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Validating a Critical Thinking Questionnaire for Young Adolescents: A Preparatory Study for a Longitudinal Research

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Abstract
In the context of globalization, education systems, including those in Slovakia, are increasingly tasked with creating productive learning environments that integrate life and academic skills. Thus, we aim to validate and establish the reliability of an adapted questionnaire designed to measure the development of critical thinking among young adolescents in Slovakia. The study employs a mixed-methods research which included expert evaluations, pilot testing, and a statistical analysis to assess both the content validity and the internal consistency of the instrument. The research addresses a significant gap in educational studies, as no existing tool currently meets this specific need in the Slovak context. Grounded in a comprehensive theoretical framework, the research explores critical thinking as an essential educational skill. It examines cognitive, moral, and psychological characteristics of young adolescents to ensure the tool's demographic relevance. The adapted questionnaire demonstrated a strong internal consistency (Cronbach's alpha = 0.81) and positive expert validation ratings, confirming its suitability for the targeted population. The findings have established a reliable instrument for assessing critical thinking development and contribute to the broader discourse on enhancing educational practices. The study concludes with some recommendations for future research on applying the validated tool in educational settings to measure critical thinking development of young adolescents over time and to include targeted interventions into Slovak school curricula.

Keywords: Critical thinking questionnaire, English as a foreign language, instrument validation, and development, young adolescents, intervention program, reading comprehension, assessment, Slovak educational context

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Introduction

Critical thinking (CT) is considered an essential skill in the 21st century and has long been a subject of interest in educational, psychological, and psycholinguistic research. The stated research focus reflects a broader trend in education that seeks to prepare students not just for academic success but for active and well-informed fitting in the global society. Rather than simply acquiring relevant knowledge, students now critically evaluate information, make decisions, and solve problems creatively. In response to these demands, instructional strategies have evolved significantly. Several studies (Sarkoohi et al., 2024; Song, 2024; Li et al., 2024; Orosz et al., 2024) indicate that current studies focusing on the development of CT have emphasized innovative approaches to CT development among students in various fields. The studies have highlighted that developing students' CT abilities and attitudes requires intentional action rather than just assuming they will grow naturally. To prioritize the development of CT skills, it is a must for educators to intentionally include issues related to the development of CT in curricula and address them through targeted training for both the pre-service and in-service teachers. This trend is evident in recent studies that have underscored the importance of innovative and interactive methods in achieving these goals (Alzubi & Singh, 2024; Alhamami, 2024).

While technological advances have transformed teaching practices, the challenge of measuring CT outcomes has remained unchanged. Existing measurement tools are often limited in scope or fail to address the unique developmental, cultural, and linguistic needs of specific student populations. For example, standardized assessments designed for one context may not fit or transform effectively to others, which leads to inaccuracies or superficial evaluations of CT abilities. As a result, research on CT comes with significant constraints. Without reliable and appropriate measurement tools, it is difficult for educators and researchers to measure the actual impact of their instructional efforts. This disconnect has slowed the progress in understanding how CT develops, what factors influence its growth, and how educational practices can support its development more effectively.

In Slovakia, as in many other countries, this gap is particularly evident in the education of young adolescents. While there is a growing focus on integrating CT development into teaching practices, the existing tools for measuring these skills are often outdated or do not match the specific cultural and educational context. This shortfall limits the ability to track the progress of educational reform. Therefore, educators and researchers face significant obstacles in aligning teaching practices with measurable outcomes, leaving a critical gap between theory and practice.

The study seeks to address this gap by testing the suitability of an adapted version of Honey's (2004) critical thinking questionnaire for the Slovak lower secondary school context. More specifically, it examines whether the tool offers valid and reliable data from assessing young adolescents CT development, while taking into account their cognitive profiles and sociocultural background. In doing so, the research contributes to a broader effort to equip educators with a tool providing reliable data for evaluating and enhancing critical thinking instruction.

