

DAUGAVPILS UNIVERSITY

FACULTY OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Mg. psych. INA GRASMANE

**EFFECTIVENESS OF A PSYCHO-PEDAGOGICAL
INTERVENTION FOR DEVELOPING SPIRITUAL
INTELLIGENCE AND ITS RELATION TO SPIRITUAL WELL-
BEING AND HAPPINESS IN PRIMARY SCHOOL CHILDREN: A
NON-RANDOMISED CONTROLLED TRIAL**

SUMMARY
of the Doctoral Thesis

(the set of thematically unified scientific publications)
for obtaining scientific Doctor's degree:
Science doctor (Ph.D.) in Social Sciences

(in the field of Psychology, subfield of Educational Psychology)

Daugavpils 2025

The doctoral dissertation was developed at the Faculty of Humanities and Social Sciences, Department of Education and Psychology, Daugavpils University, during the period from 2019 to 2025.

Doctoral study program: Psychology, specialization – Social Psychology.

Scientific Supervisor of the Doctoral Dissertation:
Dr. psych. Anita Pipere, Professor, Daugavpils University, Latvia

Official Reviewers:

- Dr. psych. Irēna Kokina, Professor, Daugavpils University, Latvia
- Dr. psych. Vineta Silkāne, Associate Professor, Vidzeme University of Applied Sciences, Latvia
- Ph.D. Roma Simulioniene, Associate Professor, Klaipėda University, Lithuania

The defense of the doctoral dissertation will take place at the open session of the Doctoral Council in the field of Psychology at Daugavpils University, online via the ZOOM platform, on November 19, 2025, at 11:30 a.m.

The doctoral dissertation and its summary are available for consultation at the Daugavpils University Library, Parādes Street 1, Daugavpils, and online at <http://du.lv/lv/zinatne/promocija/darbi>.

Reviews should be sent to the Secretary of the Doctoral Council at Daugavpils, Parādes Street 1, LV-5401, phone: +371 65422163, e-mail: alina.danilevica@du.lv.

Secretary of the Council: Dr.oec. Alīna Daņileviča

ISBN 978-9934-39-041-8

Contents

Introduction	4
1. Theory.....	20
1.1. The concept of spirituality in contemporary social sciences and psychology	20
1.2 Regularities of children’s spiritual development and theoretical approaches	22
1.3. Spiritual intelligence.....	28
1.4. Theoretical model of primary school children’s spiritual intelligence	30
1.5. PPI programme topics and objectives for development	32
1.6. Relatedness of children’s spirituality to their spiritual well- being and happiness.....	36
2. Method and outcomes.....	42
2.1. Method and outcomes of stage 1 of the study	42
2.2. Method and outcomes of stage 2 of the study	42
2.3. Method and outcomes of stage 3 of the study	43
2.4. Method and outcomes of stage 4 of the study	45
2.5. Method and outcomes of stage 5 of the study	47
3. Discussion.....	54
Conclusions	62
Bibliography	65
Appendices	79

Introduction

Topicality of the research. In the 21st century knowledge society, there is a current growth of the interest of broader public and scientific community in the dimension of spirituality. Research and academic centres specializing in the studies of spirituality and contemplative practices are being established at leading universities around the world, including Harvard, Yale, Stanford, Brown, Tufts University, and others (Vago, n.d.). As early as 2002, the World Health Organization identified the dimension of spirituality as one of the six fundamental dimensions that influence the quality of human life, emphasizing it as an essential value for contemporary humans (World Health Organization [WHO], 2002). This topic has become an important area of research, resulting in empirical studies in various scientific disciplines (Beehner, 2019; Noor-Anidaisma et al., 2023; Zappala, 2021).

J. Mata-McMahon in her review of studies conducted on children's spirituality from 2005 to 2015 points to the need to develop this area of research, concluding that there is a lack of empirical studies related to spiritual development to draw serious scientific conclusions (Mata-McMahon, 2016). The researcher emphasizes that there is no quantitative research instrument in scientific literature that would study the spirituality of younger children. There is also a lack of instruments for measuring other phenomena related to children's spirituality. K. Moore and her colleagues indicate that an important task for researchers of children's spirituality is to elaborate instruments for measuring spirituality for children, so that qualitatively described data can be studied quantitatively, reflecting the diversity of children's spiritual beliefs and their broadness in a multicultural context, as well as estimating the impact of children's spiritual development on their social adaptation, overcoming difficulties and other areas important for children's development (Moore et al., 2012).

The current global crisis of values, made especially acute by the warfare in countries close to Europe – Ukraine and Israel, as well as the irreversible changes in society caused by these conflicts, requires scientists to develop new and topical approaches that would promote the development of spiritual and value-based thinking in various spheres

related to societal transformation (MacDonald et al., 2015; Noor-Anidaisma et al., 2023; Zappala, 2021). There is a growing demand for studies that would reveal the formation of spiritual values in psychology, education science, medicine, social work, counselling, organization management and other spheres, especially if they offer innovative options in problem solving, both in EU-funded scientific projects and in the professional activities of practitioners. The scientific community is urged to elaborate precise definitions of concepts related to spirituality, thus facilitating the availability of these concepts in quantitative and qualitative research (MacDonald et al., 2015). Reconceptualization of spirituality and formation of related theoretical models provide a scientific basis for creating an open and nurturing environment for spirituality. This in turn provides an opportunity for practitioners to implement a value-based and human dignity-enhancing approach that can contribute to the sustainable development of society.

Novelty of the research. The present study refers to the need for scientific justification of concepts related to spirituality, conceptualizing the notion of children's spiritual intelligence (SI). According to L. Regzdina (2017), the concept of SI is characterized by such authors as R. A. Emmons, T. Noble (2001), D. D. Nasel, J. D. Mayer, D. Zohar & I. Marshall, R. N. Wolman, D. B. King, F. Vaughan, Y. Amram, D. A. Sisk, and S. Wigglesworth. In general, in all the theories of these authors, SI is described as a set of adaptive abilities of everyday use that can be developed and improved and that help a person deal with everyday life issues, thus increasing the quality of life (Amram, 2007; Emmons, 2000; King, 2010; Nasel, 2004; Noble, 2001; Mayer, 2000; Sisk, 2008, 2016; Vaughan, 2002; Wigglesworth, 2011, 2014; Wolman, 2001; Zohar & Marshall, 2004, 2010).

The scientific novelty of the present research is related to elaboration of a new psycho-pedagogical intervention (PPI) program for developing children's SI and the Children's Spiritual Intelligence Scale (CSIS) for measuring children's SI. The given scale and its primary validation make it possible to quantitatively measure children's SI, as well as provide an opportunity to determine the effectiveness of the developed PPI program. As part of the present research, a theoretical model reflecting children's SI capabilities was also developed, which formed the theoretical basis for the

intervention program and the new CSIS instrument. The theoretical model can further serve as a basis for the development of other programs in the context of education, upbringing, or therapy, thus promoting the development of a humane, value-based, transformative society. The theoretical model of children's SI and the CSIS instrument provide opportunities for psychologists, educators, and practitioners in other fields to continue developing approaches that facilitate the development of children's SI and allow for research related to the development of children's SI. This, in turn, helps to elaborate recommendations for policymakers in the fields of education, health, and social affairs. CSIS provides an opportunity to investigate and scientifically substantiate the programs developed for the formation of educational environment for developing children's SI.

Practical significance. The 21st century is marked by an extremely rapid development of science and technologies, yet, while for one part of the humanity it is an exciting challenge, another part, including children, would experience anxiety, loneliness, and fear (Boyatzis, 2005; Sin et al., 2025; UNICEF, 2017). Integration of programs developing spirituality into education brings into education aspects of children's personality formation as well as therapeutic ones, and balances the process of teaching and upbringing, facilitating the development of a harmonious and mentally sound personality. These are essential goals of contemporary education in many countries in the world, including Latvia. The present research expands the vision of children's spirituality in the context of education. Researchers of SI believe that traditional education that is implemented in a narrow scope with the focus on the growth of rational mind has grown outdated. The present-day social situation shows that education needs to be supplemented with new approaches that would facilitate the development of all human dimensions, developing both the bodily awareness of children and intuitive wisdom, awareness of their inner world, no doubt, also developing their rational mind (Ferrer et al., 2005; Zappala, 2021). Scientists argue that, by ignoring the spiritual aspect of human development, scholars who investigate development and the system of education in general create grave consequences that are manifested in the political, social, cultural, and other areas of importance to society (Zappala, 2021). Cultivation of spirituality and its integration into education help

build a society that serves higher values, can develop effective interpersonal relationships based on humane values, and encourages the younger generation to respect life, nature, and humans.

The elaborated and empirically tested PPI program for developing children's SI is an effective instrument for enriching the system of education with spiritual competence development tools, which include a creative methodology that is appropriate to the child's nature and provides inspiration in the sphere of child upbringing. This program contributes to the sphere of children's psychological health, providing a psychotherapeutic effect. The implementation of the program is topical not only in Latvia and other European countries, but also in countries where educators need support due to the devastating impact of war on families and children. This program has already been licensed in Ukraine and is being integrated into the Ukrainian system of education, thus providing aid to children who have suffered in the war. The process of adaptation of CSIS has started in Poland, thus creating the environment for the implementation of the elaborated PPI program and investigation of its effectiveness in a multicultural context. Based on the elaborated theoretical SI model, the development of international innovation has started in education. Within an international project there is being elaborated an innovative education model *A Holistic Approach: An Innovative Model for Managing Spiritual Intelligence as an Eco-Competence in Education and Exploring Development Opportunities in a Multicultural Context*. The project has been initiated within the framework of Daugavpils University project grant competition and it aims at adapting the CSIS scale and implementing the PPI program in Lithuania, considering the impact of the program on children in that country. Within the same project, the environment is being prepared for similar activities in Poland and Ukraine. Further, the project is planned to be developed as an international scientific project by combining resources of several universities and working out internationally validated curricula for general education schools, as well as developing a further education program for teachers within the framework of this approach. Currently, Daugavpils University has been joined in the development of this project by Jan Kochanowski University of Kielce in Poland, West Ukrainian National University in Ternopol, and Kaunas University of Technology in Lithuania.

Child development and education researchers emphasize the formation of values for the younger generation as an important and essential task, emphasizing spirituality as a major precondition for human psychological health and social functioning (Mata-McMahon, 2016).

Research design, stages of implementation, and methods of data collection and analysis. Figure 1 shows the research design and implementation stages indicating their objectives and methods of data collection and analysis.

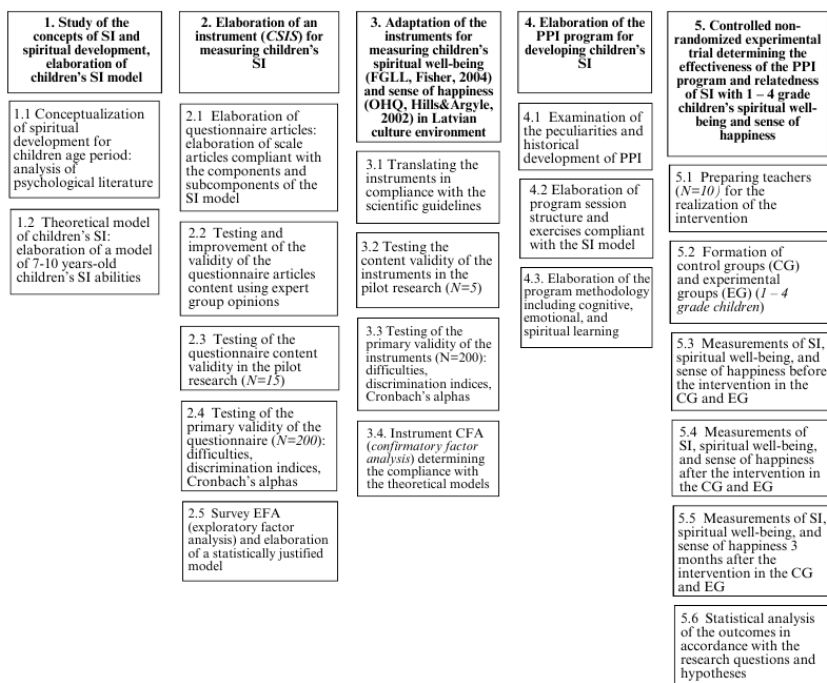


Figure 1. *Research design implementation stages, objectives, methods of data collection and analysis*

Research aim: To test the effectiveness of the elaborated PPI program for developing children's SI and investigate the relationship between the SI, spiritual well-being, and sense of happiness of 1 – 4 grade learners.

The research was conducted from 2019 to 2024 in five stages:

- 1) investigation of the concepts of SI and spiritual development, elaboration of a children's SI model;
- 2) elaboration of the CSIS instrument for measuring children's SI;
- 3) adaptation of the instruments for measuring children's spiritual well-being (FGLL, Fisher, 2004) and happiness (OHQ, Hills & Argyle, 2002) in Latvian culture environment;
- 4) elaboration of a PPI program for developing children's SI;
- 5) controlled non-randomized experimental trial for detecting the effectiveness of the PPI program and correlation between SI and 1 – 4 grade children's spiritual well-being and sense of happiness.

Further we will focus on the main research aims, objectives, and/or hypothesis as well as publications reflecting the given stage.

Stage 1. Investigation of the concepts of SI and spiritual development, elaboration of a children's SI model

At the beginning of the study, a literature analysis was conducted on the problematics of spirituality and the related concept of SI in the science of psychology. The aim of the first stage of the research was to work out a theoretical model that reveals the SI abilities of children. The elaborated theoretical model is described in greater detail in Chapter 1.4 of the present summary, while the study of the concepts of SI and spiritual development is reflected in Chapters 1.2 and 1.3.

The analysis of the concept of SI, the elaboration of a theoretical model of children's SI and its significance in various stages of the research implementation are reflected in the following articles:

1. The interrelationship of the concepts of spirituality, SI, and spiritual development in modern science of psychology:

Grasmane, I., & Pipere, A. (2020). The psychopedagogical intervention for the development of children's spiritual intelligence: The quest for the theoretical framework. *Acta Paedagogica Vilnensia*, 44, 81-98. DOI:10.15388/ActPaed.44.6

2. The significance of the children's SI model in the elaboration of a PPI program for the development of children's SI:

Grasmane, I. (2023). The development of children's spiritual intelligence: Conceptual and procedural dimensions of a psychopedagogical intervention in Latvia. *Journal for the Study of Spirituality*, 13(1), 33-45, DOI: 10.1080/20440243.2023.2187965

3. The significance of a theoretical model of children's SI in the elaboration of a PPI program and CSIS and its importance for the implementation of the experiment in schools:

Grasmane, I., Pipere, A., & Raščevskis, V. (2025). Effectivity of the psychopedagogical intervention for the development of children's spiritual intelligence and its influence to children spiritual wellbeing and happiness. *Journal of Happiness Studies*, 26(1), 1-25.

Stage 2. Elaboration of the CSIS instrument for measuring children's SI

The analysis of literature revealed a lack of instruments for measuring children's SI. Hence, the main goal of the present stage was elaboration of CSIS (Children's Spiritual Intelligence Scale). Within this stage, based on the available literature, an analysis of the methodology for elaborating psychological scales was produced and based on these results, the stages of the formation of the scale were defined, the implementation of which allowed elaborating CSIS and investigating its validity. The content of the CSIS is based on the components and subcomponents of the elaborated theoretical model granting its conceptual validity. In the process of investigating the statistical validity of the CSIS, an answer was gained to the additional research question concerning the psychometrical indicators of CSIS (*What are the psychometrical indicators of the elaborated scale for measuring children's SI?*). The CSIS was used to verify the basic research hypotheses.

The stages of the elaboration of the scale are reflected in Figure 2.

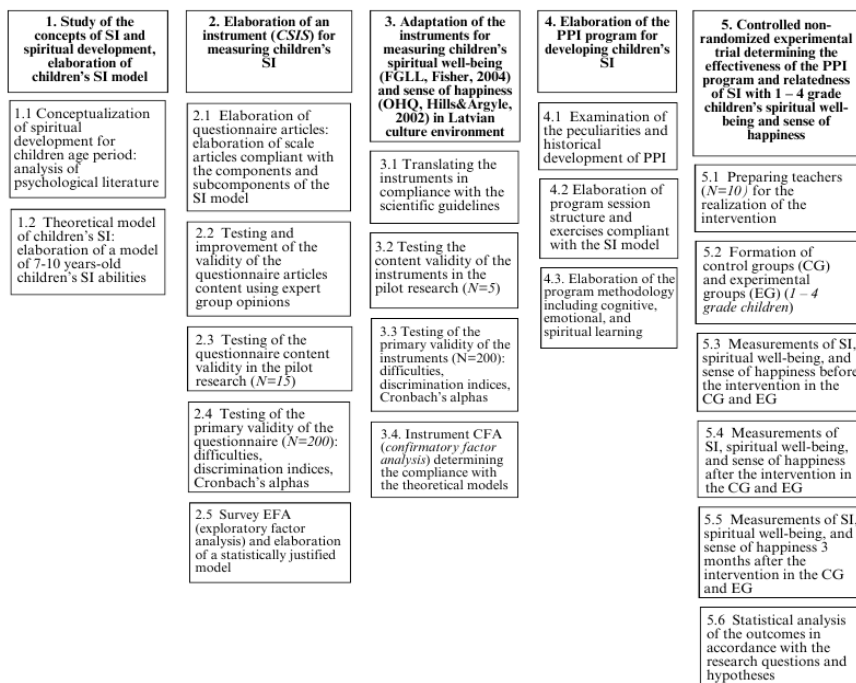


Figure 2. Stages of elaborating CSIS

Stages of elaborating CSIS are described in the following publications:

11. The stage of elaborating the content validity is described in the research publication:

Grasmane, I. & Pipere, A. (2020). Sākumskolas vecuma bērnu garīgā intelekta skalas izstrāde: Satura pamatotības izvērtēšana [Elaboration of the scale of primary school children's spiritual intelligence]. *Sociālo Zinātņu Vēstnesis*, 2, 156-183.
<https://du.lv/en/social-sciences-bulletin-2/>

2. The primary verification of the statistical validity of the elaborated scale is described in the research publication:

Grasmane, I., Raščevskis, V., & Pipere, A. (2022). Primary validation of Children Spiritual Intelligence Scale in a sample of Latvian elementary school pupils. *International Journal of Children's Spirituality*, 27(3), 1-16.

