# DIAGNOSTIC ASSESSMENT OF SCHOOL READINESS

**Editors:**
**Krisztián Józsa and Diana Borbélyová**

HUNGARIAN UNIVERSITY OF AGRICULTURE AND LIFE SCIENCES

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# PREFACE

The preface to this work involves drawing insights from numerous existing research findings. These findings collectively suggest that the initial eight years of an individual's life hold paramount importance for personal development. Moreover, acknowledging the substantial variations in children's development emphasizes the necessity for pedagogical strategies to accommodate such differences. Effective educational practices hinge on the ability to differentiate instruction, a process contingent on professional pedagogical diagnostics. These diagnostics aid educators in comprehending individual children, evaluating their current developmental status, and subsequently setting personalized goals for optimal growth. The diagnostic process, led by knowledgeable teachers, is crucial for planning activities that foster effective personalty development or school readiness. However, fulfilling this need demands suitable tests capable of accurately assessing children's development or school readiness.

In Slovakia, educators lacked access to standardized measurement tools for diagnosing crucial skills related to school readiness. Consequently, a three-year research initiative was launched in 2021 by J. Selye University, winning a KEGA (Cultural and Education Grant Agency, Slovakia) research grant. This initiative focused on adapting and standardizing the Hungarian measurement tool, DIFER (Diagnositic Systems for Assessing Development) for practical use by teachers. The collective effort involved researchers from two Hungarian institutions: the University of Szeged and the Hungarian University of Agriculture and Life Sciences.

The extensive research covered 3,050 Hungarian children aged 4–8 years, with 1,609 residing in Slovakia and 1,441 in Hungary. This book seeks to provide an overview of the three-year research implementation and its outcomes. The initial chapter outlines the adaptation process of the DIFER test, elucidating key starting points and critical aspects. Subsequent chapters explore a comparative analysis of regulatory documents in Slovakia and Hungary, exploring both preschool and school educational programs. The fourth chapter focuses on the validity, reliability, and invariance of the DIFER test, confirming its suitability for diagnostic examinations of Hungarian children.

This comprehensive work is intended to benefit researchers interested in school readiness, cognitive and social skills development, and curriculum analysis. Additionally, it holds value for educational decision-makers and is essential reading for practicing teachers and trainee teachers.

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# A Comparative Analysis of Hungarian and Slovakian Primary School Curricula

***Gabriella Zentai, Diana Borbélyová, Andrea Bencéné Fekete, Alexandra Nagyová, Kinga Horváthová, Yvette Orsovics and Krisztián Józsa***

## ABSTRACT

This study analyses the school curriculum documents in Hungary and Slovakia. The comparative analysis covered the Slovakian National programme for Development of Education, and the Hungarian National Core Curriculum and the framework curricula. Development tasks and content requirements for grades 1-2 were analysed. The research question focused on whether there is a difference in the manifestation of DIFER (Diagnostic System for Assessing Development) skills in the national curricula of the two countries. Earlier studies show that these DIFER skills are very important for school learning. The analysis of the curricula was carried out on the basis of general criteria and also a special set of criteria which related to the DIFER skills. It was found that these two countries have both state and local curricula, however, there are substantial differences in the documents. The most striking difference was found in the content of the educational requirements of the school subjects. In the Slovakian curriculum, educational standards define school subject objectives as well as performance and content requirements. In addition to school subject goals, Hungary also determines the development of specific competences within the given school subject. Special aspects related to DIFER skills were found in the Hungarian documents, in the overall goals and development requirements. In the Slovakain curriculum, the development of DIFER skills is embedded in the content of the school subjects, in the form of requirements. Although the improvement of DIFER skills is of prime importance, neither country's curricula devote sufficient emphasis to it.

**Keywords**: Hungary, Slovakia, curriculum, DIFER, content analysis

# INTRODUCTION

The European Union makes recommendations for the education policies of its member states, but each country can determine its own education policy decisions on the basis of EU directives (Faragó, 2013). The Lisbon Decision of the Council of Europe of March 2000 sets out four key elements in this regard: (1) common objectives and guidelines; (2) the identification of quantitative and qualitative indicators and milestones to measure how the common objectives are reflected in national programmes; (3) the establishment of a set of indicators and milestones to measure the extent to which the common objectives are reflected in national programmes.) the development of national strategies (national action plans) based on the above - i.e. the transposition of European directives into national documents in the form of specific objectives and measures that take into account national and regional differences; (4) the evaluation of the above by the community on the basis of the indicators (Halász, 2003). Accordingly, in addition to the similarities in the conceptual and content regulatory documents of the Member States, local specificities are also apparent. Education and training in each EU country therefore has a unique and specific profile. In addition to many similarities, there are significant differences in the structure of education systems, educational objectives and principles, which are reflected not only in the documents but also in the output measures.

Podráczky et al. (2022) conducted a comparative analysis of Hungarian and Slovakian kindergarten education programmes. Their analysis shows that the differences in the developmental history of kindergartens in the two countries are reflected in the regulatory documents. In both places, the focus on education and upbringing can be traced, but the two documents show many more differences than similarities. There is a significant difference in approach to the activities of pre-school children, particularly in the case of play, and in thinking about the development of skills and abilities and the transmission of literacy content (Podráczky et al., 2022).