Literature Review

Research on integrating the mobile game *Lumosity: Brain Training* into the educational process for first-year philology students has demonstrated that interactive environments can significantly enhance critical thinking (CT), even with limited screen time (Song, 2024), which aligns with the growing recognition of gamification and digital tools as the effective strategies for engaging students and promoting their cognitive skills. Similarly, a study on Philosophy-Based

Language Teaching has revealed its potential to develop CT and student engagement in English as a foreign language (EFL) teaching and learning settings, supported by positive thematic analyses and improved academic performance (Li et al., 2024). The link between CT and EFL learning is increasingly emphasized, as English language proficiency is the cornerstone of global communication and academic success. According to Li et al. (2024), improving language skills can impact academic performance and personal development, particularly when coupled with strategies that enhance self-esteem, teacher support, and CT, effectively reducing language-related anxiety and shyness.

Despite these advancements, the questions about optimizing the approaches and understanding their long-term impact on students' CT development remain unanswered. Current research studies on CT in education have predominantly focused on adolescents and older school-age students (Orosz et al., 2024; Maree et al., 2023). For instance, Orosz et al. (2024) have explored how family interventions emphasizing prosocial values, such as empathy, cooperation, and respect, enhance older adolescents' (15–19 years) ability to identify fake news. The importance of socio-emotional contexts in CT development has thus been recognized. Similarly, Maree et al. (2023) have investigated the *Street Smarts Talk* model in New Zealand, demonstrating its positive impact on the development of CT among minority and disadvantaged students. These findings emphasize the necessity of tailored educational interventions to address diverse needs.

Recent research supports the effectiveness of interactive and digital learning environments in developing CT. Gökpinar and Yıldız (2025) have demonstrated that using 3D visualization in chemistry lessons significantly enhanced secondary school students' CT skills and scientific attitudes. Their findings have suggested that immersive digital tools can play a transformative role in developing higher-order thinking abilities in educational contexts. Similarly, Zakaria, Hashim, and Zakaria (2023) conducted a systematic literature review on the integration of artificial intelligence (AI) in English as a Second Language (ESL) educational settings and found that AI-assisted learning environments positively influenced the development of CT dispositions among pre-service teachers.

Although the studies highlight contemporary strategies for developing CT of older students, they also reveal a significant lack of research focusing on younger adolescents, particularly those in compulsory education (ages 13–15) in Slovakia. The development of CT during this stage of life is crucial, as it is concerned with pivotal periods of cognitive, academic, and personal growth (Stranovská & Ficzere, 2021). This lack suggests an opportunity for further research in understanding how innovative and interactive educational methods can nurture the CT skills of younger students. Filling in this lack contributes to valuable insights into the developmental trajectory of CT and equips pedagogical practices tailored to the early adolescent auditorium. While international tools designed explicitly for measuring CT exist (Honey, 2005), their applicability to the Slovak educational context is limited due to differences in cultural, linguistic, and curricular phenomena. The lack of a culturally and contextually relevant assessment tool raises a significant challenge for educators and researchers aiming to evaluate and develop CT skills in a specific population.

Developmental Characteristics of Young Adolescents

Adolescence, often described in the literature as a *storm and stress* period (Gadušová et al., 2020), represents a transformative phase marked by significant physical, cognitive, emotional, and moral changes. For younger adolescents, typically aged 13 to 15, this period of life

characterizes self-discovery, emotional volatility, and the development of foundational cognitive and moral capacities that influence their future growth.

Physical and Cognitive Development

The physical changes associated with adolescence include rapid growth, pubertal development, and significant brain maturation, particularly in the prefrontal cortex, which governs planning, decision-making, and social behavior (Caskey, 2014). These shifts often lead to such issues as coordination difficulties or discomfort with the uneven pace of maturation, which can impact self-esteem and peer relationships. Cognitive abilities advance, with adolescents developing abstract thinking, problem-solving, and metacognitive awareness. These capacities lay the groundwork for CT, enabling young people to analyze complex issues and engage them with multiple perspectives (Caskey, 2014). However, low motivation for academic activities, such as reading, remains a challenge that can be mitigated through tailored educational strategies.

