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From tradition to innovation: The cultural-historical vector of educational practices and the socialization of children in contemporary society

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Abstract

The goal of this study is to explore chess teachers' perceptions of the transformation of childhood in the context of cultural-historical psychology, their views on traditional and innovative aspects of chess education, and their impact on the internalisation of value orientations, as well as on the development of children's socialisation and cognitive functions. **Methods.** The empirical part of the study is based on a survey of 104 chess teachers working in Armenian schools. Both quantitative methods (factor and correlation analysis) and qualitative methods (content analysis of open-ended responses) were employed. Particular attention is given to how teachers themselves perceive developmental changes in children, the transformation of value orientations, and their own role in fostering children's agency. **The results.** Teachers view chess as a symbolic activity through which children learn to plan, forecast, and analyze the consequences of their decisions — thus acquiring essential cross-curricular skills.

Keywords: primary school students, meta-subject competencies, chess education, socialization, learning activity, value orientations

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От традиции к инновации: культурно-исторический вектор образовательных практик и социализация детей в современном обществе

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Резюме

Цель исследования — выявить представления преподавателей шахмат о трансформации детства в свете культурно-исторической психологии, их восприятие традиционных и инновационных аспектов шахматного образования и их влияние на интериоризацию ценностей, развитие социализации и когнитивных функций у детей. **Методы.** Эмпирическая часть исследования построена на

анкетировании 104 учителей шахмат в армянских школах. Были применены как количественные методы (факторный и корреляционный анализ), так и качественные (контент-анализ открытых ответов). Отдельное внимание уделяется тому, как сами педагоги осознают изменения, происходящие в детском возрасте, трансформации ценностных установок, а также свое участие в развитии субъектной позиции у ребенка. **Результаты**: Шахматы воспринимаются учителями как знаковая деятельность, в которой ребенок учится планировать, прогнозировать, анализировать последствия своих решений — т. е. формирует базовые метапредметные навыки. **Выводы.** Восприятие шахмат как образовательной практики тесно связано с возрастом, стилем преподавания и личным педагогическим опытом, подтверждается количественными данными, полученными с помощью факторного и корреляционного анализа. Преподаватели воспринимают шахматы не только как инструмент интеллектуального развития, но и как средство формирования личностных, нравственных и педагогических качеств.

Ключевые слова: младшие школьники, метапредметные компетенции, шахматное образование, социализация, учебная деятельность, ценностные ориентации

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Introduction

The study of the characteristics of a 21st-century individual requires examining several interrelated issues. It is particularly important to understand which factors influence personality development and socialisation at different stages of life, and how these influences can be managed. “Since childhood, as a complex system in which a growing individual is formed, now exists in a fundamentally new historical situation and is undergoing deep and serious changes, the need arises for an expanded programme” (Feldstein, 2009).

As a result, educators and experts increasingly highlight problems in children’s development and learning. According to 90% of surveyed teachers, students’ motivation to learn is declining; 82% report issues with concentration and memory (Gevorgyan, 2023). Therefore, it is necessary to analyse how teachers perceive these changes in childhood and how the pedagogical community responds to the challenges involved.

In L.S. Vygotsky’s theory, child development occurs through the acquisition of cultural tools, with play being one of the most important. The transition from traditional play to organised joint educational activity provides a foundation not only for the internalisation of cognitive operations but also for social norms, ethics, and behavioural patterns (Vygotsky, 1984). Modern childhood is being transformed by digital technologies, changing social roles, and new educational demands. This study also draws on the concept of learning activity as presented in cultural-historical psychology and activity theory, particularly in the works of D.B. Elkonin and V.V. Davydov (Elkonin, 1974; Davydov, 1986), and their followers.

The key features of learning activity include the development of reflection, planning, task condition analysis, and the formation of universal learning actions (Rubtsov & Ulanovskaya, 2020). These features also align with the concept of the child’s agentive position (Zaretsky et al., 2020). One educational practice that meets these criteria and promotes both socialisation and interdisciplinary development is Armenia’s chess education programme.

The Federal State Educational Standard for Primary Education reflects the concept of key competencies (4Cs), defining educational outcomes as abilities in reflection, communication, interaction, and collaboration (Rubtsov, Isaev, & Konokotin, 2022). Contemporary studies (Karakus, 2023; Kazemi et al., 2023; Maracine, Mihaescu, 2023; Sala, Gobet, 2024; Sutar, Patil, 2023; Tachie, Ramathe, 2022), confirm that chess supports the development of interdisciplinary competencies such as critical thinking, planning, self-regulation, and decision-making.

A key role in the development of such competencies is played by joint activity: collaborative discussion, hypothesis coordination, mutual monitoring, and strategy building. Students engaged in activity-based learning show higher indicators not only in cognitive but also in social development.

Research in Armenian schools highlights the perception of chess as a socialising educational activity. In this context, Goncu's idea (1999) is especially relevant — each society defines what is important for a child's development. Research (Polivanova et al, 2013).showed that the plots of children's games reflect interpersonal relations already in the preschool years. The findings (Rogoff et al., 2003) support this position. The introduction of chess into educational practice can be seen as an example of learning where the child masters not only the game but also the principles of strategy, logic, patience, and respect for the opponent.