In addition to the comparative analysis of kindergarten programmes, we also considered it important to look at the lower primary school curricula, as significant differences in DIFER skills are present in grades 1 and 2. In order to explain this phenomenon, we have therefore analysed the content regulation documents for lower secondary education in the two countries by means of a

comparative analysis, with the aim of highlighting the similarities and differences between the public education programmes of the two countries.

## Curriculum

The term curriculum was first used in the 16th century in Latin pedagogical literature, meaning the selection and arrangement of curricula, which can be interpreted as a process plan, activity plan or a programme. There are content-based curricula, which focus on the layout of the curriculum: what the school should teach and how. The competence-based curricula focus on the skills to be developed, the organizing principle is the applicability of knowledge. Five basic types of curricula can be distinguished: core curriculum, framework curriculum, local curriculum, cross curriculum, and a plan for extra-curricular activities - extra curriculum (Perjés & Vass, 2009).

In both Slovakia and Hungary, there is a two-pole content regulation (Chrappán, 2022). Two-pole content regulation means two levels of curriculum regulation in terms of the documents that define education, where the content of education is basically defined at two levels. The first is state-level regulation in the form of a basic curriculum, and the second is institutional-level regulation in the form of local curricula that directly regulate education and training. We can therefore distinguish between central and local curricula/curriculum in terms of educational management. A central curriculum is a binding document, the use of which is ordered by a public authority or the state. In this sense, a central curriculum can be national, but also regional or maintenance curricula (provincial, denominational, institutional, etc.). The local curriculum is the document chosen, agreed or developed by the institution and approved by the statutory authorities, e.g. the maintainers, the accreditation authority(ies) (Bárdossy, 2006). In Hungary, the National Core Curriculum and, in Slovakia the Innovative State Education Programme are the state-level regulations for primary schools.

### *National Curriculum (NAT) in Hungary*

The first version of the NAT was published in 1995, after six years of discussion, and according to experts it followed the Anglo-Saxon type of content regulation, the National Core Curriculum, which was a two-pole regulation and decentralised in its structure, giving teachers the freedom to plan

and decide (Nahalka, 2020). The National Core Curriculum is one of the compulsory regulatory documents of Hungarian education, which defines the goals and content of education. The core curriculum sets the common literacy objectives and also includes the key competences and development tasks (Perjés & Vass, 2009).

The NAT was published as a government decree in the Government Gazette of the Republic of Hungary. The document currently in effect is Decree No 110/2012 (4.VI.) of 2012. The changes to the NAT in 2012 retained the basic structural elements, but there was a change in the regulation. The normative regulatory paradigm resulted in an emphasis on moral values in literacy education and the strengthening of national and social bonds. (Hoffmann, 2012). Definite content regulation was implemented, with intervention at the level of institutional educational processes. The use of the framework curriculum became compulsory again, the textbook market became more limited, and the complex system of school inspections was established. Some parts of the NAT were modified in 2018 and again in 2020. Its requirements set out the essential values found in the Constitution, the Public Education Act, international conventions on human rights, freedom of conscience and religion, children's rights, and national and ethnic minorities.

The framework curriculum is the highest-level content regulator linked to the NAT and is an intermediate regulator between local curricula and the framework curricula. The framework curricula for each type of school define the content to be taught in two-year cycles, the basic hours per subject area per two-year period and the compulsory basic weekly hours and maximum hours per year. The institution is free to manage 10% of the subject timetable. Although the National Curriculum is the highest-level document for regulating the content of education, it has no direct impact on the teaching-learning process in the classroom. The NAT works through a hierarchy of planning: the highest level is the framework curriculum, the set of programmes, from which the local curriculum is drawn up and the teachers write the annual subject programme and the curriculum. The theoretical and conceptual underpinning of public education is its main task, and it is formulated by means of legislation the main national objectives, the areas of education, the main stages and the related development tasks (Szabó, 2007).

### *Innovative Public Education Programme in Slovakia (IÁOP)*

According to the Law on Public Education No. 245/2008 (Zákon č. 245/2008 Z.z. o výchove a vzdelávaní), the state curriculum is the highest hierarchical curriculum document in Slovakia for each level of education, developed in accordance with the international standard for the regulation of education and training. It defines the objectives and standards for pre-primary education, as well as the objectives, framework curricula and educational standards for primary, secondary and higher vocational education, in order to provide the basis for the acquisition of key competences for lifelong learning as defined by the European Commission. National curricula can be broken down into learning cycles (Ministerstvo školstva, vedy, výskumu a športu, 2018).