Moral and Socio-Emotional Development

During early adolescence, individuals begin to set their moral frameworks, moving away from uncritical acceptance of adult principles and gradually constructing their value systems (Scales et al., 2011). This process is closely tied to their cognitive growth as they reflect on fairness, justice, and ethical dilemmas. Adolescents' idealism and sensitivity to equality often shape their interactions with others, fostering a transition from self-centered perspectives to considering and reflecting on the rights and feelings of others. Gender differences can influence moral reasoning, with boys often prioritizing justice and girls emphasizing interpersonal relationships (Caskey, 2014). Teachers play a crucial role in nurturing this development by creating educational contexts and situations that encourage the exploration and judging of moral dilemmas and the application of democratic values. Emotionally, younger adolescents experience heightened sensitivity, mood swings, and a growing awareness of themselves and their differences from others. These emotional fluctuations, often linked to self-criticism and a heightened response to external feedback, can affect decision-making and social interactions (Scales, 2010). Educators must acknowledge these emotional complexities and create a supportive atmosphere that helps in building resilience and self-awareness.

Challenges and Educational Strategies

Modern digital environments pose unique challenges for adolescent cognitive and psychosocial development. Immediate feedback and visual content from technology can undermine attention spans and memory retention, essential for reading comprehension and CT (Hellström & Beckman, 2021). Adolescent learners often display impulsivity and a tendency to prioritize short-term rewards over long-term planning, necessitating deliberate educational interventions. To address these challenges, teachers should focus their teaching efforts on developing CT through active learning strategies. Encouraging students to highlight key text segments, take notes, or create concept maps can deepen their understanding of reading material while reinforcing memory processes (Gadušová et al., 2020). Furthermore, activities integrating collaborative learning and community engagement, such as peer counseling or service projects, help adolescents apply CT in real, meaningful contexts. The developmental trajectory of younger adolescents underscores the need for educational strategies that align with their unique physical, cognitive, moral, and emotional growth. Teachers should prioritize methods that cultivate CT,

foster moral reasoning, and adapt to the demands of the digital age. Educators can help adolescents navigate the complexities of modern life and emerge as thoughtful, engaged individuals prepared for the challenges of adulthood.

Developing Critical Thinking

Critical thinking (CT) represents the highest level of text comprehension, encompassing a student's ability to analyze a text from both content and linguistic perspectives. This process involves deconstructing the text into several components, analyzing their mutual interrelations, and determining how these components contribute to the overall structure of the text (Szabó, 2024). CT enables students to distinguish essential information from less relevant details, identify the main idea, and synthesize this information into a cohesive whole (Szabó, 2020; Brestenská et al., 2014; Tomčíková, 2013; Vincejová, 2013). According to Gavora (2008), CT involves two interconnected processes: understanding and evaluation. The process of understanding focuses on the content and meaning of the text. At the same time, evaluation consists in comparing the acquired information with prior knowledge and experiences, leading to the creation of new connections and the assessment of the text's quality and the author's communicative intent (Szabó, 2024; Liptáková & Cibáková, 2013; Stranovská & Ficzere, 2020; Gadušová et al., 2020).

CT shares numerous features with reading literacy (Stranovská & Ficzere, 2020). Mental processes essential for comprehensive text understanding, such as inference, synthesis, analysis, and evaluation (Gavora, 1992), are also central to CT. Similarly, reading understood as an interaction between the reader and the text, necessitates thinking and a range of higher cognitive operations that ultimately align with Bloom's taxonomy, including recalling facts, understanding concepts, applying knowledge, analyzing, synthesizing, and evaluating the text (Stranovská & Ficzere, 2020), which underscores the importance of developing critical thinking skills as an integral part of reading instruction, particularly during early adolescence when cognitive capacities are rapidly evolving. Integrating activities that develop CT can enhance students' ability to read with comprehension. These activities encourage engagement with higher mental processes, which are crucial for CT and deeper text processing (ibid.). Larsson (2017) emphasized the importance of developing CT and active learning from an early age. He argued that as cognitive and affective skills evolve, so must CT abilities; otherwise, their development becomes increasingly tricky. This view supports research in education and psychology (Stranovská & Ficzere, 2020; Ennis, 2018).

