	x	x	40	Finish		
	In total he says: 20/40						
	In total he understands: 29/40						

Vowel speech predominated in oral speech production of the child. Among the Czech consonants, the sounds represented by m, n, ň, j, and h were the only ones observed in the child’s speech, and even then, these sounds were not consistently articulated.

A considerable problem is the production of sounds which require high intraoral pressure. The elision of consonants is directly related to speech intelligibility. This was evaluated using the ICS questionnaire “Scale for assessing speech intelligibility in context”. According to the results of the ISC questionnaire at the age of 28 months (taken from McLeod, Harrison, and McCormack, 2012, in a version translated and adapted by Šmerková, 2025, in Šmerková, 2025, p. 43; the process of adaptation of Czech version (ICS-Cz) of the ICS scale with personal permission of dr. Sharynne McLeod see more Václavíková & Vitásková 2019 or Vitásková et al., 2023, e.g), it is clear that the average total score in the applied numerical assessment (1–5) is 2.6, which corresponds to a movement between the scores rarely (2) and sometimes (3).

The level of speech resonance was assessed as moderate to severe hypernasality. The results show, for example, that the boy was unable to puff his cheeks, and it took him excessive effort to blow bubbles into the water through a straw. The activities were accompanied by increased effort and audible nasal emission.

Final Speech Therapy Diagnosis

The definitive diagnosis was determined at the age of 41 months. The same areas that were observed during the initial diagnosis were evaluated.

In summary, the findings demonstrate a clear correspondence between the levels of gross and fine motor skills and the age of the child. Positive results were recorded in drawing. In terms of orofacial motor skills, the boy mastered the correct vertical movement of the lower jaw (mandibular depression). Lateral labial movements were only slight, and lip protrusion and wide extension of closed lips were performed partially. However, the upper lip showed lower mobility. Lingual movements were performed almost adequately – the child was able to “bite” his lower lip, puff out his cheeks, blow out air (in the form of oral expiration with conscious involvement of the lips), and cough consciously.

According to the assessment provided by Šmerková (2025), the boy understood verbs, sentences/instructions – e.g., “*Show me what we do when our hands are dirty.*” According to the Brief Children’s Vocabulary Questionnaire completed by his mother, he said 37/40 words and understood 38/40 words. His production corresponded to the average (50th percentile) and his comprehension to average to below-average values (25th–50th percentile).

Table 2: *Sample of SDDS 16–42 questionnaire completed at the age of 41 months (questionnaire authors: Smolík, Bytešníková, 2017, in Šmerková, 2025, p. 58)*

SDDS 16–42 (Brief Children's Vocabulary Questionnaire)							
Word		He says	He understands	Word		He says	He understands
1	Cock-a-doodle-doo	x	x	21	Sky	x	x
2	Good night	x	x	22	Tree	x	x
3	Car	x	x	23	Evening	x	x
4	Crayon	x	x	24	Here	x	x
5	Marmalade	x	x	25	A lot	x	x
6	Roll	x	x	26	Mine	x	x
7	Pea			27	Where	x	x
8	Clothing	x	x	28	None		x
9	T-shirt	x	x	29	Long	x	x
10	Shower	x	x	30	Dry	x	x
11	Window	x	x	31	Small	x	x
12	Drawer	x	x	32	Want	x	x
13	Brush	x	x	33	Go	x	x
14	Nose	x	x	34	Give	x	x
15	Nail	x	x	35	Break		
16	Friend	x	x	36	Cry	x	x
17	Granny	x	x	37	Throw	x	x
18	Dog	x	x	38	Repair	x	x
19	Turtle	x	x	39	Live	x	x
20	Fox	x	x	40	Finish	x	x
In total he says: 37/40							
In total he understands: 38/40							

The phonetic repertoire contained 22 sounds: 5 vowels, 5 consonants already present at the initial diagnosis (Czech *m, n, ř, j, h*) and another 12 consonants (Czech *p, b, f, t, d, k, g, c, s, č, ch, l*). The newly acquired consonants were produced inconsistently.

Speech intelligibility was analysed using a scale assessing speech intelligibility in context, which was completed by the child's mother. The total score is 27/30 points, the average score 3.86/5 points. It is therefore clear that the listener “usually” (score 3) or “sometimes” (score 4) understands the boy. However, Šmerková (2005) points out that, according to her own subjective assessment, speech intelligibility at the age of 41 months was still poor, especially during longer spontaneous speech.

Assessments were conducted to evaluate the ratio and the quality of orality and nasality. According to results of Gutzman's A-I test, Czermak's test, Nadoleczny's cheek

puffing test (see more Kerekkrétiová, 2008, e.g.), and the water blowing test, the boy’s resonance was assessed as a mild degree of hypernasality. For example, the boy repeatedly pronounced the vowels *a* and *i*, but there was no significant difference in the phonation of the sound *I*, and therefore the test result is not positive. In the Czermak’s test, he pronounced the oral sound with a small mirror placed under his nose. There was obvious slight fogging of the mirror, which may indicate mild hypernasality. The boy was able to puff his cheeks, which, according to Oravkinová (2018), may or may not indicate VFM functionality. Children with VFM can compensate by raising the root of the tongue to the palate. The boy was able to create a relatively strong expiratory airflow and enough bubbles with a straw. At the same time, however, a slight air leak through the nose was audible. When drinking water through a straw, limited suction was observed, which was laborious and slow. However, these difficulties may also be related to the overall level of muscle tone in the orofacial area.

Comparison of Initial and Final Diagnoses

The improvement in oral motor skills is evident in the table below.

Table 3: *Comparison of the results of orofacial motor skills assessment tests taken from LaPointe, Wertz (in Lechta, 1987) and MFT 4–8 sTArS (2024) in Šmerková, 2025, p. 63)*

Organ	Performance	Initial examination (age of 28 months)		Final examination (age of 41 months)	
		Score (0–4)	Average score (0–4)	Score (0–4)	Average score (0–4)
Jaw	Open and close mouth	4	2	4	2.5
	Lateral movements	0		1	
Lips	Rounded, puckered, closed	1	2	2	2.75
	Rounded, puckered, open	2		3	
	Wide-apart, pressed	4		4	
	Wide-apart, open	1		2	
Teeth	Click teeth	2	1	4	3.5
	Bite the lower lip	0		3	
Tongue	Tongue straight out	2	2	3	3
	Tongue straight up	0		2	
	Tongue straight down	4		4	
	Tongue to the right	2		3	
	Tongue to the left	2		3	
Other	Puff cheeks – do “pu”	0	2	4	4

On the lexical-semantic level, the boy demonstrated enhanced performance in both active and passive vocabulary. According to the Brief Children's Vocabulary Questionnaire, the number of actively used words in spoken language increased by 17 (from 20/40 words to 37/40 words), which corresponds to a developmental shift from the 25th–50th percentile to the 50th percentile. In the area of word comprehension, Šmerková (2025) recorded a shift from 29/40 words to 38/40 words, which corresponds to a shift from the 15th–25th percentile to the 25th–50th percentile (Šmerková, 2025, p. 63).

The phonetic repertoire was also expanded. Specifically, this involved 12 oral sounds requiring intraoral air pressure – Czech *p, b, f, t, d, k, g, c, s, č, ch, l*. However, it should also be added that most of these consonants were not pronounced in all words or in all positions. In spontaneous speech, these sounds were often eliminated. "...The average score for speech intelligibility in context (according to the ICS questionnaire) increased from 2.6/5 (the listener understands the child "rarely" to "sometimes") to 3.86/5 (the listener understands the child "usually" or "sometimes"). The boy's mother understood his speech "usually" in both examinations. According to our assessment, speech was less intelligible during longer spontaneous speech or when producing less frequent words, even in the final diagnosis..." (Šmerková, 2025, p. 64).

An examination of hypernasality reveals that, across a scale ranging from –1 to +5, there has been a decline from a level of +4.5 (moderate to severe hypernasality) to a level of +3 (mild hypernasality).

5 Discussion and conclusion

The results of the SLT intervention conducted on the child demonstrate the efficacy of early, systematic, and interdisciplinary speech therapy interventions in children with cleft palates. These findings underscore the significant positive impact of such interventions on the developmental outcomes of these children. Sufficient support for interdisciplinary cooperation between all professionals involved is essential. The speech and language therapist is an important member of the team who, by choosing the right intervention approach and providing sufficient education and involving the parents, can significantly influence the child's food intake, the development of their communication skills, and their overall communication competence. Last but not least, it equips parents themselves with communication facilitation skills and partially corrective skills, thereby potentially increasing the effectiveness of speech therapy intervention.

The importance of SLT intervention and, above all, interdisciplinary cooperation is also emphasized, for example, by Hanušová (2019) in her paper. The author also emphasizes the importance of proper and timely education of parents and familiarization with strategies that enable the support of early non-verbal communication and

pre-verbal vocalization. Langová (2020), for example, also addressed early speech therapy intervention in children with orofacial clefts in her paper. The results of the investigation show that naturalistic approaches, which are very useful in everyday activities, are highly effective at an early age. It should be noted that in our case study, communication strategies such as modelling, auditory bombardment, monitoring the child's interest, and others were also used during early speech therapy intervention (from the age of 24 to 30 months). The main objective was to support the child's proper speech development. Lane, Harding, & Wren (2022) emphasize that early naturalistic intervention can only be effectively implemented after proper training of parents. These methods are recommended primarily at an early age, and Oravkinová (2010) mentions the possibility of using them from birth.

The conclusions of the presented case study show that positive changes in communication skills can be seen in the child under observation. This mainly concerned gross and fine motor skills. The boy also showed improvement in orofacial motor skills – mandibular depression was normal and lateral movements were indicated. Lingual movements of the tongue were performed adequately. The number of actively used words also increased, and progress was also recorded in the area of comprehension. We can say that there was an expansion of the phonetic repertoire and a reduction in the degree of hypernasality.

Derakhshandeh et al. (2016) emphasise that for SLT intervention to be effective, up to 40 sessions should be carried out over 10 weeks. In this context, it is essential to point out the limitation of our case study, which is the frequency of the indicated speech therapy intervention. In the case of the boy in question, it was not possible to achieve such a high frequency of intervention due to the parents' travel and the child's frequent illness. It is also necessary to mention the impossibility of generalizing the results of a single-case study. Although the results of the initial and final diagnoses indicate improvement in the areas observed, we cannot, of course, claim that the positive changes were solely due to the SLT intervention provided. For the future, we recommend considering a higher frequency of speech therapy intervention, and it would be advisable to expand the research sample in order to verify the results of the investigation.

References

1. Bednářová, J., & Šmardová, V. (2015). *Diagnostika dítěte předškolního věku: co by dítě mělo umět ve věku od 3 do 6 let* (2. vydání), Edika.
2. Bednářová, J., & Šmardová, V. (2022). *Diagnostika dítěte předškolního věku: co by dítě mělo umět ve věku od 3 do 6 let* (2. díl). Edika.
3. Derakhshandeh, F., Nikmaram, M., Hosseinabad, H. H., Memarzadeh, M., Taheri, M., Omrani, M., Jalaie, S., Bijankhan, M., & Sell, D. (2016). Speech characteristics after articulation therapy in children with cleft palate and velopharyngeal dysfunction – A single case experimental design.

International journal of pediatric otorhinolaryngology, 86, 104–113. <https://doi.org/10.1016/j.ijporl.2016.04.025> [cit. 2025-04-14].

4. Fiala, M., Košková, O., Vokurková, J., & Bartošková, J. (2017). Rozštěpy rtu a patra – principy primární i následné péče. *Pediatric pro praxi*, 18(5), 297–299. doi: 10.36290/ped.2017.057
5. Hanušová, M. (2019). *Zajištění stomatologické a logopedické péče u pacientů s orofaciálními rozštěpy*. Bakalářská práce. Praha, Pedagogická fakulta, Karlova univerzita, Pedagogická fakulta, Katedra speciální pedagogiky. Vedoucí práce. doc. PaedDr. Jiřina Klenková, Ph.D. Available from: <https://dspace.cuni.cz/bitstream/handle/20.500.11956/106324/130251347.pdf?sequence=1&isAllowed=y%20130251347.pdf> [cit. 2025-07-01].
6. Kerekretiová, A. (2008). *Velofaryngální dysfunkce a palatolalie: [klinicko-logopedický aspekt]*. Grada
7. Kotová, M. (2024). *Ortodontická léčba pacientů s rozštěpem*. Grada Publishing.
8. Lane H., Harding S. & Wren Y. (2022) A systematic review of early speech interventions for children with cleft palate. *International Journal of Language & Communication Disorders*. 57: 226–245. <https://doi.org/10.1111/1460-6984.12683>.
9. Langová, M. (2020). *Raná logopedická intervence rozštěpu rtu a patra* [Diploma thesis]. Univerzita Palackého v Olomouci. Library of Palacký University repository: Available from: DP_Langova.pdf <https://library.upol.cz/arl-upol/cs/csg/?repo=upolrepo&key=97128909194> [cit. 2025-07-01].
10. Lechta, V. et al., (2003). *Diagnostika narušené komunikační schopnosti*. Portál.
11. Lechta, V. (1987). *Logopedické repetitório*. Slovenské pedagogické nakladateľstvo,
12. McLeod, S., Harrison, L. J., & McCormack, J. (2012). Intelligibility in Context Scale. Bathurst, NSW, Australia: Charles Sturt University. Retrieved from <http://www.csu.edu.au/research/multilingual-speech/ics>. Published November 2012. [cit. 2025-03-16].
13. Oravkinová, Z. (2018). *Logopedická intervencia u detí s rásztepom pery a podnebia*. Slovenské pedagogické nakladateľstvo – Mladé letá..
14. Oravkinová, Z. (2022). *Reč dieťaťa s rásztepom: príručka pre rodičov*. Slovenské pedagogické nakladateľstvo – Mladé letá. Available from: <https://www.recdetisrazstepom.sk/>. [cit. 2024-09-17].
15. Sand, A., Hagberg, E., & Lohmander, A. (2022). On the Benefits of Speech-Language Therapy for Individuals Born With Cleft Palate: A Systematic Review and Meta-Analysis of Individual Participant Data. *Journal of speech, language, and hearing research: JSLHR*, 65(2), 555–573. https://doi.org/10.1044/2021_JSLHR-21-00367
16. Bytešníková, I., & Smolík, F. (2022). Stručný dotazník dětského slovníku SSDS 16–42: Představení screeningového diagnostického nástroje pro včasné odhalení dětí s opožděním ve vývoji jazykových schopností. *Listy klinické logopedie*, 6(2), 50–55. doi: 10.36833/lkl.2022.009
17. Smolík, F., & Bytešníková, I. (2017). SSDS 16-42: *Stručný dotazník dětského slovníku*. Online. Odborná společnost praktických dětských lékařů České lékařské společnosti Jana Evangelisty Purkyně. Available from: <https://ospdl.webflow.io/posts/strucny-dotaznik-detskeho-slovníku>. [cit. 2025-03-16].
18. Straßmeier, W. (1996). *260 cvičení pro děti raného věku: soubor cvičení pro děti s nerovnoměrným vývojem a děti handicapované*. Portál.
19. Šmerková, M. (2025). *Logopedická intervence u dítěte s orofaciální rozštěpovou vadou*. [Diploma thesis]. Univerzita Palackého v Olomouci. Library of Palacký University repository: Available from <https://library.upol.cz/arl-upol/cs/csg/?repo=upolrepo&key=13523110839> [cit. 2025-06-30].
20. Václavíková, L., & Vitásková, K. (2019). Přehled vybraných nově vytvořených a adaptovaných diagnostických nástrojů pro osoby s narušenou komunikační schopností. *Listy klinické logopedie*, 3(2), 99–103. doi: 10.36833/lkl.2019.034

21. Vitásková, K., Tabachová Mironová, J., & Nohová, L. (2023). *Hodnocení variabilních mechanismů hlasu, jazyka a řeči v kontextu logopedického a neurovývojového bádání*. Vydavatelství Univerzity Palackého. <https://doi.org/10.5507/pdf.23.24462714>.
22. Vitásková, K. (2005). Pomůcky a přístroje v logopedii. In: Vitásková, K., & Peutelschmiedová, A. (2005). *Logopedie*. Univerzita Palackého. p. 116--122.

(reviewed twice)

PhDr. Alena Hlavinková, Ph.D., Mgr. Markéta Šmerková, prof. Kateřina Vitásková, Ph.D.,
Institute of Special Education Studies
Faculty of Education
Žižkovo nám. 5
779 00 Olomouc
Czech Republic
e-mail: alena.hlavinkova@upol.cz

The development of pupils' personalities in the school environment: The use of expressive and psychotherapeutic interventions

(overview essay)

Tereza Telekyová

***Abstract:** The aim of this article is to analyse in detail the definition and objectives of primary education in the Czech Republic, with particular emphasis on the current curriculum framework and the specifics of the socio-educational functions of primary schools. The article also analyses the possibilities of integrating psychotherapeutic and expressive therapeutic interventions into the educational process. The main starting point here is the Framework Curriculum for Primary Education (FCPE), which, in addition to the educational objectives, also defines the objectives of socialisation and personality development through key competences. Although the documents emphasise the importance of civic education, social skills development and mental health, in practice there is often a lack of systematic and regular themes or interventions to fulfil these areas at different grade levels. The text also reflects on school counselling services and the role of systemic and legal barriers that prevent wider involvement of school psychologists and psychotherapists directly in the school environment. The Czech Psychotherapists' Association proposes to incorporate psychotherapeutic principles into the support of school education, including teacher training and the introduction of supervision, self-awareness and relationship skills for teachers. The article emphasises the importance and potential of integrating pedagogical, psychological and therapeutic approaches as a pathway to a collaborative, supportive and functional school environment...*

***Keywords:** psychotherapy, education, primary school, mental health care, educational framework programme, inclusion*

1 Introduction

The personal development of pupils in primary school is one of the most important pillars of a high-quality and inclusive education. While traditional teaching

approaches have focused primarily on the teaching of knowledge and skills, current pedagogical trends emphasise the need for a holistic approach that encompasses not only the cognitive domain but also the development of the emotional, social and moral aspects of the child's personality (Průcha, 2009; Fontana, 2003). Creating a supportive, safe and inspiring environment in which a student can grow not only as a learner, but more importantly as a unique individual, is essential for their successful education and healthy psychosocial development (Bendl, 2010; Helus, 2011).

Personal development is a process that begins to take shape from early childhood and continues intensively throughout school. Primary school as an institution plays an irreplaceable role in this process. It is not only a place of knowledge acquisition, but also an important social environment in which the child forms relationships, learns co-operation, responsibility and respect, and develops the ability for self-regulation and self-expression (Fontana, 2003; Kolář & Štech, 2001). As Fontana (2003) states, the school environment, the school climate and the relationships between pupils and teachers are an important factor that influences not only academic performance but also the child's long-term adjustment to themselves and the world around them.

Pupils with special educational needs deserve special attention in this regard. Inclusive education assumes that every child has the right to equal access to quality education and appropriate support that respects their individual needs, abilities and pace (Vítková, 2010; Pipeková, 2006). Supporting the personal development of these pupils requires targeted pedagogical strategies, cooperation with experts and the use of tools that go beyond the usual didactic framework – for example, elements from expressive and psychotherapeutic interventions (Association of Czech Psychotherapists, 2025; Fialová et al., 2014).

In the context of contemporary education, it is becoming increasingly clear that there is a need to expand curricula not only to include knowledge objectives, but also to systematically promote soft skills, emotional intelligence and mental well-being (Vágnerová, 2005; Lazarová & Ondruš, 2008). Such an approach is not only a preventive tool against risk behaviour, school failure or social exclusion, but also a way to create a healthy, stimulating and friendly school environment in which every child – both intact and with special educational needs – can develop their full potential.

2 The definition and objectives of primary education in the Czech Republic

Primary school is an important educational institution that provides children between the ages of 6 and 15 with compulsory primary education. It is an institution that serves not only to impart specialised knowledge, but also to shape pupils' personalities, teach them and strengthen their social skills, emotional intelligence and

social norms. According to Průcha, the primary school is a social institution whose task is to provide education in a structured and organised way. Průcha emphasises the role of the school not only as a place of education, but also as a social environment in which children spend a significant part of their lives and in which their personal development is shaped. School therefore has an educational function, but also a socialising function (Průcha 2009).

The rules and a detailed description of primary education can be found in Act No. 82/2015 Coll, which regulates Act No. 561/2004 Coll. **on pre-school, primary, secondary, higher vocational and other education**, Laws for the People, © 2025) *“This Act regulates pre-school, primary, secondary, higher vocational and certain other education in schools and educational institutions, establishes the conditions under which education and training (hereinafter referred to as ‘education’)* are provided, defines the rights and obligations of natural and legal persons in the field of education and establishes the competence of bodies exercising state administration and self-government in the field of education.” (Act No. 82/2015 Coll., Laws for the People, © 2025), then in the context of basic education it is important to mention Decree No. 48/2005 Coll. *on basic education and certain conditions for the fulfilment of compulsory education* (Decree No. 48/2005 Coll., Laws for the People, © 2025)

In the area of education and upbringing in schools, it is worth mentioning the Framework Educational Programme (FEP), which is a curricular document that sets a binding framework for education in the Czech Republic at individual school levels (e.g. kindergartens, primary schools, secondary schools). The FEP is created on the basis of the Education Act No. 561/2004 Coll., Section 3 – Education Programmes and serves as the basis for the creation of school education programmes (SEP), which each school creates itself, but which must correspond to the objectives of the FEP and be based on it. (Act No. 561/2004 Coll., Acts of the People, © 2025§ 3 – The FEP determines the forms and content of teaching, the conditions for the implementation of teaching, the results to be achieved by pupils (Act No. 561/2004 Coll., Acts of the People, © 2025),

The framework curriculum focuses on both the educational and the pedagogical aspects. The curriculum focuses on different areas such as language and linguistic communication, maths, people and society, arts and culture, health and others. Among the sub-objectives of the RAP for primary education is the definition of objectives focussing on the development of key competences. These competences represent a set of knowledge, skills, attitudes and values that pupils should acquire during their primary school years. The main aim is to prepare pupils for further education, personal life and participation in society. The key competences are as follows:

a) **The ability to learn**

Be able to capture, differentiate and process information effectively.

Give learners the opportunity to choose an elaborative learning strategy.

To help students recognise and develop their own skills and strengths and use them, together with the knowledge and skills they have acquired, in their career choices.

Preparation of the student for the next stages of education.

b) **The ability to solve problems**

Encouraging creative thinking and logical reasoning in pupils.

Pupils should be encouraged to think critically and logically.

c) **Communicative competences**

Students should be encouraged to communicate flexibly, effectively and openly.

You must be able to express your thoughts clearly both verbally and vocally.

Listen to others and react appropriately.

Utilisation of modern communication technologies and processing of the information obtained.

You must be able to express your views with consideration for others.

d) **Social and personal competences**

Take responsibility for your own behaviour.

Teach students to respect the views and needs of others.

Strengthening the physical and mental health of pupils.

e) **Civic competences**

Teach students about freedom and responsibility so that they know their rights and fulfil their duties

Teach students to respect laws, rules and traditions.

Students should be educated to become active and responsible citizens.

to teach pupils to protect the environment and respect cultural traditions

to educate students to be tolerant and respectful of other people, their cultures and spiritual values.

f) **Work competences**

Developing students' ability to work together as a team, recognising their own work and the success of others.

Learning basic work skills and habits.

You need to be able to plan and organise your work and your time.

Promotion of entrepreneurship and creativity (Act No. 561/2004 Coll., Laws for the People, © 2025)

As we can see in the text above, the RWP directly discusses the issues of socialisation and the acquisition of social skills in primary school pupils. The RWP then identifies topics within the curriculum that are directly related to the theme of socialisation, morality and responsible citizenship in different contexts, for example: Civics – how do I become a responsible citizen, Science – me and the planet, Arts education – me and my creativity, then there are the following themes within the school. There are

also various intervention programmes, excursions, school trips... So these topics are directly included in the RWP and the school then works with them within its own curriculum, which means that each school and each individual teacher draws on the RWP, but the actual teaching of these topics looks a little different in each school, and individual teachers choose their own distinctive form of teaching practice, the same applies to the planning of lessons, excursions and intervention programmes..., each school has its own programmes according to the RWP.

As mentioned above, the topic of moral and social skills and caring for pupils' mental health is anchored in the Framework Education Programme (FEP), which sets out specific educational objectives in this area. **However, there is no continuous intervention or whole-class teaching** in which social skills are taught regularly and according to the precise curricular objectives. Soft skills or the promotion of cohesion in the classroom and the art of communicating or dealing with awkward and stressful situations. A number of experts are of the opinion that it would be appropriate to include a subject in basic education that deals with the promotion and development of social skills in pupils and at the same time serves as prevention against bullying, discrimination and the emergence of undesirable behaviour. The Association of Czech Psychotherapists argues that it would be appropriate to include psychotherapeutic interventions in teaching and there are a number of scientific studies investigating the effectiveness of psychotherapy or various forms of expressive therapies in the classroom or in group interventions when working with pupils/students. Most of these studies show positive results in the area of psychoeducation or the integration of art therapy/expressive therapies into the educational process, and researchers encourage more research in this area, but also point out the systemic and personal pitfalls associated with the use of psychotherapy or individual expressive therapies in the educational system, see the following text (and subsequent chapters), Laws for People, © 2025).

It can be concluded that the RWP takes into account the educational aspect of school together with the promotion of social behaviour – the acquisition of social skills – within the framework of certain lessons, such as civic education or preventive programmes, but there is no direct subject (psycho-education) or regular intervention that would work on and develop the aspect of social behaviour in primary and secondary school students according to a precise curriculum.

In terms of direct support for pupils with psychological difficulties – educational problems or other specific educational needs – school counselling services are divided into two main areas.