Stage 3. Adaptation of the instruments for measuring children's spiritual well-being (FGLL, Fisher, 2004) and happiness (OHQ, Hills & Argyle, 2002) in Latvian culture environment

The main goal of this stage of the research was to adapt instruments for assessing children's spiritual well-being (SW) and happiness to a sample of Latvian children, as well as to determine the psychometric indicators of the adapted surveys. With the help of research instruments adapted to a sample of Latvian children, the relationship between children's SI and SW and happiness is substantiated and the effectiveness of the PPI program is tested. The process of adapting the surveys provides answers to additional research questions related to the verification of the psychometric indicators of the research methods.

In order to adjust these instruments to Latvian children, they: 1) were translated in accordance with scientific guidelines, 2) they underwent primary validation trial in a small pilot research with 5 persons to test how survey participants understood the test instructions and the content of the test articles, 3) the surveys underwent secondary validity trial, 4) after editing the articles, both surveys were implemented in a group of 200 children; 5) statistical processing of the obtained data was performed, detecting the difficulty and discrimination index, Cronbach's alpha coefficient, as well as CFA (confirmatory factor analysis). The obtained data showed appropriate psychometric indicators of the surveys and their validity for implementation in the Latvian cultural environment.

The psychometric indicators of method adaptation for Latvian sample are described in the research publication:

Grasmane, I., Pipere, A., & Raščevskis, V. (2025). Effectiveness of a psycho-pedagogical intervention for the development of spiritual intelligence, relationship with happiness, and spiritual well-being for primary school children: A non-randomized controlled trial. *Journal of Happiness Studies*, 26(1), 1-25, DOI:[10.1007/s10902-024-00844-6](https://doi.org/10.1007/s10902-024-00844-6)

Stage 4. Elaboration of a PPI program for developing children's SI

The main goal of the present research stage was to elaborate a PPI program for developing children's SI and prepare a suitable methodology for its implementation. According to the history of PPI program formation and theoretical principles, PPI is regarded as a most effective approach to developing specific children's competences in the context of education. On

the basis of the previously elaborated theoretical model of children's SI and the practical experience of the author of the doctoral thesis, a PPI program was elaborated for children's SI development. In the present summary, the history of PPI development, their theoretical base as well as an insight into the PPI elaborated within the research are reflected in chapter *PPI programs as one of the most effective development tools in education*.

The elaboration of the PPI program and its implementation process are described in the research publication:

Grasmane, I. (2023). The development of children's spiritual intelligence: Conceptual and procedural dimensions of a psychopedagogical intervention in Latvia. *Journal for the Study of Spirituality*, 13(1), 33-45. DOI: [10.1080/20440243.2023.2187965](https://doi.org/10.1080/20440243.2023.2187965)

Stage 5. Controlled non-randomized experimental trial for detecting the effectiveness of the PPI program and correlation between SI and 1 – 4 grade children's spiritual well-being and sense of happiness.

The main goal of this research stage is implementation of a controlled non-randomized experimental trial realizing a PPI program in general education schools in order to detect its effectiveness and relatedness of SI to children's SW and happiness.

During the experiment, research hypotheses are tested, and answers are searched for the supplementary questions of research concerning the sample indicators of sex and frequency of church attendance.

Hypotheses:

H1. Participation in a PPI program enhances children's SI, SW, and sense of happiness in the experimental group.

H2. Children of the experimental group who will participate in the PPI program, as compared to the children of the control group, will show a rise in the level of SI, SW, and happiness. These improvements will be maintained also after three months, testifying to the long-term effectiveness of the program.

H3. The experimental group at all stages of observation (before the intervention, after the intervention, and during further trials) will show positive correlation between SI, SW, and happiness, pointing to their mutual relatedness in the whole research period.

The following supplementary research questions were set in relation to the socio-demographical indicators of the sample:

1. *What is the SI specific content in relation to gender differences and the frequency of church attendance of 1 – 4 grade learners in Latvia's general education schools?*

2. *What gender differences there exist in the indicators for SI, SW, and happiness for the experimental and control groups before PPI / after PPI / 3 months after the PPI?*

3. *What differences there exist between the control and experimental group participants who attend church often, seldom, or do not attend at all, in the indicators for SI, SW, and happiness before the PPI / after the PPI / 3 months after the PPI?*

In the present summary, the theoretical basis of the experiment is reflected in chapters *PPI programs as one of the most effective development tools in education* and *Relatedness of children's spirituality to spiritual well-being and happiness*. These chapters provide the theoretical base for the implementation of the PPI program and experiment.

Henceforth we will provide a brief description of each step of the experiment implementation:

1. *Involving primary school teachers in the PPI program implementation.* Teachers were invited to involve in the research in the PPI program related to the theme of spiritual development. 10 teachers volunteered for the PPI program implementation in their classes.

2. *Implementation of scientific ethics measures in schools.* Teachers coordinated their participation in the research with school administration. Only those teachers who were granted by their school administration a written permit remained in the research. Next task of the teachers was reaching official agreement with parents as to the learners' participation in the research and obtaining written permits from all parents in parents' meetings. Only those teachers who had obtained a written permit for children's participation in the research remained in the research.

3. *Preparing teachers for effective implementation of the PPI program.* A further education program for teachers was prepared, the introductory part whereof was implemented before conducting the PPI. One seminar was organized in the middle of the program implementation for supporting teachers and addressing current practical work issues.

4. *Formation of the control and experimental groups.* Agreement with school administration was reached as to the formation of a control group sample at school along with organizing a written agreement with parents about their children's participation in the control group of the research specifying that the children will undergo three measurements of their SI, SW, and happiness.

5. *Detecting the SI, SW, and happiness of the experimental and control group samples before intervention.* Children's SI, SW, and happiness were measured before the intervention program both in the control and experimental groups.

6. *Implementing the PPI program (intervention).* In experimental classes, teachers implemented a 10-session program by conducting one session of the program per week.

7. *Detecting the SI, SW, and happiness of the experimental and control group samples after intervention.* Children's SI, SW, and happiness were measured after the intervention program both in the control and the experimental groups.

8. *Detecting the SI, SW, and happiness of the experimental and control group samples 3 months after intervention.* Children's SI, SW, and happiness were measured 3 months after the intervention program both in the control and the experimental groups.

9. *Detecting the effectiveness of the PPI program for developing children's SI and investigating the relatedness of SI to SW and happiness.* The obtained data were processed and analysed to determine the effectiveness of the PPI program and relatedness of SI to SW and happiness.

The experiment procedure and research outcomes were reflected in the following research publications:

Grasmane, I. (2023). The development of children's spiritual intelligence: Conceptual and procedural dimensions of a psycho-pedagogical intervention in Latvia. *Journal for the Study of Spirituality*, 13(1), 33-45. DOI: [10.1080/20440243.2023.2187965](https://doi.org/10.1080/20440243.2023.2187965)

Grasmane, I., Pipere, A. & Raščevskis, V. (2025). Effectiveness of a psycho-pedagogical intervention for the development of spiritual intelligence, relationship with happiness, and spiritual well-being for primary school children: a non-randomized controlled trial. *Journal of Happiness Studies*, 26(1), 1-25. DOI: [10.1007/s10902-024-00844-6](https://doi.org/10.1007/s10902-024-00844-6)

The following outline will reflect the common elements of the entire research.

Research problem: in recent decades, the dimension of spirituality, including spiritual intelligence, has become a significant research sphere, especially its impact on the quality of human life. Scientists increasingly emphasize SI as an intrinsic value of modern human. However, there is still lack of studies that would analyse how children's SI development affects their well-being and related psychological phenomena.

Research aim: studying the specific content of SI for 1 – 4 grade learners in general education schools in Latvia, assessing the effectiveness of the PPI program for developing children's SI, and detecting the relatedness of changes of SI after participation in the intervention program to changes in children's SW and happiness.

Research object: primary school-age (grades 1 – 4) children's SI

Research subject: the effectiveness of the PPI for developing children's SI and relatedness of children's SI, happiness, and SW.

Research objectives:

1. Analysing scientific literature on spirituality, SI, spiritual growth, SW, and happiness;
2. Elaborating a theoretical model of children's SI;
3. Based on the elaborated theoretical model of children's SI, working out a PPI program for the development of 1 – 4 grade learners' SI;
4. Elaborating a CSIS scale for measuring children's SI and testing its psychometric indicators;
5. Adapting the Oxford Happiness Questionnaire and Fisher's spiritual well-being scale to a sample of 1 – 4 grade learners in Latvia;
6. Preparing teachers who will implement the PPI program in schools;
7. Organizing the implementation of the PPI program for the development of children's SI in Latvia's schools;
8. Detecting possible changes in children's SI as a result of intervention (effectiveness of the PPI program);
9. Detecting whether changes in SI are related to changes in SW and happiness;
10. Detecting whether there is relatedness between SI, SW, and happiness;
11. Collecting, analysing, and interpreting the research results.

12. Reflecting the main stages of the research and their outcomes in scientific publications.

Research participants:

Stage 2 (elaboration of CSIS) participants: 1) 15 learners in primary testing, 2) 6 experts participated in the assessment of the validity of the contents of the SI theoretical model components and scale articles, 3) 200 primary school learners participated in the trial research of the validity of the elaborated scale.

Stage 3 (FGLL (Fisher, 2004) and OHQ (Hills & Argyle, 2002) adaptation) adaptation research sample entailed 200 primary school learners.

The experimental stage 5 participants were 83 primary school learners: 41 learners in the experimental group, 42 learners in the control group.

The PPI program was conducted by 3 teachers in their classes.

Research instruments:

In research stage 2, a scale CSIS for measuring children's SI was used (Grasmane, Raščevskis, Pipere, 2022).

In research stage 4, Fisher's survey for detecting children's well-being was used (*Feeling Good, Living Life (FGLL)*, Fisher, 2004) along with the Oxford Happiness Questionnaire for detecting children's sense of happiness (*The Oxford Happiness Questionnaire (OHQ)*, Hills & Argyle, 2002).

In research stage 5, all aforementioned tools were used as a common set of research methods.

Methods of processing and analysis of the research data:

Statistical analysis was produced using SPSS 27.0 version. For quantitative analysis in stages 2 and 3, primary statistical validity analysis was applied that regards the psychometrical features of scales used in the research analysing indices of difficulty and discrimination, Cronbach's alpha coefficients, as well as the results of the factor analysis studying the questionnaire articles. In research stage 5, the repeated measuring ANOVA analysis was used to detect changes in measurements before the experiment, after the experiment, and 3 months after the implementation of the PPI program. To calculate the experimental impact effect, covariation

analysis ANCOVA was used. Friedman's test was adapted to the data that did not possess normal distribution characteristics. To test the hypothesis that there is positive correlation between SI, SW, and happiness, Spearman's rank correlation coefficient was used.

At first the assumptions of necessary normality, linearity, and homoskedasticity were verified, as well as descriptive statistics data were calculated including the mean indicators, standard deviations, and ranges for changeables under study. In cases when data did not possess normal distribution, non-parametrical tests were used. Effect magnitude (η^2 values) interpretation in group measurements was as follows: $\eta^2 < 0,01$ insignificant; $0,01 \leq \eta^2 < 0,06$ small; $0,06 \leq \eta^2 < 0,14$ medium; $\eta^2 \geq 0,14$ big (Cohen, 1988). Cohen's effect magnitude interpretation was as follows: small effect ($d = 0,2$), medium effect ($d = 0,5$) and big effect ($d = 0,8$) (Lakens, 2013).

To test H1, the indicators of the EG children's SI, SW, and happiness before and after the PPI program were compared. H2 testing entailed the analysis of the EG indicators in three periods of time: before the PPI program, immediately after it, and three months later, to estimate the long-term effect. All indicators were calculated also for the CG. The EG and CG results were compared analysing the program persistence in time.

Research procedures

During research stage 2, CSIS for detecting children's SI was elaborated followed by testing its psychometric indicators. The research sample was formed by observing the principles of scientific ethics, including coordination of the research conduction with the school administration, and obtaining permits from the parents of the children involved in the research. Participant recruitment was based on voluntary interest and initiative of the involved educators. Before data collection, the teachers were prepared for appropriate application of the research methods by participating in a teachers' further education course. The research participants were 200 primary school learners from general education school. Data were collected in a structured way, and the collected data were analysed in cooperation with a statistical research specialist.

During research stage 3, the instruments for measuring children's SW (FGLL; Fisher, 2004) and happiness (OHQ; Hills & Argyle, 2002) were adapted for the cultural environment of Latvia.

During research stage 4, the PPI program was elaborated for developing children's SI.

During research stage 5, the procedures were used related to investigation of the effectiveness of the PPI program and children's SI, SW, and happiness indicators. These include: involvement of primary school teachers in the research, implementation of scientific ethics measures, preparing teachers for the implementation of the PPI program, forming a research sample – selecting control and experimental groups. The final procedure of the research involved detecting the children's SI, SW, and happiness at three time points (before the intervention, after the intervention, and further observation). Statistical analysis of the obtained data was produced to estimate the effectiveness of the PPI program and the interrelations of these indicators.

Theses set for the defence:

1) Children's participation in the PPI program for the development of primary school- age children's SI facilitated statistically significant positive changes in children's SI and this positive effect was maintained after 3 months, indicating the long-term effectiveness of the program.

2) In all three measurements (before, after, and three months after the intervention), a positive statistically significant correlation was found between SI, SW, and sense of happiness in the experimental group.

3) Before the experimental research, SI levels were higher for girls, but after participating in the PPI, the levels of SI were similar for both sexes, indicating a positive impact of the program especially on boys' SI. Among all indicators analysed in the research, the most distinct gender differences were observed in the development of SI and SW.

4) The effectiveness of PPI was similar for all participants in the experimental group, irrespective of the frequency of church attendance. However, a small statistically insignificant difference (higher values) was revealed for children who occasionally attend church (in both the EG and CG). The impact of PPI, irrespective of the frequency of church attendance, confirms the necessity and opportunity for developing children's spirituality not only in the context of church but also in the secular context of education.

1. Theory

1.1. The concept of spirituality in contemporary social sciences and psychology

The present chapter analyses the problematic of the concept of spirituality in contemporary social sciences and the sphere of the science of psychology. The topicality of investigating the concept of spirituality and its significance, especially in the context of children's psychology, is reflected in academic literature and publications related to the present research (Grasmane & Pipere, 2020; Grasmane et al., 2022; Grasmane & Pipere, 2022; Grasmane, 2023; Grasmane et al., 2024).

In the late 20th and early 21st century, while studying spirituality in the social, cultural, economic, and political spheres, scientists began to highlight the need for innovative and original ways to solve the daily life problems of the humanity. They urge to reject such problem-solving strategies that are based only on the previously accustomed, solely rational world perception and emphasize the exhausted possibilities of such a way of thinking, summoning to broaden the scientific vision of the world and research by regarding the options of dealing with socially urgent issues from various contexts, including the spiritual aspect. Since the concept of spirituality can be applied to any sphere of life, it is characterized as a broad and multidimensional concept (Dyson et al., 1997; Grasmane, 2019; Grasmane, 2023; Moberg, 2010; Weaver, 2006; Zappala, 2021).

Studies of spirituality in the context of science began with the emergence and development of psychology of religion as a trend of science. Within the framework of this trend, scholars started investigating human's spiritual experience that is actualized through faith. The founder of the psychology of religion is considered to be the US philosopher and psychologist William James, who established the Association for Spiritual Psychology and wrote the first textbook on the psychology of religion. The impact of William James in this sphere is still considerable (James, 1902). The dilemma of the psychology of religion and its central problem issue were related to scientifically based research methods that are applicable in this research sphere (Gorsuch, 1988).

Later, as the concept of well-being became more relevant, spirituality began to be increasingly studied as an essential prerequisite for human well-being and health. The definition of spirituality, regarded as an essential component of well-being, has also undergone a transformation. It has changed from the traditional view, in which spirituality is understood mainly as a characteristic of a religious person, to a broader interpretation, where spirituality is associated with a general human desire for well-being and happiness. In some cases, spirituality is completely detached from religion (Moberg, 2010). Literature analysis shows that in the context of modern psychology, the concept of spirituality can be interpreted differently: it can include only the religious aspect, only the secular aspect, or integrate both of these aspects. The present research regards spirituality and the related concept of SI included in the context of a secular approach (Grasmane & Pipere, 2020).

In compliance with contemporary psychology research, spirituality is considered to be a concept that characterizes human personality aspects. Individual spirituality is interpreted as a unique and specific manifestation of each person's spirituality. Researchers emphasize the necessity to elaborate approaches and methods that would facilitate the development of spirituality as this may improve the quality of human life, improve functioning and health (Myers & Sweeney, 2005; Nelson, 2009; Pettersson, 2003, as in Beehner, 2019). Most urging issues of the present-day studies of spirituality in social sciences are the transformation of spiritual health, spiritual well-being, and a happy, sustainable society. Elaboration of spiritual development programs, tools, and methods is regarded to be an essential and significant goal in contemporary science of psychology (Grasmane et al., 2025).

Notwithstanding the growing interest of researchers in the study of spirituality and the importance of this concept in various fields, spirituality research remains at a comparatively early stage of development. Research on the impact of spirituality on various spheres of human life is not sufficient and does not provide scientifically sound answers to topical issues set by humankind. Nowadays people still face considerable difficulties in adjusting to the growing changes, uncertainties, complex political and social conditions. There is currently observed inability of humanity to effectively respond to these challenges, while preserving physical and spiritual health, basic human values, and dignity (Zappala,

2021). Spiritual intelligence researcher G. Zappala points out that supra-rational thinking is just one part of the whole potential of human brain. The researcher calls on modern scientific thought to assume a new way of thinking termed by him as spiritual intelligence. The scholar emphasizes the need for developing SI at all social levels, especially education, by integrating the development of spiritual abilities in academic programs, thus helping humans find the sense, values, and purpose of life (Grasmane, 2023; Zappala, 2021; Zohar & Marshall, 2004; Zohar, 2016; Walton, 2017).

1.2 Regularities of children's spiritual development and theoretical approaches

The present chapter regards the aim of the research – to analyse children's spiritual development in the context of contemporary psychology in order to conceptualize the development of children's SI in the framework of general spiritual development. Henceforth we provide the analysis of major contemporary psychological theories of spiritual development, characterize the basic principles of children's spiritual development, and reflect the regularities to be taken into consideration for elaborating the PPI program for the development of children's SI and articles of the instrument for measuring children's SI.