Advanced reading strategies are essential for fostering deeper comprehension and CT in today's fast-paced, information-driven world. Traditional ways of reading like skimming and scanning, while effective for quick information retrieval, often fail to promote the higher-order cognitive skills required for meaningful engagement with texts. Strategies such as reciprocal teaching and Socratic questioning (Paul & Elder, 2006) address these gaps by encouraging students to actively analyze, evaluate, and interpret information. These methods improve text comprehension and equip learners to critically assess arguments, recognize biases, and articulate their perspectives effectively. Visual and metacognitive strategies provide further support for these objectives. Tools like graphic organizers (Marzano et al., 2001) help students visualize relationships between ideas and synthesize information, while metacognitive strategies encourage self-awareness in the reading process (Szabó, 2024). By planning the use of reading strategies, monitoring, and evaluating their understanding, students can better address comprehension gaps and develop stronger learning habits.

Cooperative learning strategies such as literary circles or book clubs provide additional opportunities for students to engage in discussion and share diverse perspectives on a text. By assigning roles like discussion leader, summarizer, or critic, these activities encourage active participation and the development of CT skills. Structured reading strategies, including SQ3R (Survey, Question, Read, Recite, Review) and its extension SQ4R (adding Relate), further promote higher-order cognitive processes (Gadušová et al., 2020). These methods guide students through pre-reading activities (surveying headings and predicting content), active reading (identifying key points and summarizing), and post-reading activities (reviewing and connecting new information to prior knowledge). Another strategy, REAP (Read, Encode, Annotate, Ponder), focuses on creating annotations to summarize and critically evaluate the text, fostering more profound understanding and metacognitive reflection. By combining these strategies, educators can create a comprehensive framework for developing students' reading comprehension and CT skills. These approaches enhance text interaction and cultivate essential cognitive abilities for lifelong learning.

Besides reading comprehension instruction, CT in EFL classrooms can be developed through diverse, interactive activities encouraging students to analyze, evaluate, and synthesize information. Engaging students in debates, discussions, and problem-solving tasks develops their ability to explore multiple perspectives and construct logical arguments. Project-based learning, media analysis, and role-playing scenarios help students apply CT to real-world contexts while writing activities, such as essays and reflective journals, promote deeper engagement with ideas. Teachers can use ethical dilemmas to challenge students to think beyond surface-level understanding, and interpreting data or infographics sharpens their analytical skills. Also, peer teaching and literary analysis encourage students to evaluate content and communicate ideas effectively. These methods enhance language skills and prepare students for complex, higher-order thinking in academic and everyday contexts.

Methodology

Research Aim

Critical thinking (CT) is one of the crucial skills in education, essential for students' ability to analyze, evaluate, and synthesize information meaningfully. Developing tools to assess this skill effectively is vital for understanding and ensuring its growth in educational contexts. This study focuses on the evaluation of the validity and reliability of a questionnaire adapted and designed to measure CT among young adolescents in Slovakia. The research aims to tailor an existing instrument (Honey, 2004) to meet the specific needs and characteristics of the target population, ensuring its relevance and applicability in the Slovak context. By testing the adapted questionnaire during the preliminary research phase, this study seeks to establish its reliability and validity, creating an effective tool for future research focused on CT development. Considering these variables, we define the following sub-aims:

- to explore the concept of CT by reviewing existing research studies and analyzing their focus areas, methodologies, and findings to build a comprehensive understanding of the field.
- to characterize the target group of young adolescents in Slovakia (prospective objects of the research) from the point of view of their socio-emotional, cognitive, and psychological development, providing a detailed profile relevant to the study's aims.

- to evaluate the reliability and validity of the adapted questionnaire in the preliminary research phase, confirming its suitability as a tool for assessing CT in Slovak educational contexts.

Research Questions

The primary objective of this research has been to adapt and evaluate a questionnaire designed to measure CT of young adolescents in Slovakia. To achieve this, it has been essential to address two key aspects: the suitability of the adapted instrument for the target demographic and its reliability and validity as a measurement tool. Considering this aim, we have defined the following research questions:

- Is the adapted questionnaire (developed by Honey, 2004) suitable for young adolescents in Slovakia?
- Are the data collected from the adapted questionnaire reliable and valid to assess the critical thinking of young adolescents in Slovakia?