School Counselling Centres (SCCs) – include specialist centres such as Pedagogical Psychological Planning Centres (PPP) and Special Educational Needs Centres (SPC) that provide diagnosis, therapy and support for pupils with special educational needs.

School Counselling Centres (SCCs) – work directly in schools and include school psychologists, special education teachers or educational counsellors who provide direct support to pupils in their school environment (Decree No. 72/2005 Coll., Laws for People, © 2025).

Counselling services in education are a comprehensive system of support for children, pupils, students, their legal representatives, teachers and schools. Their aim is to contribute to the healthy physical, mental and social development of pupils and to create equal conditions in education, to support pupils with special educational needs and gifted pupils and to create preventive measures against the emergence or worsening of learning and educational problems. The cornerstones of all school counselling services are therapeutic, informative, diagnostic and advisory activities. Counselling services in schools and school counselling centres are free of charge and serve to provide professional support to children, pupils, students and legal representatives, schools and school institutions (Decree No. 72/2005 Coll., Laws for the People, © 2025).

However, the system has its weaknesses, especially when it comes to direct psychological support in the schools themselves. A fundamental problem also lies in the legal framework. Under current law, primary schools (and therefore their headteachers) are not obliged to provide a school psychologist. Only the school prevention methodologist and the educational counsellor must be made available. This situation severely restricts systematic psychological support for pupils and reduces the availability of professional help at school. According to the legislation in force in the Czech Republic, in particular Decree No. 72/2005 Coll., primary schools are obliged to provide counselling services within the framework of a school counselling centre. The compulsory staff includes an educational counsellor and a school prevention methodologist. These professionals support pupils in the areas of education, career guidance, prevention of risk behaviour and resolution of educational and parenting problems. A school psychologist or a special needs teacher may be part of the school counselling centre, but their presence is not required by law. The deployment of these professionals depends on the capacity of the school, the resources available and the special needs of the pupils. In schools where a school psychologist is present, they play a particularly important role in dealing with issues such as pupils' mental health, bullying, adjustment difficulties or inclusion support. However, if the school is unable to employ a psychologist, this role is often partially replaced by an educational counsellor, a prevention methodologist or external experts. Pupils and parents can also turn to school counselling centres, e.g. educational-psychological counselling centres or special education centres. Although this system covers the basic needs of pupils, it does not always provide sufficient access to specialised support at school. In future, it would therefore be worth considering extending the legal obligations

of schools in the area of psychological counselling (Decree No. 72/2005 Coll., Laws for People, © 2025).

According to a study by B. Lazarová and D. Ondrus (2008), school psychologists focus primarily on counselling children, working with parents and, to a lesser extent, on group work with pupils. The main obstacles to their work are a lack of time and limited opportunities for professional development. The results of other studies confirm similar findings. The most frequently requested activity of educational psychologists is individual work with pupils, but the biggest problems include the lack of systematic work with class collectives and the unrealised therapeutic potential of group dynamics. The most important factors limiting the effectiveness of school psychologists are time and financial resources.

3 Psychotherapy in the Czech education system

The Czech Association of Psychotherapists points out that there is a lack of psychotherapeutic-expressive-therapeutic intervention approaches in education (or the inclusion of psychoeducation in teaching) to support the development of the child's personality in the school environment within the framework of inclusive education and the educational process from a broader perspective: the acquisition of new knowledge in classical subjects such as maths, science, history ... but also in the context of teaching to acquire social skills (self-expression, assertiveness, the art of dialogue...) and as a prevention against the development of mental illness, aggression, bullying or as a tool to detect undesirable influences that affect the healthy development of the child. The association proposes two main directions, namely how the potential of psychotherapy itself can be utilised on a therapeutic and pedagogical level and how psychotherapeutic elements (expressive-therapeutic resources) can be used in teaching by the educators themselves. The Czech Association of Psychotherapists, together with other experts in the field of education and training, points out that not only the provision of psychotherapy by qualified professionals, but also the teaching profession, especially the relationship between teacher and pupil or student, harbours significant potential for promoting the healthy development of the young person. It was also argued that teachers should have certain therapeutic knowledge and tools (the so-called psychological and psychotherapeutic minimum) to be able to deal with some difficult situations themselves without having to seek immediate professional help.

The panellists suggested three main ways in which the principles proven in psychotherapy can help to strengthen teachers' ability to build empathetic and respectful relationships with children. The first way is to integrate supervision into school practice. Supervision provides teachers with support and feedback and allows them to reflect on problematic issues related to the teaching profession, such as relationships

between teachers and students, between teachers and parents, or between teachers and the school system. The process of supervision can strengthen the teacher's understanding of children's difficulties and increase confidence in their ability to resolve problematic situations. Supervision is generally used in the helping professions for professional and personal growth and also to prevent burnout syndrome (Šik, 2012). Supervision can be provided by external professionals, e.g. the Association of Supervisors in the Helping Professions (ASuPP) or the Czech Supervision Institute (CSI), or by internal staff, e.g. school psychologists in the context of an interview. Although this service is gradually entering the education sector, it is still underutilised and there is a lack of awareness of its nature and importance, as well as possible negative experiences with poorly conducted supervision (Břízová & Šleisová, 2021). Another appropriate way to report on the use of therapeutic means in teaching is to improve the training of teachers themselves with an emphasis on personal development, self-awareness and reflection on their own work with children during practice. In addition, more emphasis should be placed on understanding the importance of psychological subjects such as developmental psychology, personality psychology, psychopathology and special education, although caution should be exercised if the educator oversteps their competences towards an unqualified and potentially harmful use of therapeutic approaches.

It is already possible to take advantage of longer-term self-awareness opportunities for teachers, such as the training provided within the SUR system, the 'experiential' programme of the organisation DO WORLD. One of the more recent initiatives to take a comprehensive approach to teacher training is the Open Society. This association, made up of students and teachers from faculties of education, is committed to change and innovation in education. They believe that teachers play a key role in the quality of education and emphasise their ability to work with people and reflect on their work. The Faculty of Education at the University of West Bohemia, for example, has included similar topics in its teacher training programme for several years. The non-profit organisation Teacher Alive can also be an inspiration for teaching self-awareness in the field of training future teachers. This organisation has developed a two-year intensive training programme called Teaching Minimum, which focuses on long-term practice and areas of study. These areas focus not so much on subject didactics, but rather on the personal development of future teachers and their ability to build relationships, emphasising experiential learning and the creation of a safe environment. The NPI also offers teacher training programmes. Organisations that try to raise awareness of psychotherapy among teachers are Fokus Praha (as part of the project „Are you crazy? So what!“), Nevypust Duši or the National Institute of Mental Health (working group for research into the mental health of children and graduates).

The second way to strengthen psychotherapy, according to the association, is to have psychotherapists work in the school system, both directly through regular interventions with the class and individually. Experts from the field of counselling emphasised the special features of the school system, which increase the preventative potential of psychotherapy carried out in the school system. In particular, they emphasised the low threshold, the possibility of long-term support and the ability to intervene in children's lives in their natural environment. These special features of the school system include compulsory education, which ensures that all children attend school and spend a lot of time at school in a variety of situations. Pupils attend primary school for 9 years, so the psychotherapist has the opportunity to observe the individual over a long period of time and assess their adjustment to developmental changes, including puberty. The school environment therefore offers ideal conditions for picking up on initial difficulties. Through direct observation, it is possible to see how psychotherapy affects the child's adjustment in real life – from obtaining reports from teachers to observing behaviour in the classroom. The ability to intervene directly in the child's natural environment. (Psychotherapy for education)

Regular psychotherapy or the provision of psychoeducation in the primary school system can prevent the development of mental health problems and support the development of social skills. Many children come to school already with developmental disabilities from orphanages, unsuitable family environments or with a history of early trauma, for whom school is an additional burden and at the same time a challenge for the school system itself. Even intact children with a more "normal" background face significant challenges at school (adjustment to a new environment, performance demands and evaluation, the need to follow rules and fit in with peers), which they often need support to overcome. Psychotherapy can be a form of support for children and young people and for the school system as a whole. Communication support for teachers, pupils and parents. Through interventions or the subject of psychoeducation itself, schools could focus on reinforcing assertive behaviour and guiding students towards mutual respect by teaching them how to communicate and express their needs, opinions and rights in a healthy way so that their own rights and those of others are respected. Assertiveness differs from passive or aggressive behaviour in that it allows individuals to express their thoughts and feelings without violating the rights of others or suppressing themselves; regular intervention could then contribute to the development of soft skills, creative thinking, a healthy school team, the identification of more serious mental health disorders and overall effective communication between school staff, students and parents. (Czech Association of Psychotherapists)

The current promotion of mental health and social skills in primary schools is therefore as follows. If we look at the issues of developing the pupil's personality, so-called personalisation, we can also find this function in the subjects that primarily

fulfil the function of education, i.e. the subjects that are directly focused on this area, such as political education, ethics education, primary education, people and the world of work, people and their health and others. These subjects often work with experiential education methods, group work, give feedback and encourage reflection. Many of the activities, techniques and games used in these areas have their origins in therapeutic methods. It is therefore important that educators consider their use carefully and are aware of their limitations. In addition, some schools offer programmes such as outdoor school, prevention programmes and school trips, all of which can be used to promote pupils' social skills, but this is not a regular and direct therapeutic intervention aimed at working with the whole class; moreover, school counselling services are provided by the school counselling service, which is mainly used by pupils with special educational needs, so there is no regular work on social skills, assertiveness or regular work with the class team.

The Czech Association of Psychotherapists recommends the inclusion of psychotherapeutic interventions or psychological education in the curriculum, especially in the field of inclusive education, but there are many obstacles that prevent the inclusion of regular interventions/psychological education in the curriculum. These include first and foremost the financial resources to provide all primary schools with a psychotherapist or educator in the field of self-development and soft skills promotion, then the related definition of such a function in terms of competences and training of such a profession in the field of education and finally the need to provide appropriate materials and support conditions as well as time for the effective implementation of a flow education programme (Fialová et al., 2014).

4 Conclusion

Primary school in the Czech Republic is not only an institution for the transmission of knowledge, but also a crucial environment for the formation of pupils' personalities, the development of their social competences and the promotion of mental health. Although the framework curriculum explains the educational and socialising function of school and defines key competences, including those focused on communication, cooperation and civic responsibility, in practice a systematic, professionally managed framework for their actual development is lacking.

In particular, the development of social skills, the prevention of risk behaviour and the promotion of mental health often remain at the level of unsystematic projects or depend on the initiative of individual schools. The lack of a separate subject for psychoeducation and the limited number of school psychologists or therapists mean that the needs of many pupils are not met. The inclusion of psychotherapeutic and expressive therapeutic approaches in the curriculum could contribute to an overall

improvement in school climate, effective communication and the prevention of psychological difficulties.

Within the educational system of the Czech Republic, it would be necessary to adapt and expand the legal conditions for systematic psychological and therapeutic support in schools in order to strengthen the mental health care of pupils and the development of their social skills, but the problem is not only in the legal framework, but concerns many factors such as the allocation of time, the definition of such a subject or regular interventions that would work continuously with the class, the definition of such a teacher and, last but not least, finances. Experts from the circle of Czech psychotherapists therefore encourage schools to use psychotherapeutic interventions to support pupils' personal development, inclusion or prevention of undesirable behaviour. However, we can see that schools offer some form of support in the area of pupils' personal development, both in the form of school counselling services and in the form of various prevention programmes or the inclusion of the topic in the lessons themselves, e.g. „How to become a responsible citizen“.

References

- Association of Czech Psychotherapists (2025). *Psychotherapy for education: Possibilities of applying psychotherapeutic interventions in the Czech education system*. [Internal document].
- Bendl, S. (2010): *School as a place of education: On theoretical and practical aspects of school education*. Prague: Karolinum. ISBN 978-80-246-1830-6.
- Břízová, H., & Šleisová, A. (2021). *Supervision in the school environment: risks and opportunities*. Prague: ASuPP.
- Fialová, J., et al. (2014). *Report on the possibilities of introducing psychotherapy into education*. Prague: National Institute of Education.
- Fontana, D. (2003): *Psychology in school practice* (3rd ed.). Prague: Portal. ISBN 80-7178-687-1.
- Helus, Z. (2011): *Social Psychology for Educators* (2nd ed.). Prague: Grada. ISBN 978-80-247-3986-5.
- Kolář, Z., & Štech, S. (2001). *Psychology in school practice*. Prague: Portal. ISBN 80-7178-576-X.
- Lazarová, B., & Ondruš, D. (2008): *The school psychologist and his place in the education system*. Brno: Masaryk University.
- Pípeková, J. (2006). *Chapters from special education* (3rd revised edition). Brno: Paido. ISBN 80-7315-124-6.
- Průcha, J. (2009). *Pedagogical encyclopaedia* (1st ed.). Prague: Portál. ISBN 978-80-7367-546-2.
- Šik, P. (2012): *Supervision in the helping professions*. Prague. ISBN 978-80-247-4463-0.
- Vágnerová, M. (2005). *Developmental Psychology: Childhood and Adolescence* (3rd expanded edition). Prague: Portal. ISBN 80-7178-947-1.
- Vítková, M. (ed.). (2010). *Inclusive education*. Brno: Masaryk University. ISBN 978-80-210-5242-2.
- Act No. 48/2005 Coll. on basic education and certain requirements for compulsory education.
- Act No. 561/2004 Coll. on pre-school, primary, secondary, higher vocational and other education (Education Act), as amended.

Act No. 82/2015 Coll. amending Act No. 561/2004 Coll. (Education Act), as amended.
Decree No. 72/2005 Coll. on the provision of counselling services in schools and school counselling centres.

(reviewed twice)

Mgr Tereza Telekyová
Palacky University
Faculty of Education
Žižkovo nám.5
771 40 Olomouc
Czech Republic
e-mail:terka.tel@seznam.cz
IGA_PdF_2025-02

Even a person with intellectual disabilities has a need for self-fulfilment

(overview essay)

Tereza Telekyová

***Abstract:** This article deals with the issue of self-actualization, specifically for people with intellectual disabilities. This topic seems to me important and neglected, within the framework of the Iga project I approached the non-profit organization Domov Jitka in Vsetín, where I created a support group within which we rehearsed theatrical performances with the clients, within the framework of my research I then focused on the development of communication, socialization and the development of problem behavior in three selected clients and I will write about the whole research in the proceedings of Expressivity which will be published in the autumn of this year 2025. My paper is entitled *Ausdruckstherapeutische Ansätze für Menschen mit geistigen Behinderungen zur Verbesserung der Eingliederung in soziale Dienste* and it deals with the effect of the support group on the area of communication, cooperation and problem behavior primarily in three selected clients.*

However, this article will not discuss these main research aims, but will focus on a phenomenon that is not mentioned in the Proceedings but emerges from the research, namely the issue of self-actualisation and the feeling of recognition in people with moderate to severe intellectual disabilities.

In the process of rehearsing the theatre performance and after the subsequent presentation, I observed a positive shift not only in terms of communication and reduction of the expression of unwanted behaviour by the clients but also the issue of satisfaction and pride on the part of both, staff members' families and last but not least the audience themselves, see case studies and interviews below, therefore I consider it important to elaborate more from the research from a different perspective and contribution than the one mentioned in the Expressivity Proceedings, namely on the issue of self-actualization in people with intellectual disabilities.

In the introduction I discuss the issue of self-actualization in a general context, then I supplement the text with recent research that discusses the importance of

self-actualization as one of the basic needs of human beings in the area of self-fulfillment and mental well-being, then I discuss self-actualization in the context of mental health prevention, and last but not least I discuss the importance of the issue of self-actualization specifically for people with intellectual disabilities.

In the text below I refer to my empirical research, where I point out the importance of the phenomenon of supporting and developing self-actualization also in people with more severe to profound intellectual disabilities and how the fulfilment of the sense of self-actualization affects people with disabilities themselves, as well as their families, professional staff and the majority society.

Keywords: *self-actualization, intellectual disabilities, theatrical performances, communication.*

1 Introduction

The concept of self-actualisation can be defined as follows: it is a certain desire for self-fulfilment, fulfilling one's potential, finding value in our actions. Matějček (2005) describes self-actualisation as a natural human need that manifests itself as "the need for life meaning, creativity, pro-social behaviour and overall personal fulfilment. Rogers then perceives self-actualization as follows," *Self-actualization is nothing other than the tendency of the human organism to develop all of its capacities to the extent possible and to become a fully functioning person.* (Rogers, p. 335, 1961) Self-actualization is a concept in psychology that refers to a person's inner need to develop his or her potential, to create and fulfill meaningful goals. Since the mid-20th century, it has been considered the pinnacle of human development, closely associated with a sense of life satisfaction, autonomy, and deep inner fulfillment (Maslow, 1943).

Self-actualisation is extremely important for human beings – it represents the fulfilment of one's own potential, the meaning of life and the inner motivation for personal growth. In psychology, it has long been considered one of the highest goals of human development. Its importance derives both from theoretical concepts and from research and observation of human behaviour. The importance of self-realization for mental health is also confirmed by modern psychological concepts. For example, Deci and Ryan's (2000) Self-Determination Theory states that autonomy, competence, and belonging are key psychological needs of humans. Fulfilling these needs creates the conditions for authentic motivation and inner growth – a form of self-actualization.

According to Abraham Maslow (1968), self-actualization is one of the ultimate human needs. Individuals who strive for self-actualization typically exhibit higher levels of inner balance, positive life attitudes, creative approaches to dealing with situations, and increased resilience to stressors. Conversely, long-term unfulfilled need

can lead to psychological stagnation, increasing frustration and a persistent sense of unfulfillment, which in extreme cases can result in the development of psychological difficulties, most commonly in the form of depressive or anxiety symptoms.

Viktor E. Frankl (1985) points to the importance of self-actualization as one of the essential reasons for motivation to live a fulfilled life – Frankl argues that people who do not find meaning in life often experience an *existential vacuum*, a state of inner emptiness that can manifest itself in apathy, aggression, addictive behavior, or depression. The main aim of Logotherapy is therefore to try to restore meaning as a therapeutic and preventive tool.

Long-term unfulfilled need may manifest as loss of motivation, feelings of emptiness, or burnout syndrome. Conversely, people who have the opportunity to develop their skills and creativity are more likely to experience a sense of happiness, vitality, and meaning in life (Ryff & Keyes, 1995).

2 The concept of self-actualization in today's context

The concept of self-actualization represents a key aspect of psychological maturation and overall mental balance. It is not only about achieving individual potential, but also about grounding oneself in a meaningful framework that transcends the personality itself. Empirical studies and clinical experience have repeatedly shown that fostering intrinsic motivation, creative expression, and individual growth can contribute significantly to preventing psychological disorders and promoting personal development. In conditions that recognize uniqueness and foster individual autonomy, the self-actualization process can act as a stabilizing factor and a profound source of subjective satisfaction. This is supported by the following research.

The importance of self-actualization as a protective factor in mental health is confirmed not only by classical theoretical concepts but also by recent empirical studies. Randy A. Dexter's (2024) dissertation, *The Relationship Between Self-Actualization and Depression in Later Life*, analyzes the relationship between self-actualization rates and the prevalence of depressive symptoms in the elderly. Using multiple regression analysis, the author controlled for the influence of variables such as age, gender, and marital status to identify the specific impact of self-actualization on the psychological state of older adults. Results showed that self-actualization tendencies were a significant predictor of lower rates of depressive symptoms, explaining approximately 18% of the variance in these symptoms. These findings confirm that an individual's ability to live in accordance with his or her values, to realize his or her potential, and to experience meaningfulness in life plays a critical role in protecting mental health in older age. Thus, self-realization emerges as a psychological construct with a significant stabilizing effect, especially in late adulthood, when it can help to cope with the processes of aging, loss, and lifestyle changes. (search.proquest.com)

The importance of intrinsic motivation and self-regulation style for mental health is supported by a study by Leow et al. (2016), which is based on the Self-Determination Theory (SDT) framework. The authors focused on a sample of 235 undergraduate students and examined associations between Big Five personality traits, types of self-regulation (autonomous vs. controlled), level of social support, and depressive symptoms. Using multiple regression analysis, it was found that autonomous self-regulation – the ability to act in accordance with one's own values and internal goals – significantly predicted lower levels of depressive symptoms. In contrast, controlled self-regulation, characterized by pressure from the external environment or an internal sense of obligation, was associated with higher rates of depressive symptoms. Personality traits and the degree of perceived social support also contributed significantly to the explained variance (approximately 31% overall). These results underscore the role of intrinsically motivated behavior as a protective factor in relation to psychological well-being and point to the need for a comprehensive approach to assessing young adults' mental health, including consideration of personality structure and the quality of social relationships (*in-text citation*).

The above research confirms that self-actualisation is not just a theoretical ideal, but a psychologically justified need that is not directly conditioned by the career field and is important for people at any age, the fulfilment of which contributes to overall psychological resilience, life satisfaction and personal development. In environments that respect individuality, promote creativity and allow intrinsic motivation, personality integration is deeper and many mental health problems are prevented.

3 Self-realisation as prevention

Self-Determination Theory (Deci & Ryan, 2000) posits that mental health results from the fulfillment of three basic needs: autonomy, competence, and belonging. If these needs are unmet over a long period of time – for example, as a result of an environment that demotivates, controls or isolates the individual – intrinsic motivation may decline and depressive symptoms may develop (Vansteenkiste et al., 2005).

Conversely, an intrinsically motivated person who has the opportunity to develop, take on challenges, and contribute something meaningful is more resilient to depressive states and other forms of psychopathology (Ryan, Deci & Grolnick, 1995). Self-actualization here acts as an internal “psychological immunity”, preventing unwanted behavior. Lack of opportunities for self-actualization can lead not only to depression but also to various forms of undesirable behaviors ranging from passivity, to aggression, to addictions.

Self-actualisation is not only the ultimate ideal of personal development, but also an essential protective factor against psychological disorders and risky behaviour. Psychological research and therapeutic practice confirm that people who have the

opportunity to fulfil their potential, find meaning and make autonomous choices demonstrate higher levels of mental well-being, life satisfaction and psychological resilience. Promoting self-realisation should therefore be a systematic part of not only mental health, but also education, training and prevention.

4 Intellectual disability and self-actualisation

Self-actualization, as a basic human need, is associated with the fulfillment of personal potential, the development of abilities and life satisfaction. Although this concept is traditionally associated with the non-disabled population, research and practice show that people with intellectual disabilities also have a natural need for growth, autonomy and a meaningful life (Schalock et al., 2002). It is therefore essential to approach their need for self-actualization not only as a right but also as a prerequisite for a life with dignity.

Self-realisation for people with intellectual disabilities may take place to a more limited extent, but its core – the development of one's own abilities, choice and acceptance by others – remains the same. People with mild intellectual disabilities are often able to plan, create and set their own goals if they have adequate support to do so. For people with moderate and severe disabilities, self-actualization may take the form of small daily decisions, creative activities, or expressions of emotions and relationships (Buntinx & Schalock, 2010).

The following are basic prerequisites for the fulfillment of self-actualisation in people with intellectual disabilities: it supports autonomy (even partial decision-making), offers skill development (including occupational, social and emotional), enables social participation and acceptance, and respects the individuality and needs of the person.

According to Schalock et al. (2002), self-actualisation is one of the eight domains of quality of life for people with intellectual disabilities. This domain includes, for example: the ability to set one's own goals, to choose between options, and to pursue one's own interests and needs.

Research shows that people with intellectual disabilities who are empowered to make decisions about their leisure time, participate in home or work activities, and be perceived as contributing have higher levels of psychological well-being and lower incidence of problem behaviors (Wehmeyer & Abery, 2013).

Risks of an unfulfilled need for self-actualisation

If the need for self-actualization is not met, it can lead to:

Frustration, apathy or aggression, increased problem behaviour, increased dependence on the environment, reduced quality of life.

Especially for people who live in institutional settings or have low levels of support, *learned helplessness*, a state in which the individual resigns to actively participate in his or her life, is more likely to occur (Seligman, 1975).

Various approaches are used to promote self-realization in people with intellectual disabilities, such as: support for independent decision-making (including in the form of assisted decision-making) the use of expressive therapies (art therapy, drama therapy) as tools for expression and growth employment in sheltered or supported settings, training programmes oriented towards practical skills and self-development, person-centred planning.

Important is the self-determination approach, which focuses on the individual's ability to influence his or her own life and pursue goals that he or she considers important (Wehmeyer et al., 2010).

Self-actualisation is also a fundamental need for people with intellectual disabilities, the fulfillment of which affects their quality of life, mental well-being and social inclusion. Although it may have specific manifestations in this group and require more support, it cannot be considered less valuable than in the non-disabled population. Allowing people with intellectual disabilities to be authors of their own lives – even on a small scale – is not only humanly dignified, but also preventive against negative behavioural manifestations or psychological decompensation, which was confirmed in my research investigation, where I worked with the respite and residential facility Domov Jitka, where a support group for people with intellectual disabilities was created, which included family members of clients and volunteers. The support group first began with the concept of expressive therapies-but over time we primarily focused on rehearsing a theatrical performance that was conceived as a fundraising event and presented to the general public as a bridge between majority and minority society.

5 Empirical part-statistics

A year-long expressive therapeutic intervention aimed at people with intellectual disabilities, their family members and other participants from the local community was implemented in cooperation with the Jitka Home (a residential-relief facility for people with intellectual disabilities and their families). The aim was to promote personal and social skills development through art therapy, music therapy and drama therapy. A key part of the project was the creation of a support group and the development of a theatre performance *called Lazy Honza*, which involved clients of the home, professional musicians, volunteers and staff from the facility. The project enabled practical verification of theoretical knowledge, development of expressive therapeutic methods and promotion of an inclusive approach in the field of social work and special education.