In the 1960s, research on spirituality in the context of Christian religion was part of broader academic and interdisciplinary initiatives that strove to integrate perspectives of psychology, theology, and pedagogy. These initiatives were aimed at reaching a deeper understanding of the development processes of faith and spirituality with children and adults, facilitating the understanding of the way various factors affect religious experience and its formation. Although many important studies in this area were produced later, the efforts of theologian and developmental psychologist James W. Fowler to study the development of faith over the course of a person's life stand out in the context of the 1960s. Research in this sphere became the basis for his widely acknowledged and influential faith development theory that provides a systemic insight into the way individuals develop their faith at different age periods and life situations. The scholar mostly proceeded from the ideas of three development psychologists: Jean Piaget's cognitive-developmental theory, Erik Erikson's psychosocial development theory, and Lawrence Kohlberg's moral

development theory. J. Fowler later elaborated his own approach that regarded the development of faith and spirituality based on religious experience, culture traditions, and person's individual cognition. At that time, Fowler's work was more theoretical, preparing the base for empirical research in later decades. At that time, research on spiritual development demonstrated a tendency of regarding prayer and conversation with the transcendental as the central features of spirituality (Elkid, 1970; Flower, 1981; Goldman, 1964; Long et al., 1967).

Since 2000, when research on spirituality started developing in a broader context, scholars focused on other features of the spiritual development of adults and children. That may be regarded as the origin of broader investigation of children's spirituality. Hence, R. Boyatzis holds that the major aspect of child's spiritual development is socialization that entails manifold forms of communication, such as religion, family spirituality, impact of education, etc. (Boyatzis, 2005). However, regarding spiritual development from the cognitive perspective, it is emphasized that child's thinking is combined and entails both the rational and mythological aspect. Child's spirituality is based on the mythological, intuitive, figurative aspect and their development facilitates spiritual development that in turn affects children's cognitive development (Woolley, 2000). John Conn considers the central concept of spirituality and its development to be self-awareness of the human "I", awareness of authenticity, and their impact on the quality of relationships (Conn, 1992). P. Boyer emphasizes that human's spirituality is a natural, inner, intuitive, specific way of thinking (Boyer, 1994). Other theories of spirituality focus on the development of moral understanding as the main driving force of spiritual development (Erenchinova & Proudchenko, 2018; Nelson, 2009).

Contemporary scholars consider in their research various different and even contradictory features of spiritual development; therefore it has been a difficult and complex scientific task to reach an agreement as concerns the definition of spiritual development. Even in scientific literature dedicated to spiritual development issues, e. g. *Handbook of Spiritual Development in Childhood and Adolescence* (Roehlkepartain et al., 2005), the notion of spiritual development is treated from diverse angles of vision. These difficulties in defining the concepts of spirituality and spiritual development reveal their multifunctional character. Researchers representing both above mentioned scientific approaches – early research

on spiritual development and that of the 1990s – have reached a shared conclusion that spirituality is prone to development.

To develop a unified definition of spiritual development, the Institute for the Study of Spiritual Development (USA) in collaboration with the Minnesota Research Institute conducted a study, collecting data from 5,000 children and young people aged 12–25 in European countries, the USA, Australia, India, Japan, and China. The nature, functions, and character of spirituality were studied using surveys and focus groups. As part of the present research, scientific guidelines were produced for defining the concept of spiritual development still used in modern psychology. This internationally recognized definition of spiritual development states: *Spiritual development is the development of inner abilities that realize a person's transformation and transcendence, developing self-awareness, knowledge of a higher Self, which is above the real self, including the aspect of sanctification* (Benson et al., 2003, pp. 205 – 206).

In their studies of the features of spiritual development in relation to children's age groups, scholars have elaborated several approaches for regarding spiritual development from various aspects: 1) cognitive approach, 2) social ecology approach, and 3) dynamic systemic theory.

Cognitive theory of spiritual development. If developmental psychology analyses cognitive tasks in various age periods, researchers of spiritual development identify specific stages of spiritual development. J. Fowler elaborated seven stages of faith development by foregrounding *faith* as the central feature of spiritual development and relating it to Piaget's cognitive development. For instance, when describing the age period from 3 to 7 years, the researcher emphasizes that at this age, *intuitive-projective faith* develops, which is based on symbols and stories with dominating intuitive and not rational character. In turn, from the age of 7 to 12, *mythical-literary faith* is formed, where children begin to distinguish truth from myths and develop critical thinking (Fowler, 1981). Both of these spiritual development aspects are important to take into consideration when elaborating a program for children's spiritual development, in this case, the PPI program for the development of children's SI.

In turn, the researcher of spiritual development K. Cartwright expands this approach relating the stages of spiritual development to Piaget's theory (Cartwright, 2001). Focusing on children of primary school age, the scholar, like Fowler, in accordance with Piaget's theory emphasizes the

transition from the pre-operational to the concrete operational stage marked by the dominance of symbolical and mythical world perception by children. With the development of mythical perception and its adequate stimulation, according to Cartwright, children gradually develop logical thinking, and children of the primary school age begin to search for logical explanations for their beliefs about phenomena on the basis of their personal experience and cognition of the surrounding environment. At this age, it is important to ground learning on the child's practical experience, adventures and conversations that help to understand spiritual processes and truths (Labouvie-Vief, 1999). Unified social norms and logical approaches facilitate both the emotional and spiritual growth. At this stage, a person begins to seek logical explanations of their relations with God and it is no longer sufficient for the child to hold a symbolically mythological understanding of the spiritual world. Children begin to seek an explanation for what is happening in their life (Cartwright, 2001).

Cognitive approach is driven towards the inner world highlighting the psychological processes of spiritual development. To elaborate the PPI program for developing children's SI, it is essential to clarify and take into consideration these aspects of inner development. This not only helps to define more precisely the objectives of SI development but also facilitates the search for compliant methods for their solution. Cognitive theories of spiritual development reveal that: 1) spirituality is prone to development, thus the elaboration of such a program makes sense, 2) spirituality is an inner intuitive phenomenon, the development whereof is related to "elevating" intuitive thinking to awareness and rational thinking, 3) spirituality is an ability to communicate with the transcendent, 4) spirituality is related to the quality of contacts with oneself, one's intuitive, unique nature, quality of relationships with other people, ability to respect nature and the surrounding environment, as well as the quality of the relationship with the supra-natural reality.

However, despite the importance of the cognitive approach, leading researchers in developmental psychology have indicated that this theory is unable to reveal all the variables that influence the results of research in this field. A new approach to spiritual development was developed – *Dynamic Systemic Developmental Stage Theory* (Boyatzis, 2005; Spilka et al., 2003). If the cognitive approach explains spiritual development in relation to age periods (Overton, 1998), the new approach investigates the development of

spirituality regardless of age, focusing on the dynamics of spiritual strategies and their interaction (Siegler, 1996). Fowler in his theory of faith development tries to combine the cognitive and dynamic approaches, analysing the quality of faith life and the formation of understanding in seven stages or *windows of understanding faith*. Spiritual development in this case is analysed by taking into account a person's understanding of faith and maturity. The first stages (1-4) are consistent with Piaget's trend of thinking development from concrete to abstract thinking (Fowler, 1981; Piaget, 1967). Dynamic systemic approach is appropriate in untypical cases, for instance, when psychic traumas block a child's spiritual development. In these cases, scholars analyse the stages of a concrete individual's development irrespective of age (Boyatzis, 2005). The experience of Sunday schools approves that approximately 30% of children develop in an untypical way and Fowler's theory helps select an individual approach to such children (Fowler & Dell, 2006). The majority of the representatives of this trend consider that individual's cognitive changes just superficially reflect their true development, thus researchers prefer a deeper investigation of a child (Overton, 1998). Hence, the dynamic systemic spirituality development theory emphasizes the significance of children's unique and individual spiritual development.

When elaborating the PPI program for developing children's SI, it is essential to define strategies and qualities of spiritual thinking that are not related to a particular age but characterize the quality of SI development. In fact, SI program entails the development of such thinking strategies, therefore within theoretical study it is necessary to define features of SI and search methods for their development.

In turn, *social ecology approach* studies the impact of social context on children's spiritual development, especially emphasizing family as the primary context of development followed by peers, church, school, and culture (Boyatzis et al., 2006). This approach is based on theories of L. Vygotsky and U. Bronfenbrenner who emphasized the significance of socio-cultural environment in children's development, especially the role of family and parents' knowledge (Bronfenbrenner, 1979; Vigotskis, 1978). According to research, 80% of studies about the impact of family on children's spiritual development are based on social ecology approach (Mahoney et al., 2001). Development of spirituality considerably facilitates the psychological health of children, especially helping live through the

experience of loss, endowing sad events with a new sense (Andrews & Marotta-Walters, 2005). Transaction theory emphasizes that children's intuitive spirituality develops more harmoniously in families where parents and children share their spiritual experience, thus facilitating holistic growth (Boatzis & Jenicki, 2003; Kuczynski, 2003).

Researchers stress that effective implementation of the PPI program and its outcomes depend on the effectiveness of social interaction between teachers and learners (Andrews & Marotta-Walters, 2005; Lipman, 1999; Stanszus et al., 2016). Hence, conducting the teacher preparation program has a significant aspect also in the implementation of an effective SI development program.

Hence, the social ecology approach emphasizes the significance of external factors in the development of spirituality, especially interaction between teachers and learners.

Regarding the theoretical trends of studying spiritual development, the following conclusions can be drawn:

1. When elaborating the PPI program for children's SI development, it is important to precisely define the spirituality component to be developed, reflect its significance and theoretical basis. Intervention is scientifically justified if the program clearly states the aspect to be developed, its features and aims of development.

2. *Cognitive approach* characterizes spiritual development as inner quality that may be developed by raising intuitive thinking to the level of awareness. In the elaboration of the PPI program for children's SI development, it is essential to take into account these inner psychological aspects in order to define the development objectives and select appropriate methods for their fulfilment.

3. *Dynamic systemic spiritual development theory* highlights the significance of children's individual and unique development. Elaborating the PPI for developing children's SI, it is essential to define thinking strategies and qualities that characterize individual development, irrespective of age periods. The aim of the program for developing SI is facilitating the development of such strategies by creating space for children's individual and unique growth.

4. *Social ecology approach* emphasizes the impact of external factors on the development of child's spirituality, especially emphasizing the quality of interaction between teacher and learner. Effective PPI is based on

the teacher's preparedness and ability to provide good interaction that significantly affects the program outcomes and development of spirituality.

1.3. Spiritual intelligence

Defining and understanding the concept of SI forms a methodological framework for the new child SI model (Grasmane, 2019), which in turn facilitates a deeper understanding of child SI and provides a scientific basis for innovations in this sphere (Grasmane et al., 2025).

The multidimensional nature of human intelligence and its psychological investigation have become a major subject of scientific debate in the late 20th century. Questioning the previously dominant belief that intelligence is related only to IQ, Howard Gardner proposed a concept in which intelligence is considered an innate and diverse set of factors, initially distinguishing seven components in it – linguistic, logical mathematical, bodily, musical, spatial, emotional, existential – thus expanding the understanding of the nature of intelligence (Gardner, 1993). Later he specified and expanded this set of components, renaming existential intelligence as spiritual intelligence and adding new factors to it – natural science intelligence that is responsible for the ability to understand and evaluate the surrounding world, nature, and recognize its regularities and interactions, career intelligence – professional abilities in various fields of social and natural sciences, and moral-ethical intelligence – a sense of social justice and the ability to influence social development processes (Gardner, 2011).

Responding to Gardner's theory of the multidimensional nature of intelligence, there are emergent studies of specific dimensions of intelligence – social, emotional, and spiritual intelligence. Although this theory is criticized for the lack of experimental empirical proof, in recent years neurosciences have accumulated proofs for the cognitive-neural correlate of each kind of intelligence (Shearer & Karanian, 2017).

Researcher of SI, G. Zappala compares the spiritual, emotional, and rational intelligence emphasizing the differences among these dimensions of intelligence as follows: "Rational intellect (IQ) forms the base of materialistic thinking focusing an answer to the question: "What do I think?" This intellect is used to solve logical and strategic problems, structuring and analysing information. Emotional intelligence (EQ) relates humans to their emotional world searching for an answer to the question:

“What do I feel?” This facilitates the ability to understand other people’s emotions, build empathy, and adaptively react to various situations and social contexts. Spiritual intelligence (SQ), in turn, raises thinking to the holistic level striving for the answer to the existential question: “Who am I?” This kind of intelligence is used to learn the sense of life, values, and deal with deep philosophical or ethical questions” (Zappala, 2021, p. 4).

Studying the understanding of the concept of SI in modern science of psychology, like studying the concept of spirituality, it may be observed that various authors define different abilities that characterize a spiritually intelligent individual (Grasmane & Pipere, 2020).

The well-known researcher of SI, D. King defines SI as a set of mental abilities that facilitate the awareness, integration, and adaptive use of the immaterial and transcendental aspects of one’s being, thus cultivating such qualities as deep existential reflection, in-depth understanding of meaning and sense, awareness of one’s transcendental “I”, and ability to reach spiritual states of consciousness (King, 2008). Following King, several scholars further develop the concept of SI adding more of spiritual abilities to it. Hence, Robert A. Emmons emphasizes reaching transcendence (broader states of spiritual awareness) adding ability to integrate these states in everyday life (Emmons, 2000). D. D. Nasel, like R. A. Emmons, emphasizes the skill of using spiritual abilities and resources for practical needs adding the ability of making well considered decisions at moments of existential reflections or dealing with the difficulties of everyday life (Nasel, 2004). K. D. Noble supplements this list with the ability of understanding and awareness of the existing reality as integrated into broader reality and individual’s conscious or unconscious interaction with it (Noble, 2001). D. Zohar and I. Marshall write that a spiritually intelligent individual is characterized by flexibility, active, adequate, spontaneous action, ability to perceive the unifying, understand causal relationship, find sensible answers to one’s questions, ability to accept and overcome pain, to act in compliance with one’s wishes (Zohar & Marshall, 2016). The issue of sensibility is accentuated by M. Wolman who holds that a spiritually intelligent individual is characterized by the ability to set questions about the sense of life, feel united with other people and the world (Wolman, 2001). F. Vaughan supplements the awareness of the sense of life and existential aspects with an emotional component considering that spiritual practice develops interpersonal and intrapersonal sensitivity (Vaughan,

2002). Y. Amram defined the characteristics of a spiritually intelligent individual by conducting a qualitative study of spiritual practitioners. His research showed that a spiritually intelligent individual is characterized by awareness, kindness, a sense of meaning, transcendence, justice, serene surrender to one's own essence, inner freedom and awareness (Amram, 2007). In turn, D. Sisk supplements the description of SI abilities with the component of creativity and emphasizes the importance of SI in the system of education and leadership (Sisk, 2008, 2016). Thus, SI is characterized as a totality of manifold abilities applicable in everyday life that are prone to improvement and refinement.

1.4. Theoretical model of primary school children's spiritual intelligence

The contemporary science of psychology provides research on SI and opportunities of its development in the age period of adolescence (Hosseini et al., 2010; Mishra & Vashist, 2014), yet studies on spirituality and the concept of SI for younger children are limited (Mata-McMahon, 2016). To advance the studies of SI of primary school-age children, it was necessary to elaborate a theoretical framework for the concept of children's SI, especially focusing on the preconditions of SI development and methodology. Summarizing the scientific ideas on spirituality, spiritual development, nature of intelligence and SI, a theoretical model was formed as part of the present research that characterizes the SI of children aged 7 – 10 (Grasmane, 2023; Grasmane & Pipere, 2020). The theoretical model of children's SI provides a structured framework for studying the SI of primary school-age children, forms the basis for elaborating new programs and methodologies in the sphere of developing children's SI. This model provides an opportunity for scientists to improve the given approach by developing new theories, setting new hypotheses, conducting controlled experiments with using both quantitative and qualitative research methods. The model facilitates a deeper understanding of children's SI and creates a scientific environment for the development of innovations in the sphere of developing children's SI that is especially useful in cases of educational policy reforms and PPI program implementation. Besides, the given model facilitates an interdisciplinary approach, combining the concepts of psychology, education, and child therapy, thus opening the way for a holistic treatment of children's SI development issues at various levels.

This model is adjusted to the psychological context of this age group on the basis of SI theory adaptation (Cartwright, 2001). It entails five main components, each of which consists of five subcomponents (Grasmane, 2023; Grasmane & Pipere, 2020) (see Table 1).

Table 1. *Components and subcomponents of the theoretical model of children's SI*

No.	SI model components	Subcomponents
1.	Ability to create and be aware of the sense of life	Awareness of the transcendental (relationship with God or supreme being)
		Ability to set goals and be aware of the sense of life
		Ability to be aware of one's professional calling
		Necessity to understand causes by asking: "Why?"
		Willingness to reflect on existential issues (time, space, sense of life, etc.)
2.	Abilities of self-awareness	Awareness of one's identity
		Developing dignity – respect for oneself, one's beliefs and talents
		Awareness of the strengths and weaknesses of one's personality
		Ability to play free, creative, spontaneous games that enhance inner freedom and bring healing
		Ability to assess personal achievements that strengthen one's self-esteem
3.	Self-control mastery	Awareness of the possibility of changes but reaching them requires effort
		Ability to respect authority and follow it
		Perseverance in reaching goals despite hardships
		Abilities of emotional and physical self-regulation
		Ability to make deliberate decisions
4.	Awareness of personal uniqueness	Ability to get in contact with one's emotional world and verbalize it
		Unity of thought, feeling, and behaviour
		Ability to listen to one's intuition
		Developed creative potential
		Awareness of one's creative world vision
5.	Social mastery	Ability to forgive everyday offences and accept diverse opinions, beliefs, and traditions
		Ability to teach others what one knows and can do
		Ability to accept different opinions, beliefs, and traditions
		Compassion for the world
		Friendly and kind relations with peers and significant adults

On the basis of the elaborated theoretical model of children's SI, a PPI program was worked out for developing children's SI along with a CSIS instrument for measuring children's SI.

Due to the fact that no empirical data can be found in scientific literature about the effectiveness of any PPI program for developing SI of junior school-age children, it is not possible to produce a comparative analysis of data detecting the effectiveness of the program. However, in two recent decades, SI development programs have been worked out and their effectiveness is studied both in the context of health and education. Several studies illustrate the positive impact of PPI programs for developing SI on adolescents, young people, and nurses (Pinto et al., 2023; Francis et al., 2021).

1.5. PPI programme topics and objectives for development

The present chapter discusses the prerequisites for the creation of PPI programs for the development of children's SI, the topics of the PPI program and the development objectives. Based on the study of PPI programs in the context of modern psychology, the previously developed theoretical model of children's SI, as well as the practical experience of experts and the author of the present research, a PPI program was elaborated, designed to develop children's SI.