In Slovakia, national curricula are published by the Ministry of Education, Science, Research and Sport of the Slovakian Republic. Act No 415/2021 amending the Public Education Act No 245/2008 on education and training brought about a fundamental change in the Slovakian school system. It defined the concepts of national education, national school, national class, national school institution. It changed the structure of school education programmes: the title of the educational programme, the specific objectives of education and training. It introduced the concept of the educational cycle, which is reflected in the text of framework curricula, educational standards, curricula and syllabuses (Zákon č. 415/2021 z 20. októbra 2021, ktorým sa mení a dopĺňa zákon č. 245/2008 Z. z. o výchove a vzdelávaní (školský zákon) a o zmene a doplnení niektorých zákonov v znení neskorších predpisov a ktorým sa menia a dopĺňajú niektoré zákony).

Annex 11 to this Act ensures the alignment of the Innovative State Education Programme for Lower Primary Schools, published with effect from 1 September 2022, with the Public Education Act and the Regulation on Primary Schools for schools of national minorities. The Innovative State Education Programme for primary education was supplemented with the specificities of education and training in national minority schools. For minority schools, the programme is characterised by the compulsory teaching of the language and literature of the national minority and Slovakain language and literature. The pedagogical documentation of the school must be bilingual: it must be prepared in the state language and in the language of the national minority concerned (Ministerstvo školstva, vedy, výskumu a športu, 2021).

The structure of the programme is somewhat chaotic, while its length is very long. The IAP introduces the concepts of educational (cultural) standards and framework curricula. Educational standards are defined as requirements that prescribe what children should have mastered and know by the end of a given year. It defines the requirements as specific competences, which include knowledge, aptitude, skills, attitudes and values (Štátny vzdelávací program. Primárne vzdelávanie - 1. stupeň základnej školy, 2015). One of the 3 main components of the programme is the framework curriculum, which is an annex to the IÁOP for Hungarian nationality schools from 2016.

## DIFER

The DIFER (Diagnostic Systems for Assessing Development) programme package for 4–8-year-olds has been available for Hungarian kindergartens and schools since 2004 (Nagy et al., 2004a). The aim of the programme package was to provide teachers with a tool to support the development of skills in kindergarten and school and to help them start school. DIFER is a test system for 4–8-year-olds, consisting of seven tests, which were standardised in 2002 on a sample of about 23,000 children. In this way, the process of skill acquisition between the ages of 4-8 years is known (Nagy et al., 2004b). In Hungary, the DIFER Programme Package is the only standardised test system for teachers to assess the cognitive and social skills of pre-school and primary school children. It is used regularly by more than half of kindergartens in Hungary and is compulsory in the first grade of schools (Józsa, 2022).

The DIFER supports the diagnostic measurement and development of seven basic elementary skills (Józsa, 2016), all of which are considered critical prerequisites for personal development and school learning. The critical elementary skill of literacy acquisition is the coordination of writing movements. Listening to spoken language is essential for beginning to learn to read and write. The development of relational vocabulary is a crucial factor for the reception of linguistically communicated information, the development of elementary numeracy is a crucial factor for learning mathematics, and the development of empirical reasoning and empirical contextual understanding are critical prerequisites for acquiring knowledge, learning and thinking. A further crucial criterion for successful integration and learning at school is the

development of social relationships (with peers and adults), so-called sociality (elementary social motives and skills).

The composite index of the seven DIFER tests is called the DIFER index. The DIFER Index is a single measure of a child's development of the basic elementary skills system, which is also a reliable indicator of school readiness. There is a strong correlation between the DIFER index and intelligence development (Józsa et al., 2022).

A five-level developmental model is used to characterise the process of skills acquisition, from the preparatory, initial, advanced and then final levels to the optimal level. When characterising a child's development, we specify the stage of skill acquisition at which the child is at (Nagy et al., 2004b).

The benchmark for development is the optimal level of skill functioning. Skill development is recommended to continue until the child reaches the optimal level of development. If optimal skill acquisition has not been achieved in preschool, development can continue at school, even in higher grades (Nagy, 2003, 2008).

Successful completion of a test indicates optimal mastery of the skill. This is indicated by a score close to 100% on the test, with thresholds of optimal mastery defined for each skill. It can also be said that the measurement gives the development of children in relation to the optimal development of the skill as a criterion.

The development of the skills measured in the DIFER Toolkit is supported by a series of books that can be used by teachers in kindergarten and school. The books contain methods, games and practical ideas for developing skills. They are methods that have been proven effective in development trials. The methodology for developing listening skills (phoneme perception) is covered in the book by Margit Fazekasné Fenyvesi (2006), which is complemented by a collection of calling pictures and vocabulary cards. For developing social skills, Anikó Zsolnai (2006) has compiled a collection of games. For the development of fine motor skills, the games of Katalin Miskolcziné Radics and József Nagy (2006) can be used effectively. József Nagy (2009) edited a publication on the development of the mother tongue and thinking. This book deals with the methodology of developing relational vocabulary, empirical inference and empirical context management. It includes a collection of 50 stories and group discussions based on them. This collection of stories is the

work of Ágnes Nyitrai (Nyitrai, 2016; Nyitrai & Darvai, 2013). A collection of methods and games for developing numeracy (pre-mathematics) skills gives the level of complexity of the games to be developed according to the five acquisition levels (Józsa, 2014). A collection of games for developing two thinking skills, systematizing and combinative (combinatorial), was published last (Józsa et al., 2017).