The theatre project that I created together with the clients, the staff of the home and the volunteers also served as a support group aimed at developing the communication and socialization skills of the clients. The subsequent public presentation of the theatre was conceived as a fundraising event aimed at connecting majority and minority communities. The research portion of this thesis focused on the progress of the Jitka Home clients, particularly in the areas of communication and socialization. Through systematic observation and semi-structured interviews with staff, clients, their family members, as well as the audience after the performance, I took a close look at three specific clients. For these individuals, I observed changes in the areas of interpersonal relationships, cooperation, communication skills, as well as problem behaviors that were more present at the beginning of the intervention (see case studies below). The following section of the thesis provides a detailed description of the research investigation.

In addition to the improvements observed in the above areas, one distinct phenomenon repeatedly emerged in the individual interviews – a strong sense of **pride**. This was articulated by the clients themselves as well as by their families and facility staff. One client, Peter, summed up the experience succinctly by saying, “*I was most happy about a job well done.*” It was this experience of satisfaction and the opportunity to showcase one’s own abilities – both from the clients and the staff and volunteers – that all involved felt had significant therapeutic potential. Themes of pride, meaningfulness of activity, self-presentation and, more broadly, self-realisation emerged most frequently in this context.

Ethical grounding of the research

The names of the clients mentioned in the case reports have been changed for ethical reasons to protect their identity and privacy. All research activities were conducted in accordance with the ethical principles of working with people with specific needs, including informed consent from all stakeholders

Examples of Interview statements that directly touched on the area of self-actualisation

Employee-Did you notice a change in behavior in the clients?

I perceived and in that once everything was settled and they had it exactly set, then suddenly they became more confident and started to enjoy it more, then they knew exactly what to do. I think it was filling time for them, there was a big shift in that, that they were rehearsing regularly, they were enjoying it immensely. They were looking forward to it. Then later on, we still practiced separately every day, they even came to say, we agreed that we would start rehearsing at two o’clock. It was two hours and one minute and the clients were asking how come we weren’t playing when I had to

answer the phone or the girls had to finish something. So I would rate it as filling time. They enjoyed it, for them it was like work in a positive way.

Do you think the project helped to connect the majority society with the minority society? One mum who was only attending just our Monday rehearsals asked if we were going to continue it, she said she was going to miss it so much, she was glad she was with people other than just her bubble son and his equipment. I was surprised that despite our less than stellar publicity. Lots of people shared our show and lots of people saw it. We really are the age of social media, though I think it's incomparable to see us live. All in all, I think it was beneficial and completely for everyone, and in the end, despite the stresses, it was a joy.

Client What did you enjoy the most? It filled my time, but the thing I enjoyed the most was being able to show it to someone, my parents came to see me. **What did people tell you about the show?** They liked it, it was good. My grandfather said I could go to the National Theatre on the spot – see case study below for full interview.

Employee-How did you feel about the whole process as an employee?

As an employee it was an incredible amount of extra work, but then the finale, when we stood there and the curtain went up it was sheer joy and a sense of achievement, such a sense of satisfaction but at the same time with a kind of joyful tiredness, but there was a lack of closure afterwards – somewhere to sit down and finish it off, so I'm so glad for today that we're all here, that you've come, and that we can sing together and roast marshmallows.

Parent-What did you expect from the support group?

I didn't expect anything, I didn't know it would go this far and that it would turn into a theatrical performance. I was under the impression that we were doing theatre just for ourselves, but then what came out was the performance so the partner I've been living with for 10 years is a tough guy and he doesn't cry much, but he had a few tears there at the time.

Audience member How did you like the theatre performance?

Hello all my life, I work in theatre, I am involved in dramaturgy and I have to tell you that what I saw was very engaging, not only in terms of the actors' performances with regard to the actors and their disabilities, but I have to tell you that overall it was very good in terms of direction and set design, I am very surprised that I was able to see a quality theatre performance even from people with that type of disability. Very good work.

Audience member How did you like the theatre performance?

Hello, I am a sister from (Claudia name change) I wanted to thank you very much. I was very proud of my sister for how beautifully she played her role as the princess.

Case study 1

Name and age	Milada 50 years old
Diagnosis	Moderate intellectual disability
Family history	Milada was adopted and lived in a functional family, but her adoptive parents are no longer living and she has no siblings. She lives in the Jitka Home.
Personal history	<p>Milada is in good health but is fully dependent on the Jitka Home. She is sociable, enjoys talking and meeting new people. She is sometimes uncooperative with staff and has fixed opinions which are difficult to disprove. Due to her quirky nature, she sometimes does not respect the rules of the facility, but after a few challenges, she usually obeys.</p> <p>As far as the home's activation programmes are concerned, she participates according to her mood. She has to be genuinely enthusiastic about an activity to get involved. Milada quickly develops an emotional attachment to people and is very contactable with the people she chooses. She always makes sure and asks if she is friends with the person. However, if she does not like something, she always expresses her opinion.</p>

1. Focus of the research investigation

Communication	Ms. Milada communicated with me without any problem. She asked me if we were friends. She also needed to make sure if she was playing the role of Mommy Minky well.
The course of the project of supuration	In the initial session, I did expressive therapy with the clients where Ms. Milada was involved but sometimes stayed out of the way. Later sessions were then devoted to rehearsing a theatre performance. Mrs. Milada didn't want to play Mommy at first, then we talked her into trying the role once and since then, she always played the role of Mommy, sometimes she said she wouldn't play Mommy anymore, but she always ended up trying again. Later rehearsals she always wanted to rehearse Mummy and asked how she played.
Relationships	Mrs. Milada had no problem with her fellow actors she got along well.
Manifestations of problem behaviour	There were no problems from the beginning Mrs. Milada shied away from activities and later rehearsals but then she was very happy to participate in all the group activities.
Sample interview with Ms. Milada	<p>How was the performance for you? I liked it. I liked playing the mum.</p> <p>Did you enjoy rehearsing the play? Yes I showed it to a lot of people Ivan (Jitka, the home worker) said I had a good voice.</p> <p>In the beginning you didn't want to get involved, what was the reason? I had stage fright, but then I was good.</p> <p>What did you enjoy more, rehearsing theatre or other activities outside of rehearsing? The other activities. The bus I enjoyed it was good.</p> <p>Client's addition: was I a good mum? Everyone praised me. I was happy.</p>
Samples of interviews with staff	<p>How did Ms. Milada feel about the regular meetings and the actual theatre rehearsal? I think well, it took her a while to get used to the new programme but then she always came to us and asked when we were going to rehearse theatre. I was personally surprised that she remembered the lines and that she always cooperated willingly. She was also involved in the production of the set without much protest.</p> <p>How do you think Milada perceived the performance itself? I think it had a therapeutic effect on her. She was playing her mother, I think she was inspired by her in that role, her mother was kind but firm, and sometimes she even remembered her afterwards, which didn't happen for a long time. Overall, I think she was excited about the theatre, she kept saying she played Mummy Minka and asking how she played her.</p>

Case study 2

Name and age	Peter 28 years old
Diagnosis	Moderate intellectual disability – atypical autism
Family history	The family is complete and functional Peter has no siblings. His parents have to watch him more due to his unpredictable behavior, which creates a tense atmosphere between his parents and Mr. Peter.
Personal history	Peter stays at the Jitka Home Monday to Friday and goes home at weekends. Petr is sociable and friendly but has to be supervised and his behaviour is sometimes unpredictable. There have been several incidents where he has written threatening emails to certain people. The email contained very disturbing content, on the basis of which Mr. Peter and his parents faced court, on the basis of that fact Mr. Peter can only use electronic devices under supervision. Peter complains that he is bored in the facility and misses his peers. Mr. Peter sometimes refuses to participate in programs for clients offered by the home. Peter is usually in a good mood and not too confrontational, but there are times when he refuses to respect the rules of the facility or participate in the daily routine and program of the home.

2. Focus area of the research investigation

Communication	Communication with Peter was easy he participated in all activities, but seemed more engaged during the rehearsal of the theatre itself. Peter played the main role of lazy Honza. He was learning the lines, but at the same time he was improvising during rehearsals, his improvisation was funny and fit the concept of the story being played, but sometimes it happened that he started to make up too much and we had to remind him what to say and do.
collaboration	Peter cooperated without any problems, he was actively involved and gave suggestions on how to improve the theatre, how and what he would like to play. He performed the play itself without any difficulties and sat a big clap with the audience, then after the show he had a solo singing performance, the songs he chose himself because they were close to his words for longer and he identified with the lyrics.
Relationships	In terms of relationships with his fellow actors he got along with them and there was no problem. Communication between me and Peter was smooth, he always listened to me and I in turn listened to what he wanted to change and what he liked, he then built a close and friendly relationship with Martin with whom he rehearsed his solo songs. I could sense that he was very happy after the performance, he kept telling me that his parents were proud of him.
Manifestations of problem behaviour	There were no significant problems with Peter during the course of meeting and rehearsing theatre, we did sometimes have to slightly direct him during rehearsals. Otherwise, however, he has been cooperative and no major problems have arisen.
Excerpts from the interview with Mr. Peter	<p>How did you like rehearsing the performance? I liked it a lot, but sometimes it was too long for me.</p> <p>Did you enjoy rehearsing the play or the activities before the play (expressive therapy techniques)? You had a good mix of both.</p> <p>Did you enjoy our regular meetings and rehearsing theatre? Yes very much, it warmed my heart to be able to show it to someone. I'd like to do it more often.</p> <p>What did you enjoy the most? It filled my time, but the thing I enjoyed the most was being able to show it to someone, my parents came to see me perform.</p> <p>What have people told you about the show? I liked it, it was good. My grandfather said I could go to the National Theatre on the spot.</p> <p>So what did you enjoy most about the show? Yes, I enjoyed the final work the most. I also liked the way we created the set and the way Martin and I sang at the end (the client had a singing solo accompanied by guitar after the show).</p> <p>Client's question: And we're going to keep doing this, I wish we'd keep doing it, the theatrics and all that, because my mom is happy, my dad is proud of me too. I've shown her that I can do something. I felt a bit like I was in a sprite race, but then I liked the end result.</p>
Samples of interviews with staff	<p>Has Peter's behaviour changed during the course of therapy? Peter's behaviour was the same, but when we said in the home that we were going to rehearse the theatre he was immediately ready, which is not normally the case with him, he was actively and easily involved in creating the set.</p> <p>How did he feel about the performance itself? He was enthusiastic, he felt like a great actor.</p> <p>Free part of the interview. I was worried if he would get too excited during the performance, but he managed it beautifully, but as you know, we had to direct him in rehearsals. Otherwise, he did everything above our expectations.</p>

Excerpt from an interview with family members	<p>How did you like the performance? Thank you, I was excited I was worried about how it would turn out or if he would do something wrong but everything turned out great.</p> <p>How did you feel about the whole process of us meeting? Petya always told us at home what you did together. He was always reluctant when we returned him to the Home, but when we told him that he was rehearsing theatre, he was more eager to go home and it was easier for him to say goodbye.</p> <p>Thank you very much again, it's a pity there aren't more activities like this.</p>
--	---

Case study 3

Name and age	Denis 30 years old
Diagnosis	Moderate intellectual disability – childhood autism
Family history	The family is functional and complete, the parents have Denis at home and use the facilities within the day activities offered by the home. Denis has 3 siblings and gets on well with them, his mother was forced to stay at home due to her son's severe disability. Denis is sometimes aggressive towards his mother.
Personal history	Dan is fully dependent on his family, attends the Jitka Home where he participates in respite programs, is friendly and sociable. However, he has been aggressive towards his mother in the past, and currently his outbursts of anger and aggression towards his mother are much less frequent, but still present at times.

3. Focus of the research investigation

Communication	I always asked Denise if he wanted to do the activity, We communicated with each other yes no. Most of the time though, he always smiled and participated in all activities.
Collaboration	Denis was always actively cooperative during the sessions, both in the expressive therapy sessions, the song practice where he sat and swayed, and the actual theatre. When we told him to look menacing as a dragon (make a scowl) – he always just smiled. He understood but with assistance when he was supposed to go on stage he managed to walk there on his own and stand in place, over time you made him a two headed dragon, his fellow dragon was played by a user of another facility (sheltered housing).
Relationships	Denis was friendly throughout and didn't show any aggression, the only minor problem that occurred was during the dress rehearsal, you could tell he was uncomfortable there were strangers there the sound man the lighting man and the general stressful atmosphere, we picked up on this but in due course Denis went for a walk for the rest of the dress rehearsal he sat in a quieter part of the hall and in the end everything went smoothly. He knew where to go, what to do and when to leave. He handled everything well and was smiling.
Manifestations of problem behaviour	There was no problem behaviour, when we saw he needed a break there was a break and Mr Denis managed everything without any problems.
Excerpt from the interview with Mr. Denis	<p>How did you like what we did today? Yes, I liked it.</p> <p>Did you enjoy rehearsing the theatre? Yes, I did.</p> <p>Did you like singing the songs or playing the dragon more? The dragon.</p> <p>Client: Will there be a dragon? A dragon.</p>
Sample interview with staff	<p>How did Denise's behavior during the meeting affect you? He seemed happy, Denis is sometimes very difficult to engage due to the nature of his disability, but here he was cooperative and you could see he was enjoying it</p> <p>How do you rate the performance itself? It's great that Denis did it without the help of his mother, it was a great performance for how deeply disabled he is, during the dress rehearsal he seemed irritable. You could see that he wasn't enjoying it as much as he does in the traditional rehearsals, but after he went for a walk with his mum and had a meal he seemed better and eventually he managed to do well.</p>

Excerpt from an interview with family members	<p>How did Denis feel about the regular meetings and the actual rehearsal of the theatre? Denis always remembered that we had a rehearsal on Mondays, sometimes it happened that he didn't want to come with me to the programmes at Jitka's home, he was very gloomy and sometimes I preferred not to go with him so as not to risk him getting angry, but he always looked forward to regular meetings with you. I also relaxed, chatted with the others and was able to have a deposit of coffee, I was worried about how direct you were from the start but from the first moment he just smiled at you. At home afterwards he was always walking past me asking when the dragon was coming.</p> <p>How do you think Denis perceived the performance itself? He was aware that he was a dragon and very happy to play it, I was also very pleasantly surprised that he could handle the pressure and play the whole show. That was a little miracle for me.</p> <p>Did you see any changes in Denis' behaviour during the regular meetings? I can't say exactly, but he always looked forward to the Monday meetings, and even now after the show he asks when the dragon is coming again.</p>
---	--

6 Conclusion

Self-actualization is a basic psychological need, the fulfillment of which significantly affects the quality of life, mental well-being and social integration of an individual. Research across age groups and ability levels shows that promoting autonomy, creativity and meaningful engagement can act as a significant protective factor against depressive symptoms, frustration and problem behaviour. This fact was confirmed in a research project carried out in collaboration with the Jitka Home, where a support group was created and an expressive therapy intervention based on theatre therapy – a theatrical rendition of the fairy tale *Lazy John* – was implemented.

The empirical investigation, based on a qualitative analysis of three case studies, showed that even people with moderate to severe mental disabilities show the need to be active creators of their lives, to express themselves, to be accepted and perceived as full participants in social events. Involvement in the theatrical process has led not only to improvements in communication, cooperation and self-control, but above all to a stronger sense of value and pride – for the clients themselves, their families and the staff of the facility.

The data obtained confirms that self-actualization is not an exclusive privilege highly restricted to the majority society or to people without mental deficits, but a universal need that finds its form in every individual – whether through creative activities, relationships or small everyday decisions. If conditions are created that respect individuality, allow for expression and promote participation, even a person with an intellectual disability can experience a sense of meaning, belonging and personal growth. For these reasons, the issue of self-realisation needs to be actively integrated into approaches in the field of ethical underpinning of research.

The names of the clients mentioned in the case studies have been changed for ethical reasons to protect their identity and privacy. All research activities were conducted in accordance with the ethical principles of working with people with specific needs, including informed consent from all stakeholders social work, special education and community support.

References

- Buntinx, W. H. E., & Schalock, R. L. (2010). Models of disability, quality of life, and individualized supports: Implications for professional practice in intellectual disability. *Journal of Policy and Practice in Intellectual Disabilities*, 7(4), 283–294.
- Deci, E. L., & Ryan, R. M. (2000). The “What” and “Why” of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 227–268.
- Dexter, R. A. (2024). *The relationship between self-actualization and depression in later life* [Doctoral dissertation, Name of University]. ProQuest Dissertations & Theses Global. <https://www.proquest.com/dissertations-theses/relationship-between-self-actualization-depression/docview/XXXXXXXX>
- Frankl, V. E. (1985). *Man's Search for Meaning*. Boston: Beacon Press. ISBN: 9780807014271
- Joseph, S., & Linley, P. A. (2006). growth following adversity: theoretical perspectives and implications for clinical practice. *Clinical Psychology Review*, 26(8), 1041–1053.
- Leow, S. H., Lau, P. S. Y., & Lau, E. Y. Y. (2016). Big Five personality and depressive symptoms: A self-determination theory perspective. *Personality and Individual Differences*, 97, 171–177. <https://doi.org/10.1016/j.paid.2016.03.050>
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22(3), 280–287.
- Maslow, A. H. (1943). A Theory of Human Motivation. *Psychological Review*, 50(4), 370–396.
- Maslow, A. H. (1968). *Toward a Psychology of Being* (2nd ed.). New York: Van Nostrand. ISBN: 9780442038058
- Matějček, Z. (2005). Prague: Portal. ISBN: 9788071789722
- Rogers, C. R. (1961). *On Becoming a Person: A Therapist's View of Psychotherapy*. Boston: Houghton Mifflin. ISBN: 9780395755303
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719–727.
- Schalock, R. L., et al. (2002). Conceptualization, Measurement, and Application of Quality of Life for Persons With Intellectual Disabilities: Report of an International Panel of Experts. *Mental Retardation*, 40(6), 457–470.
- Seligman, M. E. P. (1975). *Helplessness: On Depression, Development, and Death*. San Francisco: Freeman. ISBN: 9780716705530
- Vansteenkiste, M., Niemiec, C. P., & Soenens, B. (2005). The development of the five mini-theories of self-determination theory: An historical overview, emerging trends, and future directions. In Urdan, T. & Karabenick, S. A. (Eds.), *Advances in Motivation and Achievement*, 16A, 105–165. ISBN (full series): 9780762312607
- Wehmeyer, M. L., & Abery, B. H. (2013). Self-determination and choice. *Intellectual and Developmental Disabilities*, 51(5), 399–411.
- Wehmeyer, M. L., et al. (2010). Self-Determination and Student Involvement in Standards-Based Reform. *Exceptional Children*, 76(4), 407–424.

(reviewed twice)

Mgr. Tereza Telekyová
Palacky University
Faculty of Education
Žižkovo nám. 5
77140 Olomouc
Czech Republic
e-mail:terka.tel@seznam.cz
IGA_PdF_2025-027

Options for preventing school failure among children starting regular primary schools: Theory and good practice in the Czech Republic

(overview essay)

**Barbora Lanková, Michal Vostrý, Ilona Pešatová,
Hana Finkousová, Vlastimil Chytrý**

***Abstract:** The article focuses on the problem of school failure among children entering the first grade of regular primary schools (in the Czech Republic, these are schools for children between six and eleven years old). School failure is a worrying phenomenon that has a negative impact on children's lives and can affect their future academic growth and career success. The aim of this article is to analyse the causes of school failure in this specific age group and to propose effective strategies and interventions that could contribute to reducing the problem. The article presents the various factors that contribute to school failure among children entering the first grade. Such factors include children's lack of readiness for school education, inadequate support by the family and environment in which children grow up, and insufficient specific pedagogical strategies for working with this age group. Furthermore, the article presents some effective interventions and strategies that could help to reduce school failure among students in the first grade. These strategies include preschool programs aimed at preparing children for school, strengthening family-school collaboration, providing support for students with special educational needs, and using differentiated teaching methods and resources.*

***Keywords:** school failure, special education, diagnostics and screening, Reversal Test, primary schools*

1 Introduction

Study problems can be considered one of the leading predictors of school failure, so it is difficult to examine school dropout without focusing on these problems at the same time. In practice, it is quite difficult to separate the causes and consequences of such failure. It is important to recognise that students who experience long-term

school failure are at risk of emotional and social difficulties. This risk can escalate and result in delinquent to criminal behaviour. In this case, many authors agree that such behaviour threatens the health of the individual concerned. Quite often, such behaviour is also associated with addictive substance abuse or risky sexual behaviour (Newcomb et al., 2002; Lochner & Moretti, 2004; Bradshaw et al., 2008). Therefore, the very development of the students in question may be disrupted. School failure may also be a reason for dropping out of school. In this case, we may encounter immaturity of the individuals in the emotional, social and cognitive domains. From the social point of view, they are not mature enough to take on adult social roles and responsibilities. In particular, maintaining full employment and financial independence and developing self-reliance seems to be difficult (Arnett, 2000; Bradshaw et al., 2008). Older sources suggest that school failure and dropout may be considered comprehensive and inter-related processes. These processes often occur together with problem behaviours. We cannot disregard factors related to the individual, their family and social environment. These factors can adversely affect the person's development and lead to school failure. It can be assumed from the general theory of deviance that students who use addictive substances are more likely to drop out of school. There is also the theory of deviant peer affiliation, which assumes that peers' views of school or study matters influence their friends' behaviours and attitudes (Battin-Pearson et al., 2000; Bronfenbrenner & Morris, 1998; Gilmore et al., 1992).

Many authors work with the term "problematic school absenteeism", linked to the issues mentioned above, among which teenage pregnancy can also be included. It is precisely those individuals who show excessive absenteeism during their schooling who have higher failure and dropout rates. To avoid these risks, we must look into the risk factors for both truancy and dropout (Chou et al., 2006; Jaafar et al., 2013; Kearney, 2008).

Truancy (also referred to as school absenteeism) is not just a label for one particular issue. It can be used to describe a variety of concepts, including school refusal. One of the reasons may be the often-mentioned addictive substance abuse and also emotional distress of children, which includes, for example, anxiety and depression, school phobia (fear-induced absenteeism). The traditional view of truancy also considers inadequate parental supervision, delinquency, study problems or inadequate social environment. In all cases, such situations give rise to a fairly clear pattern. It starts with relatively harmless truancy, which can, however, turn into school failure, and even to dropping out (Fremont, 2003; Gubbels et al., 2019).

1.1 Preventing school failure in the Czech Republic

The basic competencies that a child should acquire during the educational process are of lifelong importance in our culture, and therefore school failure must be dealt

with seriously (Pokorná, 2010). School failure can be defined as a long-term failure to meet the demands of school. It involves poor marks and often the resulting negative attitudes towards learning and education, as well as towards individual teachers or the school as a whole. School failure can be classified as absolute and relative. Absolute failure is a consequence of the child's innate intellectual abilities, relative failure occurs due to other reasons that may have a solution (Průcha, 2008).

It is important to realize the significant factors that contribute to long-term school failure. These include, for example, a lower level of intellectual abilities. Specific manifestations of children with a lower level of intellectual ability include an impaired ability to concentrate and poorer performance in reading and arithmetic. However, these children can be successful in other areas (art, physical education or handicraft) where they can excel among their peers; so it is necessary to provide an appropriate programme for these children so that they too can achieve praise, recognition and school success (Monatová, 2000).

The significant factors also include developmental changes (immaturity of first-graders or developmental changes during adolescence). A child starting school has a strong need to compete with peers and succeed. If the child's experience in this regard is positive, then the desired qualities of concentration, diligence and ambition are naturally reinforced. The negative effects on the child's personality formation are caused by possible failure, which makes the child feel inferior. This can lead to resignation and apathy towards education in general. In the case of repeated failures, these factors may become a personality trait and persist into the future (Helus, 2009). Therefore, in order to prevent school failure, it is necessary that the child is mature and sufficiently prepared at the time of starting school. Individual needs of the child (specific learning and behavioural disorders, somatic and psychological condition of the child, gifted child) must be considered. Children with specific learning needs that are not adequately compensated for and considered by the teacher, have worse marks even if their intelligence is demonstrably high. It is important to remember that often specific learning disorders go hand in hand with problem behaviours. A child who cannot achieve success at school soon develops a dislike for school work and expresses his or her negative attitude through inappropriate behaviour (Pokorná, 2010).

The difficult position of such children can also be caused by the attitude of the school, teachers, and classmates, who often perceive them (due to the prevalent stereotyping) as a source of problems (Vašutová, 2008). Special care should also be given to gifted children, where the lack of full use of their potential can again lead to problem behaviours and a negative attitude towards school (Sokolová, 2020).

We can also talk about social influences. The environment in which the child grows up also has an impact on school performance, whether it is a family that supports the child in everything but fails to give him or her the guidance to be independent, or on

the contrary, an environment that maximally supports the child's independence and self-sufficiency but lacks the need for cooperation with others. Another factor that influences a child's school performance is the family's attitude towards education and their trust in school as an educational institution. Last but not least, the relationships within the family and the child's cooperation with his or her parents also contribute to the child's success (Vašutová, 2008). In addition to social influences, another research focus is classroom climate and assessment. The school classroom is a specific peer group that is not chosen by the child. The child has a need to assert him- or herself among the classmates and to become accepted, which is important for gaining his or her self-esteem. However, if he or she fails to do so or does not feel comfortable in the classroom atmosphere, this can have a negative impact on the school performance (Vágnerová, 2008). Assessment significantly affects interest in learning. Assessment should serve a motivational function in addition to describing the level of knowledge. Statements made by the teacher regarding the child fall into this category and should be positive, specific and understandable for the child (Jucovičová, 2017). For example, teachers' views of and attitudes towards disadvantaged children play an important role in narrowing the social gap between children and can to some extent compensate for poorer skills of some children entering school (Youn, 2019).