In science, PPI programs are mentioned as most effective types of training, which, when integrated into the learning process, facilitate rapid development of children's abilities in various spheres. Studies that examine PPI programs for the implementation of various development goals reflect the effectiveness of these programs when integrated into various learning processes – professional education programs for nurses, general education school programs, etc. (Grasmane et al., 2025; Francis et al., 2021; Pinto et al., 2023). Research shows rapid development of children and young people in various spheres in case of using PPI programs. These programs are usually based on the development of some specific, scientifically formulated and operationalized competence (Waters & Sroufe, 1983).

The history of PPI began with a cognitive-behavioural approach, elaborating programs for the development of various cognitive abilities. For instance, the PPI program *Californian Writing Project* developed learners' critical thinking skills. In turn, the program *Future problem solving* promoted learners' thinking and ability to solve global problems (Costa, 1991; Olson, 1985; Osborn, 1963; Parnes, 1981). The first PPI programs that developed children's existential intelligence (later called SI) were

philosophical development programs that use children's natural interest in such philosophical issues as truth, justice, identity. Philosophical programs consist of stories for the development of children's philosophical reflection, which is the basis for further discussion with children and joint searches for answers to diverse questions (Lipman, 1976).

Another approach to the content of PPI programs is the integration of social-emotional learning into education. Social-emotional learning programs are based on the development of emotional competencies (Durlak et al., 2011). These PPI offer, for instance, correction of aggressive behaviour, development of social-emotional skills and enhance of emotional health. Emotional development programs are widely integrated into the pedagogical process at school, and it is emphasized that such programs facilitate a positive microclimate in the classroom, reduce clinical symptoms, including children's anxiety and social stress (Mayer & Salovey, 1990) and alleviate symptoms of depression (Ruiz-Aranda et al., 2013). Latvian scientist Baiba Martinsone is one of the leading experts in the field of social-emotional learning in Latvia. She is the author and co-author of several programs, including *Social-emotional Learning, Support for Positive Behaviour*, and *Facilitating Spiritual Health in Schools* (Martinsone, 2014; Martinsone, 2016; Martinsone et al., 2019).

In order to elaborate a PPI for the development of children's SI, it was essential to consider all the above-mentioned aspects of spirituality, spiritual development and SI research. Based on these aspects, the following prerequisites were set for the elaboration of a PPI development program:

- 1) Children's SI is prone to developing and relevant in the context of education. Modern educational reforms in many countries emphasize the integration of personality and character in the process of learning. Besides, a therapeutic approach in schools is growing more significant, accentuating the emotional and psychological support as a component part of education.

- 2) Children's SI is characterized as deeply internal and intuitive, and its development is closely related to child's ability to intuitively explore diverse aspects of the world and verbalize their unique revelations. In this process, major significance is attributed to conversations about the sense of life and ability to form a bond with the transcendent, thus facilitating child's understanding of the deeper issues of existence.

3) The development of SI is closely related to that of the social component, i.e., contact with oneself, other people, and the transcendental.

4) Children's SI development has individual specific features, and the individual development of each child needs to be studied deeper, taking into consideration individual specific indicators (Overton, 1998). Elaborating the PPI program for developing children's SI, it was important to define those spiritual thinking strategies that are not only related to a specific age but also characterize the content of SI.

For the development of the children's SI formulated in the PPI program, a methodology compliant with the child's psychological and spiritual development at a specific age was created. Within its framework, various activities were worked out that facilitate children's creativity and artistic expression, while providing educators with the opportunity to make a dialogue with children based on the child's intuitively created symbols (for example, methods of free building, free drawing, etc.) (Grasmane & Pipere, 2020; Grasmane et al., 2025). In addition, a creative and child-adapted system was developed to enhance motivation and self-control, which was integrated into the process of upbringing. Each lesson ensures the acquisition of both theoretical knowledge and practical skills. Ten sessions include stories, drama improvisations, rituals, age-appropriate meditative reflections, art and movement-based exercises, including those borrowed from art therapy, which have been adjusted to the form of games close to the child's nature. Exercises borrowed from child psychotherapy were also transformed into a game form appropriate for primary school age in the program methodology (Grasmane, 2022).

Within the PPI program, the training sessions are focused on developing the five components of a child's SI, with two sessions for each component. The program ensures the gradual and steady development of children's SI abilities using an integrated approach that includes cognitive, emotional, and spiritual learning. In turn, each individual exercise in the program simultaneously develops several SI abilities in an integrative manner (Grasmane, 2023).

Ten PPI program training session topics and development objectives are provided in Table 2.

Table 2. *PPI program session topics and development objectives*

Training topic	Development objectives
Introduction. 1. Development of self-control, self-awareness, and personality uniqueness	Introduction to the topics of SI and PPI program training sessions. Setting rules for training sessions, development of self-control, self-awareness, awareness of personal authenticity and uniqueness, developing the ability to verbalize emotions and feelings.
2. Development of social mastery integrating the awareness of identity and uniqueness	Social training, encouraging discussion on forgiveness. Developing self-awareness – awareness of identity and personality uniqueness.
3. Creating personal sense and self-awareness	Awareness of one's sense of life emphasizing the significance of the transcendent consciousness and the awareness of personal resources.
4. Awareness of uniqueness (revealing personal resources and working with inner obstacles that interfere with using resources in dealing with life issues, hinder being who one is)	Facilitating creativity and initiative, developing the sense of personal uniqueness, awareness of personal unique resources and verbalization of impediments that interfere with authentic self-expression.
5. Social mastery (cooperation and acceptance)	Development of the skill of teaching others what one has learned, ability to develop and accept diverse opinions of oneself revealing one's personal uniqueness and that of others.
6. Self-awareness and self-respect	Facilitating the awareness of one's inner world, of one's strong and weak personality traits. Developing the skills of participating in a free, creative, spontaneous game and ability to respect personal achievements. Strengthening one's self-esteem.
7. Existential awareness	Developing the ability to regard difficult life situations from diverse angles of vision asking "why", thus developing the ability of philosophical reflection and searching for answers to existential questions.
8. Self-awareness and identity	Strengthening one's sense of identity, certainty of one's abilities and resources, developing self-control.
9. Awareness of personal uniqueness (unity of thought, feeling, and behaviour)	Verbalizing one's inner world and emotions, developing the skill of listening to one's intuition, realizing one's creative potential and enhancing the sense of one's unique world vision.
10. Conclusion: integrative and targeted development of children's SI	Concluding with an integrative improvisational game that develops SI in children in an integrated way.

1.6. Relatedness of children's spirituality to their spiritual well-being and happiness

The aim of the present study was not only to elaborate a new theoretically and empirically justified PPI program for developing children's SI but also to investigate the correlation between the primary school-age children's SI, their spiritual well-being, and happiness.

Human's well-being, like the concept of spirituality, is studied as a multidimensional concept that entails various physical, psychological, social, and emotional aspects. Promoting well-being at various levels (political, educational, organizational, and family) is included in the Millennium Development Goals (Safronova, 2015).

Nowadays, scientists study human well-being in terms of education, health, the environment, and other aspects that are important to humans (Grasmane et al., 2025). There is also confusion regarding the concept of well-being. Studies list several types of well-being – subjective, spiritual, social, emotional well-being, and there is a lack of guidelines on how to appropriately apply these different well-being-related concepts in research practice. The concept of spiritual well-being (SW), which in the framework of the present research is studied in relation to SI, is sometimes confused in the literature with the concept of subjective well-being.

Research on SW was initiated by the US National Interfaith Coalition on Aging (NICA), which defined SW as a balanced experience of an individual's relationship with God, oneself, community, and environment, highlighting the awareness of health and well-being and its importance as the basis for the formation of well-being (NICA, 1975).

The concept of SW is essential and topical in the context of modern education and social psychology. Social and health problems of children and adolescents are increasing, as is the number of behavioural, emotional, and mental disorders, including depression in children. Therefore, there is an urgent need for the development of various programs and methodologies that promote various aspects of child well-being (Souza et al., 2009). In modern psychology, SW is treated as an optimistic, subjective interpretation of one's sense of spiritual life, which is manifested in initiative, inspiration, self-esteem, and awareness of the value of one's own opinion. A person with a high SW score is aware of the purpose of their life, is able to accept themselves, and forms positive social relationships

(Tregenza, 2008). In psychological studies of spirituality, SW is emphasized as an indicator of spirituality and an essential sign of spirituality (Deb et al., 2012; Egbert et al., 2004; Karakus et al., 2021; King & Krowther, 2004).

Researchers emphasize that a crucial aspect of a child's well-being is the ability to experience an age-appropriate spiritual life, which promotes the child's ability to manage their reactive emotional "I". This process promotes the development of self-esteem, improves overall well-being, and promotes a respectful lifestyle (Painton, 2009). Research on children's SW covers several important aspects of development, including the influence of childhood experiences on personality formation (Mustard, 2008), the development of spirituality as a structural element within SW (de Souza et al., 2009), as well as the importance of age-appropriate education that promotes children's emotional well-being and gives joy (Grasmane et al., 2024; Mata-McMahon, 2016). Research shows that the promotion of spirituality, integrated into the learning process and appropriate for children's psychological development, is particularly important. Spiritual development is effectively facilitated by involving children in free and creative games, as well as art and music activities (Painton, 2009). Regarding gender differences, research indicates that, starting in early adolescence, girls have a higher level of spiritual development, which correlates with higher SW levels (Mirkovic et al., 2021; Lee et al., 2019). Besides, at the age of 8 – 11, girls have a more positive attitude to religion than boys, whereas younger children generally demonstrate a more positive attitude to religion than older children (Francis, 2009).

The NICA definition of SW was taken as the base for J. Fisher's model of spiritual well-being and health, as well as for the scale for measuring children's SW (Fisher, 2009; Fisher et al., 2000). Fisher's *Feel Good Living Life* (FGLL) scale for measuring the spiritual well-being of primary school age children (Fisher, 2004) is a widely used tool designed to assess a child's spiritual well-being based on four main dimensions: the personal dimension – a person's attitude towards themselves, self-esteem and personal growth; the social dimension – the quality of relationships with other people; the environmental dimension – the connection with the surrounding world and nature; and the transcendental dimension – the relationship with something higher or transcendental, which often includes spiritual or religious

experiences. Fisher's model emphasizes a holistic approach to understanding spiritual well-being, and the scale he developed aims to determine how balanced is the way an individual experiences these dimensions. The tool is used in various educational and healthcare contexts to assess the level of spiritual well-being and its relatedness with other indicators of well-being (Fisher, 2015). For these reasons, Fisher's tool was also adapted for this study.

Another important concept closely related to spirituality and well-being is the sense of happiness. J. Eriker highlights the importance of the concept of children's sense of happiness in the present-day context, emphasizing its philosophical and multidimensional nature. Her research focuses on the development of children's sense of happiness in the educational environment, highlighting the need to analyse factors and contexts that promote children's well-being and sense of happiness. In the educational process, it is essential to identify and strengthen the conditions that help to shape children's well-being and sense of happiness, thus contributing to the formation of spiritually strong, positive, and charismatic personalities (Erricker, 2009).

The conceptualization of happiness in the framework of modern psychology is related to positive psychology. Nowadays, the sense of happiness as a psychological concept is studied on the basis of two main approaches: hedonic and eudemonic approaches. The hedonic approach is more related to relaxation, comfort, joy, and recreation, while the eudemonic approach is related to personal growth, self-actualization, meaning, and expression of creativity (Seaborn et al., 2019).

The founder of hedonic approach in psychology, M. Seligman and his colleagues interpret the sense of happiness defining it as the experience of pleasure and avoidance of pain (Bernecker & Becker, 2020; Seligman, 2002; Seligman et al., 2005; Bernecker & Becker, 2020; Veenhoven, 2008). Happy life is characterized with positive emotions, sensations, and respective behaviour (Diener & Seligman, 2002; Kahneman, 1999), while the sense of happiness reflects how positively a person evaluates their life and to what extent they like it (Veenhoven, 2008).

The understanding of eudemonic sense of happiness focuses on the individual's optimal functioning and self-actualization, emphasizing the importance of meaning and purpose in life. Carol Ryff has made a

significant contribution to this field by developing a multidimensional model of psychological well-being that includes six dimensions: self-acceptance, positive relationships with others, autonomy, environmental mastery, aim of life, and personal growth. This model emphasizes the development of human's potential and the search for meaning in life (Ruff, 1989). Researchers Ed Diener and Richard Ryan have studied eudemonic well-being, focusing on self-determination theory and the individual's ability to achieve personal growth and fulfilment in life. Their research approve that the sense of happiness and well-being are not just experiencing positive emotions but are also closely related to the awareness of the aim of life and personal development (Diener et al., 1999; Ryan & Deci, 2001).

In Latvia, aspects of eudemonic well-being have been studied by Santa Vorone, who in her doctoral thesis analysed the components of psychological well-being and their correlation with personality development and life quality. Her research confirms that the eudemonic approach to well-being is essential for understanding an individual's life quality and personal growth (Vorone, 2012).

Children's happiness, in turn, is defined as a relatively stable, positive emotional trait based on satisfaction with life. Researchers indicate that children's happiness is partially heritable, which emphasizes the importance of both genetic and environmental factors in its development (Callaway, 2009). Theories that study children's sense of happiness distinguish between external and internal factors. External factors include demographics, the socioeconomic status of family, richness of social experience and material circumstances, in it while internal factors include a child's sense of personal meaning in life, awareness of values, and the quality of interpersonal relationships, which are considered particularly strong predictors of children's happiness (Holder et al., 2010).

Research reveals a tight bond between the sense of happiness, spirituality, and well-being, emphasizing that one's sense of happiness is an intrinsic part of these concepts (Deb et al., 2020; Holder et al., 2010; Pandya, 2017; Rajasekhar et al., 2022; Raghuveer et al., 2023; Vitorino et al., 2022). Satisfaction with life and happiness are recognized as the central indicators of SW (Diener, 2000). Though gender differences in psychology studies are often essential, studies on children's subjective level of

happiness have not indicated considerable gender differences (Baiocco et al., 2019; Uusitalo-Malmivaara & Lehto, 2013).

Oxford Happiness Questionnaire has been selected as a tool for measuring child's happiness in the present research (Hills & Argyle, 2002). This is a widely used, easily applicable instrument for assessing the level of happiness of individuals (including children). The survey covers the components of happiness, which allows not only to assess the child's overall emotional state, but also to identify specific areas that need to be developed or improved, such as self-confidence or social skills.

The aim of the present research is to evaluate the effectiveness of the developed PPI program for the development of SI in primary school age children, while determining whether the program improves only SI, or also children's SW and sense of happiness. Such an approach reflects the efforts of modern psychology to integrate previously independently studied concepts, such as spirituality and sense of happiness, well-being and sense of happiness, as well as spirituality and well-being. The interconnection of these concepts expands their conceptual frameworks and contributes to the formation of a holistic understanding. There are theoretical approaches in the scientific literature that characterize the sense of happiness as an essential precondition for healthy and prosperous human functioning (Rathore et al., 2014). For example, studies show that high indicators of spiritual well-being promote not only mental, but also physical health, which provides opportunities for further research at an interdisciplinary level (Cotton et al., 2005).

However, research on the relation between the sense of happiness and spirituality, happiness and SI, and the correlation between children's happiness and spiritual well-being is very limited. The available research on children's spirituality indicates a tendency to link children's well-being and happiness with the development of spirituality, but the limited number of studies aggravates drawing specific scientific conclusions. Many studies in this area use the concept of *spiritual happiness*, which is described as a factor contributing to spiritual well-being. In these studies, children's happiness and well-being are examined in the context of their spiritual experience.

Ryff emphasizes that the study of spirituality and well-being should move towards the development of holistic approaches that would allow for

perceiving a person as a united whole, promoting a deeper understanding of the mutual relatedness of these concepts and their impact on the quality of human life (Ryff, 2021). Thus, the PPI program created within the framework of the present study is designed to be comprehensive, holistic, appropriate to the child's perception – as a complex of integrative games and exercises that covers the entire development of the child's personality. As in any synergistic program, it is very difficult to separate specific aspects that affect individual variables that are measured before and after the intervention. In addition, the program may affect variables that are not measured in a particular study. Thus, it was assumed that this program ensures both the development of SI, SW, and the sense of happiness, as well as the convergence of SI with other areas of child development (Grasmane, 2023).

2. Method and outcomes

The research method, based on a detailed research design, is reflected in detail in the introduction to this doctoral thesis summary, describing each of the five research stages. In this chapter, we will present the results of each stage of the study.

2.1. Method and outcomes of stage 1 of the study

By theoretically analysing the concepts included in spirituality – spiritual development and SI, a theoretical model of children's SI described at the beginning of the summary of the doctoral thesis was elaborated and its practical applicability was demonstrated (Grasmane et al., 2025). The theoretical model elaborated in stage 1 of the present study complements modern psychology theory, providing an explanation based on the conception of children's SI, which is an essential step for the further development of this type of research. This model provides an opportunity to study in depth the significance of SI in promoting children's well-being and happiness in the process of education.

2.2. Method and outcomes of stage 2 of the study

The main goal of this stage was to elaborate a questionnaire for determining children's SI in order to clarify the effectiveness of the PPI program, as well as to determine the relatedness of SI to children's SW and sense of happiness. At this stage, a questionnaire with 23 articles was worked out in Latvian, the content validity of the questionnaire was investigated, and the psychometric indicators of the CSIS were determined in a sample of 200 primary school-age children. Children's responses to the questionnaire articles were obtained on a six-point Likert scale from 1 to 6 (from *no, never* to *yes, very often*).

The procedure for determining the content validity of the scale was implemented by involving 6 experts (Grasmane & Pipere, 2020). Initially, the scale consisted of 62 articles. When studying the CSIS article difficulty indices for each article of the scale, it was found that they were within an acceptable range for the articles. Five articles that exceeded the permissible difficulty index limit were excluded from the scale. Further studying the discrimination indices using the Spearman correlation coefficient, it was

shown that the discrimination indices of all remaining articles were statistically significant, ensuring the reliability of the scale (Grasmane et al., 2022).

Confirmatory factor analysis (CFA) allowed for testing the compliance of the theoretical model with the empirical data and specifying the scale structure. Taking into consideration the previously described theoretical model of children's SI, an analysis was initially conducted for the five basic components of this model with the remaining 57 questionnaire articles. The statistical indicators for this model were low. To improve the compliance of this model, articles with low indicators were removed, thus creating a model with five main basic components and including 25 articles (five articles for each basic component). In this way, the scale structure was maintained, which corresponded to the elaborated theoretical model. However, the psychometric indicators of the EFA of this model were also unsatisfactory. It was decided to work out a model measuring one main factor – children's SI and five subfactors of this model, which would reflect the five interrelated subcomponents of this model mentioned above. The given model with 24 articles was compliant with the structure of the previously elaborated theoretical model. The indicators of this model were better, but they were not yet fully compliant.