## Research Methodology

In our study, we present a comparative analysis of Hungarian and Slovakian school content regulation documents. We compare the new Slovakian Innovative State Education Programme (IÁOP) and the Hungarian National Core Curriculum (NAT) in primary grades 1-4, and the two countries' framework curricula in grades 1-2. The aim of our research is to explore the similarities and differences in the school regulatory documents. For the aforementioned documents, we conducted a content analysis of the text (Hendl, 2016; Skutil, 2011). Our research question was to find out whether there are differences in the national curricula of the two countries in terms of the presentation and development of DIFER skills. We were interested in how the development of competences based on DIFER skills is reflected in the curricula.

A comparative analysis of the content regulation documents was carried out on the basis of a set of criteria focused on general curricula and a specific set of criteria based on DIFER skills.

### *Comparison of the Regulatory Documents of the Two Countries in General Terms*

The analysis was based on the following aspects: the name, scope, structure, content, presentation of key competences, provision for children with special educational needs, nationality aspects, methodological freedom, and the role of the state programme in the development of institutional programmes. In the case of the National Core Curriculum, the use of the word 'plan' in the title suggests greater freedom, whereas in the Slovakian Innovative State Education Programme, the educational activities of teachers are more bound.

The Hungarian NAT is 208 pages in total (Government Decree 110/2012), supplemented by Decree 100/2012.The Slovakian IAPP is 285 pages in total,

but since there are subjects taught only from grade 3 onwards, the total number of pages for grades 1 and 2 is 148 pages less.

Both the Hungarian and Slovakian education systems are two-set, which means that in addition to the core programme, there is also a local programme. In Slovakia, the criterion-oriented education system is more pronounced, meaning that it aims at the fulfilment of a set of requirements prescribed by the state curriculum. The main framework of the Slovakian state curriculum is the unity of the set of requirements, the content of the curriculum and the assessment questions (Podráczky et al., 2022).

Both documents consist of three main parts. In the case of the NAT, Part 1 is "Content regulation and levels of regulation of school education", which includes development areas, educational objectives, and the methodological principles of unity and differentiation. Part 2 is 'Competence development, literacy transmission, knowledge building', which describes the key competences and the areas of literacy. Part 3 is "Material in the areas of literacy" for grades 1-4, 5-8, 9-12 (Government Decree 110/2012). Unit 1 of the Slovakian IÁOP is the "General Part", which contains the general objectives of education and training, names and describes the eight areas of education and the conditions for the development of educational (pedagogical) programmes at schools. It also deals with the provision of educational conditions for children with special educational needs. In the second unit, the educational standards are presented: separately, as subjects. In addition to the description of the subjects and their objectives, the performance standards of the subjects are defined as output targets in the form of expected minimum development requirements per grade. In parallel, the curriculum content is briefly described in the form of key words. Finally, the third part is the framework curriculum for national schools, published in 2016 and also annexed to the IAP. It defines the number of hours for each subject. The table below (Table 1) illustrates that the NAT contains 10 areas of learning and the IAPC defines 8 areas of learning.

*Table 1. NAT fields of education and IAPC fields of education*

| NAT fields of education | | IÁOP education areas | |
|---|---|---|---|
| 1. | Hungarian language and literature | 1. | Language and communication |
| 2. | Mathematics | 2. | Mathematics and information management |
| 3. | Man and nature | 3. | Man and nature |
| 4. | Man and society | 4. | Man and society |
| 5. | Our Earth - our environment | 5. | People and values |
| 6. | Lifestyle and practice | 6. | People and the world of work |
| 7. | Arts | 7. | Arts and culture |
| 8. | Physical education and sport | 8. | Health and physical exercise |
| 9. | Foreign languages | | |
| 10. | Informatics | | |

The main similarity between the two documents is the threefold structure and the presence in each of them of fields of competence/areas of learning and key competences (Table 2).

The Slovakian state education programme defines the requirements as specific competences, which include knowledge, aptitude, skills, attitudes and values. As an output, it defines the key competences that learners should have. While the key competences are more detailed in the Slovakian curriculum, the Hungarian NAT presents them in the same formulation as defined by the European Commission in 2019 (European Commission, 2019). However, the content of the defined key competences is the same in both countries, which means that primary education and training in both countries follows the philosophy of European education policy, i.e. it focuses on the development of key competences for lifelong learning as defined by the European Commission.