A child who fails in the school environment, for whatever reason, is exposed to many related negative influences. School failure negatively affects a student's attitudes towards education, work and society. Children who are unsuccessful often have a negative attitude towards school, reflected in their final marks, which significantly affect their choices and options for further education. Educational attainment then determines future careers to a large extent. The right choice of profession is one of the factors that determine lifelong satisfaction and the possibility of self-realization. Conversely, failure at school can cause frustration and lead to secondary behavioural problems. These children may have more problematic relationships with their more successful peers and seek support among members of questionable social groups (Pokorná, 2010). The interconnectedness of the various phenomena clearly points to the need to address the prevention of school failure in a systematic way.

1.2 Strategies to prevent school failure in the Czech Republic

The strategy for the prevention of school failure should be part of the Minimum Prevention Programme, which is a mandatory document prepared by each school, aimed at educating students. It is developed on the basis of the school's prevention strategy. In general, it deals with education for a healthy lifestyle, and personal and social development of children. It promotes students' own activity, involvement of teachers and work with students to prevent socially pathological phenomena. An important issue is the cooperation between the school and parents. The Minimum Prevention

Programme is developed for a period of one year (Decree No. 72/2005 Coll.). The strategy for preventing school failure should then include, in addition to the legislative framework and the definition of the starting points and objectives, the specific steps that will lead to the set goal and the specific problem-solving procedures that the school will follow if previous measures fail (*Strategie předcházení školní neúspěšnosti, šikaně a dalším projevům rizikového chování*, 2018 /*Strategy to prevent school failure, bullying and other risk behaviour*). Educators need to consider the fact that the first grade is likely to be composed of children whose age difference may amount to 1 year, which is approximately 15% of a child's development. This means that even the simple factor of age can negatively affect a child's success at the start of school. Further differences will be in the areas of cognition, social competence, attention span, etc. (Matějček & Klégrová, 2011). All these differences between children must be considered by the teacher in the school activities. Teachers often have to rely only on their own pedagogical diagnostics – observation and analysis of outcomes. However, its accuracy depends on the experience, intuition and individual skills of the educator. This process is also very lengthy and requires a longer period of time. For this reason, the child may get special education care too late, i.e. only after going through a negative experience – failure and disappointment (Vítová, 2021). This situation could be changed by the introduction of a school special educator who would be able to provide (in terms of time and expertise) screening of children at the beginning of the first grade and provide educators with more information about the children and their current levels in the areas necessary for successful completion of school duties. Appropriately selected diagnostic tools that can identify weaknesses and subsequent targeted intervention are tools that can prevent school failure (Urbanovská, 2019). As mentioned above, effective diagnostics of a child starting compulsory schooling appears to be an effective prevention of school failure. Early detection of the child's weaknesses, and subsequent targeted intervention can reduce the risk of exposing the child to failure (Vítová, 2021). Also, the methodological recommendation issued by the Czech School Inspectorate puts emphasis on the monitoring of children with special educational needs, as well as on the screening of children at risk of school failure (CSI).

An extended model of the school counselling centre, for whose activities the school principal is responsible, includes the role of a special educator. Together with the educational counsellor, prevention methodologist or school psychologist, they provide counselling services for children, parents and teaching staff of the primary school. The special educator coordinates the school's cooperation with counselling facilities – educational psychology counselling centres and special education centres (Decree No. 72/2005 Coll.). The necessary professional qualification of the special educator is stipulated by Section 18 of Act 198/2012 Coll. The special educator's interest is mainly focused on children with special educational needs and the provision of

all related tasks, such as checking the implementation of individual education plans, assisting teachers in their preparation and setting appropriate support measures. He or she also provides methodological guidance to teachers educating children with special educational needs as well as to teaching assistants. In addition to the aforementioned, the job of a special educator should include conducting screening tests to detect children at risk of school failure (Kucharská, 2013). By introducing this position, the Ministry of Education, Youth and Sports hoped to improve communication and conditions of inclusive education in Czech schools (*Šablony OP JAK vyhlášeny, 2022 /OP JAC templates announced/*). Currently, there is an apparent effort to increase the number of schools where the position of special educator is established. So far, these positions have been funded from various projects, development programmes or templates. As a result, positions of special educators are established on a temporary basis, without the certainty of job perspective, which reduces the interest in applying for the job (Čech, 2020). Certain changes in approach may be brought by the new Operational Programme Johannes Amos Comenius (OP JAC), which was established in 2022 to support inclusive education, building on the success of the Operational Programme Research, Development and Education. Funding from European funds can be obtained for the creation of support positions in education (including the position of special educator) and for the development of teaching staff over a three-year period. The programme thus focuses primarily on supporting children at risk of school failure. In addition to the above, the programme aims to test a new model that could receive systemic support in 2025 (*Šablony OP JAK vyhlášeny, 2022 /OP JAC templates announced/*). If a standard position of special educator at schools is created, the schools would most probably be interested in staffing their counselling services.

The present research shows the importance of coordinating comprehensive support for students who are at risk of school failure in regular primary schools in the Czech Republic. The support for such students is based on the support instruments defined by law. Since 2016, this system has been embedded in Czech legislation (primarily, Act No. 82/2015 Coll., which amended Act No. 561/2004 Coll., on Pre-school, Primary, Secondary, Tertiary Vocational and Other Education, “the School Act”; or curriculum documents – General Education Programmes). Thanks to legislative background and clearly defined support measures, inclusive education for all students with special educational needs can be fully implemented. These are the essential measures for the successful inclusion of students. In this context, it is also important to consider the school environment (barrier-free, friendly climate), teachers’ competencies and attitudes towards students’ education, cooperation between the school and counselling centres, cooperation between the school and the family, acceptance of each student by teachers, classmates and parents, etc. (Slowík, 2016; Evans, 2007; Armstrong et al., 2010).

2 Method

2.1 Research method

The present survey is based on the quantitative approach. The survey involved an experiment carried out with two groups. The participants in the experimental and control groups were selected by purposive sampling, where the respondents matched the predetermined relevant characteristics. Their assignment to a given group was then made by random selection. *The aim of the survey was to determine the effect of our chosen intervention on the improvement of results in the chosen diagnostic tool.*

2.2 Research ethics

It was necessary to obtain the consent of the child's parent or legal guardian to conduct the research. In this process, we stressed that the results of the research would be presented in a way ensuring the anonymity of the respondents. When conducting the research, it was necessary to approach the children with regard to their age and intellectual abilities, and to adjust the choice of words when explaining the different tasks. The researcher followed the code of ethics and maintained confidentiality. The individual steps of the investigation were approved by the ethics committee of the Faculty of Health Studies, J. E. Purkyně University in Ústí nad Labem (registration number: 72/2023/01238). The survey was carried out in accordance with the Declaration of Helsinki. Informed consent was secured from the legal representatives of the primary school pupils. The experimental investigation was not carried out in the form of invasive techniques; it was carried out in the form of selected educational procedures.

Data availability: The source data cannot be shared publicly in order to respect the signed informed consent of legal representatives. The source data are recorded in the Czech language and any translations could cause differences in the interpretation of individual items. The source data are kept unchanged by the authors of the study. (Contact information: Michal.Vostrý@ujep.cz)

2.3 Timetable

The actual implementation of the research took 4 months. It started with entry testing of all children (September), then a periodical intervention (3 times a week for 30 minutes) with the children from the experimental group was carried out and ended with exit testing (end of January). The individual steps of the research implementation are recorded in a flowchart (Figure 1). With regard to the chosen survey, we asked a causal research question: *What is the effect of a periodical targeted intervention on the development of measurable competencies through the chosen standardized instrument in children entering the first grade of a regular primary school?*

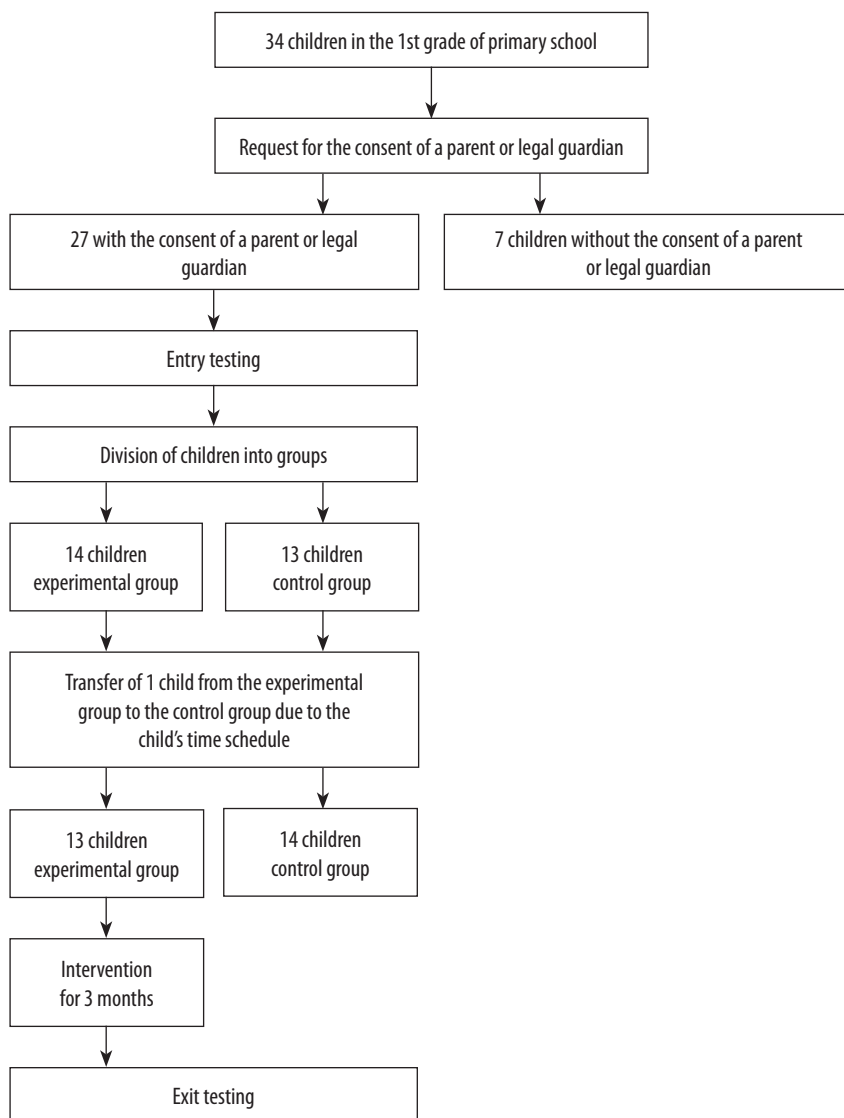


Figure 1: *Flowchart for the survey (source: author's own work)*

2.4 Research sample

The research was conducted in a regular primary school (223 children in the school year 2022/23). Enrolment at this school tends to be formal in nature and mainly consists of familiarising the student with the teachers and the school. A total of 34 children enrolled in the first grade, whereas informed consent to participate in the research was obtained for 27 of them (27 children participated in our research investigation, following the signing of informed consent by a legal guardian). These children were randomly divided into two groups. One group was the experimental group (13 children) and the other was the control group (14 children). Four children from the experimental group and five children from the control group had compulsory schooling postponed. In the experimental group there was one child with a health impairment (diabetes) who had a third-level support measure and a teaching assistant. One child in the experimental group already had a referral from an educational psychology counselling centre. There was no child in the control group with a support measure. The children in the experimental group then participated in the periodical intervention.

2.5 Intervention

The intervention took place regularly 3 times a week for 30 minutes over the period of 4 months. After careful consideration of the children's availability and in an effort not to disrupt the teachers' normal work with the class during the day, the intervention time was set for the afternoon (12:40–13:10). As these children are of early school age, lower participation can be expected due to higher sickness rates than the case would be with older children. According to the data collected, attendance ranged from 91% to 29%. The average attendance rate was 65%. The structure of the intervention was always similar to help children navigate and feel safe. In the initial session, we greeted the children, and briefed them on what to expect in the next 30 minutes. They then played an active game aimed at strengthening visual memory. During the second part of the intervention, the children sat at their desks where they had worksheets or tools for the given activity. Where possible, the pictures were thematically related to the previous game. Children who completed the tasks before the others had puzzles or worksheets one level harder always prepared. At the end of the intervention there was a recap session in which the children tried to evaluate their work and said what they did or did not like. They were also informed about the work that awaited them at the next meeting. The children also had the opportunity to participate in the preparation of the materials, for example by choosing the topics of the pictures used. This was always a guided choice.

The targeted intervention primarily focused on the areas that were tested with the help of the selected diagnostic tools and in which it was necessary to achieve

detectable improvement – visual memory, visual discrimination, spatial orientation, visual analysis and synthesis, fine motor skills, and graphomotor skills. The intervention followed the general principles of reeducation and work with children of early school age. The activities were chosen on the basis of literature that focuses on this issue or deals with the prevention of learning disorders. These are mainly publications by Bednářová, Pokorná (*Cvičení pro děti se specifickými poruchami učení: rozvoj vnímání a poznávání /Exercises for children with specific learning disorders: development of perception and cognition/*; Přemýšlej, vybírej, rozlišuj, srovnávej, sestavuj: předcházíme sklonům dítěte k dyslexii, dysgrafii, dyskalkulii /*Think, choose, distinguish, compare, assemble: preventing the child's tendency to dyslexia, dysgraphia, dyscalculia/*; Rozvoj vnímání a poznávání /*Development of perception and cognition/*) and Šindelářová (*Předcházíme poruchám učení: soubor cvičení pro děti v předškolním roce a v první třídě /Preventing learning disorders: a set of exercises for children in the pre-school year and first grade/*). Šimon's worksheets were also used (Šimonovy pracovní listy 8). As a diagnostic tool, we chose the School Maturity Reversal Test. Figure 2 shows the developmental curve of visual perception according to Edfeldt (Reversal Test), where the number of errors is a function of the child's age. The assumption is that children at age six with adequate development of visual perception should make no more than ten errors. Error-free completion of the test is assumed for eight-year-old children (Pokorná, 2010). The blue dots show the distribution of the research sample according to the number of errors made in the entry Reversal Test. Children who are above the developmental curve are children who should be given more attention, as they show some deficit in visual perception or concentration skills.

2.6 Methods and procedures of statistical analysis

As mentioned above, the selected research sample consisted of 27 children. For this reason, the results of the experimental and control groups were compared using the non-parametric statistical method. Using descriptive statistics, the differences between the scores on the entry and exit tests for both the experimental and control groups were calculated. The values of the differences for the two groups were then compared using the Mann-Whitney test, which showed us the α level – the probability of whether or not the null hypothesis could be rejected. The t-test was used to compare the scores of the entry and exit tests of the group that actively participated in the intervention and the group that only participated in the testing. If it happens that the P value is greater than or equal to 0.05, then there is no statistically significant difference between the medians at the 95.0% confidence level, and statistical significance cannot be confirmed. The results presented below are divided according to the tests that were used to determine the child's school maturity and readiness. We used a logical order for the monitored variables: testing for normality (generally

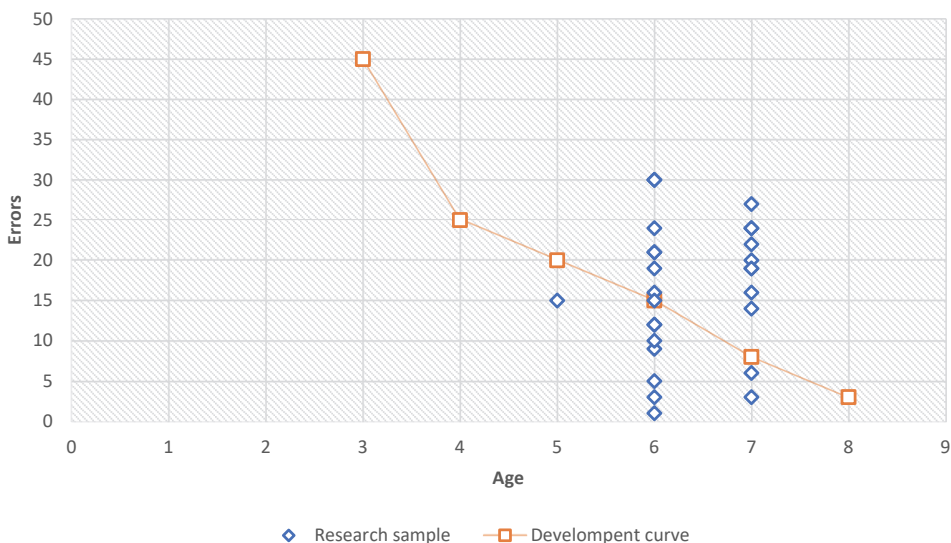


Figure 2: Relationship between age and number of errors in the entry Reversal Test
(source: modification by Pokorná, 2010)

presenting the results of descriptive and inductive statistics), visualizing the data, and identifying differences between the experimental and control groups.

2.7 Results

Table 1 shows the results of the descriptive statistics of the Reversal Test. This test was applied to both groups before and after the intervention. The results were compared with each other based on the statistical analysis performed. Tables 2–4 present the results of the statistical analysis of the t-test with the following results. Through the statistical analysis of the data using the paired t-test, it is possible to reject the null hypothesis that was defined at the beginning of the research and accept the alternative hypothesis, i.e. to confirm the effect of the periodical intervention on obtaining higher scores in the exit Reversal Test. The results suggest that both the experimental and the control group showed a statistically significant difference between the entry and exit testing (experimental group's $p = < .001$ and control group's $p = .002$).

Tab. 1: Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Ex. in	14	54.00	83.00	69.71	8.31
Con. in	13	54.00	81.00	65.85	7.84
Ex. out	14	60.00	83.00	74.57	6.50
Con. out	13	63.00	84.00	74.15	8.20
Valid N (listwise)	13				

Legend: Ex. in = experimental group input; Con. in = control group input; Ex. out = experimental group output; Con. out = control group output

Tab. 2: Paired Samples Statistics – Reversed test

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Ex. in	70.92	13	7.25	2.01
	Con. in	65.85	13	7.84	2.17
Pair 2	Ex. out	75.69	13	5.17	1.43
	Con. out	74.15	13	8.20	2.28
Pair 3	Ex. in	69.71	14	8.31	2.22
	Ex. out	74.57	14	6.50	1.74
Pair 4	Con. in	65.85	13	7.84	2.17
	Con. out	74.15	13	8.20	2.28

Legend: Ex. in = experimental group input; Con. in = control group input; Ex. out = experimental group output; Con. out = control group output

Tab. 3: Paired Samples Correlations – Reversed test

		N	Correlation One-Sided p	Significance	
				Two-Sided p	
Pair 1	Ex. in & Con. in	13	−.317	.146	.292
Pair 2	Ex. out & Con. out	13	.156	.305	.610
Pair 3	Ex. in & Ex. out	14	.837	< .001	< .001
Pair 4	Con. in & Con. out	13	.646	.009	.017

Legend: Ex. in = experimental group input; Con. in = control group input; Ex. out = experimental group output; Con. out = control group output

Tab. 4: Paired Samples Effect Sizes – Reversed test

			Standardizer ^a	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	Ex. in – Con.in	Cohen's d	12.25	.414	–.161	.974
		Hedges' correction	13.09	.388	–.151	.912
Pair 2	Ex. out – Con.out	Cohen's d	8.99	.171	–.380	.716
		Hedges' correction	9.60	.160	–.356	.670
Pair 3	Ex. in – Ex.out	Cohen's d	4.57	–1.062	–1.711	–.388
		Hedges' correction	4.86	–1.000	–1.610	–.365
Pair 4	Con. in – Con.out	Cohen's d	6.76	–1.229	–1.944	–.485
		Hedges' correction	7.23	–1.150	–1.819	–.454

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

3 Discussion

The aim of the survey was to ascertain the effect of *our intervention on the improvement of the results achieved in the chosen diagnostic tool*. On the basis of the presented results, we reached the following conclusion. The experimental group achieved better results in the monitored indicators and there was also a statistically significant difference compared to the control group. The intervention aimed directly at the students and at positively influencing them. It is also important to consider the related studies that addressed the issue at the level of the factors that led to school failure. One such example is the study by Jakšić and Malinić (2019), whose first research focused on qualitative inquiry about what future teachers reported as important factors associated with school failure. Through this analysis, the authors reached conclusions that point to a number of different causes of school failure factors. The most common causes were the students' disinterest and lack of motivation. In addition, it was also the teachers' lack of preparation (teaching methodology), the students' failure to prepare for the classes, their laziness and lack of commitment. Closely related to this was the missing involvement of parents (legal guardians) in the educational process. Such findings are consistent with other authors' research (Georgio et al., 2002; Petersen, 2010).

Completing the highest education possible can be considered a strong predictor of good health. Many authors believe that the more educated people are, the better their health is likely to be. Education is also closely related to earnings and employment, yet evidence suggests that education itself has the strongest influence on health (World Health Organization, 2010; Molla, Madans & Wagener, 2004). To

some extent, school can provide the knowledge that students acquire during their studies. Likewise, school can be involved in health promotion and prevention in the case of risky behaviours. Such behaviours may then lead to school failure. An interesting example is the school climate model. This model suggests the importance of connectedness and engagement at school. Positive relationships with teachers and respect at school may be associated with better academic performance. This may be reflected in fewer behavioural problems, and the process then leads to better mental health. Consequently, school can be understood as a framework for the cognitive, emotional and social development of an individual. Similarly, school becomes a focal point for prevention, identification and resolution of problems that can lead to mental health disorders (Jamal et al., 2013; Bruns et al., 2004).

The resulting poor mental health is often associated with dropping out of school or generally failing in the educational process. As mentioned above, adolescents without the completed compulsory education are at risk of cumulative disadvantage due to poor health, poverty and unemployment later in life (Patton et al., 2016; Castellví et al., 2020). The issues of students who do not fit into mainstream education is not a new or unfamiliar topic for schools. We can say that since the very establishment of school, this has been an ongoing issue: How to categorise and classify a “problematic child” who is not meeting expectations? In history, there have been many ways to categorize “lagging” students. In the 19th century, such individuals were referred to as “bums” or “idiots”. In the early 20th century, such students were labelled as “weak”, “slow” or “imbeciles” or “psychopaths”. Many of the labels have become pejorative since then, i.e. the classification has been modified.

Nowadays we talk about diagnoses such as ADHD, ADD, dyslexia, etc., based on the findings of neuroscience and neuropsychiatry. In short, we can say that the classification of school problems using different individual categories is a sign of how the institution thinks about and responds to problems (Hjörne & Säljö, 2009; Hjörne & Säljö, 2014). We fully share the view that “efficient” teachers know that each person “dances to their own tune”. That is, students learn in different ways. Unfortunately, even today, dynamic and individualized learning is not used very much, and the more popular trend of setting different standards prevails. This includes different standards for teachers, for student learning, for outcomes, etc. It may seem that a standard, like a test score, is a rational way to identify schools, teachers and students who failed or succeeded. Unfortunately, the use of standards has its limitations, as it identifies precisely those who do not meet the standards. Thus, a very narrow margin is created: you either meet the standards or you do not meet them and then you are “problematic”. The question is whether this is an ideal way to prevent school failure (Wood, 2001).

Limitations of the study

A limitation of the study may be the small number of respondents who participated in the survey. Given the funding opportunities and the composition of the research team, it was not possible to get a larger research sample. Thus, the direction of future studies could be to form a larger sample of students and to subsequently compare the diagnostic tools. Another limitation may be the selection, i.e. the equality of the groups. The entry examination showed that there was no statistically significant difference between the test scores of the two groups.

Prior to the intervention, we tried to limit the entry inequalities as much as possible, adjusting the conditions to enable equal testing, and deliberately selecting participants who matched the predefined relevant characteristics. It is also important to mention instrumentation, i.e. the measurement effect. We do not assume that the participants mastered the test questions of a given standardized test since the time lapse between the entry and exit testing was three months.

4 Conclusion

In this article, we addressed the problem of school failure of students entering the first grade of regular primary schools. This phenomenon has serious implications for children's lives and may affect their academic growth and career success. We have identified several factors that contribute to this problem, including insufficient readiness of children for school, inadequate support given by the family and the environment, and a lack of specific pedagogical strategies for working with this age group. We have proposed several effective interventions and strategies to reduce school failure. These include pre-school programmes aimed at preparing children for starting school, strengthening family-school collaboration, supporting students with special educational needs, and using differentiated teaching methods and resources. It is important to recognise that the resolution of school failure requires a multidisciplinary approach. Collaboration between teachers, psychologists, social workers and the students' families is key to achieving positive outcomes. Diagnostics and individual planning are essential for adapting the educational process to the needs of individual students.

The aim of this article is to contribute to greater awareness of the school failure issue in students entering the first grade of regular primary schools and to offer practical steps to reduce this problem. It is necessary that educational institutions, families and professionals work together and pay increased attention to this important aspect of education. This is the only way to ensure that students have a solid foundation for successful academic development and future careers. The present text provides some important advice for educational practice (modified from Silvana et al., 2021; Jakšić & Malinić, 2019):

- i. Provide children with emotional support: It is important for them to feel safe and confident in the school environment. It is important to make sure they feel heard and respected. Promoting emotional wellbeing is key to their ability to concentrate and learn effectively.
- ii. Help to develop a positive self-image: It is important to help children develop healthy self-esteem and self-worth. You can build on supporting their individual abilities and strengths. It is essential to teach students to cope with failure and to reward their efforts and progress.
- iii. Contribute to the development of social skills: Communication and interaction with peers are crucial for success at school. Help children to develop social skills such as cooperation, expressing their feelings and resolving conflicts. Encourage healthy classroom relationships and create a friendly learning environment.
- iv. Cooperate with the family: Involve parents in the learning process, support them and give them tools to support their children's learning at home. Communicate with them regularly and share information about their children's achievements and challenges.
- v. Provide individual support: The key is to recognise the individual needs of students and tailor learning plans accordingly. To do this, you can use differentiated teaching methods and resources to ensure that every student has the chance to reach his or her full potential.
- vi. Monitor and evaluate progress: Regularly monitor and evaluate students' progress so that you can identify any problems early and provide adequate support. Use a variety of assessment methods, including informal observation, tests and interviews. Share the assessment results with parents and work with other professionals to get a full picture of the child and his or her needs.