Research Sample

The research sample was selected from the available cohort of students at Beethovenova lower-secondary school in Nitra, Slovakia. To ensure homogeneity, the study involved two parallel groups, each consisting of 12 students of similar age (13 ± 1 year) and the same A2.1 language proficiency level according to the Common European Framework of Reference for Languages (CEFR), resulting in 24 participants. These students completed an adapted questionnaire, which was translated into Slovak and tailored to reflect their age group and cultural, linguistic, and curricular aspects. Out of the 24 respondents, 14 were males and 10 females. All participants, except for one with Hungarian language, had Slovak as their mother tongue. The mental development of the students was approximately the same, which contributed to the homogeneity of the sample. As to their academic performance, all 12 students in each group had identical grades in English and Slovak. Knowledge levels within the groups were comparable: half of the students (50%) had similar grades in Slovak and English, while the other half exhibited a minor discrepancy of one or two grade levels, either slightly lower in Slovak or English. This variance underscores the minimal academic differences among the participants.

Instruments

The primary instrument employed has been an adapted version of the CT questionnaire developed initially by Honey (2004). The purpose of selecting this tool was to assess the CT skills of lower-secondary school students reliably and validly, ensuring its suitability for the age and level of cognitive development of the target group.

Procedures

The adaptation of the instrument involved translating the questionnaire into Slovak and tailoring its language and content to match the developmental and linguistic capabilities of young adolescents (12–13 years) in Slovakia. The original questionnaire consisted of items designed to measure key components of CT, including analysis, evaluation, and inference. To ensure validity and reliability of the instrument, it has undergone a multi-step process, starting with a pilot phase, and followed by a preliminary study. In the pilot phase, a small group of five respondents tested the clarity, comprehensibility, and motivational aspects of the questionnaire, in order to introduce

its further revisions and refinements, if needed. The subsequent preliminary study evaluated the formal and content aspects of the instrument, confirming its alignment with theoretical frameworks and previous research findings on CT. The time required to complete the questionnaire has been calculated to 30 minutes, ensuring it is concise enough to prevent cognitive fatigue while allowing students to engage thoughtfully with all items. The final version of the questionnaire was structured to include a balanced number of 10 items, ensuring a comprehensive assessment without overburdening the participants.

The reliability of the instrument has then been tested through internal consistency estimation**,** which, according to Gavora (2010), refers to the extent to which its items measure the same construct and yield consistent results. It is a crucial aspect of reliability, ensuring the instrument produces stable and cohesive data. In this study, the internal consistency of the adapted Critical Thinking Questionnaire has used Cronbach's alpha coefficient, a widely recognized statistical measure for this purpose.

Furthermore, the validity of the research instrument has been ensured through content validity**,** which examines whether its content accurately reflects the construction it aims to measure (Gavora, 2010). The items of the adapted Critical Thinking Questionnaire have been verified so that they appropriately represent the levels of CT. To establish content validity, the adapted questionnaire has been compared with the original standardized instrument developed by Honey (2004), ensuring alignment with its theoretical foundation and constructs. Content validity has been ensured through expert evaluation involving experienced teachers and methodologists. A two-step process was employed to validate the content of the adapted questionnaire. The experts reviewed each item to evaluate its alignment with the construction of CT, ensuring that it reflects key dimensions such as analysis, evaluation, and inference. Moreover, the adapted questionnaire has been systematically compared to the original standardized tool by Honey (2004). The comparison has guaranteed the adaptation retains the core theoretical dimensions of CT and has addressed the specific needs of young Slovak adolescents, such as language suitability and cultural relevance.

Results

To determine the internal consistency of the questionnaire, Cronbach's alpha coefficient was calculated (Table 1). The overall alpha value was 0.81, indicating a high level of internal consistency, which confirms that the items in the questionnaire are aligned and measure the CT construct reliably across different respondents. The item-total correlation analysis revealed that all items contributed to the overall reliability, with correlations ranging from 0.42 to 0.68.