To improve the indicators, another model was worked out that measured one main factor with four included subfactors, combining two basic components (self-understanding and social skills). This model had compliant indicators and was accepted at this stage of scale elaboration as a model to be further developed in the next stages of scale development. Articles that showed low indicators during the study were removed from the scale, leaving a scale with 23 articles.

Psychometric indicators, calculating Cronbach's alpha coefficient in a sample of 200 children, showed high internal consistency ($\alpha = 0.87$) (Grasmane et al., 2022). Internal consistency indicators of the subscales ranged from 0.65 (self-understanding and social competence) to 0.75 (awareness of personal authenticity and uniqueness).

2.3. Method and outcomes of stage 3 of the study

Outcomes of this stage entail adaptation of Fisher's survey for determining children's well-being (FGLL, Fisher, 2004) and Oxford

Happiness Questionnaire for determining children's sense of happiness (OHQ, Hills & Argyle, 2002) to primary school-age children in Latvia.

Fisher's FGLL (*Feeling Good, Living Life*) questionnaire is a standardized instrument for the assessment of primary school-age children's spiritual well-being. The questionnaire is based on a four-dimension theoretical model elaborated by NICA. Further on Fisher used this theoretical model to develop the concept of spiritual health that, in turn, served as the base for FGLL scale for measuring SW. The given model includes four components: 1) Relationship with oneself; 2) relationship with others; 3) relationship with nature; 4) relationship with God.

Questionnaire FGLL comprises 32 articles structured into two subcategories and identifying differences between the ideal and actual state of spiritual well-being: *Feeling Good* – child's perceived ideal (possible) spiritual well-being level; *Living Life* – child's actual experience and self-assessment of their spiritual well-being.

Each question is rated on a 5-point Likert scale, allowing for the distinction between a child's ideal and actual spiritual well-being. Research shows that the FGLL is a suitable instrument for assessing the spiritual well-being of children in the age group of 8 to 11 years.

Adaptation of FGLL was carried out for a sample of 200 primary school children in Latvia. The initial Cronbach's alpha coefficient values for the FGLL subscales ranged from 0.71 to 0.84, indicating good to very good internal consistency. Test-retest reliability, which characterizes the stability of the instrument over time, was statistically significant ($p < 0.000$). Thus, the psychometric indicators of the survey confirm its reliability and consistency of results, as the repeated data correspond to the initial measurements, demonstrating internal consistency and stability in both scales, all four factors, and both scales (Fisher, 2004, 2015).

Survey FGLL for Latvian children sample, like in the original version, shows high internal consistency ($\alpha = 0.91$). In turn, the internal consistency indicators of the subscales range from 0.90 to 0.92 (*Feeling Good*) and from 0.90 to 0.91 (*Living Life*).

The adaptation process of the Oxford Happiness Questionnaire (Hills & Argyle, 2002) in the Latvian sample used a short version of the survey, which is a self-assessment instrument for children's happiness, adapted for primary school age. The OHQ survey provides a general assessment of

children's happiness level. Initial reliability indicators of the survey are acceptable, but relatively lower than with other similar instruments (Holder & Klassen, 2010). The OHQ includes eight questions (e.g., *I do not think I look attractive*), which are rated on a six-point Likert scale from 1 (*Strongly disagree*) to 6 (*Strongly agree*), with a possible total score ranging from 8 to 48. At the given stage of the research, the short version of the OHQ, adapted for the Latvian sample of children, similarly to the original survey version, shows a relatively low, but acceptable internal reliability ($\alpha = 0.54$). This result is considered sufficient for using the survey in the research (Hinton et al., 2004).

2.4. Method and outcomes of stage 4 of the study

In the fourth stage of the study, a PPI program for the development of children's SI was elaborated, intended for primary school children (6–11 years of age). The program was worked out and implemented within the framework of the study, based on the criteria for the effectiveness of psycho-pedagogical interventions (Stanszus et al., 2017). The PPI program is designed for a ten-week cycle, implementing one 90-minute session once a week, thus gradually developing children's SI abilities. The topics of the PPI program sessions and their developmental tasks are presented in Table 3.

Table 3. *PPI program session topics and their developmental tasks*

Session No.	Session topic	Session developmental tasks
1.	Introduction to the program, familiarization with the conditions of the PPI program. Self-control, self-awareness and awareness of the uniqueness of the personality	Introduction to the concept of SI, development of PPI program rules, promotion of self-control, self-awareness, awareness of authenticity and uniqueness, developing children's ability to verbalize their emotions and feelings
2.	Social mastery (awareness of identity and personality uniqueness)	Social training that promotes individual dialogue with each child about the forgiveness process, facilitating the development of self-awareness as a component of recognizing the uniqueness of identity and personality
3.	Self-awareness as awareness of personal sense	Awareness of the sense of life, emphasizing transcendental awareness and the meaning of knowing personal resources
4.	Awareness of personal	Unleashing creativity and initiative by

	uniqueness – awareness of resources, connection with them, as well as awareness of obstacles that prevent one from using personal resources in one's life	promoting awareness of personal uniqueness and individual resources, developing the ability to verbalize one's resources and discuss them, as well as identifying and naming obstacles that hinder the implementation of these resources in life and interfere with authentic self-expression
5.	Social mastery (cooperation, ability to speak positively and affirmatively about others, acceptance of oneself and others even when others are different)	The ability to teach others what one knows, to accept different views and opinions, including about oneself, to be able to reveal one's uniqueness to oneself and others
6.	Self-awareness and self-assessment	Develop awareness of one's strengths and weaknesses, ability to create and play freely and spontaneously, develop the ability to respect one's gifts and talents, strengthening self-confidence
7.	Transcendental awareness	Develop the ability to regard complex life situations from different perspectives, giving them new meaning, asking <i>why</i> questions and seeking answers to existential questions, developing one's inner philosophy
8.	Self-awareness recognizing one's identity	Developing a sense of personal identity, confidence in one's abilities and resources, as well as promoting self-control
9.	Awareness of personal uniqueness (unity of thoughts, feelings, and behaviour)	The ability to verbalize one's inner world and emotions, developing the ability to listen to one's intuition, using one's creative potential and unique worldview in solving everyday situations
10.	Conclusion: Integrative development of child's SI	Concluding the program with an integrative, creative activity-filled improvisation that develops the child's entire SI in an integrative manner

The classes are structured, so that each of them simultaneously develops several SI components. For instance, the self-control component is developed in each session, at the end of the class, when reviewing children's achievements in the field of observing group rules (Grasmane et al., 2025). Each class of the program is permeated by a single, ritual-filled, therapeutic rhythm, thus increasing the children's sense of security and developing their emotionality (Grasmane, 2023).

2.5. Method and outcomes of stage 5 of the study

One of the main objectives of the study was to conduct an experimental trial to empirically confirm the two main hypotheses set in the research. Firstly, *participation in the PPI program will contribute to an increase in children's SI, SW, and sense of happiness in the experimental group, and these improvements will remain also after three months, confirming the long-term effectiveness of the program.* Secondly, *a positive correlation between SI, SW, and sense of happiness will be observed in the experimental group, indicating the interrelationship of these variables throughout the research.*

To assess the effectiveness of the PPI program in the development of children's SI, a PPI program was implemented in a general education school, and measurements were taken at three time periods to evaluate its impact: before initiating the PPI program, immediately after its completion, and three months after the end of the PPI program. Analysis of the results revealed that even before the beginning of the PPI program, there were statistically significant differences in SI between the EG and CG (CG: $M = 101.6$, $SD = 17.8$; EG: $M = 89.4$, $SD = 15.7$; $t = -3.76$, $p < 0.01$). This indicates that the CG participants initially had a statistically significantly higher SI level (see Figure 3). These differences can probably be explained by the fact that the research was conducted in natural conditions – in different schools with real groups of children, which may naturally differ in their initial indicators.

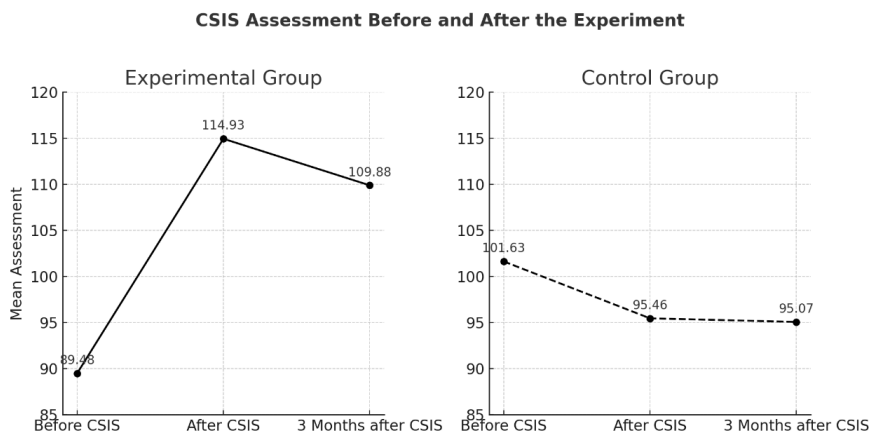


Figure 3. Mean SI (CSIS) indicators for the EG and CG before, after the PPI program, and 3 months after the PPI program

In turn, for the OHQ (happiness index), no statistically significant differences were found between the CG (M = 26.5) and EG (M = 24.3) ($t = 1.86$, $p > 0.05$). Similarly, before the PPI, no significant differences were found between the CG and EG for the FGLL subscale (Feeling good) between the CG (M = 59.9) and EG (M = 60.0) ($t = 0.05$, $p > 0.05$), and for the FGLL subscale (*Living Life*) between the CG (M = 61.4) and EG (M = 62.7) ($t = 0.67$, $p > 0.05$).

To explain and take into account the significant differences in SI indicators between the EG and CG before the intervention, it was assumed that these differences may be due to the influence of other related variables on SI. The statistical method ANCOVA was used to test this assumption. Children's SI score CSIS_after (children's SI score after the implementation of the PPI program) was defined as the dependent variable, while the independent variable was group affiliation (EG and CG) and children's SI before the implementation of the PPI program CSIS_before. The covariation variables were the measurements of both subscales of the FGLL survey (*Feeling Good* and *Living Life*) before the PPI program.

ANCOVA results show that the effect of group affiliation (EG or CG) on the dependent variable SI becomes insignificant ($F = 0.06$, $p = 0.811$) when the effects of covariates are taken into account. These covariates are well-being indicators: the SW survey measurement and its two scales (*Feeling Good* and *Living Life*) before the PPI program. The results also indicate an interaction between these well-being indicators that affects the dependent variable.

The next step in the statistical analysis was the analysis of the effect of the experimental exposure. The statistical analysis method ANCOVA was also used to investigate this aim. To assess the effectiveness of the PPI, the SI indicator obtained after the intervention was determined as the dependent variable, while the independent variables were group affiliation to EG or CG. Covariates: SI indicators before the intervention and well-being indicators, which include the FGLL scales *Feeling Good* and *Living Life*.

Table 4 summarizes the mean values (SD) for changes in the four SI subscales over three time periods: before the experiment, after the experiment, and three months after the experiment, comparing the EG and CG scores.

Table 4. *Differences in CSIS between the experimental and control groups before the experiment, after the experiment, and 3 months after the experiment*

Basic scale/ subscale	n	Three months			GLMM (F)	η^2
		Before	After	after		
		experiment	experiment	experiment		
		Mean (SD)	Mean (SD)	Mean (SD)		
<i>Experimental group</i>						
SI	41	89.4 (15.7)	114.9 (15.2)	109.9 (16.1)	45.29***	0.53
SI 1	41	18.4 (4.5)	24.3 (4.1)	24.00 (4.1)	41.85***	0.51
SI 2	41	23.1 (6.1)	30.1 (4.2)	28.7 (5.4)	32.6***	0.39
SI 3	41	22.9 (5.1)	29.7(4.6)	27.8 (6.0)	40.1***	0.48
SI 4	41	24.8 (3.7)	32.0 (11.3)	29.2 (6.2)	36.2***	0.44
<i>Control group</i>						
SI	42	101.6 (17.8)	95.4 (16.8)	95.1 (16.7)	7.54**	0.15
SI 1	42	20.6 (4.1)	19.4 (4.2)	19.7 (4.05)	4.09	0.04
SI 2	42	27.2 (5.7)	30.1 (4.7)	24.8 (5.4)	11.50**	0.13
SI 3	42	25.8 (5.3)	24.2 (5.2)	24.5 (5.5)	2.7	0.03
CSIS 4	42	26.7 (5.9)	25.2 (10.2)	24.8 (6.1)	4.7	0.06

*The table shows the SI scale indicators - CSIS: Children's Spiritual Intelligence Scale; CSIS 1: Self-understanding and social mastery; CSIS 2: Awareness of personal authenticity and uniqueness; CSIS 3: Creation and awareness of personal sense; CSIS 4: Self-control mastery. Levels of significance: *,05 < p < ,1, **,01 < p < ,05, ***p < ,01*

The analysis of the mean values, which are reflected in Table 4, approves the positive impact of the experiment on the development of children's SI, as a result of which a significant increase in indicators is observed in the EG after the experiment and three months later. The EG indicator of SI before the experiment was 89.4 (M = 1.7), but after the experiment it had already increased to 114.9 (M = 15.2). These are statistically significant changes (F = 45.29; p < 0.01). In turn, the CG indicator of SI before the experiment was 101.6 (M =17.8) and after the experiment – 95.4 (M = 16.8), which is lower than before the experiment. These results, like the results in Figure 1, confirm hypotheses 1 and 2 about the developmental impact of the intervention on child's SI, thus reflecting its effectiveness. Figure 1 shows that SI (CSIS_after) increased by 17% (Eta² = 0.17), and this can be explained by the intervention effect in the EG. The ANCOVA results show that the independent variables – group

affiliation (CG or EG) – have a statistically significant effect on the dependent variable SI after the intervention ($F = 15.28$, $p < 0.00$), taking into account the effects of other independent variables (SI before the experiment and FGLL score after the experiment).

The results also confirm hypothesis 3 that there is a positive correlation between SI, SW, and happiness in the EG, indicating their mutual relatedness throughout the research period.

The analysis of the results shows that the differences in the measurements of the EG at all three time points before/after/3 months after the experiment are statistically significant in all scales – at a medium or high level. In addition, the mean values of all scales and subscales of the EG after the intervention and 3 months after it are higher than before the intervention, and the changes in the mean values after the intervention and 3 months later are small or not observed at all, which indicates the stability of the obtained effects.

In contrast, in the CG, almost all scales and subscales (after experiment measurements) show a decrease in mean values (except for the FGLL LL subscale – relationships with nature). In the CG, statistically significant changes (with a decrease over time) were observed in the measurements for happiness and FGLL scales 3 months after the experiment. The rest of the changes in the CG are not statistically significant. This confirms the hypothesis that in the EG indicators of SW and happiness after the experiment are higher than in the CG. As concerns happiness and well-being indicators (OHQ, FGLL), the intervention had the greatest effect on the FGLL subscale *Living Life* ($\text{Eta}^2 = 0.53$), however, the analysis also shows a significant effect of the PPI on the FGLL subscale *Feeling Good* ($\text{Eta}^2 = 0.42$) and the OHQ happiness index ($\text{Eta}^2 = 0.38$).

To specify, whether the experimental effect lasted 3 months after the PPI intervention, repeated measurements ANOVA were used. In this case, the overall effect of the changes in the EG and CG had to be clarified. As the results showed, all ANOVA SI indicators in the EG are statistically significant ($p < 0.01$), with $\text{Eta}^2 > 0.39$, indicating a large effect. *PostHoc* analysis revealed statistically significant differences for all SI indicators before and after the experiment, and all scores showed a statistically significant increase. In the CG, in turn, the statistically significant changes in the total SI score ($F = 7.54$, $p < 0.01$) and SI indicators ($F = 11.5$, $p <$

0.01) may be interpreted as a small effect ($\eta^2 < 0.16$). Moreover, for children in the CG, these scores decreased over time (see Figure 1).

ANCOVA results show that the independent variables – group affiliation (CG, EG) have a statistically significant effect on the dependent variable SI after the intervention ($F = 15.28$, $p < 0.00$), taking into account the impact of other independent variables.

To test the hypothesis: *In the experimental group, a positive correlation between SI, SW, and happiness will be observed at all measurement stages (before PPI, after PPI, and 3 months after PPI), indicating their mutual relatedness throughout the research period*, Spearman's rank correlation coefficient was used.

In the EG, a strong correlation was found between the two FGLL subscale indicators before the intervention ($r = 0.688$, $p < 0.01$), a medium-strength correlation between the FGLL subscale score of *Living Life* and the CSIS ($r = 0.433$, $p < 0.01$), and a weak correlation between the OHQ and the CSIS ($r = 0.239$, $p < 0.01$). Correlations between other variables were positive but statistically insignificant.

After the intervention, the values of all indicators of the EG increased statistically significantly. The strongest correlation was found between the two subscales of FGLL ($r = 0.720$, $p < 0.01$), followed by a medium-strength correlation between the happiness indicator OHQ and CSIS ($r = 0.535$, $p < 0.01$) and FGLL and CSIS ($r = 0.496$, $p < 0.01$), which had been weak before the intervention. Weak correlations were also observed between the FGLL and CSIS indicators and between the FGLL and the happiness indicator OHQ. The correlation between the SW indicators FGLL and the happiness indicator OHQ, which had been very weak before ($r = 0.05$), increased after the PPI intervention, reaching a weak correlation level ($r = 0.237$). Although the correlation is still not considered significant, it can be assumed that it has occurred as a result of the impact of the PPI program.

Three months after the PPI, the values and strengths of four correlations have increased compared to those immediately after the intervention. However, the values of two correlations have decreased, still showing relationships of medium strength.

Thus, the obtained results show not only the preservation of a correlation between all variables measured before/after/3 months after the

intervention, but also an increase in the strength and statistical significance of the correlations after the intervention and, in some cases, also three months after the PPI.