*Table 2. NAT and IAP key competences*

| NAT key competences | IÁOP key competences |
|---|---|
| • Communication in your mother tongue<br>• Foreign language communication<br>• Mathematical competence<br>• Scientific and technical competence<br>• Digital competence<br>• Social and civic competence<br>• Initiative and entrepreneurship<br>• Aesthetic-artistic awareness and expression<br>• Effective, independent learning | • Know and use effective learning methods,<br>• Express yourself coherently in your mother tongue and in the official language, both orally and in writing,<br>• Understand basic English vocabulary and be able to use it in different situations,<br>• Use basic mathematical thinking to solve problems in everyday life,<br>• In the course of your learning, use selected information and communication technologies and be aware of the risks and dangers associated with the use of media and the internet,<br>• Learn the basics of critical thinking when working with information,<br>• Apply the knowledge you have acquired in science and social studies to carry out certain activities and to care for yourselves and others.<br>• Recognize and reflect on the causes of problems at school and in your immediate environment, and propose solutions according to your current knowledge and experience.<br>• Respect yourself and others. Communicate and cooperate in a friendly manner.<br>• Behave in a civilized way in different situations and circumstances.<br>• Be attached to the cultural - historical heritage, traditions and arts that you encounter in your life.<br>• Be tolerant, understand others. Know and accept cultures, traditions and ways of life that are foreign to you.<br>• Be aware of your rights and obligations and respect the rights of others |

However, there is a significant difference between the two documents in terms of content. The composition and naming of the learning areas are similar.

The NAT integrates the life skills education domain into the educational content of the first stage of primary school. From the perspective of lifelong learning, this area is mainly about the development of the so-called soft skills that learners will need in later work (Majid et al., 2012). The Hungarian document emphasises that primary school education should be based on the application of knowledge and skills in different learning situations, in relation to real life. There are also differences in the subject areas and their placement in the grades. Foreign language, English, is taught from grade 3 in Slovakia, while in Hungary English or German is only introduced in grade 4.

The most striking difference is the way the content of the teaching requirements for the subjects is handled. In Slovakian education, the educational standards only define the characteristics, the subject objectives and the performance and content requirements, whereas the Hungarian educational level defines not only the subject objectives but also the developmen of specific competences within the subject. The programme prescribes the specific subject areas, together with their timing, the subject learning outcomes in terms of the achievements to be known and attained by the learner at the end of grades 1 to 2, and the development activities and knowledge. It defines specific concepts and recommended activities and tasks. Compared to the Slovakian educational document, the Hungarian one elaborates in more detail the content of each subject, which guides and regulates the teacher's teaching activities. The third parts of the above curriculum documents also differ from each other. In the Slovakian curriculum, it consists of a framework curriculum that defines the weekly timetable for teaching subjects in each grade. The Hungarian NAT does not present the timetable for teaching the subjects as a separate section. The third part of the Hungarian NAT is the glossary of terminology mentioned above.

### *Comparison of the Two Countries' Regulatory Documents in Terms of the Emergence of DIFER Skills*

For the analysis, we first translated the DIFER skills into analytical criteria. We identified the ways of representation in curricula and regulatory documents. This was necessary because the naming of the DIFER skills carries a specific content, which needed to be matched with content that could be analysed in

curricula to infer the potential for developing the skill. The resulting mapping sequence per skill is summarised in Table 3.

*Table 3. Criteria for the curricular representation of DIFER skills*

| DIFER skills | Analytical criteria for DIFER skills |
|---|---|
| Fine motor skills | Preparation for learning to write. |
| Phoneme perception | Speech development, reading preparation, teaching reading. |
| Relational reasoning | Vocabulary, vocabulary development, relations, comparison, relational vocabulary. |
| Pre-maths skills | Basic mathematical skills, number sense, numeracy, number concepts, basic operations. |
| Deductive reasoning | Linguistic logic, logical operation, inference. |
| Empirical context-understanding | Linguistic logic, context, oral and written comprehension. |
| Social skills | Basic moral sense, relationship with peers, relationship with teacher, commitment to task, task attitude, attitude to task, perseverance, emotional attitude, concentration. |
| Conceptual thinking-systematization of knowledge | Mathematical reasoning, forming sets, classifying into sets, comparing sets, recognising properties of elements in sets, sorting, ordering. |
| Combinative or combinatorial thinking | Mathematical thinking, combinatorics, combinations, combining, variation, permutation. |

As regards the general aspects, we have already noted that there are substantial differences in the content of the curricula of the two countries. We have tried to adapt the specific aspects of the analysis accordingly. In the present analysis, we first focus on the general objectives of the two highest level regulatory documents, the Hungarian National Core Curriculum and the Slovakian Innovated State Education Programme, and then we include the Hungarian Framework Curricula in our analysis.

The development areas of the NAT include educational objectives that represent the core values in the pedagogical process in a comprehensive way, are integrated into the content of subjects, can be presented as a separate subject and play an important role in determining the purpose of extra-curricular development (NAT, 2012). As an overarching educational objective, moral education is in itself directly linked to one of the dimensions of the DIFER

social skills framework, basic moral sense. The NAT identifies the development of children's moral sense as a fundamental goal of public education, and mentions the development of compassion and helpfulness as essential skills, which are also included in the DIFER subtest measuring the development of moral sense as the subject of a story examining moral sense (Nagy et al., 2004b). Among the goals of moral education, we find the education for independent thinking as a comprehensive goal, in which the development of both linguistic and mathematical thinking skills is reflected. The DIFER skills include two linguistic reasoning skills: empirical inference and empirical contextual understanding, and two mathematical reasoning skills: elementary systematic and elementary combinatorial skills. Each of these skills is based on the development of independent thinking.