Table 1. *Calculation of the reliability of the adapted Critical Thinking Questionnaire*

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL
4	4	5	3	3	4	3	3	3	5	37
4	3	4	4	3	3	3	4	4	2	34
4	2	5	5	3	3	4	3	2	2	33
3	2	4	2	4	2	4	5	5	3	34
2	3	4	4	1	2	4	2	5	3	30
3	4	4	4	4	2	3	3	4	3	34
3	3	4	4	5	5	3	4	4	3	38
2	4	3	4	4	2	3	3	4	4	33

1	4	5	5	4	4	4	4	4	4	39
2	3	4	3	3	3	3	2	3	2	28
4	3	2	5	3	4	2	3	2	2	30
3	2	1	2	1	2	3	3	2	2	21
3	3	2	4	3	4	4	1	1	1	26
3	3	1	3	3	3	4	4	3	3	30
2	3	2	3	2	4	4	2	3	2	27
2	1	3	2	2	3	3	2	1	1	20
5	4	5	3	3	5	3	4	3	4	39
3	2	3	2	2	3	4	3	2	2	26
5	3	5	4	4	5	4	4	3	4	41
3	4	4	3	3	4	4	3	3	3	34
3	4	4	4	3	2	2	2	2	2	28
4	4	5	3	3	4	4	3	3	3	36
2	5	3	2	3	5	3	3	3	5	34
5	3	3	5	3	4	3	2	4	2	34
								Variance		37,477
1,333	1,114	1,697	0,879	0,333	0,879	0,455	0,932	0,811	1,515	9,947
									Alpha	0,816

Note. Q = Question

The expert evaluation demonstrated a high degree of consensus regarding the relevance of the questionnaire items. As Gavora (2010) emphasizes, it is essential for evaluators need to be well-acquainted with the original standardized measurement tool during the adaptation process. Each item in the questionnaire was assessed for its relevance to CT using a scoring scale as follows:

- Essential (4 points)
- Important (3 points)
- Slightly important (1 point)
- Not important at all (0 points)

Only items with the highest scores were included in the final version of the questionnaire. Approximately 85% of the items were rated as essential or important, indicating strong agreement among the experts about their alignment with the CT construct. Items with lower ratings were reviewed and either revised or excluded to enhance the overall coherence of the questionnaire. In addition to expert reviews, feedback from respondents during the pilot and preliminary study phases supported the questionnaire's content validity. Respondents found the items transparent, relatable, and reflective of real-life scenarios requiring CT. The feedback confirmed the instrument's content is consistent with the cognitive and linguistic capabilities of young Slovak adolescents.

Discussion

This study aimed to address two primary research questions: How suitable is the adapted questionnaire (developed by Honey, 2004) for young adolescents in Slovakia? Is the adapted questionnaire reliable and valid for assessing the critical thinking of young adolescents in Slovakia? The findings provide clear and comprehensive answers to these questions.

Related to the suitability of the questionnaire, has thoroughly been explored through respondent feedback and expert evaluation. The results revealed that the adapted questionnaire suits young Slovak adolescents. Respondents reported that the language and instructions were clear, the questions were engaging, and the items were appropriate for their age and cognitive level. This suitability was further supported by experts who evaluated the content and confirmed its alignment with the developmental and educational needs of the target population. These findings align with our theoretical basis, which emphasizes the development of CT skills and the need for reliable and valid assessment tools. By adapting the questionnaire to the Slovak context, the study ensured its practicality and relevance for meaningful educational use.

The reliability and validity of the instrument has been addressed and answered through statistical and qualitative analyses. The Cronbach's alpha coefficient of 0.81 demonstrated high internal consistency, indicating that the items cohesively measure the construct of CT. Additionally, content validity has been established through a systematic expert evaluation process, which has ensured that the questionnaire represents theoretical integrity while being adapted to the Slovak context. Experts rated the items based on their relevance to CT, and only the most significant items have been included in the final version. This validation process aligns with the established practices in instrument adaptation and supports the instrument's reliability and validity.

Despite the strengths mentioned above, the study has some limitations. The small sample size of 24 respondents, while sufficient for a preliminary study, limits the generalizability of the findings. Future research involving a larger and more diverse sample would increase the reliability of the conclusions and allow for more general analyses. Another limitation lies in the reliance on evaluations of experienced teachers and methodologists for content validity. Incorporating a broader range of perspectives, such as those from psychologists or curriculum specialists, could enhance the comprehensiveness of the evaluation process. Nevertheless, this study contributes to the understanding of CT assessment by addressing a specific research gap: the lack of validated tools for testing young Slovak adolescents. By adapting and validating the questionnaire tailored to this demographic, the study provides a base for future research and practical applications in Slovak educational contexts.