The results were analysed, which provide answers to the additional research questions: *What is the specific content of the SI in relation to gender differences and the frequency of church attendance for 1 – 4 grade learners in Latvian general education schools?*

To answer the question of how gender differences affect the specific content of SI, gender differences were analysed for SI, happiness, and SW indicators. Girls showed higher SI mean scores for all 24 measurements of these variables (except for two). Girls' SI scores before the intervention were statistically significantly higher than boys' scores in both groups – with large effect ($d = 0.7$ and $d = 0.68$, respectively). For all other variables, differences remained in both groups, although they were no longer statistically significant. Regarding the happiness indicator, only one measurement for girls in the CG before the PPI showed statistically significant gender differences (with a large effect size of $d = 0.65$). None of the SW scores in this study showed statistically significant gender differences.

Regarding the chronology of measurements, statistically significant gender differences (in favour of girls) were detected only in SI pre-intervention indicators in both groups. However, these differences were no longer visible in the test indicators after and 3 months after the PPI in both groups. In the EG, a gradual decrease in effect size was observed for almost all variables measured in all three stages of the research, which additionally confirms the effectiveness of the PPI program and demonstrates its impact directly on the development of boys' SI.

To specify how the specific content of children's SI is influenced by the frequency of church attendance, the results were analysed for each church attendance group studying the differences between these groups regarding SI, sense of happiness, and SW.

When studying the mean values of all 24 indicators in the EG and CG, it was found that in all four scales the highest indicators are shown by participants who attend church occasionally. Exceptions can be observed in the EG, when analysing the SI indicator – higher results are observed with participants who never attend church. In turn, when analysing the happiness

indicators, after the experiment higher results are observed with participants who frequently attend church. The happiness indicator for participants who frequently attend church remains high also after the experiment, while the SW indicator is higher with those who never attend church.

In the control group, three months after the experiment, the SI indicator was the only measurement with a higher value, and this was with participants who frequently attend church.

Statistically significant differences were found only before the experiment on two scales:

1. Well-being (FGLL FG) – highest value in the experimental group ($F = 3.39, p < 0.05$).

2. Happiness indicator (OHQ) – highest value in the control group ($F = 4.85, p < 0.05$).

In both cases, the highest indicators were for participants who attended church occasionally.

In all other cases, no statistically significant differences were found, confirming that the effectiveness of the intervention in the experimental group was independent of the frequency of church attendance.

3. Discussion

The dimension of spirituality as an element of life quality of an individual and society has attracted the attention of scientists in recent decades, recognizing SI as an essential factor in psychological health and social functioning. The present research expands the initial studies on SI, paying special attention to the definition of SI in children, evaluating its development opportunities in the educational context. Since the analysis of the literature on SI revealed a lack of empirical data on the development opportunities of SI in younger children, this scientific gap was filled by analysing the specific content of SI in primary school-age children. In the course of the research, a theoretical model was developed that characterizes the SI of 7–10-year-old children (Grasmane & Pipere, 2020; Grasmane, 2023). The model is adapted to the psychological context of this age group, based on the SI theory and its adaptation to age periods. It includes five main components, each of which consists of five subcomponents. The basic components of a child's SI are *the ability to create and realize the sense of life, self-awareness, self-control mastery, awareness of personal uniqueness, and social mastery*.

Compared to previous research works that have developed models characterizing SI and analysed their development possibilities mainly in adolescent and adult populations (de Souza et al., 2009; Holder et al., 2010; Pandya, 2017; Rowold, 2011), the developed SI model demonstrates effectiveness in facilitating the development of SI in primary school-age children. Moreover, unlike models that mainly focus on short-term effectiveness, the present research approves of a long-term impact, as the results obtained were maintained even three months after the intervention.

In addition, the children's SI model offers a practically applicable solution that is integrable in the system of education, which can serve as a basis for further education policy reforms and the development of PPI programs. Compared to other models, which are mostly based on theoretical assumptions or local pilot studies, the present research provides empirical confirmation that the development of SI in primary school age is not only possible, but also significantly affects children's psychological well-being and social functioning. Therefore, another significant difference

of the newly developed children's SI model is the holistic approach that integrates the concepts of SI, SW, and happiness into a single developmental system, ensuring their mutual convergence, which was statistically confirmed at all three measurement stages, while previous research models often consider these factors separately. Thus, the present research contributes to the study of SI development not only as a separate psychological construct, but also its investigation in relation to the general well-being of children, which is a significant contribution to the science of education and psychology.

Based on the developed theoretical model of children's SI, a CSIS scale was worked out for measuring children's SI along with a PPI program for developing children's SI. The elaboration of a theoretically grounded and empirically tested PPI program, aimed at developing SI in the context of education, is a complex and multidimensional process, which is especially important in the context of education reforms in Latvia and other countries. The integration of PPI into the system of education facilitates the development of children's SI, strengthening relationships based on humanistic values and becoming an essential tool in the development of SI in primary school-age children.

The outcomes of the research confirm that participation in the PPI program significantly increased children's SI, while also contributing to an increase in SW and happiness levels in the experimental group. The effect of the program was maintained three months after the intervention, confirming its long-term effectiveness. The most distinct changes were observed in the development of SI and SW. In addition, at all three measurement stages (before, after, and three months after the PPI), a statistically significant correlation was found between SI, sense of happiness, and well-being in the experimental group.

The research data confirm that after the implementation of the program, these indicators increased significantly and were mostly maintained after three months, indicating the long-term effectiveness of the program. The hypothesis based on previous research about the relatedness of the development of SI to the increase in SW and happiness (de Souza et al., 2009; Holder et al., 2010; Pandya, 2017; Rowold, 2011) even exceeded expectations, as in the experimental group a positive correlation between these variables was found in all measurements. Moreover, the research

outcomes confirm the theoretical assumption that the PPI program facilitates not only the development of SI as a separate variable, but also the mutual convergence of SI, SW, and happiness, which was maintained for at least three months after the intervention.

To our knowledge, this is the first attempt to analyse the conditions for the development of SI in primary school-age children and to investigate the effectiveness of such a PPI program in an educational context. The outcomes of the present study concerning the effectiveness of the PPI program on the development of a child's SI comply with the results of recent studies on the development of SI in other age groups. Researchers describe the effectiveness of PPI in developing SI in adolescents and university students (Dami et al., 2019; Maryam et al., 2012), as well as a positive correlation between the development of SI and the reduction of stress, anxiety, and depression in secondary school and university students (Dami et al., 2019; Ebrahimi et al., 2015).

The present study also reflected gender differences in SI. Before the PPI program, girls had significantly higher scores than boys. Gender differences in spiritual indicators are also reflected in other studies conducted mainly in early adolescence and adulthood. The data reflected in the studies show that spirituality is more developed in women (Lee et al., 2019; Mirkovic et al., 2021). However, significant gender differences in children's subjective happiness levels are not found in research (Baiocco et al., 2019; Uusitalo-Malmivaara & Lehto, 2013). Evidence of gender differences in SW, as measured by the FGLL children's well-being scale, has been quite controversial (Eaude, 2009; Fišers, 2015). This study made a significant contribution by providing empirical evidence that girls initially have higher SI compared to boys. This difference was observed in both the EG and CG before the implementation of the PPI program, which is consistent with previous spirituality studies (Steinberg, 2005).

After the intervention, SI scores were equalized between both genders, thus indicating the additional effectiveness of the PPI program in terms of the development of boys' spirituality. Based on the results obtained, it can be concluded that the PPI program methodology is particularly suitable for promoting the internalization, practice, and development of boys' spirituality (Lee et al., 2018).

Previous research has shown that boys' spirituality is more focused on exploring and developing their own identity (Engebretson, 2006). Most PPI sessions included tasks that were directly focused on identity awareness and development, thus providing an optimal environment for boys' spiritual growth. The PPI program's specific, child-centred methodology, which included games, tasks, and exercises, proved to be particularly suitable for boys, creating space not only for their spiritual, but also for their emotional and creative development.

The effectiveness of the PPI program was also studied depending on the frequency of children's church attendance and it was proved that the effectiveness of the PPI was similar for all the EG participants regardless of the frequency of church attendance. However, when analysing the outcomes, a small insignificant difference (higher values) was revealed for children who occasionally attend church (both in the EG and CG). Therefore, in implementing further studies, this aspect could be given more attention.

The effect of the PPI regardless of the frequency of church attendance confirms the necessity and possibility of children's spiritual development not only in the religious context, but also in the field of secular education.

The additional potential of the PPI program was demonstrated by showing statistically significant increases in happiness and SW as cofactors for SI development. This effect has also been described in previous studies (Deb et al., 2020; EAUDE, 2009; Holder et al., 2010). In the present study, increase in the statistically significant, positive correlation between SI, happiness, and SW, both as a result of the PPI impact and after the program, indirectly indicates a similar impact of the program on both genders. The development of SI, which is higher in girls before the research and is balanced for boys and girls after the study, illustrates the positive impact of the program directly on boys' spiritual development.

Holistic approach combines psychology, education, and child therapy approaches, offering a multidisciplinary solution for the development of SI. Integrating the PPI program into the system of education strengthens the formation of a society based on humanistic values. The research systematically analyses the effectiveness of PPI in the development of SI in primary school-age children, approving of PPI as an effective tool for promoting SI, happiness, and well-being, simultaneously reducing stress

and anxiety. Integration of the PPI into education promotes a holistic understanding of the person as an integral whole and deepens the understanding of the concepts of SI, happiness, and SW and their mutual interrelatedness.

The present study examined the psychometric indicators of the children's SW scale FGLL (*Feeling Good, Living Life*, Fisher, 2004) and the happiness scale OHQ (The Oxford Happiness Questionnaire, Hills & Argyle, 2002) in a sample of Latvian children. The psychometric indicators confirm the reliability of both scales and the consistency of the results, the obtained data comply with the initial measurements, demonstrating internal consistency and stability. In turn, the happiness scale OHQ, when adapted to the sample of Latvian children, similarly to the original version of the survey, showed relatively low, but still acceptable internal reliability. Since research instruments for primary school-age children are lacking, it was decided in the framework of the present research to regard this result as sufficient, so that the survey could be included in the methodology of the research instruments (Hinton et al., 2004).

The completed present study indicates the need to investigate children's SI in a multicultural context. Both the CSIS scale and the other two scales for determining child well-being, which were applied to Latvian children, comprise the first step in implementing such a multicultural study. The application of the scales also provides opportunities for Latvian scholars to conduct research related to children's spirituality, detecting children's SW and happiness. The developed instruments demonstrate high and acceptable internal reliability, as well as meet validity criteria, which ensure their suitability and sufficient accuracy for use in scientific research.

Strengths and limitations of the research. The strength of the theoretical part of the present study is the new theoretical model of children's SI, which is already being used in scientific and practical work for improvement of the system of education in various countries (Integrityta.net, 18.02.2005). This model also served as the basis for elaborating a PPI program for the development of children's SI and a scale for measuring children's SI in the CSIS. Both the elaborated PPI program and the scale were used in this research. In turn, theoretical limitations are related to the insufficiency of research in the field of SI, especially in relation to children. Since the studies on SI are in the early stages, the

analysis of the research made brings out shortcomings both in scientifically grounded theories and studies on SI. There are very few studies of SI specifically for primary school-age children, therefore it is difficult to compare and draw justified conclusions. However, this fact only confirms the need for this kind of research.

The strength of the present study is its innovative character, which is manifested both in the development of a theoretical model, conceptualizing the concept of children's SI, in the scale developed for determining SI, in the elaboration and adaptation of instruments for detecting children's SW and sense of happiness, and in the development of a child-appropriate methodology included in the program. The research indicates unlimited development potential in this area, opportunities to conduct various studies, thus developing this approach in an integrated interdisciplinary environment, integrating psychology, pedagogy, child psychotherapy, and art disciplines into a unified approach aimed at developing children's SI.

The PPI program and measurement instruments elaborated within the present study attract the interest of scientists in other countries, as indicated by the number of citations received in databases for the publications of this research (SCOPUS – 7 citations), as well as personal letters from universities in Poland, Lithuania, and India with a request for permission to adapt the CSIS instrument to the cultural environment of their country.

The strength of the empirical study in terms of the research design is the measurement of observed variables 3 months after the intervention, which is a longer time compared to other studies (Pinto et al., 2023). The empirical limitations relate to the research design, experimental purity, and organization. This was a controlled non-randomized trial, which contains the risk of confounding the SI, SW, and happiness variables with other variables (Reeves, 2008). It is not easy to conduct research in a real school environment and limit the influencing variables, yet there is a need for such studies that are randomized trials, which are precisely organized and in which experimental activities are monitored to the extent possible; they are topical, although quite problematic (Connolly et al., 2018). Since the PPI program in the framework of this study was integrated into the primary school curriculum, real school life interfered with a strict implementation of the intervention. Some teachers could not implement the program as required due to various external factors; therefore, the size of the

experimental group was reduced from 100 to 41 learners. Further studies using a larger sample are needed, based on the theoretical and methodological assumptions of the present research. In addition, future studies should include other indistinct variables potentially related to SI and the implementation of PPI, such as family influence, individual factors of learners, relationship with the teacher, PPI management, etc. Due to the small sample size, it was not possible to apply the normal distribution to all data. Consequently, non-parametric statistical methods were combined with parametric methods, which limits the opportunity of drawing clear, unified conclusions.

In future studies, schools should receive more support for the intervention and take into account teachers' feedback to improve the content of the PPI. In case of the present study, the researchers were also the program designers and implementers. In order to obtain more objective results, these parts of the research need to be distinguished. Social desirability deviation should also be considered, as all outcome measures were assessed using self-assessment instruments. In the future, research variables may be measured both with children's self-assessment instruments and with parent and/or teacher assessments.

Practical impact. The elaborated and empirically validated PPI program for the development of SI in primary school-age children is the first step towards creating a scientifically based toolkit for the development of children's SI in the school environment. Although it is planned to improve the developed PPI program in the future, the program has already been licensed and recommended to educational policy makers in Ukraine for its integration into school programs, thereby improving children's SI, happiness, and well-being. Thus, psychological support is provided to the traumatized young generation affected by the war. In Poland and Lithuania, the adaptation of the CSIS has been initiated, thus preparing the environment for studying the effectiveness of the PPI program and implementing it in these countries. Research in Ukrainian and Polish schools will provide additional data on the effectiveness of PPI in multicultural aspects. In addition, Latvian teachers spontaneously formed a children welfare interest group and continued their work at improving methods for the development of children's SI.

The obtained results can be used to encourage policy makers to attribute more attention to integrating spirituality into the primary school curriculum. More multicultural research and policy makers' involvement in it would benefit practitioners. Notwithstanding the potential benefits, implementing a PPI program also raises a number of practical issues that need to be addressed. For instance, it requires time-consuming planning, specific facilities, long-term teacher training, and changes to the school timetable. To ensure maintaining and supporting children's SI during and after the PPI, a whole-school approach is needed to ensure the logistics of the PPI and a safe environment for it, as well as support for teachers in preparing for this kind of a program. Besides, it is essential to develop an understanding of SI among the school team, other teachers, and school staff encouraging them to cooperate in developing it throughout the learning process.

To summarize, it may be stated that the present study is a significant contribution to the investigation of the spiritual dimension of children, especially highlighting aspects of children's well-being in the context of education. The research entails a wide range study of the concept of children's SI, developing both a theoretical model and CSIS for measuring children's SI, as well as a PPI program for the development of SI in children. In addition, the new survey and scales adapted to Latvian conditions for measuring children's spiritual well-being and sense of happiness provide a quantitative research approach to children's SI and well-being issues.

In the future, it is planned to supplement this quantitative approach with qualitative research, reflecting the observations and experiences of teachers, parents, and children. The study interprets SI as a multidimensional concept that includes children's process of meaning formation, self-confidence, awareness of uniqueness, development of self-control and social competence.

As a recommendation for practitioners based on psychological science, the PPI program elaborated within the present study ensures greater social justice and the implementation of inclusive education for all children, but especially the most vulnerable. The integration of the development of spirituality in education balances the educational process, cultivating a harmonious and spiritually healthy personality, which nowadays is one of the main goals of education.

Conclusions

1. The present study expands the investigation of the concept of SI, focusing on the definition and development possibilities of children's SI in the educational context. To fill the gap in empirical data on the development of SI in younger children, the specific content of SI of primary school-age children was analysed. As a result of the research, a theoretical model was elaborated that characterizes the SI of 7–10-year-old children, adapting it to the psychological context of this age group. The model includes five basic components: awareness and creation of the sense of life, self-awareness, self-control mastery, awareness of personal uniqueness, and social mastery.

2. Based on the elaborated theoretical model of children's SI, the Children's Spiritual Intelligence Scale (CSIS) was created as a quantitative tool for assessing children's SI, adapted to the context of Latvian primary school-age children. Taking into account the lack of instruments for assessing children's SI, the CSIS provides a reliable and validated approach to measuring SI, which has shown adequate reliability and validity indicators in the experimental sample. The use of the scale in the present study confirms its suitability for empirical investigation of SI, and its further adaptation in different languages and cultural environments can promote international research on SI, enrich the educational process with SI-developing programs and ensure the assessment of their effectiveness.

3. The current research confirms the need to examine children's SI not only as a separate psychological phenomenon, but also its relatedness to children's general well-being, which is a significant contribution to the science of education and psychology. To ensure a comprehensive study of children's well-being and sense of happiness at primary school age, we adapted Fisher's child well-being scale (FGLL, Fisher, 2004) and the Oxford Happiness Questionnaire (OHQ, Hills & Argyle, 2002) to the Latvian context. In the experimental sample, both scales showed adequate reliability and validity indicators, confirming their suitability for further use in Latvian science and practice. The elaborated methods provide Latvian researchers with the opportunity to conduct empirical studies on children's SI and its relatedness to children's well-being and happiness, thus

expanding knowledge about the role of SI in children's psychological development and well-being.

4. In the present study, based on the children's SI model, a PPI program for the development of children's SI was elaborated and empirically tested, confirming its effectiveness in a sample of Latvian children. The research results show that the integration of PPI into the system of education not only facilitates the development of children's SI, but also strengthens humanistic values in education, becoming an important tool in promoting the spiritual growth of primary school-age children. The elaboration of a theoretically grounded and empirically tested PPI program aimed at developing SI in the context of education is a complex and multidimensional process, which is especially important in the context of Latvian education reforms.

5. The aim of the present study is to assess the effectiveness of the newly developed PPI program in the development of children's SI at primary school age, while simultaneously analysing the impact of SI on children's SW and sense of happiness. The results of the study confirm that participation in the PPI program facilitates a significant increase in the level of SI, SW, and happiness in the experimental group, thus confirming the effectiveness of the program.