We believe that this combination of pedagogical approaches can bring positive changes and help students entering the first grade of regular primary schools to overcome obstacles and achieve success in their academic and personal development.

References

- Jakšić, I., & Malinić, D. (2019). Pre-service teachers' perceptions of factors contributing to school failure and their relationship to prior personal experience of school success. *psihologija*, 52(1), 1–20.
- Silvana, H. O., Andrea, P., & Nikola, C. J. (2021). High School Failure, a Systematic Review in the Social Sciences. *Интеграция образования*, 25(2(103)), 214–225.
- Armstrong, C., Armstrong, D., & Spandagou, I. (2010). *Inclusive Education: International Policy and Practice*. Los Angeles: Sage.
- Průcha, J. (2008). Vzdělanost/národní vzdělanost: nevyjasněný pojem pedagogické teorie. *Pedagogika*, 58(3), 275–285.

- Šablony OP JAK vyhlášeny, 2022 [online]. [cit. 15. 12. 2022]. Dostupné z: <https://www.msmt.cz/ministerstvo/novinar/sablony-op-jak-vyhlaseny-9-miliard-pro-materske-a-zakladni?highlight=Words=škola%C3%AD+speciální%C3%AD+pedagog>
- Kucharská, A. (2013). *Školní speciální pedagog*. Praha: Portál.
- Matějček, Z. & Klégrová, J. (2011). *Praxe dětského psychologického poradenství*. Praha: Portál.
- Vítová, J., Maněnová, M., & Wolf, J. (2021). *Pohledy na diagnostiku školní připravenosti*. Červený Kostelec: Pavel Merart.
- Vágnerová, M., & Klégrová, J. (2008). *Poradenská psychologická diagnostika dětí a dospívajících*. Praha: Karolinum.
- Jucovičová, D., & Žáčková, H. (2017). *Školní hodnocení a žáci se specifickými poruchami učení a chování: (využitelné pro základní i střední školy)*. Praha: D + H.
- Youn, M. (2016). *Inequality from the first day of school: The role of teachers' academic intensity and sense of responsibility in moderating the learning growth gap*. The Journal of Educational Research, 109(1), 50–67.
- Urbanovská, E. (2019). *Školní připravenost pohledem speciálního pedagoga*. Olomouc: Univerzita Palackého v Olomouci.
- Georgiou, S. N., Christou, C., Stavrinides, P., & Panaoura, G. (2002). Teacher attributions of student failure and teacher behavior toward the failing student. *Psychology in the Schools*, 39(5), 583–595.
- Vašutová, M. (2008). *Děti se specifickými vývojovými poruchami učení a chování a násilí ve školním prostředí*. Ostrava: Ostravská univerzita v Ostravě, Filozofická fakulta.
- Sokolová, H., Pokorná, A., & Fišerová, M. (2020). *Školní zralost a nadané dítě*. Praha: RAABE.
- Castellví, P., Miranda-Mendizábal, A., Alayo, I., Parés-Badell, O., Almenara, J., Alonso, I., ... & Alonso, J. (2020). Assessing the relationship between school failure and suicidal behavior in adolescents and young adults: a systematic review and meta-analysis of longitudinal studies. *School Mental Health*, 12, 429–441.
- Helus, Z. (2009). *Dítě v osobnostním pojetí: obrat k dítěti jako výzva a úkol pro učitele i rodiče*. 2., přeprac. a rozš. vyd. Praha: Portál.
- Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., et al. (2016). *Our future: A Lancet commission on adolescent health and wellbeing*. *Lancet* (London, England), 387(10036), 2423–2478. [https://doi.org/10.1016/S0140-6736\(16\)00579-1](https://doi.org/10.1016/S0140-6736(16)00579-1).
- Monatová, L. (2000). *Speciálně pedagogická diagnostika z hlediska vývoje dětí*. Brno: Paido.
- Wood, M. M. (2001). Preventing school failure: A teacher's current conundrum. *Preventing School Failure: Alternative Education for Children and Youth*, 45(2), 52–57.
- Petersen, L. J. (2010). *Parents and educators' perceptions of factors influencing high rate of academic failure of learners in Clarke estate primary schools* (Unpublished master thesis). University of the Western Cape, Republic of South Africa.
- Hjörne, E., & Säljö, R. (2008). Att platsa i en skola för alla: elevhälsa och förhandling om normalitet i den svenska skolan.
- Hjörne, E., & Säljö, R. (2014). R. Analysing and preventing school failure: Exploring the role of multi-professionality in pupil health team meetings. *International journal of educational research*, 63: 5–14.
- Pokorná, V. (2010). *Teorie a náprava vývojových poruch učení a chování*. Praha: Portál.
- Jamal, F., Fletcher, A., Harden, A., Wells, H., Thomas, J., & Bonell, C. (2013). The school environment and student health: A systematic review and meta-ethnography of qualitative research. *BMC Public Health*, 13, 798. <https://doi.org/10.1186/1471-2458-13-798>.
- Zákon č. 561/2004 Sb., o předškolním, základním, středním, vyšším odborném a jiném vzdělávání (školský zákon), ve znění pozdějších předpisů, 2022 [online]. MŠMT, [cit. 10.1.2023]. Dostupné z: <http://msmt.cz/file/56990>

- Jakšić, I., & Malinić, D. (2019). Pre-service teachers' perceptions of factors contributing to school failure and their relationship to prior personal experience of school success. *psihologija*, 52(1), 1–20.
- World Health Organization. (2010). *Education and health go hand in hand*. Retrieved April 4, 2019 from https://www.who.int/dg/speeches/2010/educationandhealth_20100920/en/.
- Molla, M. T., Madans, J. H., & Wagener, D. K. (2004). Differentials in adult mortality and activity limitation by years of education in the United States at the end of the 1990s. *Population and Development Review*, 30(4), 625–646. <https://doi.org/10.1111/j.1728-4457.2004.00035.x>.
- Bruns, E. J., Walrath, C., Glass-Siegel, M., & Weist, M. D. (2004). School-based mental health services in Baltimore: Association with school climate and special education referrals. *Behavior Modification*, 28(4), 491–512. <https://doi.org/10.1177/0145445503259524>.
- Gubbels, J., van der Put, C. E., & Assink, M. (2019). Risk factors for school absenteeism and dropout: A meta-analytic review. *Journal of youth and adolescence*, 48, 1637–1667.
- Fremont, W. P. (2003). School refusal in children and adolescents. *American Family Physician*, 68, 1555–1560.
- Kearney, C. A. (2008). An interdisciplinary model of school absenteeism in youth to inform professional practice and public policy. *Educational Psychology Review*, 20, 257–282. <https://doi.org/10.1007/s10648-008-9078-3>.
- Jaafar, N. R. N., Iryani, M. D. T., Salwina, W. I. W., Nazri, A. R. F., Kamal, N. A., & Prakash, R. J., et al. (2013). Externalizing and internalizing syndromes in relation to school truancy among adolescents in high-risk urban schools. *Asia-Pacific Psychiatry*, 5, 27–34. <https://doi.org/10.1111/appy.12072>.
- Chou, L.-C., Ho, C.-Y., Chen, C.-Y., & Chen, W. J. (2006). Truancy and illicit drug use among adolescents surveyed via street outreach. *Addictive Behaviors*, 31, 149–154. <https://doi.org/10.1016/j.addbeh.2005.04.011>.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469–480.
- Bradshaw, C. P., O'Brennan, L. M., & McNeely, C. A. (2008). Core competencies and the prevention of school failure and early school leaving. *New directions for child and adolescent Development*, 2008(122), 19–32.
- Newcomb, M. D., Abbott, R. D., Catalano, R. F., Hawkins, J. D., Battin-Pearson, S., & Hill, K. (2002). Mediational and deviance theories of late high school failure: Process roles of structural strains, academic competence, and general versus specific problem behaviors. *Journal of Counseling Psychology*, 49, 172–186.
- Lochner, L., & Moretti, E. (2004). The effect of education on crime: Evidence from prison inmates, arrests, and self reports. *American Economic Review*, 94, 155–189.
- Battin-Pearson, S., Newcomb, M. D., Abbott, R. D., Hill, K. G., Catalano, R. F., & Hawkins, J. D. (2000). Predictors of early high school dropout: A test of five theories. *Journal of Educational Psychology*, 92, 568–582.
- Bronfenbrenner, U., & Morris, P. (1998). The ecology of developmental processes. In W. Damon (Ed.), *Handbook of child psychology*, Vol. 1. Theoretical models of human development (pp. 993–1028). Hoboken, NJ: Wiley.
- Gilmore, M. R., Hawkins, J. D., Day, L. E., & Catalano, R. F. (1992). Friendship and deviance: New evidence on an old controversy. *Journal of Early Adolescence*, 12, 80–95.
- Act No. 82/2015 on Pre-school, Primary, Secondary, Tertiary Vocational and Other Education (the School Act), available from <https://aplikace.mvcr.cz/sbirka-zakonu/ViewFile.aspx?type=z&id=28806> (in Czech) and Decree

No. 27/2016 on education of students with special educational needs and gifted students, available from <https://aplikace.mvcr.cz/sbirka-zakonu/ViewFile.aspx?type=z&id=39614> (in Czech).

Slowík, J. (2016). *Speciální pedagogika*. Prague: Grada Publishing.

Evans, L. (2007). *Inclusion*. New York: Routledge.

(reviewed twice)

PhDr. Barbora Lanková, Ph.D.

Faculty of Education, Department of pre-primary and primary education,

Jan Evangelista Purkyně University in Ústí nad Labem, Czechia

České mládeže 8,

400 01 Ústí nad Labem

Czech Republic

Associate prof. Michal Vostrý, Ph.D.

Faculty of Education, Department of special and social education,

Jan Evangelista Purkyně University in Ústí nad Labem, Czechia

Faculty of Health Studies, Department occupational therapy,

Jan Evangelista Purkyně University in Ústí nad Labem, Czechia

Sociální péče 13,

400 11 Ústí nad Labem

Czech Republic

Associate prof. PhDr. PaedDr. Ilona Pešatová, Ph.D.

Faculty of Education, Department special and social education,

Jan Evangelista Purkyně University in Ústí nad Labem, Czechia

České mládeže 8,

400 01 Ústí nad Labem

Czech Republic

Mgr. Hana Finkousová

Faculty of Education, Department of special and social education,

Jan Evangelista Purkyně University in Ústí nad Labem, Czechia

České mládeže 8,

400 01 Ústí nad Labem

Czech Republic

Associate prof. Vlastimil Chytrý, Ph.D.

Faculty of Education, Department of pre-primary and primary education,

Jan Evangelista Purkyně University in Ústí nad Labem, Czechia

České mládeže 8,

400 01 Ústí nad Labem

Czech Republic

Well-being interventions for learners with special educational needs in schools: A scoping review

(scoping review)

Dagmar Majerechová, Lenka Sokolová

Abstract: *Learners with special educational needs (SEN) often show difficulties in social interaction, autonomy, application of social rules, and behavioral and/or emotional self-regulation, not only in the school setting. Therefore, effective school-based interventions should support their well-being, positive development, and social and personal skills. This study aims to identify the interventions focused on well-being provided to learners with SEN and to assess their effectiveness. Reviewed research drawn from four databases (Web of Science, SCOPUS, ScienceDirect, and EBSCOhost), and nine journals identified 11 studies. Given their common features and characteristics, we grouped them into 3 categories: relaxation interventions, social and emotional skills interventions, and positive psychology interventions. Interventions targeting the well-being of learners with SEN are in short supply, their effectiveness is not generalizable to the entire population, and if implemented in a school setting, the general learner population may benefit from those interventions too. The reviewed interventions seem to be applicable in practice and have the potential to improve the overall well-being, mental health, and quality of life of learners with SEN in school, however, some limitations need to be discussed.*

Keywords: *interventions, well-being, learners, special educational needs, effectiveness*

1 Introduction

In both the schools and the counseling services, we are increasingly encountering children who require a different approach to education. In the school educational system, they are classified as learners with special educational needs (hereafter referred to as SEN). The term SEN refers to a very diverse population of children with a wide range of physical, cognitive, and social-emotional difficulties, but also to children with exceptional talents who require varying degrees of special educational

support and assistance (Squires, 2012). Learners with SEN are considered potentially vulnerable groups at all levels of education due to learning difficulties, mental health, stigma, or risk of exclusion. A growing body of evidence suggests that there is a positive association between the prioritization of health and well-being in schools and the educational attainment of children (Michael et al., 2015). Schools that place greater emphasis on the health and well-being of learners tend to achieve better educational results (Littlecott et al., 2018). Well-being is related to the variety of experiences these children and adolescents have in the school environment, particularly the perceived support from their teachers (Suldo et al., 2009). Well-being is defined as a combination of feeling good and functioning satisfactorily (Huppert, 2009), and it is also associated with social support and personal factors such as self-esteem and positive self-image (Hilgenkamp et al., 2011). It is characterised as experiencing positive emotions such as happiness and contentment, as well as developing one's potential and some control over one's life, a sense of purpose, and positive relationships (Huppert, 2009). Children's well-being is not only coming to the fore in academic research but is also frequently mentioned in public discourse (Cooper & Layard, 2005). Longitudinal research shows that well-being in childhood predicts future well-being in adulthood (Richards & Huppert, 2011). Although researchers have not reached a consensus on a standardized definition of well-being in education, nor on the dimensions of well-being that are most related to learning and achievement (Vaknin-Nusbaum & Tuckwiller, 2022), there is a large consensus that well-being in school is connected with academic skills such as motivation and self-efficacy that influence learners' academic achievement (Govorova et al., 2020; Low et al., 2016). These research findings are also supported by Suldo et al. (2016) who noted that learners with full mental health who were identified as having high levels of well-being and no special educational needs showed better outcomes than vulnerable children, i.e., learners with low levels of well-being and no special educational needs in terms of their academic attitudes, perceptions of overall physical health, social support, relationship satisfaction, and identity development. Learners with high levels of well-being and the presence of SEN reported better academic self-esteem, better perceptions of physical health, greater social support, satisfaction in relationships, and lower victimization compared to their peers with low levels of well-being and the presence of SEN (Suldo et al., 2016). Therefore, as proved by many experts, monitoring the well-being of all children with and without SEN is necessary to continuously improve and ensure optimal performance, mental health, and overall satisfaction with the school as well as the quality of life in the school environment and also beyond (Bonell et al., 2018; Gigantesco et al., 2015; Inchley et al., 2022; Littlecott et al., 2018; Suldo et al., 2016).

In recent years, we have observed a growing trend toward promoting inclusive education for all learners (Roldán et al., 2021). Successful inclusive education creates a learning environment that supports not only the cognitive abilities of all children

but also their social and emotional development (Schwab et al., 2014) and ultimately their well-being. In an inclusive learning environment, it is necessary to provide a specialist approach to education for a child with SEN, as well as the provision of special teaching aids to support their effective learning. Learners with SEN often show difficulties not only in the school environment but also beyond, specifically in social interaction, autonomy, and application of social rules, as well as in behavioral and emotional self-regulation (Gaspar et al., 2016). Therefore, appropriate prevention and school-based interventions should promote well-being, positive development, and social and personal skills in these learners. Referrals should be directed primarily to the immediate environment of these children, especially their teachers, families, friends, and close communities (Gaspar et al., 2016). Interventions in the form of direct interventions in the school environment achieve the best results when they are integrated into the daily functioning of learners in the schools. They can also reinforce skills outside the classroom, for example, in school corridors and playgrounds. An important aspect is their adoption of a whole-school approach to improve the development of young people's social and emotional skills (Goldberg et al., 2019), whereby interventions that improve learners' coping skills in stressful situations can lead to improvements in their overall functioning, particularly well-being, which also leads to the more effective achievement of their individual goals (Ryan & Deci, 2000). Interventions of this type have focused predominantly on the classroom curriculum, the working environment of the support team, and methods of parent-teacher collaboration (Björklund et al., 2014). Such school-based interventions, which improve mental well-being, also aim to enhance multiple aspects of learners' development, such as promoting their self-efficacy as well as overall life satisfaction (Gigantesco et al., 2015). In addition, many of them also focus on bullying, aggression, and general well-being in different areas (Bonell et al., 2018). School-based well-being interventions also aim to stimulate children's intrapersonal and interpersonal domains (Mertens et al., 2020). The intrapersonal domain is related to coping with one's feelings, emotions, and attitudes as they relate to the individual self (Barber, 2019). In contrast, the interpersonal domain refers to the ability to build and maintain positive relationships with other learners, understand different social situations, roles, and norms, and respond appropriately to them (Shek & Leung, 2016). School-based interventions should be defined for a pre-agreed period, accompanied by measurable targets, regularly evaluated, and also recommended for individuals with SEN who can benefit the whole class. This way, school-based intervention might become part of the routine of all children, and each child benefits from it and is not excluded from the classroom. Such interventions generally improve the well-being and productivity of all learners in the school with or without SEN (Mitchell, 2014). Investigating the effectiveness of school-based interventions in improving the overall well-being, social-emotional development, mental health, and quality of life of learners with

and without SEN is also considered necessary and highly relevant (Barry et al., 2013; Clarke et al., 2015; Domitrovich et al., 2017; Langford et al., 2014; Weare & Nind, 2011) to ensure and demonstrate their effectiveness and relevance for all stakeholders who come into daily contact with children in the school environment. Today, effective support and participation of children with SEN in classrooms is achieved through teachers adapting the learning environment and altogether with teaching practices to best meet their needs and well-being, and can also contribute to reducing their multiple barriers and difficulties (Mitchell, 2014). According to a study by Mackenzie and Williams (2018), the lack of research focusing on school-based interventions targeting the mental well-being of learners with SEN in the school setting needs to be highlighted. This is one of the main reasons why we decided to carry out the current literature review, and we feel it is important to summarise the previous research findings and knowledge about school-based interventions concerning well-being that are delivered to learners with SEN in educational settings.

Review objectives

This review aims to fill a literature gap by focusing on well-being interventions delivered to SEN children in schools. At the same time, our objective is to discuss the effectiveness of these interventions. Although research attention has been paid to this group of children, there is still a lack of research focusing specifically on the well-being of these children in the context of the interventions provided. Therefore, we aim to explore what well-being interventions are provided to learners with SEN and what is their effectiveness.

2 Materials and methods

Study design

We adopted a rigorous approach to reviewing the literature by selecting clear criteria for selecting studies, extracting unsuitable ones, and assessing the quality of individual research studies as defined in the inclusion and exclusion criteria. We aimed to minimize bias and objectively assess the relevance of studies. We sought answers to our research questions, which we derived from previous research knowledge and findings. We followed the specific version of PRISMA for Scoping Reviews (PRISMA-ScR) as a guideline (Tricco et al., 2018) and the steps for conducting the scoping review (Mak & Thomas, 2022) in implementing this review study.

Search strategy

We decided to search four databases, Web of Science, Scopus, ScienceDirect, and EBSCOhost, because of access to an extensive archive of recent scientific articles

from prestigious journals with a higher quality peer-review process and outreach to a wide range of relevant literature. We identified a total of 729 articles and scientific studies with a limited year of publication, 2013-2023, on 27 June 2023, because of the focus on the most up-to-date and relevant research reflecting current school-based well-being interventions. The cut-off date was set from 2013 to June 27, 2023, the day when we provided a search. For the Web of Science electronic database, we chose the search string “intervention AND learners/students AND well-being AND special needs” using the Boolean operator “AND” and using these keywords, the database retrieved a total of 11 studies. For the Scopus electronic database, the search string “interventions AND well-being AND learners/students AND special educational needs AND efficiency” was used, and a total of 181 studies were identified. For the Science Direct electronic database, the search string was “interventions AND well-being AND learners/students AND special educational needs AND efficiency”, and a total of 424 articles were identified. Finally, for the EBSCOhost electronic database, the search string used was “interventions AND well-being AND learners/students AND special educational needs AND efficiency” with a total of 113 studies. Search strings vary due to the diversity of study provision of a given database. Current search strings consider as many desirable studies as possible for each database; therefore, they do not include any other appropriate words. The above selection of four databases provides extensive access to articles in the fields of education, psychology, social sciences, and health that are key to research on school-based interventions aimed at improving well-being.

Selection process

When selecting studies for the current review, we set inclusion and exclusion criteria (Table 1). To ensure greater homogeneity and quality of the research studies reviewed, we included only research articles from peer-reviewed journals. At the beginning of the selection process, both authors independently summarised and checked the total number as well as the titles and abstracts of all studies after applying search strings in the four specific scientific databases to avoid possible missing data. In the correction and check phase, the two authors then determined the reasons for excluding any unsuitable studies by adhering primarily to the two research questions. Discrepancies at any stage of writing were resolved by reassessing both views on the issue and then reconciling both views to ensure unanimity. The whole selection process is described in detail in the PRISMA Flowchart Diagram (see Figure 1).

Search results

Initially, we worked with a total of 729 studies. All duplicate studies were excluded based on their titles. Then, studies based on formal criteria were conducted, where

studies with inappropriate article types and those not in English were excluded. The abstracts were first independently evaluated by the authors. The authors later met in person and compared the abstracts of the eligible studies with each other in the meeting, in particular, the intervention that focuses on the well-being of learners with SEN in the school learning environment, as well as the presence of validation of the effectiveness of such an intervention. If the abstract did not convey the focus of the study, the specific study was retrieved as a full article, and the reviewers evaluated it together. A total of 11 articles were included in the final review (see Table 2).

3 Results

Of the 11 research studies, five were conducted in elementary schools, with a total of (N = 2623) children participating in the intervention. These studies were conducted in different countries: the UK, Finland, Canada, and India. One was conducted in the UK in a secondary school with a total number of learners (N = 10) participating in the intervention. One of the studies was conducted in four elementary (N = 39) and one middle school (N = 8) in the USA, with a total number of learners (N = 47) with SEN involved in the intervention. The remaining 4 studies were conducted in 17 primary schools and 51 special schools, with a total of 192 children with SEN in the UK participating in the intervention. Of the 11 interventions, 3 categories were created, with 5 studies falling into the first ‘social and emotional skills interventions’, 4 studies allocated to the second ‘relaxation interventions’, and only 2 studies allocated to the third ‘positive psychology interventions’. An overview of the categories of each intervention can be found in Table 2.

Interventions aimed at relaxation

The **practice of meditation** in various forms has often been associated with various religious practices and belief systems. There is some evidence that learners with SEN could benefit specifically from meditation techniques (Droscher et al., 2021). The authors used transcendental meditation, developed to achieve a deep state of relaxation, which is typically practiced for 20 minutes twice a day in a comfortable seated position (Haaga et al., 2011). Its effectiveness was validated through an RCT study. The meditation was introduced and taught during one individual session and two group sessions conducted over two weeks for children with SEN (emotional, behavioral, and autism spectrum disorders). All participants in the group, in which a regular period of silence (called Quiet Time) was introduced, practiced transcendental meditation for 10–15 minutes twice a day. The Quiet time was provided by a qualified member of the teaching or support staff trained in transcendental meditation. The entire intervention process was monitored through regular consultations with members of the research team (Droscher et al., 2021).

A qualitative evaluation was conducted, and the analysis of interviews with the children during and after the intervention showed that most participants expressed positive feelings about the Quiet Time sessions. After the sessions, and 12 weeks after the intervention, some even continued to practice them at home. Those with higher participation in the intervention tended to rate meditation sessions more positively.

Mindfulness-based interventions (MBI) are increasingly being implemented in schools to strengthen the emotional regulation skills of learners with SEN. Initial evidence suggests that these interventions hold promise in alleviating mental health burdens, particularly in terms of reducing anxiety and depression and increasing levels of mindfulness (Malboeuf-Hurtubise et al., 2016; Zenner et al., 2014). Mindfulness can be defined as a process in which attention is paid to a specific focus and purposeful in the present moment (Kabat-Zinn, 1994). Ryan and Deci (2000) defined mindfulness as a factor that leads to optimal self-regulation, allowing individuals to be in touch with their own needs, values, and emotions. The MBI was an intervention lasting eight weeks, and validation of its effectiveness was conducted using a quasi-experimental design. The group met once a week for 60 minutes, and the intervention was administered to primary school learners with learning disabilities and attention difficulties. Homework was assigned and was required to be completed at least once a week. Facilitated meditations were recorded, and a copy was provided to the teacher for further practice in the classroom. The MBI was adapted to be appropriate for the developmental stage of elementary school learners (Malboeuf-Hurtubise et al., 2017). If learners with severe attention deficit disorders become more perceptive, they may become more aware of their limitations in terms of their academic and social skills. This may have had a direct impact on their perception of their autonomy and competence (Malboeuf-Hurtubise et al., 2017).

A survey of 14 participants demonstrated that 4 of them showed a gradual increase in satisfaction with their competencies and skills. On the contrary, a small number, specifically 2 of the 14, exhibited only minimal changes over time; the majority, 8 of the 14, demonstrated a decrease in satisfaction. The impact of the mindfulness-based intervention program varied between participants (Malboeuf-Hurtubise et al., 2017).

Animal-assisted interventions are popular in schools because the presence of pets in the classroom can positively influence learning (Hummel & Randler, 2011), classroom behavior (Kotrschal & Ortbauer, 2003), emotional and cognitive development (Brelsford et al., 2017), and contribute to lower stress levels (Beetz et al., 2012). The authors (Brelsford et al., 2022) provided SEN learners (autism spectrum disorder, ADHD, ASD, and ADHD, and learners with a variety of learning disabilities) with both dog-assisted and relaxation interventions. In terms of time, approximately 5 minutes were devoted to active relaxation, 10 minutes to meditation, and the remaining 5 minutes to active relaxation, again to match the profile of the dog-assisted

intervention as closely as possible to the relaxation sessions. Validation of its effectiveness was demonstrated through a longitudinal RCT study.