The development of independent thinking, creative and critical thinking, analytical skills and the culture of debate also rely heavily on the linguistic reasoning skills defined as basic skills in DIFER (NAT, 2012). The above-mentioned linguistic skills are directly related to deductive reasoning schemes, the conscious use of which contributes to the development of analytical, proof and refutation skills (Nagy et al., 2004b). Within the development of self-knowledge and social culture, the NAT sets the development of comprehensive skills, abilities and competences, and the development of knowledge areas as its goal. In addition, through the development of self-awareness, the development of human relations, respect and understanding of other people is specifically highlighted (NAT, 2012). This priority is found in the social skills framework of DIFER, and the relationship with peers and the teacher is assessed in several cases during the test-taking. Specific observation criteria are included for these areas. During small group activities (taking the writing coordination test in groups of 4), and children are observed to what extent they can respect each other's work and to what extent they disturb each other. The relationship with the teacher is assessed before each individual assessment on the basis of how proactive, indifferent or reluctant the child is after the encounter with the adult (Nagy et al., 2004b).

Within the educational objectives, there are also aspects on DIFER skills in the career guidance objectives. Today, when choosing a career, it is very important that students learn to work in teams, develop their ability to cooperate, learn behaviours that can help them in competition and leadership,

and increase their willingness to compromise (NAT, 2012). Among the cooperative skills and skills that underpin effective task performance mentioned here, the DIFER sociality test includes several observational aspects. The assessment of task engagement, perseverance, emotional attitude towards the task, concentration, together contribute to the achievement of the educational goals formulated in the career guidance (Nagy et al., 2004b).

As we have already pointed out, the structure and content of the Slovakian IAP differs significantly from the Hungarian NAT. If we take the specific aspects of DIFER competences as a starting point, they do not appear in the form of overarching objectives, but are embedded in specific subject content, within which they are embedded in the form of requirements.

For example, the IARP sets specific development targets for literacy lessons, such as "being able to write letters and Arabic numerals correctly (uppercase and lowercase letters, as well as numbers) in a patterned way" as an output requirement by the end of Grade 1 (Inovovaný Štátny vzdelávací program, 2016). This specific developmental goal can obviously only be achieved if the skill of writing motor coordination (fine motor skill) is functioning, since learning to write letter elements, letters and numbers can only be ensured under appropriate fine motor conditions. In reading, the exit requirements at the end of grade 1 include:

- Distinguishes between sound and letter,
- Can distinguish and pronounce short and long vowels and consonants,
- Can connect sounds into syllables and then into words, can divide words into syllables, which can then be broken down into sounds. Reading by the end of grade 2
- Can differentiate between vowels and consonants,
- Can distinguish between short and long vowels and consonants,
- Raises awareness of the altered meaning of the word in the case of long and short vowel and consonant substitutions (Inovovaný Štátny vzdelávací program, 2016).

The end of Year 1 and Year 2 outcome requirements are specific learning objectives, which clearly reflect the ability to listen to spoken language. These outcome requirements could not be achieved without the use of speech-language hearing (phoneme perception).

The development requirements include the development of DIFER skills in all subjects, but with a particular focus on pre-mathematics, Hungarian language and literature and ethics. For example, the specific requirements for the content of relational vocabulary are concretised in the mathematics subject in the first year of school on the number range of 20 and in the second year on the number range of 100. Relational reasoning in which concepts relating to the orientation within the number sequence are also used: before, after, immediately before, immediately after, penultimate, last, next, previous, ascending number sequence (from the smallest number to the largest number), descending number sequence (from the largest number to the smallest number). In the first year in geometry, the content standards focus on the acquisition of the terms right, left, up, down, up, down, under, in, in, forward, back, side, middle, front, back and also comparative terms: longer, shorter, taller, shorter, wider, narrower, longest, shortest.

Expectations for sociality at the end of Year 1 are set by the performance standards of the subject Ethics Education (an optional subject in parallel with Religious Education). For example, by the end of the first year, the pupil is able to participate in the establishment of group rules; he/she is able to give examples of respect for parents, teachers and classmates; he/she is able to express gratitude, requests and apologies appropriately; he/she is able to follow group rules; he/she is able to respect classmates and he/she is able to demonstrate the importance of self-control in interpersonal relationships.

The above examples have been used to highlight that there are significant differences between the two countries' highest level curricular documents and that the development of DIFER skills is embedded in these documents in very different ways.

## CONCLUSION

The decisive role of the initial phase of schooling has been the subject of a series of studies. This period is of particular importance for children's personality development, later school performance, motivation and success (Józsa et al., 2022). In Hungary, most kindergartens and schools use the DIFER package of tests before starting school and during the first year of school to get an objective picture of children's cognitive and social skills. DIFER tests provide accurate

information on the basic skills that are essential for progress at school. We are not aware of any previous research that has comprehensively reviewed school regulatory documents to determine whether DIFER skills are reflected directly or indirectly in content regulators. In our analysis, we therefore attempted to do so, linking it to our previous research comparing the development of basic skills of Hungarian and Slovakian children in Slovakia. In our study we analysed the representation of DIFER skills in Hungarian and Hungarian content regulation documents in Slovakia.