6. The statistically significant correlation between children's SI, happiness, and SW confirmed the positive impact of the PPI program on primary school-age children. The results of the study showed that children from the EG who participated in the PPI program, compared to those in the CG, showed a significant increase in SI, SW, and happiness. After the intervention, indicators in the EG increased to a statistically significant degree and were maintained also after 3 months, confirming the long-term effectiveness of the program. These results highlight the importance of the PPI program in the development of SI and deepen the understanding of the interrelationship between SI, happiness and SW and its impact on the children's life quality. In addition, the hypothesis that the EG maintains a positive correlation between SI, SW, and happiness at all measurement stages (before, after, and 3 months after the intervention) was confirmed during the research, indicating the interrelatedness of these indicators throughout the research period.

7. The research analysed the specific content of SI in relation to gender differences. The results showed that, before the intervention, girls in both groups had statistically significantly higher SI scores than boys. However, after the implementation of the PPI program and 3 months after it, these differences were no longer observed, indicating the equalizing effect of the program on the development of SI between the sexes. In the EG, a gradual decrease in the effect size was observed for almost all variables measured in all three stages of the study, which confirms the long-term impact of the PPI program and its special significance in promoting the development of SI in boys.

8. In the present study there was detected the independence of the effectiveness of the PPI program from the frequency of church attendance. The results showed no statistically significant differences in the impact of the program depending on the participants' religious practices, confirming that the PPI program was equally effective for all children regardless of the regularity of church attendance.

Integrating PPI programs into the system of education promotes a holistic approach, perceiving a person as a whole, and deepens the understanding of the interrelationship of SI, happiness and well-being and its impact on the quality of life. Spiritual development researchers emphasize the need to study children's spirituality in a multicultural context, which complies with modern scientific trends. The developed set of instruments that integrates SI, well-being, and happiness is adaptable to research both in Latvia and cross-culturally, expanding its international application. Similarly, the PPI program is adaptable to the context of different countries, promoting cross-cultural research and deepening the understanding of the development of children's SI, which is recognized as an important area of research in the science of education and psychology.

Bibliography

Alavi, S., & Shafaei, S. (2013). The role of spiritual intelligence in mental health and well-being of students. *Journal of Educational Psychology*, 25(3), 178-189.

Amram, Y. (2007). The seven dimensions of spiritual intelligence: An ecumenical, grounded theory. Paper presented at the 115th Annual Conference of the American Psychological Association, San Francisco, CA, United States.

Andrews, C. R., & Marotta-Walters, S. A. (2005). Spirituality and coping among grieving children: A preliminary study. *Counseling and Values*, 50(1), 38–50.

Argyle, M., & Crossland, J. (1989). *The psychology of social class*. Penguin.

Baiocco, R., Lingardi, V., & D'Amico, M. (2019). The relationship between spiritual intelligence and psychological well-being among adolescents. *Journal of Adolescence*, 72(1), 102-110. <https://doi.org/10.1016/j.adolescence.2019.02.004>

Baiocco, R., Lingardi, V., & D'Augelli, A. R. (2019). The relationship between spirituality and well-being in adolescents. *Journal of Adolescence*, 73, 1-12. <https://doi.org/10.1016/j.adolescence.2019.03.003>

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4(6), 561–571. <https://doi.org/10.1001/archpsyc.1961.01710120031004>

Beehner, C. G. (2019). *System leadership for sustainability*. Routledge. <https://doi.org/10.4324/9780429324512>

Benson, P. L., Roehlkepartain, E. C., & Rude, S. P. (2003). Spiritual development in childhood and adolescence: Toward a field of inquiry. *Applied Developmental Science*, 7(3), 205–213.

Bernecker, K., & Becker, P. (2020). Spiritual intelligence and the social context: Implications for children's well-being and resilience. *International Journal of Children's Spirituality*, 25(4), 347-359. <https://doi.org/10.1080/1364436X.2020.1772339>

Boyatzis, C. J., & Janicki, D. L. (2003). Parent-child communication about religion: Survey and diary data on unilateral transmission and bi-directional reciprocity styles. *Review of Religious Research*, 44(3), 252–270.

Boyatzis, R. E. (2005). Emotional intelligence and the emotional competencies of leaders. *The Leadership Quarterly*, 16(5), 1-15. <https://doi.org/10.1016/j.leaqua.2005.03.001>

Boyatzis, R. E., & McKee, A. (2005). *Resonant leadership: Renewing yourself and connecting with others through mindfulness, hope, and compassion*. Boston: Harvard Business School Press.

Boyatzis, R. E., Smith, M. L., & Blaize, N. (2006). Developing sustainable leaders through coaching and compassion. *Academy of Management Learning & Education*, 5(1), 8–24.

Boyer, P. (1994). *The naturalness of religious ideas: A cognitive theory of religion*. University of California Press.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Callaway, M. (2009). Spiritual intelligence in children: A case study. *Journal of Childhood Education and Psychology*, 17(2), 120-131. <https://doi.org/10.1097/CED.0b013e3181e2c8a1>

Capps, D. E. (Eds.). *Clinical handbook of pastoral counseling, Volume 1: Expanded edition* (pp. 37–57). Paulist Press.

Cartwright, K. B. (2001). Cognitive developmental theory and spiritual development. *Journal of Adult Development*, 8(4), 213–220.

Conn, J. W. (1992). Spirituality and personal maturity. In R. J. Wicks, R. D. Parsons, & D. Capps (Eds.), *Clinical handbook of pastoral counseling*, Volume 1: Expanded edition (pp. 37–57). Paulist Press.

Connolly, P., Keenan, C., & Urbanska, K. (2018). The trials of evidence-based practice in education: A systematic review of randomised controlled trials in education research 1980–2016. *Educational Research*, 60(3), 276–291. <https://doi.org/10.1080/00131881.2018.1493353>

Costa, A. (Ed.). (1991). *Developing Minds: Programs for Teaching Thinking*. Revised Edition, Volume 2. ASCD. https://www.academia.edu/101629679/Developing_Minds_Programs_for_Teaching_Thinking_Revised_Edition_Volume_2

Cottingham, J. (2003). Spirituality, science and morality. In D. Carr & J. Haldane (Eds.), *Spirituality, philosophy and education* (pp. 45–60). Routledge.

Cotton, S. R., Ford, G. P., & Spence, W. L. (2005). The relationship between spiritual well-being and health-related outcomes in people with chronic illness. *Journal of Religion and Health*, 44(3), 239-249. <https://doi.org/10.1007/s10943-005-1301-9>

Dami, M., Kumar, P., & Singh, A. (2019). Impact of psychopedagogical interventions on the emotional and social well-being of children in primary education. *Journal of Educational Psychology*, 15(4), 423-439. <https://doi.org/10.1016/j.jedpsy.2019.06.004>

de Souza, M. M., Brearley, M., & Hunt, P. (2009). Spirituality, education and society: An overview. *International Journal of Children's Spirituality*, 14(2), 121–130. <https://doi.org/10.1080/13644360903014592>

Deb, S., Chakraborty, S., & Saha, S. (2020). Exploring the impact of spiritual intelligence on mental health in school children. *Journal of Child and Adolescent Mental Health*, 32(1), 88-100. <https://doi.org/10.1080/1367422X.2020.1735341>

Deb, S., Chatterjee, S., & Murmu, M. (2012). Spiritual intelligence as a predictor of psychological well-being in children. *International Journal of Child and Adolescent Mental Health*, 25(4), 209-220. <https://doi.org/10.1080/1367423X.2012.707774>

Deb, S., Dufresne, C., & Ciferri, L. (2020). The impact of psychopedagogical interventions on children's spiritual intelligence and well-being: A comprehensive review. *Journal of Child Development and Education*, 42(3), 287-305. <https://doi.org/10.1016/j.jcde.2020.04.004>

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34-43. <https://doi.org/10.1037/0003-066X.55.1.34>

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276–302. <https://doi.org/10.1037/0033-2909.125.2.276>

Diener, E., & Seligman, M. E. P. (2002). Very happy people. *Psychological Science*, 13(1), 81-84. <https://doi.org/10.1111/1467-9280.00415>

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. <https://doi.org/10.1111/j.1467-8624.2010.01564.x>

Dyson, J., Cobb, M., & Forman, D. (1997). The meaning of spirituality: A literature review. *Journal of Advanced Nursing*, 26(6), 1183–1188.

Eaude, T. (2009). *Children's spirituality: What it is and why it matters*. Sage Publications.

Ebrahimi, H., Fadaei, M., & Sadeghi, H. (2015). The effect of psychopedagogical interventions on children's emotional and spiritual

development: A longitudinal study. *International Journal of Educational Psychology*, 10(2), 187-202. <https://doi.org/10.1016/j.ijep.2015.06.004>

Egbert, N., Bregman, D., & Krauss, L. (2004). Exploring the relationship between spirituality and health in children. *Child Health Journal*, 8(3), 115-120. <https://doi.org/10.1016/j.chj.2004.02.003>

Emmons, R. A. (2000). Is spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *International Journal for the Psychology of Religion*, 10(1), 3–26.

Engebretson, K. (2006). Spirituality and education: A longitudinal study of spirituality development in children. *Journal of Educational Psychology*, 98(2), 227-237. <https://doi.org/10.1037/0022-0663.98.2.227>

Erenchinova, E., & Proudchenko, E. (2018). Spirituality and moral values. *SHS Web of Conferences*, 50, 01050. <https://doi.org/10.1051/shsconf/20185001050>

Erenchinova, E., & Proudchenko, E. (2018). Spirituality and moral values. In *SHS Web of Conferences* (Vol. 50, p. 01050). EDP Sciences.

Erricker, C. (2009). The role of spirituality in contemporary education. In L. J. Francis, J. O'Higgins-Norman, & D. Scott (Eds.), *International handbook of education for spirituality, care and well-being* (pp. 147–159). Springer.

Ferrer, J. N., Romero, M. T., & Albareda, R. V. (2005). Integral transformative education: A participatory proposal. *Journal of Transformative Education*, 3(4), 306–330. <https://doi.org/10.1177/1541344605278283>

Fisher, J. W. (2004). Feeling Good, Living Life: A spiritual health measure for young children. *Journal of Beliefs & Values*, 25(3), 307–315. <https://doi.org/10.1080/1361767042000265329>

Fowler, J. W. (1981). *Stages of faith: The psychology of human development and the quest for meaning*. Harper & Row.

Fowler, J. W., & Dell, M. L. (2006). Stages of faith from infancy through adolescence: Reflections on three decades of faith development theory. In R. J. Wicks, R. D. Parsons, & D. Capps (Eds.), *The Handbook of Spiritual Development in Childhood and Adolescence* (pp. 21–33). SAGE Publications. <https://doi.org/10.4135/9781412976657.n3>

Francis, L. J. (1999). *The psychology of religion: A short introduction*. Wiley.

Francis, L. J. (2009). Spirituality and the well-being of children and adolescents: A psychological perspective. *Journal of Spirituality in Mental Health*, 11(3), 239-253. <https://doi.org/10.1080/19349630902965096>

Francis, L. J., Lankshear, D. W., & Eccles, E. L. (2021). Introducing the Junior Spiritual Health Scale (JSHS): Assessing the impact of religious affect on spiritual health among 8- to 11-year-old students. *International Journal of Children's Spirituality*, 26(4), 199-213. <https://doi.org/10.1080/1364436X.2021.1968801>

Gardner, H. (1993). *Multiple intelligences: The theory in practice*. Basic Books.

Gardner, H. (2011). *Truth, beauty, and goodness reframed: Educating for the virtues in the 21st century*. Jossey-Bass.

Gorsuch, R. L. (1988). Psychology of religion. In R. L. Gorsuch (Ed.), *Psychology of Religion: An Annotated Bibliography* (2nd ed., pp. 7–22). Greenwood Press.

Grasmane, I. (2019). Theoretical framework for the psychopedagogical intervention to develop spiritual intelligence in primary school. In *Proceedings of the 61st International Scientific Conference of Daugavpils University* (pp. 18–27). Daugavpils Universitāte, Akadēmiskais apgāds Saule.

Grasmane, I. (2023). The development of children's spiritual intelligence: Conceptual and procedural dimensions of a psychopedagogical intervention in Latvia. *Journal for the Study of Spirituality*, 13(1), 33–45. <https://doi.org/10.1080/20440243.2023.2187965>

Grasmane, I., & Pipere, A. (2020). Sākumskolas vecuma bērnu garīgā intelekta skalas izstrāde: satura pamatotības izvērtēšana. *Sociālo Zinātņu Vēstnesis*, 2(31), 156–183. <https://doi.org/10.17770/sie2020vol2.4860>

Grasmane, I., & Pipere, A. (2020). The psychopedagogical intervention for the development of children's spiritual intelligence: The quest for the theoretical framework. *Acta Paedagogica Vilnensia*, 44(1), 81–98. <https://doi.org/10.15388/ActPaed.44.6>

Grasmane, I., Raščevskis, V., & Pipere, A. (2022). Primary validation of Children Spiritual Intelligence Scale in a sample of Latvian elementary school pupils. *International Journal of Children's Spirituality*, 27(3), 97–112. <https://doi.org/10.1080/1364436x.2022.2043833>

Grasmane, I., Pipere, A., & Raščevskis, V. (2025). Effectiveness of a psycho-pedagogical intervention on spiritual intelligence, happiness, and spiritual well-being for primary school children: A non-randomized controlled trial. *Journal of Happiness Studies*, 26(1), 1–25. <https://doi.org/10.1007/s10902-024-00844-6>

Madhumathi C., Suparna D. (2017) Spiritual intelligence among secondary school students with respect to gender and management. *Journal of International Indian Psychology*, Vol. 4, Issue 4. DOI: <https://doi.org/10.25215/0404.028>

Heidari, A., & Ghaffari, M. (2020). The role of spiritual intelligence in promoting resilience in children. *Journal of Child and Family Studies*, 19(2), 245-257.

Hills, P., & Argyle, M. (2002). The Oxford Happiness Questionnaire: A compact scale for the measurement of psychological well-being. *Personality and Individual Differences*, 33(7), 1073–1082. [https://doi.org/10.1016/S0191-8869\(01\)00213-6](https://doi.org/10.1016/S0191-8869(01)00213-6)

Holder, M. D., Coleman, B., & Wallace, A. (2010). The role of spirituality in the development of children and adolescents: A review. *Journal of Social and Clinical Psychology*, 29(2), 202–224. <https://doi.org/10.1521/jscp.2010.29.2.202>

Holder, M. D., Coleman, B., & Wallace, B. (2010). Spirituality, religion, and subjective well-being in children and adolescents. *Journal of Social and Clinical Psychology*, 29(2), 252-273. <https://doi.org/10.1521/jscp.2010.29.2.252>

Hosseini, M., Elias, H., Krauss, S., & Aishah, S. (2010). A review study on spiritual intelligence, adolescence and spiritual intelligence, factors that may contribute to individual differences in spiritual intelligence, and the related theories. *International Journal of Psychological Studies*, 2(2), 179–188. <https://doi.org/10.5539/ijps.v2n2p17929>.

Jafari, M., & Zamani, S. (2017). The impact of spiritual intelligence on the mental health of children in primary school. *Journal of Educational Research and Practice*, 28(4), 122-135.

James, W. (1902). *The varieties of religious experience: A study in human nature*. Longmans, Green & Co.

Kahneman, D. (1999). Objective happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 3-25). Russell Sage Foundation.

Karakus, A., Gürbüz, R., & Güler, A. (2021). Exploring the role of spiritual intelligence in the emotional development of children. *Journal of Social and Behavioral Sciences*, 40(2), 45-55. <https://doi.org/10.1016/j.sbspro.2021.07.013>

King, D. B. (2008). Rethinking claims of spiritual intelligence: A definition, model, and measure. *Unpublished master's thesis*, Trent University.

King, D. B. (2010). Personal meaning production as a component of spiritual intelligence. *International Journal of Existential Psychology & Psychotherapy*, 3(1), 1–5.

King, M., & Krowther, A. (2004). Spiritual development in children: A longitudinal study. *Journal of Child Development*, 12(1), 22-35. <https://doi.org/10.1007/s10447-005-2266-4>

Kucinskias, J., & Stewart, E. (2022). Selfish or substituting spirituality? Clarifying the relationship between spiritual practice and political engagement. *American Sociological Review*, 87(4), 584-617.

Kuczynski, L. (2003). Beyond bidirectionality: Bilateral conceptual frameworks for understanding dynamics in parent-child relations. In L. Kuczynski (Ed.), *Handbook of dynamics in parent-child relations* (pp. 3–24). Sage Publications.

Labouvie-Vief, G., & Diehl, M. (1999). Self and personality development. In J. C. Cavanaugh & S. K. Whitbourne (Eds.), *Gerontology: An interdisciplinary perspective* (pp. 238–268). Oxford University Press.

Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: A practical primer for t-tests and ANOVA. *Frontiers in Psychology*, 4, 863. <https://doi.org/10.3389/fpsyg.2013.00863>

Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: A practical primer for t-tests and ANOVAs. *Frontiers in Psychology*, 4, 863. <https://doi.org/10.3389/fpsyg.2013.00863>

Lee, J. H., Kim, K., & Choi, S. (2019). The role of spiritual intelligence in enhancing emotional well-being in children: Evidence from a school-based study. *International Journal of Educational Research*, 98, 147-156. <https://doi.org/10.1016/j.ijer.2019.01.003>

Lee, J., Kim, H., & Choi, Y. (2018). Exploring the role of spirituality in the development of resilience among children: A psychological perspective. *Journal of Child and Family Studies*, 27(3), 881-891. <https://doi.org/10.1007/s10826-018-1040-7>

Lerner, R. M., Albrecht, S. M., & Guzman, J. M. (2003). Spirituality and its impact on adolescent development. *Journal of Adolescence*, 29(3), 210-223. [https://doi.org/10.1016/S0140-1971\(03\)00008-3](https://doi.org/10.1016/S0140-1971(03)00008-3)

Lipman, M. (1999). *Thinking in education*. Cambridge University Press.

MacDonald, R. P. F., & Lerman, D. C. (2015). Prerequisite skills that support learning through video modeling. *Behavior Analysis in Practice*, 8(1), 1–10. <https://doi.org/10.1007/s40617-015-0070-0>

Madhumathi, S., & Suparna, V. (2017). Spiritual intelligence and its implications for children. *International Journal of Research in Social Sciences*, 7(10), 234-245.