The results of the study provide an overview of the effects of dog and relaxation interventions on the spatial abilities of typically developing learners as well as learners with SEN over one year, a key area of their learning and cognitive development. Spatial abilities are also important for children's problem-solving abilities, developing skills in maths as well as different subject areas that contribute significantly to their well-being: mental, physical, social, and emotional. Scores increased for all children after applying both interventions over one year, with immediate and short-term improvements noted at 4 weeks post-intervention (Brelsford et al., 2022). Statistical analyses of the group intervention revealed that learners with SEN did not significantly improve in the dog-assisted or relaxation interventions, unlike their peers without SEN. Notably, learners with SEN showed significant improvement only during the relaxation intervention, suggesting that relaxation interventions may have a more beneficial impact on the well-being of learners with SEN compared to dog-assisted interventions (Brelsford et al., 2022).

Research studies indicate the beneficial effects of animal-assisted intervention in school settings (Meints et al., 2022). For example, in the presence of a dog, children pay more attention to the teacher (Kotrschal & Ortbauer, 2003), follow the instructions better, and show fewer irrelevant decisions and errors (Gee et al., 2012). The current study used the same interventions as the previous study reported above (Brelsford et al., 2022), and involved learners with the same SEN, but also a learner with Down syndrome. Validation of their effectiveness was conducted similarly through a longitudinal RCT study. Salivary cortisol was collected in this case.

The study presents new findings on the effectiveness of individual and group interventions for children with SEN. At the beginning of the study, the SEN children showed higher cortisol levels compared to their peers due to their responses to novel situations, school integration, and self-perceived deficits in social competence. Additionally, all children, regardless of SEN status, experienced a significant increase in cortisol during the school period. Addressing the main research question about the impact of the animal-assisted intervention on stress reduction, learners in the dog-assisted group intervention showed decreased cortisol levels, indicating a significant improvement in stress response. In contrast, individual dog-assisted interventions did not yield similar improvements, emphasizing the greater effectiveness of group interventions for learners with SEN. Therefore, in general, group intervention with a dog appears to be more beneficial for children with SEN, particularly when administered in a small group with similar children, providing a more intensive and sustained effect on stress reduction (Meints et al., 2022).

Interventions in social and emotional skills

Cognitive behavior therapy (CBT) focuses on the nature of human experience with an emphasis on the interconnection of thoughts, emotions, and behavior (Graham & Reynolds, 2013). In the study by Weeks et al. (2016), female learners were divided into groups by school staff to particularly monitor those about whom they were most concerned. The effectiveness was confirmed through an RCT study. The participants were assigned to four groups, two experimental and two control groups. The experimental groups participated in the 6-week intervention, and pre-intervention measures were carried out with the whole research sample, with the 19 girls who had been identified as anxious and who would benefit the most from the intervention. At the end of the intervention, repeated measures were taken for all participants, and the comparison group was then involved in the intervention. Finally, additional measurements were taken with comparison group members following the intervention (Weeks et al., 2016).

Four instruments were used in the study: the Spence Children's Anxiety Scale (SCAS) by Spence (1998), the Children's Automatic Thoughts Scale (CATS) by Schniering and Rapee (2002), the Strengths and Difficulties Questionnaire (SDQ) by Goodman (1997), and the School Anxiety Scale Teacher Report (SAS-Tr) by Lyneham et al. (2008). Semi-structured interviews were conducted with school staff and learners following the intervention, as well as a focus group with parents from one of the schools. A questionnaire with open and closed questions was completed by all participants in both the experimental ($N=10$) and control ($N=9$) groups. Learners reported improvements in their feelings of anxiety as well as their ability to manage them. The intervention was described as a helpful and positive experience, and parents also noticed positive changes in their children. Given that CBT intervention is traditionally delivered in a clinical setting, implementing a CBT approach in a school setting presented some practical challenges, which included, for example, challenging the timing of group sessions and securing a suitable room in the school. These factors were critical to ensuring confidentiality and privacy, including concerns about other staff or learners who could enter the room during group sessions. Further concerns were also raised about the external intervention provider due to the subsequent delivery of the intervention through the CBT approach. Throughout the process, it became clear that some children had difficulty actively engaging with the CBT approach, specifically understanding and applying the principles to themselves and extending them beyond the examples presented during the group sessions (Weeks et al., 2016).

The program called *The Impact of Promoting Alternative Thinking Strategies (PATHS)* is a universal school-based intervention with an emphasis on **social and emotional learning**. There is significant evidence supporting its positive impact on

children's social-emotional outcomes and mental health (Hennessey et al., 2021). PATHS is a universal social and emotional learning intervention for children aged 4 to 11 years, delivered by a class teacher, aimed at promoting emotional awareness and understanding, positive self-evaluation, self-control, and interpersonal problem-solving skills. Learners from socially disadvantaged backgrounds have participated in the intervention, and its effectiveness has been demonstrated through an RCT study. At the beginning of this 2-year longitudinal study, classroom teachers received a PATHS program implementation guide. In addition to the curriculum, teachers were also encouraged to help children understand how and when to use coping strategies to manage and regulate their emotions throughout the school day. The intervention was designed to be implemented twice a week throughout the school year. Schools assigned to the control group continued their regular instructional activities, which typically included personal, social, and health education classes as part of the standard school curriculum (Hennessey et al., 2021).

The findings suggest that learners with SEN in the PATHS program were more likely to report lower levels of feelings of loneliness compared to children in the control group. These results suggest that a universal school-based social and emotional learning intervention, such as the PATHS program, can effectively reduce children's feelings of loneliness (Hennessey et al., 2021). The present study, even considering similar previous findings (Gupta, 2011; Madsen et al., 2018), thus demonstrates that interventions targeting social and emotional learning can work effectively in school settings to alleviate feelings of loneliness in children, highlighting the potential of readily available universal school-based interventions targeting loneliness in early human development.

The **Pyramid Club intervention** for Year 3 learners is a therapeutic school-based intervention that takes the form of an after-school club over 10 weekly sessions. The program focuses on children who exhibit quiet and shy behaviors and tend to internalize. It also targets children who may have difficulties with interpersonal relationships, including interactions with peers and adults. The present study involved children from socially disadvantaged backgrounds as SEN learners, and its effectiveness was validated through an RCT study. The overall results of the current study, as well as previous research on the Pyramid Year 3 intervention by Ohl et al. (2008), provide evidence of the intervention's effectiveness. The results suggest that the expected positive changes persist over the period. The scores in perceived difficulties decreased significantly in intervention participants (Ohl et al., 2008), while an increase in the "strength" of prosocial behavior was found, suggesting that the intervention not only positively influenced prosocial behavior, but also effectively managed deficits in the children who participated, thus achieving its primary aims (Ohl et al., 2008). This broadens the evidence base for interventions that aim to improve the social-emotional competence of children in school, particularly those

who tend to have greater problems with internalized emotional disturbances (Durlak et al., 2011).

Considering the effectiveness of using music as a therapeutic method for children with a variety of disabilities, The **Musical Theatre Project** (TMTP) aims to create a program that uses musical theatre as an enjoyable, entertaining, and educational way to promote language skills. The specific program implemented as part of this study, referred to as KIDS LOVE MUSICALS (KLM), uses classic musicals inspired by children's stories. It aims to foster learners' imaginative and cognitive skills by engaging them in the process of learning about themselves and their surroundings through the stories of musical characters. The main objective of the intervention is to foster creativity, improve social bonds between children and their emotional understanding, and improve the learning that occurs in or out of school. It also aims to create a safe environment and develop a variety of skills, including acting, communication, and social interaction. It is implemented for 4 weeks, twice a week for 30–45 minutes during or after the school day (Zyga et al., 2017). Its effectiveness has been demonstrated through a cohort study. Learners with specific learning disabilities, attention deficit disorders, autism spectrum disorders, Down syndrome, as well as those with developmental delays, participated in the intervention. The results of this study confirmed the feasibility of the KLM program for learners with SEN in a variety of school settings. They suggest that participation in a residential program has the potential to positively impact social-emotional functioning in children with intellectual disabilities or delays. The intervention results in improvements in eye contact and cooperative learning. It also increases engagement, social awareness, and self-confidence. Teachers' reactions to the program were equally positive (Zyga et al., 2017).

Standing Up for Myself intervention (STORM) is inspired by the principles of cognitive behavior therapy (Beck et al., 1979), exploring the different ways of responding to stigma. It also integrates narrative therapy (Close, 1992) by separating oneself from the problematic label and then creating new stories about oneself. A key element of the STORM intervention is peer support, which is considered of utmost importance in well-being, sense of self-worth, and response to stigma (Pistrang, 2008; Puschner, 2018). It consists of 4 weekly 90-minute sessions, with a different key message presented at each session, with a fifth follow-up session approximately 4 weeks after the fourth session. It is designed for existing collectives and groups of learners with learning disabilities. The evaluation of this intervention was conducted through qualitative interviews. Participation in the intervention allowed the group members to consider and practice ways to stand up for themselves effectively and assertively. The participants reported feeling more confident, willing, and courageous to stand up for themselves and rely only on themselves and not their parents after

the STORM intervention. Group members also showed greater empathy for others as well as a greater willingness to stand up for their peers (Scior et al., 2022).

Positive psychology interventions

The central theme of the 16-week **positive educational intervention** is the promotion of social participation. Its main goal is to teach children how to perceive themselves and others in a positive and valuable way. Teachers are trained to implement this intervention in their classrooms. In addition to regular 45-minute lessons, the principles of the program have been embedded into the wider curriculum (Vuorinen et al., 2018). The intervention has been regularly monitored, and teachers have had the opportunity to consult their progress (Vuorinen et al., 2018). Its effectiveness has been confirmed through an RCT study. It involved learners with SEN with learning and behavioral difficulties due to their immigrant background.

The entire group of learners with SEN demonstrated increased interest and improved participation in schoolwork after the intervention. Qualitative data revealed overall teacher satisfaction, noting a transformative change in teaching approaches and enhanced observations of each learner. Improved social cohesion and shared moments were highlighted, along with initially reluctant learners gradually appreciating their strengths. Changes in relationships and behaviors, increased empathy, and perseverance were observed. Despite general satisfaction, challenges included doubts among some teachers about positive education, mistrust between teachers and learners, identification of children not benefiting from the intervention, and the difficulty of involving the entire school team in the new educational approach (Vuorinen et al., 2018).

The **positive psychology intervention** comprises specific strategies aiming to enhance overall well-being. As defined by Sin and Lyubomirsky (2009), it is a psychological intervention that consists of training, exercise, and therapy and focuses primarily on increasing positive emotional states, positive thoughts, or positive behaviors. The main purpose is to increase the overall well-being of children with SEN and to examine whether this intervention led to a significant change in their perceptions of academic self-concept and academic achievement. Baseline assessments utilized standardized tests for subjective well-being, academic self-concept, and academic achievement. The positive psychology intervention was conducted over 12 weekly group sessions for 4 months with 31 children with ADHD. Post-intervention and 6-month follow-up assessments were employed to validate its effectiveness through an experimental design before, after, and follow-up (Upadhyay et al., 2021).

Statistical analysis revealed a significant improvement in the levels of well-being, academic self-concept, and academic achievement post-intervention. Upadhyay et al.

(2021) observed consistent effectiveness with previous studies (Stiglbauer et al., 2013; Dawood, 2014; Shoshani & Slone, 2017), indicating that positive psychology interventions for children with SEN effectively enhance overall well-being. Noteworthy was the significant improvement in academic self-concept, because of which learners with SEN experienced more positive emotions in the school environment, which supported their resources and facilitated learning in the classroom. This also extended their self-esteem in the academic environment, contributing to a significant enhancement in academic performance. In conclusion, the positive psychology intervention yielded significant improvements in the well-being, academic self-concept, and academic achievement of children with SEN (Upadhyay et al., 2021).

4 Discussion

Given the current paucity of research studies focusing on school-based well-being interventions delivered to children with SEN, which is also pointed out by Humphrey and Hebron (2015), in this review, we set out to identify what well-being-targeted interventions are delivered to learners with SEN in a school environment and discuss their effectiveness. We identified a total of 11 studies that met our criteria. Of the 11 interventions, we created 3 categories based on the identification of common features and characteristics that emerged in these interventions. Given the very common and significant difficulties, children with SEN face in terms of feelings of loneliness as well as lower levels of enjoyment of learning (Goldan et al., 2022). Our review includes that the *PATHS* intervention effectively reduces these feelings of loneliness by self-control as well as the elements of emotional awareness, understanding, and positive self-evaluation in children, while the study presents positive effects with a larger sample of learners with SEN (Hennessey et al., 2021). At the same time, social and emotional competencies need to be considered in SEN children, particularly among those with behavioral difficulties (Durlak et al., 2011). Emotional and peer difficulties have been the focus of Ohl et al. (2012), whose intervention, *The Pyramid Year 3*, which focuses on improving the social-emotional competence of children, has been included among the recommendations regarding the role of schools in promoting emotional health and well-being of learners, including those with SEN. Music therapy-based intervention, possibly using music-focused techniques such as the *KIDS LOVE MUSICALS!* A program that focuses on improving social relationships between participants, communication, creativity, and emotional understanding can equally positively impact social-emotional skills in children with SEN (Zyga et al., 2017). Interventions of this type also appeared to be effective, given the sample size. After implementing this intervention in education, teachers reported higher levels of self-confidence and verbal expression in children with SEN. They also observed an increased ability to interact with others, a better adaptation to behavioral

problem-solving, and an improved ability to work in larger groups (Zyga et al., 2017). This suggests that together with evaluating the effectiveness of interventions in the school setting, it is important to focus on the feedback provided by teachers (Mitchell, 2014; Norwich & Kelly, 2004) because not all types of intervention will suit all children with SEN and an individual approach needs to be considered (Mitchell, 2014; Norwich, 2008). Furthermore, due to the larger research sample with quantitative assessment of learners with SEN as well as qualitative assessment of their teachers, Vuorinen et al. (2018) consider the *positive educational intervention* which aims to teach children to perceive themselves and others in a positive and valuable way and to emphasize positive aspects to be an effective intervention, to have an accepting and valuable perception of yourself as well as others. When applying such intervention in the school environment among all learners with and without SEN, we need to be aware of the development of strengths and positive emotions, which can be particularly beneficial for learners with SEN as they help to build resilience and increase motivation and overall well-being in these children (Benoit & Gabola, 2021). Moreover, positive psychology interventions support social-emotional learning, develop better coping strategies, improve self-esteem, promote positive school experiences (Weare & Nind, 2011), and ultimately focus on strengthening the child's internal resources such as self-esteem, life satisfaction, and positive relationships, which can significantly contribute to improving their well-being (Benoit & Gabola, 2021). *The positive psychology intervention, a subjective well-being intervention program* that focuses on positive emotional states, positive thoughts, as well as positive behaviors involving gratitude, mindfulness, and optimistic thinking, has also been successful in promoting well-being and overall functioning in learners with SEN (Upadhyay et al., 2021). This effectiveness is consistent with previous research that has addressed similar themes (Dawood, 2014; Shoshani & Slone, 2017; Stiglbauer et al., 2013). However, Scior et al. (2022), who used the *STORM* intervention, which aims to teach learners with SEN to be self-reliant, take responsibility for themselves, and be able to assertively stand up and defend their stigmatized status in the event of misunderstandings, did not mention the same effect. The effect of the intervention varied for some participants, as the intervention was less effective for those who had already built higher self-esteem or skills in self-advocacy and asserting their rights. However, the intervention was still perceived as effective in line with fulfilling their potential, given that all participants reached a higher level of self-esteem after the intervention, were more willing to take initiative, and were also more courageous in making decisions independently and relying on themselves rather than others. From the above, it is evident that learners with SEN become more confident in their abilities and beliefs after the application of such an intervention, also due to its effectiveness. They can express their opinions confidently, solve their problems effectively, learn to find creative solutions, and overcome obstacles. At the same time, they

can more easily establish and maintain positive interactions and friendships with others, and finally, they can engage more effectively in the classroom and actively contribute to their learning. On the other hand, regarding effectiveness, group intervention with the assistance of a dog is not effective for learners with SEN. Based on these findings, relaxation interventions appear to have a more beneficial effect on learners with SEN compared to individual or group dog-assisted interventions (Brelsford et al., 2022). Through relaxation interventions, learners with SEN can achieve a higher level of well-being, which has a positive impact on their overall attitude and quality of life. However, then group interventions with a small group of learners with SEN are more effective compared to individual dog-assisted interventions (Meints et al., 2022). Hence, in promoting the well-being and presence of learners with SEN, teachers should focus on relaxation and group interventions in their elementary school classrooms with a narrower circle of participants, which are primarily aimed at benefiting this target group, as the teacher is one of the key elements contributing to the overall well-being and well-being of learners with SEN in the school environment (Kebbi & Al-Hroub, 2018). Given the limited ability to generalize the results due to the sample sizes, we consider the above interventions to be applicable to practice in terms of promoting the well-being of learners with SEN, however, further research is needed to support their effectiveness. Well-being interventions aimed at children with SEN can be provided to the benefit of an entire class, including children without SEN so that the child does not have to be excluded from the classroom (Mitchell, 2014), which is also supported by Droscher et al. (2021) who noted that an intervention aimed solely at learners with SEN may not be viewed favourably by learners with SEN. This was specifically to highlight the fact that young people are generally uncomfortable being singled out for special interventions (Droscher et al., 2021). Learners with SEN often have fewer emotional and behavioral strengths than their peers (Lappalainen et al., 2009). Moreover, boys are at higher risk of social exclusion than girls (Sourander et al., 2007), and therefore whole-class approaches seem to be beneficial for them. In contrast, Weeks et al. (2016) reported that some learners had more significant difficulties practicing the intervention in front of the entire group, compared to the findings above, suggesting that it is important to consider the target group when choosing an intervention, i.e., whether the intervention will be acceptable to all learners in the class and will not provoke potential negative reactions. It is also important to consider whether the intervention is appropriate for the individual needs of each learner in the class and what impact it might have on the learning process and school performance. We conclude that when applying interventions targeting *social and emotional skills*, it is desirable to contemplate the classroom and school environment as well as the interrelationships between those involved children with and without SEN (Lanza et al., 2023). Robb et al. (2011) highlighted the need to consider the current emotional state, the age of the target

group, and various current preferences. Each professional must consider the context of the provided intervention and social dynamics in the school or classroom (Vuorinen et al., 2018). Fostering optimistic thinking can lead to better coping with challenges in the school environment and can also positively affect cognitive functions such as concentration, memory, and problem-solving abilities (Upadhyay et al., 2021; Vuorinen et al., 2018). The findings of positive psychology intervention studies suggest potentially useful guidelines for the development of future interventions aimed at improving the well-being of children with SEN, as well as other children (Upadhyay et al., 2021; Vuorinen et al., 2018). They also highlight the need for research on parents and teachers, as they are key actors in children's overall development and may be involved in future positive psychology intervention processes. The results of this review can serve as an encouragement to continue to develop new educational approaches with not only relaxation elements and social and emotional skills but also with positive elements for inclusive classrooms. The interventions address the problems of current children with SEN but have not yet been explored sufficiently in larger research samples with less variability of learners with SEN, which might be explained in this review by a lower number of SEN learners compared to the general population. In the future, it is more desirable to implement interventions aimed at learners with SEN across the whole class, not separately, as learners without SEN can also benefit from such interventions, which in turn prevents learners with SEN from feeling that they are being excluded. At the same time, mixed methods evaluations are needed in educational institutions, with an emphasis on extensive documentation of the experiences of both children and those in their immediate environment.

Limitations

Despite providing relevant examples of intervention practices in schools and promising findings on their effectiveness, our study has some limitations. Qualitative evaluation of effectiveness carried out on relatively small samples was implemented in several studies, which is not generalizable to the whole population of learners with SEN. We also consider the limitation of our work to be a constraint of the years of publication from 2013 to 2023. However, we opt for it due to the relevance of the implementation of school-based interventions in the presence of inclusive education in schools in recent years. Nevertheless, some relevant studies, even from the previous years, may have been omitted due to this timeframe. Moreover, a limitation of the review is the variability of learners with SEN, which, while respecting the common reality in schools, at the same time limits the generalizability of the conclusions to the entire population of these children.

Implications for practice

The scoping review shows that in the context of the school environment, relaxation interventions are effective interventions for promoting the well-being of learners with SEN, because of which learners achieve a higher level of well-being at school. Other effective interventions that seek to promote learners' social and emotional skills are those that involve situations where learners benefit from being courageous in making decisions and expressing their views, relying on their abilities, and taking initiative, thereby promoting self-confidence and engagement. At the same time, those in which learners feel part of a positively oriented and flaw-accepting collective appealing to a valued perception of self as well as others, involving gratitude, mindfulness, and positive, optimistic thinking, are also dominant. When considering the implementation of general interventions as well as those that focus on the well-being of learners with SEN, they should be applied to all learners in educational institutions, including those with and without SEN, as children with SEN will not feel different from their peers and will not be excluded from the lessons. The scope of implementation of a given intervention needs to consider what will be required of those involved in a particular intervention, as for example, the CBT intervention has experienced difficulties in applying its principles over others. However, the interventions discussed in this review showed the potential to support the educational well-being of learners with SEN.

5 Conclusion

Children with SEN are increasingly included in mainstream classes, but they often face discomfort due to learning difficulties, stigmatization, and exclusion (Squires, 2012), which should be of concern for professionals who encounter them daily. For this reason, we summarized previous school-based interventions that enhance their well-being, positive development, and social and personal skills, which could inspire school support teams to implement similar interventions in their schools. However, the review underscores a lack of research on the interventions aimed at the well-being of learners with SEN, emphasizing the need for further investigation into the effectiveness of well-being interventions provided directly to this target group.

Conflict of interest

The authors declare that the research was carried out without any commercial or financial involvement that could be interpreted as a possible conflict of interest.

Table 1: *Inclusion and exclusion criteria*

Inclusion criteria	Exclusion criteria
Given the research sample, there must be an isolated sample of learners with SEN.	Duplicity of the studies.
The learners must be direct beneficiaries of the intervention.	Studies do not evaluate the effectiveness of the intervention.
The intervention must focus on the well-being of the learners, with a particular focus on the children with SEN.	Formal criteria: inappropriate article types such as Editorial, Review, Note, Conference proceedings, Conference paper, Comment, Survey, Review Article, Book, eBook, Book chapter, Discussion, Systematic review, and Methodological review.
The study must include an intervention that can be pedagogical as well as psychological but described in detail and applied in a school setting.	Studies written in a language other than English.
The study must include validation of the effectiveness/effectiveness of the well-being intervention provided to learners with SEN.	Studies that have not been peer-reviewed.
Peer-reviewed studies must be published in scientific journals and in English.	Studies do not answer the two research questions.
The study must meet the time range of 2013 to June 2023.	
Studies that have been Articles, Research Articles, Journal Articles, and Case Studies.	

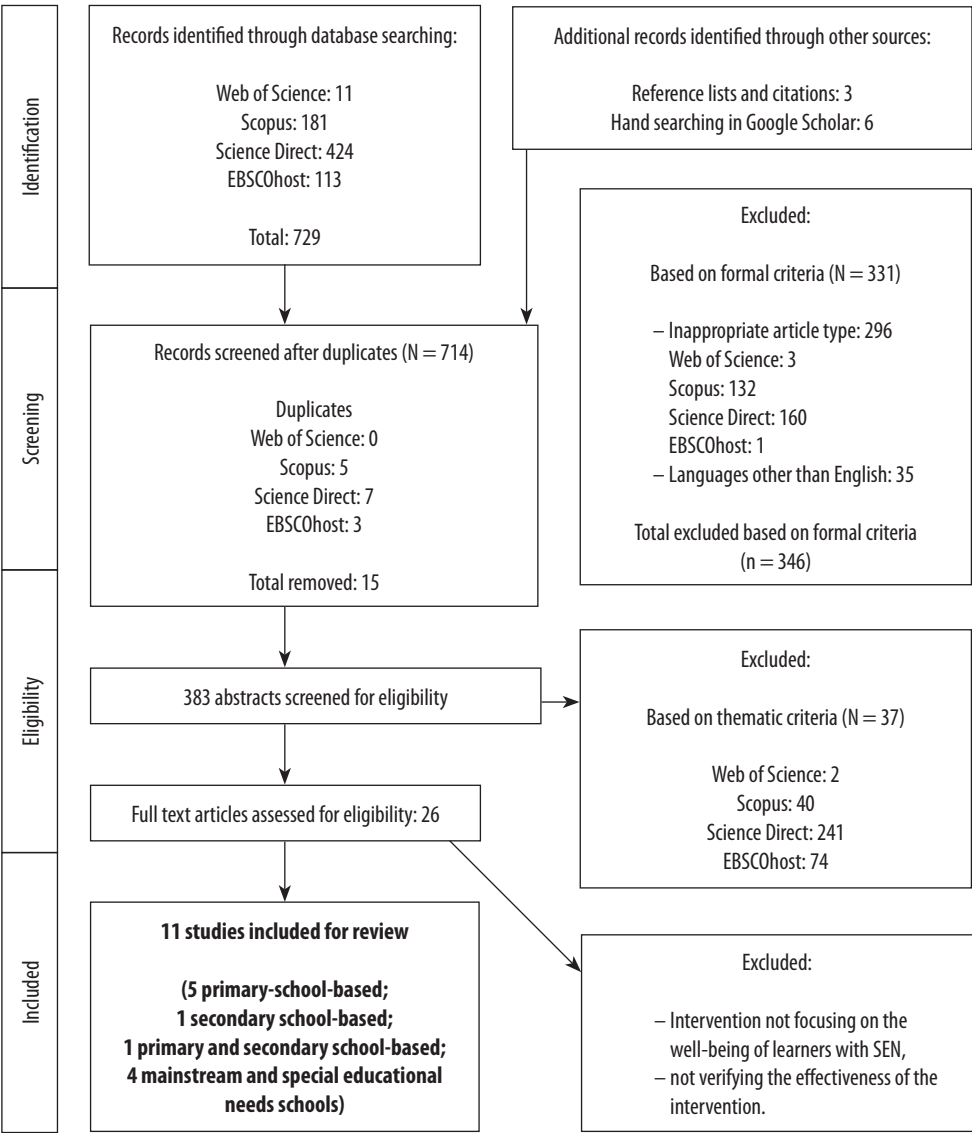


Figure 1: The PRISMA Flowchart Diagram

Table 2: Characteristics of the studies included in the review (N = 11)

Author, Country	School	Sample Characteristics	Study aim/hypothesis	Type of Intervention, Category, and Duration	Study design / Method / Results
Droscher et al. (2021); UK	3 mainstream secondary schools for learners with SEN 1 special school for children with autism	learners with SEN (n = 33); emotional problems, autism behavioral problems, autism age 11–16 years	To test the hypothesis that “Quiet Time” meditation improves psychological functioning.	Quiet Time – Interventions aimed at relaxation 10–12 weeks	RCT – 1 experimental group (n = 17), 1 control group (n = 16). Interviews Participants reported an improvement in well-being during the school year.
Weeks et al. (2016); UK	1 secondary school	learners with SEN (n = 19); anxiety age 11–14 years	(i) Assess the effectiveness of a group CBT intervention for anxious adolescent girls at school. (ii) Examine the factors and barriers affecting the success of this school-based intervention.	CBT – Interventions in social and emotional skills 6 weeks	RCT – 2 experimental groups (n = 10), 2 control groups (n = 9). Semi-Structured Interviews; The Spence Children’s Anxiety Scale (Spence, 1998), The Children’s Automatic Thoughts Scale (Schmiering & Rapee, 2002), The Strengths and Difficulties Questionnaire (Goodman, 1997), The School Anxiety Scale – Teacher Report (Lyneham et al., 2008). Participants reported improvements in their feelings of anxiety and their ability to cope better with anxiety.
Hennessey et al. (2021); UK	45 elementary schools	learners with SEN (n = 975); from socially disadvantaged environment learners without SEN (n = 4243); age 6–8 years	To evaluate the effectiveness of the PATHS curriculum in reducing loneliness.	PATHS – Social and emotional skills intervention 2 years	RCT – 1 experimental group (23 schools), 1 control group (22 schools). KIDSCREEN27 (Ravens-Sieberer et al., 2007). Children in the intervention group reported less frequent feelings of loneliness.