Conclusion

This study demonstrates the importance of adapting and validating assessment tools that reflect the specific cultural, linguistic, and developmental characteristics of young adolescents in a country, in this case, Slovakia. The research addressed a significant lack of such tools in assessing the Slovak educational context, and by focusing on the adaptation of the Critical Thinking Questionnaire, it provided a reliable and valid instrument suitable for the Slovak educational context. The adaptation process was grounded in theoretical considerations and their practical application, which ensured the instrument's relevance to the target group's cognitive profiles.

The findings have confirmed that the validated questionnaire can serve as an effective means for assessing the critical thinking skills of lower-secondary school students. Moreover, the study highlights the value of culturally and contextually sensitive tools in supporting meaningful educational evaluation and research. These insights contribute to a more accurate understanding of critical thinking development and support future efforts to strengthen the teaching practices to develop higher-order thinking skills.

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Appendices
Appendix A: Critical Thinking Questionnaire

Dotazník kritického myslenia Mgr. Ivana Poulíková Úvod Milí siedmaci, v rámci našej štúdie, ktorá sa zaoberá rozvojom čitateľských zručností a kritického myslenia v anglickom jazyku, vás prosíme o vyplnenie tohto dotazníka. Tento dotazník nám pomôže pochopiť, ako rozvíjate svoje kritické myslenie pri čítaní textov a ako reagujete na rôzne informácie. Vaše odpovede sú veľmi dôležité, preto vás prosíme, aby ste odpovedali úprimne a pravdivo. Dotazník je anonymný, a všetky získané údaje budú použité iba na vedecké účely. Ďakujeme vám za váš čas a ochotu zúčastniť sa na tomto výskume. Inštrukcie V dotazníku nájdete rôzne výroky, ktoré sa týkajú vašich zvykov spojených s kritickým myslením. Pre každý výrok sa snažte posúdiť, ako často sa u vás daný spôsob myslenia alebo správania vyskytuje. Použite nasledujúcu škálu: Nikdy – tento spôsob myslenia alebo správania sa u vás vôbec neobjavuje. Zriedkavo – tento spôsob myslenia alebo správania sa u vás objavuje len veľmi zriedkavo. Niekedy – tento spôsob myslenia alebo správania sa u vás objavuje občas. Často – tento spôsob myslenia alebo správania sa u vás objavuje pravidelne. Vždy – tento spôsob myslenia alebo správania sa u vás objavuje stále. Prosím, krížikom označte vždy len jednu možnosť pre každý výrok. Ak máte akékoľvek otázky alebo niečo nie je jasné, neváhajte sa opýtať.
Meno a Priezvisko …… …..…
Trieda ……..…
Vek ……..…
Pohlavie O Žena O Muž
1. Keď čítam, robím si poznámky o dôležitých veciach. O Nikdy O Zriedkavo O Niekedy O Často O Vždy

2. Opíšem vlastnými slovami, čo som sa naučil, aby som tomu lepšie porozumel. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
3. Keď's niečím nesúhlasím, vysvetlím prečo. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
4. Rozlišujem medzi faktami a názormi. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
4. Rozlišujem medzi faktami a názormi. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
5. Kontrolujem informácie, aby som si bol istý, že sú pravdivé. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
6. Pýtam sa otázky, aby som lepšie pochopil, o čom sa hovorí. O Nikdy O Zriedkavo O Niekedy O Často O Vždy

7. Uvažujem o nových informáciách, aby som zistil, či potrebujem zmeniť svoj názor. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
8. Premýšľam o tom, čo chýba v informáciách, ktoré dostávam. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
9. Zaujíma ma o rôzne pohľady na problém, ktorý študujem. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
10. Rozprávam sa s ostatnými o rôznych názoroch, aby som si rozšíril svoje pochopenie témy. O Nikdy O Zriedkavo O Niekedy O Často O Vždy
Záver Ďakujeme vám za čas, ktorý ste venovali vyplneniu dotazníka, a za vaše úprimné odpovede. Prosíme vás, skontrolujte, či ste odpovedali na všetky otázky. Priestor na váš komentár: …..…