We compared the new Slovakian Innovative State Education Programme (IÁOP) and the Hungarian National Core Curriculum (NAT) for primary school grades 1–4 and the framework curricula for grades 1–2. A comparative analysis of the content regulation documents was carried out on the basis of a set of criteria for general curricula and a specific set of criteria based on DIFER skills. Our aim was to explore the similarities and differences in the school regulatory documents.

Based on our analysis, we found that the curricula of the two countries differ in content and structure. We found similarities in the presentation of some key competences, although the key competences are found in different structural elements of the regulators. Aspects related to the development of DIFER skills appear at several levels in the Hungarian regulators, while the Slovakian documents mainly contain standards adapted to the level of knowledge. In the Hungarian curricula, DIFER skills are typically found in the overall objectives and development requirements, while in the Slovakian curricula they are explicitly embedded in the content of the subjects, in the form of requirements.

Based on our content analysis, we found that there are far more differences than similarities between the two countries' curricula for grades 1–2. These differences may have an impact on children's skill development in the foundation stage of school, which may also affect children's cognitive and social skills development in later years of school.

In Hungarian kindergarten and school practice, teachers have been using the DIFER tests for almost 20 years. At the beginning of each school year, first-grade teachers are required to assess the basic skills of children for whom they consider it necessary on the basis of their experiences in kindergarten or first school. In a significant number of schools, all first-graders are assessed using

the DIFER Package. For Hungarian children in Slovakia, this test-taking protocol is not part of pedagogical practice.

The aforementioned differences in pedagogical diagnosis are not reflected in the comparison of curricula. In Hungary, DIFER has been present in pedagogical diagnostics for 20 years, yet the development of DIFER skills is not directly mentioned in the Hungarian curricula, the acronym "DIFER" itself and the name of the skills are not mentioned at all in the Hungarian content regulation documents. However, the results of our previous longitudinal research over eight years confirmed that the development of DIFER skills in kindergarten significantly predicts later text comprehension and mathematics achievement (Józsa et al., 2022). These results also provide evidence that DIFER skills could be given more emphasis as an area for development in any future curriculum modifications in both countries.

## REFERENCES


Bárdossy, I. (2006). *A curriculum fejlesztés elméleti és gyakorlati kérdései*. [Theoretical and practical questions of developing curriculums]. PTE BTK Neveléstudományi Intézet.

Chrappán, M. (2022). A NAT evolúciója. [Evolution of NAT]. *Educatio*, *31*(1), 30–47. https://doi.org/10.1556/2063.31.2022.1.3

European Comission (2019). *Key competences for lifelong learning*. Publications Office of the European Union, Luxembourg.

Faragó, Á. (2013). *Civil szervezetek szerepe a felnőttképzésben*. [The role of civil organizations in adult education]. SZTE JGYPK.

Fazekasné Fenyvesi, M. (2006). *A beszédhanghallás fejlesztése 4–8 éves életkorban* [Games and methods for improving phoneme perceptionin ages of 4–8]. Mozaik Kiadó.

Halász, G. (2003). *Az oktatáspolitikák európai szint koordinációja, ennek várható hatásai és Magyarország felkészültsége az ebben való részvételre*. [Coordination of education policies at the European level and its expected effects and Hungary's readiness to participate in it]. TÁRKI. https://www.tarki.hu/adatbank-h/kutjel/pdf/a521.pdf

Hendl, J. (2016). *Kvalitativní výskum. Základy teorie, metody a aplikace*. [Qualitative research. Theoretical fundaments, methods and implementation]. Portál.

Hoffmann, R. (2012). Amit meg kell valósítanunk. [All that we have to manifest]. *Új Pedagógiai Szemle*, *62*(1–3), 3–4.

Józsa, K. (2016). Kihívások és lehetőségek az óvodai fejlesztésben [Challenges and possibilities in preschool education]. *Iskolakultúra, 26*(4), 59–74. https://doi.org/10.17543/ISKKULT.2016.4.59

Józsa, K. (2014). *A számolás fejlesztése 4–8 éves életkorban* [Games and methods for improving pre-math skills in ages of 4–8]. Mozaik Kiadó.

Józsa, K. (2022). Óriáslépések a pedagógiában: az óvodás és kisiskolás gyermekek fejlesztése. [Giant steps in pegagogy: The development of preschool and primary level children]. *Iskolakultúra, 32*(11), 55–68. https://doi.org/10.14232/iskkult.2022.11.55

Józsa, K., Amukune, S., Zentai, G., & Barrett, K. C. (2022). School readiness test and intelligence in preschool as predictors of middle school success: Result of an 8-year longitudinal study. *Journal of Intelligence*, *10*(3), 66. https://doi.org/10.3390/jintelligence10030066

Józsa, K., Zentai, G., & Hajdúné, H. K. (2017). *A gondolkodás fejlesztése 4–8 éves életkorban. Kézikönyv és mérőeszközök* [Methods for improving thinking skills in ages of 4–8.]. Mozaik Kiadó.

Nemzeti Alaptanterv (2012). [National Curriculum]. *Magyar Közlöny*, *66* 10635–10848.