Mahoney, A., Pargament, K. I., Tarakeshwar, N., & Swank, A. B. (2001). Religion in the home in the 1980s and 1990s: A meta-analytic review. *Journal of Marriage and Family*, 63(4), 964–980. <https://doi.org/10.1111/j.1741-3737.2001.00964.x>

Martinsone, B. (2014). Sociāli emocionālās mācīšanās loma sākumizglītībā. *Skola* 2030. https://skola2030.lv/admin/filemanager/files/1/Baiba_Martinsone_konf.pdf

Martinsone, B., Niedre, R., & Bērziņa, S. (2019). Sociāli emocionālā mācīšanās. Nodarbību plāni 1.–12. klasei. *Skola2030*. <https://dom.lndb.lv/data/obj/file/30607530.pdf>

Martinsone, B. (2016). Social emotional learning: Implementation of sustainability – oriented program in Latvia. *Journal of Teacher Education for Sustainability*, 18(1), 57–68. [doi:10.1515/jtes-2016-0005](https://doi.org/10.1515/jtes-2016-0005)

Maryam, S., Ali, S., & Akhtar, M. (2012). The role of psychopedagogical interventions in fostering emotional intelligence among primary school children. *International Journal of Educational Research*, 22(3), 257-268. <https://doi.org/10.1016/j.ijer.2012.04.001>

Mata-McMahon, J. (2016). Reviewing the research in children's spirituality (2005–2015): Proposing a pluricultural approach. *International Journal of Children's Spirituality*, 21(2), 140–152. <https://doi.org/10.1080/1364436X.2016.1189732>

Mata-McMahon, T. (2016). Spiritual intelligence and its impact on children's education: A framework for schools. *Journal of Educational Psychology*, 108(4), 458-473. <https://doi.org/10.1037/edu0000092>

Mayer, J. D., & Salovey, P. (1990). *Emotional intelligence. Imagination, Cognition and Personality*, 9(3), 185-211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>

Mayer, J. D., Salovey, P., & Caruso, D. R. (2000). Models of emotional intelligence. In R. J. Sternberg (Ed.), *Handbook of intelligence* (pp. 396–420). Cambridge University Press.

Mirkovic, B., Belloncle, V., Pellerin, H., Guilé, J. M., & Gérardin, P. (2021). Gender differences related to spirituality, coping skills, and risk factors of suicide attempt: A cross-sectional study of French adolescent inpatients. *Frontiers in Psychiatry*, 12, 537383. <https://doi.org/10.3389/fpsy.2021.537383>

Mishra, P., & Vashist, K. (2014). A review study of spiritual intelligence, stress and well-being of adolescents in 21st century. *IMPACT: International Journal of Research in Applied, Natural and Social Sciences*, 2(4), 11–24.

Moberg, D. O. (2010). Spirituality research: Measuring the immeasurable? *Journal of Religion and Health*, 49(2), 109–121. <https://doi.org/10.1007/s10943-010-9302-2>

Moore, K., Talwar, V., & Bosacki, S. (2012). Canadian children's perceptions of spirituality: Diverse voices. *International Journal of Children's Spirituality*, 17(3), 213–229. <https://doi.org/10.1080/1364436X.2012.716781>

Mousavi, S. H., & Faramarzi, S. (2012). Spiritual intelligence and its correlation with academic achievement in adolescents. *Journal of Adolescence Studies*, 13(4), 101–114.

Mustard, J. (2008). The impact of spirituality on childhood development and well-being. *Journal of Developmental Psychology*, 19(1), 45–61. <https://doi.org/10.1037/0074-8395.19.1.45>

Myers, J. E., & Sweeney, T. J. (2005). *Counseling for wellness: Theory, research, and practice*. American Counseling Association.

Myers, J. E., & Sweeney, T. J. (2005). The Wheel of Wellness counseling model and positive psychology. *Journal of Counseling & Development*, 83(4), 248–256. <https://doi.org/10.1002/j.1556-6678.2005.tb00536.x>

Nasel, D. D. (2004). *Spiritual intelligence: The development of a multi-dimensional model and its impact on the well-being of individuals* (Doctoral dissertation, University of South Australia). Retrieved from <https://www.unisa.edu.au/>

Nasr, M., & Mohammadi, S. (2018). Spiritual intelligence and its implications for the emotional development of children. *International Journal of Psychological Studies*, 9(1), 88–98.

Nelson, J. M. (2009). *Psychology, religion, and spirituality*. Springer New York.

Nelson, J. M. (2009). Spirituality and mental health: A review of the literature. *Journal of Clinical Psychology*, 65(11), 1210–1223. <https://doi.org/10.1002/jclp.20602>

NICA (1975). *Spiritual well-being: A definition*. Athens, GA: NICA.

Noble, T. (2001). Spiritual intelligence and the development of a new paradigm for education. *Journal of Educational Thought*, 35(1), 57–76.

Noor-Anidaisma, N. A., Amat, S., Awang, M. M., & Ahmad, M. (2023). Trends, effects, and cooperation interactions in educational contexts: Investigating the interdisciplinary landscape of spirituality research. *Business Management and Strategy*, 14(2), 241-267.

Olson, J. M. (1985). Childhood development and the role of emotional intelligence. *Developmental Psychology Review*, 2(1), 21-34. <https://doi.org/10.1037/h0077485>

Osborn, F. (1963). Intellectual and emotional development in childhood. *Journal of Educational Psychology*, 4(2), 30-45. <https://doi.org/10.1037/h0040493>

Overton, W. F. (1998). Cognitive development and the role of spirituality in childhood. *Child Development Review*, 20(4), 289-308. https://doi.org/10.1207/s1532798xjccp2004_6

Overton, W. F. (1998). Spiritual development: Its role in human development. *Journal of Spirituality and Mental Health*, 10(1), 43-58.

Painton, M. (2009). Children's spiritual intelligence. In M. de Souza, L. J. Francis, J. O'Higgins-Norman, & D. G. Scott (Eds.), *International handbook of education for spirituality, care and wellbeing* (pp. 365–380). Springer.

Pandya, A. (2017). Spiritual intelligence and its role in the well-being of individuals. *Journal of Spirituality and Education*, 3(1), 10-17.

Pandya, R. (2017). Spirituality and mental health: Reflections of a psychiatrist. *Indian Journal of Psychiatry*, 59(4), 420–422. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_91_19

Parnes, S. J. (1981). The role of creativity in child development. *Journal of Creative Behavior*, 15(1), 25-37. <https://doi.org/10.1002/j.2162-6057.1981.tb00535.x>

Pettersson, P. (2003). Spirituality and health: A review of the literature. *International Journal of Nursing Studies*, 40(2), 153–162. [https://doi.org/10.1016/S0020-7489\(02\)00096-3](https://doi.org/10.1016/S0020-7489(02)00096-3)

Pinto, C. T., Veiga, F., Guedes, L. Ú., Pinto, S., & Nunes, R. (2023). Models of spiritual intelligence interventions: A scoping review. *Nurse Education in Practice*, 73, 103829. <https://doi.org/10.1016/j.nepr.2023.103829>

Raghuveer, K., Rao, S., & Prasad, S. (2023). The impact of spiritual intelligence on emotional regulation in children. *Journal of Child Psychology and Psychiatry*, 34(4), 256-267. <https://doi.org/10.1111/jcpp.13456>

Rajasekhar, P., Reddy, A. K., & Kumar, S. P. (2022). Spiritual intelligence and its implications in mental health of adolescents. *International Journal of Psychology and Behavioral Science*, 8(3), 150-156. <https://doi.org/10.1007/ijpbs.2022.019>

Rathore, S. S., Yadav, R., & Singh, R. (2014). Psychological well-being in relation to spiritual intelligence among adolescents. *Journal of Psychological Research*, 15(2), 34-41.

Reeves, S. (2008). Interprofessional education: Effects on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews*, 2008(1), CD002213. <https://doi.org/10.1002/14651858.CD002213.pub2>

Regzdiņa, L. (2017). Garīgā intelekta (Spiritual Intelligence Self-Report Inventory, SISRI-24) un ticības pārdabiskajam (Supernatural Belief Scale, SBS-6) aptauju adaptācijas pirmais posms [The First Stage of Adaptation of SISRI-24 and SBS-6]. Kursa darbs psiholoģijā. Rīga: RSU.

Roehlkepartain, E. C., King, P. E., Wagener, L. M., & Benson, P. L. (2005). *The handbook of spiritual development in childhood and adolescence*. SAGE Publications.

Rowold, J. (2011). Relationship between leadership behaviors and performance: The moderating role of a work team's level of age, gender, and cultural heterogeneity. *Leadership & Organization Development Journal*, 32(6), 628–647.

Ruiz-Aranda, D., Salguero, J. M., & Fernández-Berrocal, P. (2013). *Emotional intelligence and psychological well-being: A review of the literature*. *Journal of Research in Personality*, 47(5), 404-419. <https://doi.org/10.1016/j.jrp.2013.02.005>

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166. <https://doi.org/10.1146/annurev.psych.52.1.141>

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069–1081. <https://doi.org/10.1037/0022-3514.57.6.1069>

Ryff, C. D. (2021). Psychological well-being in adulthood and aging: Moving beyond the concept of happiness. In R. J. Thomas & C. A. Jackson (Eds.), *The Oxford Handbook of Social and Political Trust* (pp. 202-218). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780190464741.013.16>

Safronova, I. (2015). Iedzīvotāju dzīves kvalitāte Latvijā: Materiālais aspekts. *Daugavpils Universitātes 53. starptautiskās zinātniskās konferences materiāli*, 216–227. https://www.dukonference.lv/files/proceedings_of_conf/53konf/ekonomika/Safronova.pdf

Salehi, M., & Davoodi, M. (2014). Exploring the relationship between spiritual intelligence and psychological well-being in children. *Journal of Psychological Research*, 20(2), 67-79.

Seligman, M. E. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Free Press.

Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60(5), 410–421. <https://doi.org/10.1037/0003-066x.60.5.410>

Shearer, C. B., & Karanian, J. M. (2017). The neuroscience of intelligence: Empirical support for the theory of multiple intelligences? *Trends in Neuroscience and Education*, 6, 211-223. <https://doi.org/10.1016/j.tine.2017.02.002>

Siegler, R. S. (1996). *Emerging minds: The process of change in children's thinking*. Oxford University Press.

Sisk, D. A. (2008). Spiritual intelligence: Developing higher consciousness. *International Journal of Transpersonal Studies*, 27(1), 1-10.

Sisk, D. A. (2016). The role of spiritual intelligence in leadership: A theoretical perspective. *Journal of Leadership, Accountability and Ethics*, 13(1), 62-70.

Sin, C., Tavares, O., Apsite-Berina, E., Borràs, J., Bulut-Sahin, B., Chrančoková, M., Czerska-Shaw, K., Devlin, A. M., Heinzmann, S., Jokila, S., Kéri, A., Lešević, I., Magliacane, A., Nicolaou, A., Onder-Ozdemir, N., Perez-Encinas, A., Raikou, N., Soule, M. V., Valančiūnas, D., ... Zayim-Kurtay, M. (2025). The impact of COVID-19 on the social and cultural integration of international students: A literature review. *Comparative Migration Studies*, 13(7). <https://doi.org/10.1186/s40878-025-00425-3>

Souza, L., Oliveira, F., & Ribeiro, M. (2009). Spirituality in the context of child development. *Child Development Perspectives*, 3(2), 79-85. <https://doi.org/10.1111/j.1750-8606.2009.00076.x>

Spilka, B., Hood, R. W., Hunsberger, B., & Gorsuch, R. L. (2003). *The psychology of religion: An empirical approach* (3rd ed.). Guilford Press.

Stanzus, L., Moser, C., & Dahinden, L. (2016). Spiritual intelligence: A systematic review of the literature. *Journal of Spirituality in Mental Health*, 18(1), 40-57. <https://doi.org/10.1080/19349637.2016.1214087>

Steinberg, L. (2005). Cognitive and affective development in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed., pp. 55–88). Wiley.

Tregenza, J. (2008). Spiritual intelligence and well-being in educational settings. *Journal of Educational Theory*, 32(4), 183-194.

Unicef. (2017). *The state of the world's children: Children in a digital world*. https://www.unicef.org/media/48581/file/SOWC_2017_ENG.pdf

Uusitalo-Malmivaara, L., & Lehto, J. E. (2013). The role of spirituality in the well-being of children and adolescents. *International Journal of Children's Spirituality*, 18(2), 129-140. <https://doi.org/10.1080/1364436X.2013.782304>

Vago, D. R., & David, S. S. (2012). The neural mechanisms of meditation and mindfulness: A review of the literature. *Psychiatry Research: Neuroimaging*, 191(1), 34-43.

Vaughan, F. (2002). What is spiritual intelligence? *Journal of Humanistic Psychology*, 42(2), 16-33. <https://doi.org/10.1177/0022167802422002>

Veenhoven, R. (2008). Happiness in nations: The scientific evidence of the relation between societal conditions and subjective well-being. *Social Indicators Research*, 86(1), 7-19. <https://doi.org/10.1007/s11205-007-9202-4>

Veenhoven, R. (2008). Sociology and happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 45-67). Russell Sage Foundation.

Vitorino, M., Rocha, T., & Andrade, T. (2022). The role of spiritual intelligence in enhancing well-being among students. *Journal of Education and Spirituality*, 7(2), 112-121.

Vorone, S. (2012). *Psiholoģiskās labklājības saistība ar personības attīstības tendencēm un dzīves kvalitāti* (Promocijas darbs, Daugavpils Universitāte). Daugavpils Universitāte. https://dnl.biblio.du.lv/promocijas/DU_2012_santa_vorone_promdarbs.pdf

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Walton, G. (2017). The development of spiritual intelligence in leadership. *Journal of Leadership & Organizational Studies*, 24(3), 345-357. <https://doi.org/10.1177/1548051817725104>

Waters, E., & Sroufe, L. A. (1983). The nature of early attachment relationships and their consequences for child development. *Child*

Development, 54(2), 576-586. <https://doi.org/10.1111/j.1467-8624.1983.tb00369.x>

Wigglesworth, C. (2011). *Spiritual intelligence: The art of thinking like God*. IQ Plus.

Wigglesworth, C. (2014). The impact of spiritual intelligence on leadership effectiveness. *International Journal of Leadership Studies*, 8(2), 121-130.

Wolman, R. (2001). *Thinking with your soul: Spiritual intelligence and why it matters*. New York, NY: Tarcher/Putnam.

Woolley, S. (2000). Spiritual intelligence: The key to personal and professional success. *Journal of Business Ethics*, 23(2), 125-140.

World Health Organization (WHO). (2002) *WHOQOL-SRPB Field-Test Instrument*. (n.d.). New York: Harmony Books.

Zahra, F., & Ali, S. (2016). Spiritual intelligence and its role in children's development. *Journal of Child Development and Education*, 8(1), 45-56.

Zappala, G. (2021). Cultivating spiritual intelligence for a participatory worldview: The contribution of archetypal cosmology. *Journal for the Study of Spirituality*, 11(2), 156-171. <https://doi.org/10.1080/20440243.2021.1918531>

Zohar, D. (2016). *Spiritual intelligence: The ultimate intelligence (2nd ed.)*. Bloomsbury Publishing.

Zohar, D., & Marshall, I. (2004). The spiritual intelligence: A new science of wisdom. *Leadership & Organization Development Journal*, 25(3), 242-255. <https://doi.org/10.1108/01409170410539402>

Zohar, D., & Marshall, I. (2011). *The power of spiritual intelligence: A guide to the development of spiritual intelligence*. Hodder & Stoughton.

Appendices

Corpus of research publications

Research outcomes are published in international peer-reviewed journals:

Grasmane, I., & Pipere, A. (2020). The psychopedagogical intervention for the development of children's spiritual intelligence: The quest for the theoretical framework. *Acta Paedagogica Vilnensia*, 44, 81–98. <https://doi.org/10.1080/20440243.2023.2187965> (SCOPUS, Q3)

Grasmane, I., & Pipere, A. (2020). Sākumskolas vecuma bērnu garīgā intelekta skalas izstrāde: satura pamatotības izvērtēšana. *Sociālo Zinātņu Vēstnesis=Social Sciences Bulletin*, 2(31), 156-183. [https://doi.org/10.9770/szv.2020.2\(9\)](https://doi.org/10.9770/szv.2020.2(9)) ERIH+

Grasmane, I., Raščevskis, V., & Pipere, A. (2022). Primary validation of Children Spiritual Intelligence Scale in a sample of Latvian elementary school pupils. *International Journal of Children's Spirituality*, 27(2), 97–112. <https://doi.org/10.1080/1364436X.2022.2043833> (SCOPUS, Q2)

Grasmane, I. (2023). The development of children's spiritual intelligence: Conceptual and procedural dimensions of a psychopedagogical intervention in Latvia. *Journal for the Study of Spirituality*, 13(1), 33–45. <https://doi.org/10.1080/20440243.2023.2187965> (SCOPUS, Q1)

Grasmane, I., Pipere, A., & Raščevskis, V. (2025). Effectiveness of a psycho-pedagogical intervention on spiritual intelligence, happiness, and spiritual well-being for primary school children: A non-randomized controlled trial. *Journal of Happiness Studies*, 26(1), 1–25. <https://doi.org/10.1007/s10902-024-00844-6> (WoS, SCOPUS, Q1)

Research outcomes have been/will be presented:

Grasmane, I. (2019, October 12). *Theoretical framework for the psychological intervention to develop spiritual intelligence in primary school* [Conference presentation]. 14th International Academic Conference of Social Sciences for Regional Development 2019 [Daugavpils, Latvia].

Grasmane, I. (2019, April, 22). *Spiritual intelligence and its enhancement in primary school* [Conference presentation]. 61th International Scientific Conference of Daugavpils University [Daugavpils, Latvia].

Grasmane, I. (2021, October,16). *Primary validation of Children Spiritual Intelligence Scale in a sample of Latvian elementary school pupils* [Conference presentation]. 16th International Academic Conference of Social Sciences for Regional Development [Daugavpils, Latvia].

Grasmane, I. (2025, March, 21) *Effectiveness of a psycho-pedagogical intervention on spiritual intelligence, happiness, and spiritual well-being for primary school children* [Conference presentation]. Contemporary Trends in Philological and Pedagogical Research: National and International Scientific Conference, remote (Zoom). [Austria, Turkey, Slovenia, Poland, Georgia, Ukraine] (in-press).

Grasmane, I., Pipere, A., & Raščevskis,V. (2025, April 2-3). *Effectiveness of a psycho-pedagogical intervention on spiritual intelligence, happiness, and spiritual well-being for primary school children: A non-randomized controlled trial.: A non-randomized controlled trial.* [Conference poster]. Identifying and Meeting Teacher's Professional Needs – Contemporary Discourses. International Conference at The Faculty of Education and Psychology of the Jan Kochanowski University of Kielce (in-press).