Author, Country	School	Sample Characteristics	Study aim/hypothesis	Type of Intervention, Category, and Duration	Study design / Method / Results
Ohl et al. (2012); UK	7 elementary schools	learners with SEN (n = 385); from a socially disadvantaged environment age 7–8 years	Examine the effectiveness of an intervention on the social-emotional health of the learners.	Pyramid Year 3 – Interventions in social and emotional skills 10 weeks	RCT – 1 experimental group (n = 103), 1 control group (n = 282). Screening questionnaire the SDQ-T4-16 (Goodman, 1997). The intervention has been shown to improve emotional health and well-being, peer problems, and increase prosocial behaviour. Repeated measures designed with within-subject comparisons – beginning and end of the intervention. Socioemotional skill scale (Zyga et al., 2017). Results indicate improvements in eye contact, turning and cooperation, participation, social awareness, self-confidence, and emotional understanding.
Zyga et al. (2017); USA	4 elementary schools, 1 secondary school	learners with SEN (n = 47); specific learning disorders, attentional disorders, autism spectrum disorder, developmental delay, Down syndrome age 6–18 years	Examine the feasibility of implementing a school- based KLM program for learners with SEN in a school setting, to capture changes in the domains of social- emotional functioning.	The KIDS LOVE MUSICALS! programme – Interventions in social and emotional skills 4 weeks	RCT – 11 experimental classes (n = 175) classes, 4 control classes (n = 78). Multi-Assessment of Social Competence (Kaukiainen et al., 2005), Grit-5 (Duckworth & Quinn, 2009), Strengths Use Scale (Govindji & Limley, 2007), The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), School Children's Happiness Inventory (Uusitalo-Malmivaara et al., 2012), Schoolwork Engagement Inventory (Salmela-Aro & Upadaya, 2012), Mindset (Dweck, 2006). Qualitative accounts reveal considerable benefits from the intervention for learners with SEN in the reduction of prejudice.
Vuorinen et al. (2018); Finland	5 elementary schools	learners with and without SEN (n = 253); age 10–13 years	Explore the possibility of strengthening social participation and cohesion by teaching learners to intentionally look for the good in each other.	Positive education intervention in Finnish inclusive classrooms – Positive psychology interventions 16 weeks	

Author, Country	School	Sample Characteristics	Study aim/hypothesis	Type of Intervention, Category, and Duration	Study design / Method / Results
Malbouef-Hurtubise et al. (2017); Canada	1 elementary school	learners with SEN (n = 14); learning disabilities age 9–12 years	Assess the effectiveness of an intervention to meet the needs of elementary school learners with severe learning disabilities.	Mindfulness-Based Intervention – Interventions aimed at relaxation 8 weeks	A quasi-experimental design in which all participants within one group completed pre- and post-intervention questionnaires. Need Satisfaction (Ryan & Deci, 2000). The results showed that the intervention had a mixed effect on the learners. Many children reported feeling slightly less satisfied with their basic needs. On the contrary, when the learners became more receptive, they were able to describe more clearly the fulfillment of their own needs.
Upadhyay et al. (2021); India	3 elementary schools	learners with SEN (n = 40); ADHD learners without SEN (n = 35) age 8–12 years	Assess the effectiveness of the intervention on subjective well-being, academic self-concept, and academic achievement of learners with SEN.	Positive Psychology Intervention, Subjective Well-being Intervention Programme – Positive psychology interventions 12 weeks	Experimental design of one group before and after follow-up testing. Brief Multidimensional Students' Life Satisfaction Scale (Seligson et al., 2003), Positive and Negative Affect Scale for Children (Laurent et al., 1999), Academic Self-concept Questionnaire (Liu & Wang, 2005). After the intervention, there was a significant improvement in the level of subjective well-being, academic self-concept, and academic achievement of the children.
Scior et al. (2022); UK	10 mainstream schools, 43 special educational needs schools	learners with SEN (n = 67); intellectual disabilities age over 16 years	To test an intervention to increase the ability of learners and adults with SEN to manage stigma and resist it.	Standing up for Myself (STORM) – Interventions in social and emotional skills 4 weeks	Interviews took place individually (apart from one instance) 2–4 months after the respective group's final STORM session. Interviews with participants indicated a generally good acceptability of the intervention with self-reported claims of stigmatised status.

Author, Country	School	Sample Characteristics	Study aim/hypothesis	Type of Intervention, Category, and Duration	Study design / Method / Results
Brelsford et al. (2022); UK	4 mainstream schools, 7 special educational needs schools	learners with SEN (n = 64); autism, ADHD, learning disabilities learners without SEN (n = 105); age 8–11 years	To assess whether the effectiveness of individual and/or group dog-assisted interventions leads to improve spatial abilities which are fundamentally responsible for mental, physical, social, and emotional well-being in children compared to relaxation interventions as well as compared to a control group with no intervention applied.	Dog-assisted intervention, Relaxation intervention – Interventions aimed at relaxation 4 weeks	RCT – experimental group (n = 64), control group (n = 105). The British Ability Scales – Third Edition (BAS-3). Both relaxation, and dog-assisted interventions improved overall well-being throughout spatial abilities in all learners compared to baseline. Learners with SEN show significant improvements in spatial abilities under relaxation conditions. There was no clear advantage of individual and group interventions for children with SEN.
Meints et al. (2022); UK	4 mainstream schools, 7 special educational needs schools	Learners with SEN (n = 44); autism, ADHD, Down syndrome, learning disabilities learners without SEN (n = 105) age 8–11 years	To investigate the effect of an animal-assisted group intervention (dog) in a school setting compared to an individual intervention.	Animal-assisted interventions in school children – Interventions aimed at relaxation 4 weeks	RCT – experimental group (n = 44), control group (n = 105). Method using Cryovials (3.5ml). The results indicate that dog-assisted interventions reduce stress levels in school children. However, children with SEN benefited more from group interventions with a dog compared to individual interventions.

References

- Barber, B. K. (2019). Positive Interpersonal and Intrapersonal Functioning: An Assessment of Measures among Adolescents. *What Do Children Need to Flourish?*, 147–161. https://doi.org/10.1007/0-387-23823-9_10
- Barry, M. M., Clarke, A. M., Jenkins, R., & Patel, V. (2013). A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. *BMC Public Health*, 13(1). <https://doi.org/10.1186/1471-2458-13-835>
- Beck, A. T., Rush, A., Shaw, B., & Emery, G. (1979). *Cognitive therapy of depression*. Guilford Press.
- Beetz, A., Julius, H., Turner, D., & Kotrschal, K. (2012). Effects of Social Support by a Dog on Stress Modulation in Male Children with Insecure Attachment. *Frontiers in Psychology*, 3. <https://doi.org/10.3389/fpsyg.2012.00352>
- Benoit, V., & Gabola, P. (2021). Effects of Positive Psychology Interventions on the Well-Being of Young Children: A Systematic Literature Review. *International Journal of Environmental Research and Public Health*, 18(22), 12065. <https://doi.org/10.3390/ijerph182212065>
- Björklund, K., Liski, A., Samposalo, H., Lindblom, J., Hella, J., Huhtinen, H., Ojala, T., Alasuvanto, P., Koskinen, H.-L., Kiviruusu, O., Hemminki, E., Punamäki, R.-L., Sund, R., Solantaus, T., & Santalahti, P. (2014). “Together at school” – a school-based intervention program to promote socio-emotional skills and mental health in children: study protocol for a cluster randomized controlled trial. *BMC Public Health*, 14(1). <https://doi.org/10.1186/1471-2458-14-1042>
- Bonell, C., Allen, E., Warren, E., McGowan, J., Bevilacqua, L., Jamal, F., Legood, R., Wiggins, M., Opondo, C., Mathiot, A., Sturgess, J., Fletcher, A., Sadique, Z., Elbourne, D., Christie, D., Bond, L., Scott, S., & Viner, R. M. (2018). Effects of the Learning Together intervention on bullying and aggression in English secondary schools (INCLUSIVE): a cluster randomized controlled trial. *The Lancet*, 392(10163), 2452–2464. [https://doi.org/10.1016/s0140-6736\(18\)31782-3](https://doi.org/10.1016/s0140-6736(18)31782-3)
- Brelsford, V., Meints, K., Gee, N., & Pfeffer, K. (2017). Animal-Assisted Interventions in the Classroom—A systematic review. *International Journal of Environmental Research and Public Health*, 14(7), 669. <https://doi.org/10.3390/ijerph14070669>
- *Brelsford, V. L., Dimolareva, M., Rowan, E., Gee, N. R., & Meints, K. (2022). Can dog-assisted and relaxation interventions boost spatial ability in children with and without special educational needs? A longitudinal, randomized controlled trial. *Frontiers in Pediatrics*, 10. <https://doi.org/10.3389/fped.2022.886324>
- Clarke A. M., Morreale, S., Field, C. A., Hussein, Y., & Barry, M. M. (2015). What works in enhancing social and emotional skills development during childhood and adolescence? A review of the evidence on the effectiveness of school-based and out-of-school programmes in the UK. *Researchrepository.universityofgalway.ie*. <https://researchrepository.universityofgalway.ie/entities/publication/6452feda-3bc0-491c-90a2-8f8e43812475>
- Close, H. (1992). Book Review: Narrative Means to Therapeutic Ends. *Journal of Pastoral Care*, 46(1), 84–84. <https://doi.org/10.1177/002234099204600115>
- Cooper, R. N., & Layard, R. (2005). Happiness: Lessons in a New Science. *Foreign Affairs*, 84(6), 139. <https://doi.org/10.2307/20031793>
- Dawood, R. (2014). Positive Psychology and Child Mental Health; a Premature Application in School-based Psychological Intervention? *Procedia – Social and Behavioral Sciences*, 113, 44–53. <https://doi.org/10.1016/j.sbspro.2014.01.009>
- Domitrovich, C. E., Durlak, J. A., Staley, K. C., & Weissberg, R. P. (2017). Social-Emotional Competence: An Essential Factor for Promoting Positive Adjustment and Reducing Risk in School Children. *Child Development*, 88(2), 408–416. <https://doi.org/10.1111/cdev.12739>

- *Droscher, H., Van Den Hout, B., Hughes, L., Evans, H., Banerjee, R., & Hayward, M. (2021). Quiet time via transcendental meditation in secondary school students with special educational needs: effects on well-being and behaviour. *Pastoral Care in Education*, 1–16. <https://doi.org/10.1080/02643944.2021.1901968>
- Duckworth, A. L., & Quinn, P. D. (2009). Development and Validation of the Short Grit Scale (Grit-S). *Journal of Personality Assessment*, 91(2), 166–174. <https://doi.org/10.1080/00223890802634290>
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405–432.
- Dweck, C. S. (2006). *Mindset: The New Psychology of Success*. New York, NY: Random House Digital Inc.
- Gaspar, T., Bilimória, H., Albergaria, F., & Matos, M. G. (2016). Children with Special Education Needs and Subjective Well-being: Social and Personal Influence. *International Journal of Disability, Development and Education*, 63(5), 500–513. <https://doi.org/10.1080/1034912x.2016.1144873>
- Gee, N. R., Gould, J. K., Swanson, C. C., & Wagner, A. K. (2012). Preschoolers Categorize Animate Objects Better in the Presence of a Dog. *Anthrozoös*, 25(2), 187–198. <https://doi.org/10.2752/175303712x13316289505387>
- Gigantesco, A., Del Re, D., Cascavilla, I., Palumbo, G., De Mei, B., Cattaneo, C., Giovannelli, I., & Bella, A. (2015). A Universal Mental Health Promotion Programme for Young People in Italy. *BioMed Research International*, 2015, 1–9. <https://doi.org/10.1155/2015/345926>
- Goldan, J., Nusser, L., & Gebel, M. (2022). School-related Subjective Well-being of Children with and without Special Educational Needs in Inclusive Classrooms. *Child Indicators Research*, 15(4). <https://doi.org/10.1007/s12187-022-09914-8>
- Goldberg, J. M., Stock, M., Elfrink, T. R., Schreurs, K. M. G., Bohlmeijer, E. T., & Clarke, A. M. (2019). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: A meta-analysis. *European Journal of Psychology of Education*, 34(4), 755–782. <https://doi.org/10.1007/s10212-018-0406-9>
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry*, 38(5), 581–586. <https://doi.org/10.1111/j.1469-7610.1997.tb01545.x>
- Govindji, R., & Linley, P. A. (2007). Strengths use, self-concordance and well-being: Implications for Strengths Coaching and Coaching Psychologists. *International Coaching Psychology Review*, 2(2), 143–153. <https://doi.org/10.53841/bpsicpr.2007.2.2.143>
- Govorova, E., Benítez, I., & Muñoz, J. (2020). How Schools Affect Student Well-Being: A Cross-Cultural Approach in 35 OECD Countries. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.00431>
- Graham, P. J., & Reynolds, S. (2013). *Cognitive behaviour therapy for children and families*. Cambridge University Press.
- Gupta, S. K. (2011). Intention-to-treat concept: A review. *Perspectives in Clinical Research*, 2(3), 109–112. <https://doi.org/10.4103/2229-3485.83221>
- Haaga, D. A. F., Grosswald, S., Gaylord-King, C., Rainforth, M., Tanner, M., Travis, F., Nidich, S., & Schneider, R. H. (2011). Effects of the Transcendental Meditation Program on Substance Use among University Students. *Cardiology Research and Practice*, 2011, 1–8. <https://doi.org/10.4061/2011/537101>
- *Hennessey, A., Qualter, P., & Humphrey, N. (2021). The Impact of Promoting Alternative Thinking Strategies (PATHS) on Loneliness in Primary School Children: Results From a Randomized Controlled Trial in England. *Frontiers in Education*, 6. <https://doi.org/10.3389/educ.2021.791438>

- Hilgenkamp, T. I. M., van Wijck, R., & Evenhuis, H. M. (2011). (Instrumental) activities of daily living in older adults with intellectual disabilities. *Research in Developmental Disabilities*, 32(5), 1977–1987. <https://doi.org/10.1016/j.ridd.2011.04.003>
- Hummel, E., & Randler, C. (2011). Living Animals in the Classroom: A Meta-Analysis on Learning Outcome and a Treatment-Control Study Focusing on Knowledge and Motivation. *Journal of Science Education and Technology*, 21(1), 95–105. <https://doi.org/10.1007/s10956-011-9285-4>
- Huppert, F. A. (2009). Psychological Well-being: Evidence Regarding its Causes and Consequences. *Applied Psychology: Health and Well-Being*, 1(2), 137–164. <https://doi.org/10.1111/j.1758-0854.2009.01008.x>
- Inchley, D. Currie, A. Piper, A. Jåstad, A. Cosma, C. Nic Gabhainn, & O. Samdal (Eds.), (2022). Health Behaviour in School-aged Children (HBSC) Study Protocol: Background, methodology, mandatory questions and optional packages for the 2021/22 survey. University of Glasgow.
- Jordan, J.-A., & Dyer, K. (2017). Psychological Well-being Trajectories of Individuals with Dyslexia Aged 3–11 Years. *Dyslexia*, 23(2), 161–180. <https://doi.org/10.1002/dys.1555>
- Kabat-Zinn, J. (1994). *Wherever you go, there you are : mindfulness meditation in everyday life*. Hyperion E-Book.
- Kaukiainen, A., Junttila, N. Kinnunen, R. & Vauras, M. (2005) *MASC. Multiassessment of Social Competence*. Finland: Centre for Learning Research, University of Turku.
- Kebbi, M., & Al-Hroub, A. (2018). Stress and coping strategies used by special education and general classroom teachers. *INTERNATIONAL JOURNAL of SPECIAL EDUCATION*, 33(1). <https://files.eric.ed.gov/fulltext/EJ1184086.pdf>
- Kotschal, K., & Ortbauer, B. (2003). Behavioral effects of the presence of a dog in a classroom. *Anthrozoös*, 16(2), 147–159. <https://doi.org/10.2752/089279303786992170>
- Langford, R., Bonell, C. P., Jones, H. E., Poulou, T., Murphy, S. M., Waters, E., Komro, K. A., Gibbs, L. F., Magnus, D., & Campbell, R. (2014). The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement. *Cochrane Database of Systematic Reviews*, 4(4). <https://doi.org/10.1002/14651858.cd008958.pub2>
- Lanza, K., Alcazar, M., Chen, B., & Kohl, H. W. (2023). Connection to nature is associated with social-emotional learning of children. *Current Research in Ecological and Social Psychology*, 4, 100083. <https://doi.org/10.1016/j.cresp.2022.100083>
- Lappalainen, K., Savolainen, H., Kuorelahti, M., & Epstein, M. H. (2009). An International Assessment of the Emotional and Behavioral Strengths of Youth. *Journal of Child and Family Studies*, 18(6), 746–753. <https://doi.org/10.1007/s10826-009-9287-5>
- Laurent, J., Catanzaro, S. J., Joiner, T. E., Rudolph, K. D., Potter, K. I., Lambert, S., Osborne, L., & Gathright, T. (1999). A measure of positive and negative affect for children: Scale development and preliminary validation. *Psychological Assessment*, 11(3), 326–338. <https://doi.org/10.1037/1040-3590.11.3.326>
- Littlecott, H. J., Long, S., Hawkins, J., Murphy, S., Hewitt, G., Eccles, G., Fletcher, A., & Moore, G. F. (2018). Health Improvement and Educational Attainment in Secondary Schools: Complementary or Competing Priorities? Exploratory Analyses From the School Health Research Network in Wales. *Health Education & Behavior*, 45(4), 635–644. <https://doi.org/10.1177/1090198117747659>
- Liu, W. C., & Wang, C. K. J. (2005). Academic self-concept: A cross-sectional study of grade and gender differences in a Singapore secondary school. *Asia Pacific Education Review*, 6(1), 20–27. <https://doi.org/10.1007/bf03024964>
- Low, M., King, R. B., & Caleon, I. S. (2016). Positive Emotions Predict Students' Well-Being and Academic Motivation: The Broaden-and-Build Approach. *The Psychology of Asian Learners*, 485–501. https://doi.org/10.1007/978-981-287-576-1_30

- Lyneham, H. J., Street, A. K., Abbott, M. J., & Rapee, R. M. (2008). Psychometric properties of the school anxiety scale-Teacher report (SAS-TR). *Journal of Anxiety Disorders*, 22(2), 292–300. <https://doi.org/10.1016/j.janxdis.2007.02.001>
- Lyubomirsky, S., & Lepper, H. S. (1999). A Measure of Subjective Happiness: Preliminary Reliability and Construct Validation. *Social Indicators Research*, 46(2), 137–155. <https://doi.org/10.1023/a:1006824100041>
- Mackenzie, K., & Williams, C. (2018). Universal, school-based interventions to promote mental and emotional well-being: what is being done in the UK and does it work? A systematic review. *BMJ Open*, 8(9), e022560. <https://doi.org/10.1136/bmjopen-2018-022560>
- Madsen, K. R., Holstein, B. E., Damsgaard, M. T., Rayce, S. B., Jespersen, L. N., & Due, P. (2018). Trends in social inequality and loneliness among adolescents 1991–2014. *Journal of Public Health*, 41(2), e133–e140. <https://doi.org/10.1093/pubmed/fdy133>
- Mak, S., & Thomas, A. (2022). Steps for Conducting a Scoping Review. *Journal of Graduate Medical Education*, 14(5), 565–567. <https://doi.org/10.4300/jgme-d-22-00621.1>
- *Malboeuf-Hurtubise, C., Joussemet, M., Taylor, G., & Lacourse, E. (2017). Effects of a Mindfulness-Based Intervention on the Perception of Basic Psychological Need Satisfaction among Special Education Students. *International Journal of Disability, Development and Education*, 65(1), 33–44. <https://doi.org/10.1080/1034912x.2017.1346236>
- Malboeuf-Hurtubise, C., Lacourse, E., Taylor, G., Joussemet, M., & Ben Amor, L. (2016). A Mindfulness-Based Intervention Pilot Feasibility Study for Elementary School Students With Severe Learning Difficulties: Effects on Internalized and Externalized Symptoms From an Emotional Regulation Perspective. *Journal of Evidence-Based Complementary & Alternative Medicine*, 22(3), 473–481. <https://doi.org/10.1177/2156587216683886>
- *Meints, K., Brelsford, V. L., Dimolareva, M., Maréchal, L., Pennington, K., Rowan, E., & Gee, N. R. (2022). Can dogs reduce stress levels in school children? effects of dog-assisted interventions on salivary cortisol in children with and without special educational needs using randomized controlled trials. *PLOS ONE*, 17(6), e0269333. <https://doi.org/10.1371/journal.pone.0269333>
- Mertens, E., Dekovic, M., Leijten, P., Van Londen, M., & Reitz, E. (2020). Components of School-Based Interventions Stimulating Students' Intrapersonal and Interpersonal Domains: A Meta-analysis. *Clinical Child and Family Psychology Review*, 23(4), 605–631. <https://doi.org/10.1007/s10567-020-00328-y>
- Michael, S. L., Merlo, C. L., Basch, C. E., Wentzel, K. R., & Wechsler, H. (2015). Critical Connections: Health and Academics. *Journal of School Health*, 85(11), 740–758. <https://doi.org/10.1111/josh.12309>
- Mitchell, D. (2014). *What Really Works in Special and Inclusive Education*. Routledge. <https://doi.org/10.4324/9780203105313>
- Norwich, B. (2008). Dilemmas of difference, inclusion and disability: international perspectives on placement. *European Journal of Special Needs Education*, 23(4), 287–304. <https://doi.org/10.1080/08856250802387166>
- Norwich, B., & Kelly, N. (2004). Learners' Views on inclusion: Moderate Learning Difficulties and Bullying in Mainstream and Special Schools. *British Educational Research Journal*, 30(1), 43–65. <https://doi.org/10.1080/01411920310001629965>
- *Ohl, M., Fox, P., & Mitchell, K. (2012). Strengthening socio-emotional competencies in a school setting: Data from the Pyramid project. *British Journal of Educational Psychology*, 83(3), 452–466. <https://doi.org/10.1111/j.2044-8279.2012.02074.x>