Majid, S., Liming, Z., Tong, S., & Raihana, S. (2012). Importance of soft skills for education and career success. *International Journal for Cross-Disciplinary Subjects in Education*, *2*(2), 1037–1042. https://doi.org/10.20533/ijcdse.2042.6364.2012.0147

Ministerstvo školtsva, vedy, výskumu a športu Slovenskej republiky (2018). Národná klasifikácia vzdelania. [National classification of education]. MŠVVaŠ SR.

Ministerstvo školtsva, vedy, výskumu a športu Slovenskej republiky (2022). Dodatok č. 11, ktorým sa mení a zosúlaďuje so znením školského zákona a vyhlášky o základnej škole štátny vzdelávací program primárne vzdelávanie – 1. stupeň základnej školy s účinnosťou od 1. septembra 2022. MŠVVaŠ SR [Addendum no. 11, which amends and

harmonizes with the wording of the Education Act and the decree on elementary school the state education program primary education - 1st grade of elementary school with effect from September 1, 2022]. MŠVVaŠ SR.

Miskolcziné Radics, K., & Nagy, J. (2006). *Az írásmozgás-koordináció fejlesztése 4–8 éves életkorban* [Methods for improving fine motor skills in ages of 4–8]. Mozaik Kiadó.

Nagy, J. (2003). Az eredményesebb képességfejlesztés feltételeiről és lehetőségeiről. [About the conditions and possibilities of more effective skill development]. *Iskolakultúra, 13*(8), 40–52.

Nagy, J. (2008). Az alsó tagozatos oktatás megújítása. [Innovation of the primary level education]. In K. Fazekas, J. Köllő & J. Varga (Eds.), *Zöld könyv a magyar közoktatás megújításáért* [Green book for the renewal of Hungarian public education] (pp. 53–69). ECOSTAT.

Nagy, J. (2009). *Fejlesztés mesékkel: Az anyanyelv, a gondolkodás fejlődésének segítése mesékkel 4–8 éves életkorban* [Improvement by tale stories: Methods for improving language and thinking skills in ages of 4–8]. Mozaik Kiadó.

Nagy, J., Józsa, K., Vidákovich, T., & Fazekasné Fenyvesi, M. (2004a). *DIFER Programcsomag: Diagnosztikus fejlődésvizsgáló és kritériumorientált fejlesztő rendszer 4–8 évesek számára* [DIFER: Diagnostic system of assessment and criterion-referenced improvement between the ages of 4–8.]. Mozaik Kiadó.

Nagy, J., Józsa, K., Vidákovich, T., & Fazekasné Fenyvesi, M. (2004b). *Az elemi alapképességek fejlődése 4–8 éves életkorban.* [The development of elementary skills between the ages of 4 and 8]. Mozaik Kiadó.

Nahalka, I. (2020). A közoktatás tartalmi szabályozása. [Content regulation of public education]. *Educatio, 15*(1), 77–90.

Nyitrai, Á., & Darvai, S. (2013). A mese és a játék jelenléte a kisgyermekes családok letében. [Meaning of fairy tales and games in the lives of families with small children]. *Iskolakultúra, 23*(11), 73–85.

Nyitrai, Á. (2016). Mese és mesélés. [Fairy tales and telling fairy tales]. *Iskolakultúra, 26*(4), 75–83. https://doi.org/10.17543/ISKKULT.2016.4.75

Perjés, I. & Vass, V. (2009). A curriculumelmélet műfaji fejlődése. [Genre development of curriculum theory]. *Új Pedagógiai Szemle, 58*(3), 3–10.

Podráczky, J., Hajduné Holló, K., Borbélyova, D., Nagyova, A., & Józsa, K. (2022). A magyarországi és a szlovákiai Óvodai Nevelési Program összehasonlító elemzése. [Comparative analysis of Hungarian and Slovak Kindergarten Education Program.] *Danubius Noster, 10*(4), 107–132. https://doi.org/10.55072/DN.2022.4.107

Skutil, M. (2011). *Základy pedagogicko-psychologického výzkumu pro studenty učitelství*. [Basics of pedagogical-psychological research for teacher students]. PORTÁL.

Štátny vzdelávací program (2015). Primárne vzdelávanie - 1. stupeň základnej školy [Primary education - primary level].

Szabó, M. (2007). A NAT 2003 hatása az osztályteremben. [Impact of NAT in the classroom]. In Z. Kerber (Ed.), *Utak elmélet és gyakorlat között* [Paths between theory and practice: From the National Core Curriculum to the classroom] (pp. 123–133). Oktatáskutató és Fejlesztő Intézet.

Zákon č. 245/2008 Z. z. o výchove a vzdelávaní (školský zákon) a o zmene a doplnení niektorých zákonov, 2008.

Zákon č. 415/2021, ktorým sa mení a dopĺňa zákon č. 245/2008 Z. z. o výchove a vzdelávaní (školský zákon)

Zsolnai, A. (2006). *A szocialitás fejlesztése 4–8 éves életkorban* [Methods for improving social skills in ages of 4–8]. Mozaik Kiadó.