- Ohl, M., Mitchell, K., Cassidy, T., & Fox, P. (2008). The Pyramid Club Primary School-Based Intervention: Evaluating the Impact on Children's Social-Emotional Health. *Child and Adolescent Mental Health*, 13(3), 115–121. <https://doi.org/10.1111/j.1475-3588.2007.00476.x>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & McGuinness, L. A. (2021). The PRISMA 2020 statement: an Updated Guideline for Reporting Systematic Reviews. *British Medical Journal*, 372(71). <https://doi.org/10.1136/bmj.n71>
- Pistrang, N., Barker, C., & Humphreys, K. (2008). Mutual Help Groups for Mental Health Problems: A Review of Effectiveness Studies. *American Journal of Community Psychology*, 42(1–2), 110–121. <https://doi.org/10.1007/s10464-008-9181-0>
- Puschner, B. (2018). Peer support and global mental health. *Epidemiology and Psychiatric Sciences*, 27(5), 413–414. <https://doi.org/10.1017/s204579601800015x>
- Ravens-Sieberer, U., Auquier, P., Erhart, M., Gosch, A., Rajmil, L., Bruil, J., Power, M., Duer, W., Cloetta, B., Czemy, L., Mazur, J., Czimbalmo, A., Tountas, Y., Hagquist, C., & Kilroe, J. (2007). The KIDSCREEN-27 quality of life measure for children and adolescents: psychometric results from a cross-cultural survey in 13 European countries. *Quality of Life Research*, 16(8), 1347–1356. <https://doi.org/10.1007/s11136-007-9240-2>
- Richards, M., & Huppert, F. A. (2011). Do positive children become positive adults? Evidence from a longitudinal birth cohort study. *The Journal of Positive Psychology*, 6(1), 75–87. <https://doi.org/10.1080/17439760.2011.536655>
- Robb, S. L., Burns, D. S., & Carpenter, J. S. (2011). Reporting Guidelines for Music-Based Interventions. *Music and Medicine*, 3(4), 271–279. <https://doi.org/10.1177/1943862111420539>
- Roldán, M. S., Marauri, J., Aubert, A., & Flecha, R. (2021). How Inclusive Interactive Learning Environments Benefit Students Without Special Needs. *Frontiers in Psychology*, 12(1). <https://doi.org/10.3389/fpsyg.2021.661427>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Salmela-Aro, K., & Upadaya, K. (2012). The Schoolwork Engagement Inventory. *European Journal of Psychological Assessment*, 28(1), 60–67. <https://doi.org/10.1027/1015-5759/a000091>
- *Scior, K., Cooper, R., Fenn, K., Poole, L., Colman, S., Ali, A., Baum, S., Crabtree, J., Doswell, S., Jahoda, A., Hastings, R., & Richardson, L. (2022). “Standing up for Myself” (STORM): Development and qualitative evaluation of a psychosocial group intervention designed to increase the capacity of people with intellectual disabilities to manage and resist stigma. *Journal of Applied Research in Intellectual Disabilities*, 35(6), 1297–1306. <https://doi.org/10.1111/jar.13018>
- Seligson, J. L., Huebner, E. S., & Valois, R. F. (2003). Preliminary validation of the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS). *Social Indicators Research*, 61(2), 121–145. <https://doi.org/10.1023/a:1021326822957>
- Shek, D. T. L., & Leung, J. T. Y. (2016). Developing social competence in a subject on leadership and intrapersonal development. *International Journal on Disability and Human Development*, 15(2). <https://doi.org/10.1515/ijdh-2016-0706>
- Shoshani, A., & Slone, M. (2017). Positive Education for Young Children: Effects of a Positive Psychology Intervention for Preschool Children on Subjective Well Being and Learning Behaviors. *Frontiers in Psychology*, 8(1866). <https://doi.org/10.3389/fpsyg.2017.01866>
- Schniering, C. A., & Rapee, R. M. (2002). Development and validation of a measure of children's automatic thoughts: the children's automatic thoughts scale. *Behaviour Research and Therapy*, 40(9), 1091–1109. [https://doi.org/10.1016/s0005-7967\(02\)00022-0](https://doi.org/10.1016/s0005-7967(02)00022-0)

- Schwab, S., Gebhardt, M., Krammer, M., & Gasteiger-Klicpera, B. (2014). Linking self-rated social inclusion to social behavior. An empirical study of students with and without special education needs in secondary schools. *European Journal of Special Needs Education*, 30(1), 1–14. <https://doi.org/10.1080/08856257.2014.933550>
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: a practice-friendly meta-analysis. *Journal of Clinical Psychology*, 65(5), 467–487. <https://doi.org/10.1002/jclp.20593>
- Sourander, A., Jensen, P., Davies, M., Niemelä, S., Elonheimo, H., Ristkari, T., Helenius, H., Sillanmäki, L., Piha, J., Kumpulainen, K., Tamminen, T., Moilanen, I., & Almqvist, F. (2007). Who Is at Greatest Risk of Adverse Long-Term Outcomes? The Finnish From a Boy to a Man Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46(9), 1148–1161. <https://doi.org/10.1097/chi.0b013e31809861e9>
- Spence, S. H. (1998). A measure of anxiety symptoms among children. *Behaviour Research and Therapy*, 36(5), 545–566. [https://doi.org/10.1016/s0005-7967\(98\)00034-5](https://doi.org/10.1016/s0005-7967(98)00034-5)
- Squires, G. (2012). Historical and socio-political agendas around defining and including children with special educational needs. *Advanced online publication*. https://www.academia.edu/52940557/Historical_and_socio_political_agendas_around_defining_and_including_children_with_special_educational_needs
- Stiglbauer, B., Gnamb, T., Gamsjäger, M., & Batinic, B. (2013). The upward spiral of adolescents' positive school experiences and happiness: Investigating reciprocal effects over time. *Journal of School Psychology*, 51(2), 231–242. <https://doi.org/10.1016/j.jsp.2012.12.002>
- Suldo, S. M., Friedrich, A. A., White, T., Farmer, J., Minch, D., & Michalowski, J. (2009). Teacher Support and Adolescents' Subjective Well-Being: A Mixed-Methods Investigation. *School Psychology Review*, 38(1), 67–85. <https://doi.org/10.1080/02796015.2009.12087850>
- Suldo, S. M., Thalji-Raitano, A., Kiefer, S. M., & Ferron, J. M. (2016). Conceptualizing High School Students' Mental Health Through a Dual-Factor Model. *School Psychology Review*, 45(4), 434–457. <https://doi.org/10.17105/spr45-4.434-457>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., & Lewin, S. (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Annals of Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- *Upadhyay, U. T. (2021). Improving Well-Being, Academic Self-Concept and Academic Achievement of Indian Children with Specific Learning Disability by utilising Positive Psychology Intervention. *Disability, CBR & Inclusive Development*, 32(3), 105. <https://doi.org/10.47985/dcidj.491>
- Uusitalo-Malmivaara, L., Kankaanpää, P., Mäkinen, T., Raeluoto, T., Rauttu, K., Tarhala, V., & Lehto, J. E. (2012). Are Special Education Students Happy? *Scandinavian Journal of Educational Research*, 56(4), 419–437. <https://doi.org/10.1080/00313831.2011.599421>
- Vaknin-Nusbaum, V., & Tuckwiller, E. D. (2022). Reading motivation, Well-being and Reading Achievement in Second Grade Students. *Journal of Research in Reading*, 46(1). <https://doi.org/10.1111/1467-9817.12414>
- *Vuorinen, K., Erikivi, A., & Uusitalo-Malmivaara, L. (2018). A character strength intervention in 11 inclusive Finnish classrooms to promote social participation of students with special educational needs. *Journal of Research in Special Educational Needs*, 19(1), 45–57. <https://doi.org/10.1111/1471-3802.12423>

- Weare, K., & Nind, M. (2011). Mental health promotion and problem prevention in schools: what does the evidence say? *Health Promotion International*, 26(suppl 1), i29–i69. <https://doi.org/10.1093/heapro/dar075>
- *Weeks, C., Hill, V., & Owen, C. (2016). Changing thoughts, changing practice: examining the delivery of a group CBT-based intervention in a school setting. *Educational Psychology in Practice*, 33(1), 1–15. <https://doi.org/10.1080/02667363.2016.1217400>
- Zenner, C., Herrnleben-Kurz, S., & Walach, H. (2014). Mindfulness-based interventions in schools – a systematic review and meta-analysis. *Frontiers in Psychology*, 5(603). <https://doi.org/10.3389/fpsyg.2014.00603>
- *Zyga, O., Russ, S. W., Meeker, H., & Kirk, J. (2017). A preliminary investigation of a school-based musical theater intervention program for children with intellectual disabilities. *Journal of Intellectual Disabilities*, 22(3), 262–278. <https://doi.org/10.1177/1744629517699334>

(reviewed twice)

Dagmar Majerechová
Comenius University Bratislava
Faculty of Social and Economic Sciences
Institute of Applied Psychology
Mlynské luhy 4
821 05 Bratislava
Slovakia
dagmar.majerechova@fses.uniba.sk

Lenka Sokolová
Comenius University Bratislava
Faculty of Social and Economic Sciences
Institute of Applied Psychology
Mlynské luhy 4
821 05 Bratislava
Slovakia
lenka.sokolova@fses.uniba.sk

Experiences with inclusive education from the perspective of learners with visual impairment and their parents – a systematic reviewed protocol

(systematic review)

Lenka Hovorková, Alžběta Smrčková, Dagmar Sedláčková,
Veronika Růžicková, Jiří Kantor, Liliana Belkin, Zuzana Svobodová

1 Abstract

Objective: *The objective of this proposed systematic review is to explore the experiences of students with visual impairments involved in inclusive education and the experiences of their parents.*

Introduction: *Inclusive education of learners with visual impairment is a key issue in contemporary special education and educational practice. However, there is still a lack of deeper understanding of how learners with visual impairment and their parents experience inclusive education at pre-primary, primary, and secondary school levels. The experiences of these groups can significantly influence the quality, accessibility, and success of inclusive education.*

Methods: *This systematic review will synthesize qualitative studies focusing on the personal, reflective experiences of children and young people with visual impairment and their parents within inclusive educational settings. Searches will be conducted in ERIC, CINAHL, MEDLINE, ProQuest Central, PsycINFO, PsycArticles, SocINDEX, Scopus, Web of Science, and grey literature. Studies published in English, Czech, and Slovak will be included without time restrictions. Two independent reviewers will perform study selection, quality appraisal using the JBI Critical Appraisal Checklist, and data extraction. Data will be analyzed using the meta-aggregation approach supported by JBI SUMARI software.*

Anticipated results: *It is anticipated that this review will identify key themes such as barriers and support in accessing education, teacher attitudes, social integration, and*

experiences with support measures. The results should capture both positive examples of good practice and areas requiring improvement.

Discussion: *The findings of this review will be used to develop recommendations for teachers, policymakers, and professionals in school counselling services to improve the conditions of inclusive education for learners with visual impairment. The conclusions are expected to contribute to the development of support strategies, enhanced collaboration with parents, and the promotion of high-quality and accessible education for all.*

Keywords: *Visual Impairment; Inclusive Education; Parents; Children; Lived Experience; Qualitative Research; Education, Compulsory; Special Educational Needs; Disability; School Inclusion*

2 Introduction

Inclusive education is a fundamental right for all learners, including those with visual impairment, as defined by the UN Convention on the Rights of Persons with Disabilities (UN, 2006). Although visual impairment is not the most common disability among the school-aged population, it represents an important group with specific educational needs, comprising around 3–5% of students with disabilities in Europe (European Agency for Special Needs and Inclusive Education, 2018).

Most existing research has focused on teacher attitudes, systemic barriers, and academic outcomes (Miyauchi, 2020; Loh et al., 2023; O'Connor et al., 2024), while the personal experiences of students and their parents have been neglected. Yet these perspectives are essential for understanding daily school life, peer relationships, and support measures. Parents in particular play a critical role in advocating for inclusion and collaborating with schools (Lamb, 2021; Gray, 2005).

While Miyauchi (2020) offered valuable insights, most included studies came from low- and middle-income countries whose educational systems differ significantly from the European context. Therefore, a systematic review of qualitative studies focusing on the experiences of learners with visual impairment and their parents in European or comparable contexts is needed.

This review aims to synthesize qualitative evidence on these experiences, identify factors supporting or hindering inclusion, and provide a basis for educational policy, teacher preparation, and counselling practice toward high-quality and accessible education for all.

3 Review questions

What are the experiences of learners with visual impairment participating in inclusive education?

What are the experiences of parents of learners with visual impairment participating in inclusive education?

4 Inclusion criteria

Participants (P)

This review will focus on children and youths with visual impairment only (without additional disabilities) who are educated in an inclusive setting at the pre-primary, elementary, or secondary (high school) level, as well as on their parents. The age of participants will not be limited, but the educational setting will be restricted to compulsory education at the pre-primary, elementary, and secondary levels. Studies focusing on other family members, such as grandparents or siblings, will be excluded, as will research on parents of children with disabilities other than visual impairment. Studies including learners with multiple disabilities (for example, visual impairment combined with physical, auditory, or intellectual disabilities) will not be considered, nor will studies focusing on tertiary education settings (colleges or universities).

Phenomenon of Interest (I)

This review will focus on the personal, subjective experiences of children and youths with visual impairment and their parents as they participate in inclusive education at pre-primary, primary, and secondary (high school) levels. The phenomenon of interest will include first-hand, deeply reflective accounts that capture participants' own lived experiences of inclusion, everyday school life, support received, challenges encountered, and social interactions within inclusive educational environments. Studies presenting only generalized perspectives, unverified assumptions, or beliefs not grounded in the participants' personal experience will be excluded. Similarly, second-hand reports from teachers or individuals other than parents or learners themselves, as well as descriptions lacking subjective depth and meaning, will not be considered.

Context (Co)

This review will focus on inclusive education for children and youths with visual impairment within pre-primary (kindergarten/preschool), elementary, and secondary (high school) settings as part of compulsory general education. Studies examining educational contexts characterized by segregation, such as special schools, special classes, or institutions specifically designated for learners with visual impairment,

will be excluded. Similarly, studies conducted in tertiary education settings, including colleges or universities, will not be considered.

Types of studies

This review will consider qualitative studies of any paradigm, including both interpretive and critical qualitative approaches, that explore the experiences of learners with visual impairment and their parents in the context of inclusive education. Study designs may include, but will not be limited to, phenomenology, grounded theory, ethnography, case study, action research, and feminist research. Mixed methods studies will be considered if data from the qualitative component can be extracted separately. All relevant published and unpublished qualitative studies will be eligible for inclusion, including doctoral and master's theses and book chapters, provided they meet the inclusion criteria and are available in full text. Bachelor theses will be excluded due to expected limitations in methodological quality and availability. The reference lists of all included studies will be screened for additional relevant studies.

Studies will be excluded if they are purely quantitative in design, any type of review, historical analysis, editorial, commentary, letter, opinion paper, or conference abstract.

There will be no restrictions on the publication period. Only studies published in English, Czech, or Slovak will be included.

5 Methods

This systematic review will be conducted according to the JBI methodology for qualitative evidence synthesis. Study selection, quality appraisal, and data extraction will be performed by two independent reviewers with the support of JBI SUMARI software. In case of disagreements, a third reviewer will be consulted.

Searches

ERIC, CINAHL, MEDLINE (accessed via PubMed), ProQuest Central, PsycINFO, PsycArticles, SocINDEX, Scopus, Web of Science and for grey literature represented by OpenDissertations, Google Scholar.

Search strategy

A three-step search strategy will be used for this review. An initial limited search of MEDLINE and Web of Science will be undertaken to identify keywords and index terms related to visual impairment and inclusive education. A second, comprehensive search will then be conducted across all included databases: ERIC, CINAHL, MEDLINE, ProQuest Central, PsycINFO, PsycArticles, SocINDEX, Scopus, Web of

Science, and grey literature sources including OpenDissertations and Google Scholar (first 100 records). Finally, the reference lists of all studies selected for critical appraisal will be screened for additional relevant studies. There will be no date restrictions, and studies published in English, Czech, and Slovak will be included. A draft of the detailed search strategy for Web of Science, as well as example strategies for MEDLINE and CINAHL, is presented in Appendix I. Search terms will be adapted for the other databases accordingly.

Study selection

Following completion of the search, all identified citations will be imported into Rayyan, and duplicate records will be removed. Titles and abstracts will then be independently screened by two reviewers against the inclusion criteria. Potentially relevant studies will be retrieved in full text and assessed for eligibility independently by the same two reviewers. Any disagreements arising at any stage of study selection will be resolved through discussion or with the involvement of a third reviewer. The results of the search and study selection process will be recorded and presented using a PRISMA flow diagram (Page et al., 2021).

Assessment of methodological quality

The methodological quality of all included studies will be independently assessed by two reviewers using the JBI Critical Appraisal Checklist for Qualitative Research (JBI, 2017). Any disagreements between reviewers will be resolved through discussion or with the involvement of a third reviewer if necessary. Study authors will be contacted to provide missing information or clarify methodological details where required. The overall level of confidence in the synthesized findings will then be evaluated using the ConQual approach (Munn et al., 2014), which considers dependability and credibility, and results will be summarized in a Summary of Findings table.

Data extraction

Data will be extracted from the included studies by two independent reviewers using a standardized data extraction tool developed for this review (see Appendix II). The extracted data will include information on authors, year of publication, country, study design and methodology, research aims, ethical approval, researcher reflexivity, participant demographics, details of the child's visual impairment, educational setting, data collection methods, and key findings related to participants' experiences. Additionally, illustrative participant quotations and a credibility rating will be recorded. Any disagreements arising during data extraction will be resolved through discussion or with the involvement of a third reviewer if necessary.

Data synthesis

Extracted data will be synthesized using the meta-aggregation approach within the JBI SUMARI software (Munn et al., 2019). Initially, findings from the included studies will be grouped into categories based on similarity in meaning. These categories will then be further synthesized into comprehensive, overarching statements that represent the collective evidence. Where textual pooling is not feasible, findings will be presented narratively. The confidence in each synthesized finding will be assessed using the ConQual approach (Munn et al., 2014), which evaluates dependability and credibility, and results will be summarized in a Summary of Findings table.

Assessing confidence of the findings

The confidence in the synthesized findings will be assessed using the ConQual approach (Munn et al., 2014). This method evaluates both the dependability of the included studies and the credibility of their findings. Each synthesized statement will be assigned an overall ConQual score, reflecting the level of confidence in the evidence. These scores will be presented in a Summary of Findings table to support interpretation and practical application of the results.

6 Funding

This review has not yet received specific funding. Funding sources and sponsors will be added to the protocol if support is obtained at a later stage.

7 Author contributions

LH conceptualized the review and prepared the initial protocol draft. AS and DS contributed to the development of the inclusion criteria, data extraction tool, and search strategy. VR and JK provided expertise on special education methodology and contributed to refining the review questions. LB advised on the international educational context and language criteria. ZS supported the search strategy development and managed reference resources. All authors reviewed and approved the final version of the protocol.

Anticipated or actual start date

1 September 2025

Anticipated completion date

1 September 2026

Funding sources/sponsors

Funding information will be added at a later stage.

Conflicts of interest

No potential conflict of interest was reported by the authors.

Language

English

Country

Czech Republic

Stage of review

Review to begin on 1 September 2025

Date of first submission

Not applicable

Details of any existing review of the same topic by the same authors

There are no existing systematic reviews on this topic conducted by the same authors.

Stage of review at time of this submission

The review has not started

References

- European Agency for Special Needs and Inclusive Education. (2018). Inclusive education in Europe: Key policy messages. Brussels: EASNIE. <https://www.european-agency.org/resources/publications/inclusive-education-europe-key-policy-messages>
- Gray, C. (2005). Inclusion, impact and need: Young children with a visual impairment. *Child Care in Practice*, 11(2), 179–190. <https://doi.org/10.1080/13575270500053126>
- Lamb, B. (2021). SEND legislation, parental engagement and co-production. In S. Griggs, M. Hall, & K. Rogers (Eds.), *Family experiences of critical care: Emotional responses to a critical care environment* (pp. 33–46). Routledge. <https://doi.org/10.4324/9781003089506-4>
- Loh, L., Prem-Senthil, M., & Constable, P. A. (2023). A systematic review of the impact of childhood vision impairment on reading and literacy in education. *Clinical and Experimental Optometry*, 106(6), 100495. <https://doi.org/10.1016/j.optom.2023.100495>
- JB1 Manual for Evidence Synthesis. Joanna Briggs Institute. <https://synthesismanual.jbi.global>
- JB1 (Joanna Briggs Institute). (2017). *Checklist for qualitative research*. Joanna Briggs Institute. Available from: <https://jbi.global/critical-appraisal-tools>
- Miyauchi, H. (2020). A systematic review on inclusive education of students with visual impairment. *Education Sciences*, 10(11), 346. <https://doi.org/10.3390/educsci10110346>

- Mourad, O., Hossam, H., Zbys, F., & Ahmed, E. (2016). Rayyan – a web and mobile app for systematic reviews. *Systematic Reviews*, 5(210). <https://doi.org/10.1186/s13643-016-0384-4>
- Munn, Z., Aromataris, E., Tufanaru, C., Stern, C., Porritt, K., Farrow, J., et al. (2019). The development of software to support multiple systematic review types: The Joanna Briggs Institute System for the Unified Management, Assessment and Review of Information (JBI SUMARI). *International Journal of Evidence-Based Healthcare*, 17(1), 36–43. <https://doi.org/10.1097/XEB.0000000000000152>
- Munn, Z., Porritt, K., Lockwood, C., Aromataris, E., & Pearson, A. (2014). Establishing confidence in the output of qualitative research synthesis: The ConQual approach. *BMC Medical Research Methodology*, 14(108). <https://doi.org/10.1186/1471-2288-14-108>
- O'Connor, U., McClelland, J. F., & Little, J.-A. (2024). The participatory experiences of pupils with vision impairment in education. *British Journal of Visual Impairment*. Advance online publication. <https://doi.org/10.1177/02646196241268318>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., et al. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- United Nations. (2006). Convention on the Rights of Persons with Disabilities. New York: United Nations. <https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>
- World Health Organization. (2022). World report on vision. Geneva: WHO. <https://www.who.int/publications/i/item/9789241516570>

(reviewed twice)

Lenka Hovorková^{1,2}, Alžběta Smrčková^{1,2}, Dagmar Sedláčková^{1,2}, Veronika Růžičková², Jiří Kantor^{1,2}, Liliana Belkin³, Zuzana Svobodová⁴

¹ JBI Center of Evidence Based Education and Arts Therapies, Faculty of Education, Palacký University Olomouc, Czech Republic

² Institute of Special Education Studies, Faculty of Education, Palacký University Olomouc, Czech Republic

³ School of Education, Froebel College, University of Roehampton, London, United Kingdom

⁴ Library of the Faculty of Health Sciences, Palacký University Olomouc, Czech Republic

Organisational affiliation of the review

1. JBI Center of Evidence Based Education and Arts Therapies, Faculty of Education, Palacký University Olomouc, Czech Republic
<https://www.pdf.upol.cz>

Contact details for further information

Lenka Hovorková, lenka.hovorkova01@upol.cz

Information for authors



Basic information about the JEP

Journal of Exceptional People (JEP) should be based on 2 times a year publishing period in both electronic and traditional – printed form. To guarantee professional standards of the Journal we have applied to the front of special needs teachers, psychologists, therapists and other professionals in the U.S., Finland, Spain, Slovakia, Hungary, China, Russia, Poland and other countries. Above mentioned scientific journal aspires to be registered into the international database of impacted periodicals (Journal Citation Reports).

Journal of Exceptional People (JEP) will provide research studies and articles on special education of exceptional people. This area covers individuals with disabilities and, on the other hand, gifted persons. The *Journal* will focus on publishing studies and articles in the field of education, social science (sociology) and psychology, special thematic issues and critical commentaries. The publishing language of the *Journal of Exceptional People* is to be English exclusively.

The periodical has been published since the year 2012 by the **Institute of Special-pedagogical Studies at Palacky University in Olomouc**.

Instructions for authors

Scope of the article is strictly given – must not be more than **20 pages** formatted according template (including list of references, images, tables and appendices). The body of the text shall be written in letters of Times New Roman size 11 b. Different styles are undesirable, use the normal template and also please avoid numbering of pages. The final version of the articles ought to be formatted to the paragraphs. The Editorial Board reserves the right to refuse contributions.

The file should be saved under the same name with the surname of the first author and sent in a format with the extension .doc or .docx (MS Word 2007 and upper versions). Before sending a file with the paper it is required to scan for possible infections or viruses. Authors are responsible for content and linguistic aspects of the contributions. Please, do not number pages. Images, graphs and tables should be numbered according to the example (*Figure 1: Preparatory exercise* [Times New Roman 11 b, italics]).

It is highly recommended to spend the necessary time correcting the paper – every mistake will be multiplied. Posted papers unsuitable for printing will not be published! Ensure appropriate division and balance between the various parts of the contribution and aesthetic placement of pictures and diagrams as well as their quality. Terminological correctness and formality are required.

Please note that publication of papers in the Journal will be free of charge.

Section headings should be numbered and written, as described in following manual: standard signs, symbols and abbreviations are to be used only. Monosyllabic preposition are ought not to figure at the end of the line, but at the beginning of the next line – they can be shifted using the “hard returns” CTRL + SHIFT + SPACE.

The list of literature and references to resources ought to follow these norms and directives: ČSN ISO 690 and ČSN ISO 690-2 or Publication Manual of the American Psychological Association APA.

Completed contribution shall be sent in electronic form to the mail address: **dan.bibaged@centrum.cz**. In the subject line of the email note: JEP – contribution.

Compliance with publication ethics

JEP editorial board ensures compliance with publication ethics and does this in a following way:

Editors board guarantees:

- That in the review process the author does not know the identity of the reviewer, and vice versa
- The reviewer and contributor does not come from the same organization or institution
- That if it is proven that there were some editorial or author's errors in the published article, this fact will be published in the next issue

Authors agree to the following:

- That their presented texts are original works
- That they state the references in accordance to standard specifications for citing sources (standards ISO 690, ISO 690-2 or the Publication Manual of the American Psychological Association APA).

The criterion relating to the quality of articles

- Content criteria:
- Does the authors state the current state of knowledge?
- Is the chosen topic a new one?
- Is the article comprehensive enough?
- Did the author use appropriate terminology?
- Are the sample and the methods used in scientific papers adequately described?
- Are the quantitative or qualitative methodology and interpretation of results reliable?
- Does the text have clear conclusions?

Formal criteria:

- Did the author comply with the standard division of the article (abstracts, key-words, literature, ...)
- Is the text clearly divided into chapters?
- Are the tables and graphs clear and understandable?
- Is the text not too long or too short?
- Is the list of used citation sources (literature) not disproportionately large?

Recommendations – Editors conclusions

- Text will be published.
- Text will be published after minor modifications.
- Text will be published after reworking.
- Text will be reviewed again.
- Text will not be published.