As Schwartz, Bransford, and Sears (2005) point out, learning through cultural practices allows students to interpret knowledge through personal and cultural relevance.

However, several questions remain unresolved: to what extent do educational practices promote socialisation and value formation? And how well do teachers' perceptions of traditional and innovative methods align with the demands of modern education?

The goal of this study is to explore chess teachers' perceptions of the transformation of childhood in the context of cultural-historical psychology, their views on traditional and innovative aspects of chess education, and their impact on the internalisation of value orientations, as well as on the development of children's socialisation and cognitive functions.

Methods and sample

The study involved 104 chess teachers from various regions of Armenia. The sample included teachers of different ages, teaching experience, and pedagogical styles, allowing the inclusion of a wide range of ideas and practices. To obtain valid and diverse data, the following methods were used:

— Custom-designed questionnaire: Included items about modern children, such as patience, adaptability, and interest in traditional games.

— Rokeach's Value Orientation Method: Teachers ranked values according to how strongly they believed these were formed through chess education.

— Content analysis of educational materials: Chess textbooks, manuals, and digital courses used in schools were assessed. A group of 10 experts (teachers, psychologists, and methodologists) evaluated materials based on 8 criteria.

To analyse quantitative data, the following methods were applied:

— Comparative subgroup analysis
— Correlation analysis
— Factor analysis

Results

The results from the custom-designed questionnaire revealed that teachers with different lengths of teaching experience perceive the value of chess education differently. Teachers who frequently use innovative methods gave significantly higher ratings to chess as a tool for children's socialisation.

Teachers who frequently use innovative methods, such as digital platforms, game-based strategies, and group work, rate the impact of chess on children's socialisation significantly higher. Particularly high ratings are obtained by those who regularly apply innovations, which highlights the importance of a methodological approach in chess instruction (Table 2).

The highest-rated statement was: *"Modern children adapt more quickly to new learning formats."* (Average score — 3.94). This indicates that the majority of teachers acknowledge that the new generation perceives innovations more easily and adapts more quickly to changes.

The lowest-rated statement was: *"Children's interest in traditional games, including chess, has declined."* (Average score — 2.49). This figure suggests that most teachers do not share concerns about a decreasing interest in chess.

Table 1

Category of Teaching Experience

In-service teaching experience	Average score	Standard deviation	N
11—20 years	3,24	0,44	38
More than 20 years	3,06	0,47	33
Less than 5 years	3,06	0,53	15
5—10 years	3,21	0,53	18

Table 2

Frequency of Using Innovative Methods

Application frequency	Average score	Standard deviation	N
Sometimes	3,03	0,44	24
Rarely	2,76	0,81	3
Often	3,18	0,47	64
Constantly	3,32	0,47	13

Statements such as *"decreased patience," "deterioration of self-regulation,"* and *"negative influence of digital technologies"* received scores in the range of 3.2 to 3.5, indicating neutral or slightly positive agreement.

The intercorrelation matrix (Table 3) shows the degree of consistency or contradiction in teachers' responses to 7 key statements related to significant changes in primary school children.

The strongest positive correlation was found between the indicators *"Quickly adapt to new formats"* and *"Ability to perform multiple tasks simultaneously"* (r = 0.45). This suggests that teachers who view children as quick adapters also tend to rate their multitasking abilities highly.

Moderate positive correlations were found between *"Decline in interest in traditional games"* and *"Digital technologies reduce strategic thinking"* (r = 0.36). Moderate correlations were also observed between *"Decline in interest in traditional games"* and *"Self-regulation has worsened"* (r = 0.32).

These correlations indicate that teachers who observe a decline in interest in traditional games are also more likely to believe that children are losing self-regulation and strategic thinking skills.

Teachers rated chess highest for its impact on:

— Democratic and civic competence (3.38)

— Independent learning and development (3.36)

Table 3

Spearman Intercorrelation Matrix Based on Chess Teachers' Ratings of Seven Characteristics of Modern Childhood

Parameters	1	2	3	4	5	6	7
1. Less patient and attentive group	1	–0,04	0,12	0,04	0,1	0,19	0,08
2. Group of lower level of interest in traditional games	–0,04	1	**0,36***	–0,07	0,1	0,32	–0,06
3. Strategic mindset level decreased because of digital technologies	0,12	**0,36***	1	–0,01	0,01	0,22	0,05
4. Speedy adjustment to formats	0,04	–0,07	–0,01	1	0,17	–0,27	**0,45***
5. Traditional methods do not always prove to be effective	0,1	0,1	0,01	0,17	1	0,2	0,29
6. Self-regulatory skills have declined	0,19	0,32	0,22	–0,27	0,2	1	0,06
7. Multitasking ability	0,08	–0,06	0,05	**0,45***	0,29	0,06	1

Note: «*» —correlation is significant at the 0.05 level.

Table 4

Psychological Interpretation of the Impact of Chess Education on the Development of Students' Key Competencies (Based on Teachers' Ratings)

Eight Key Competences of Secondary Education of the Republic of Armenia	Average score	Standard deviation
1. Language and communication competencies	3,07	0,75
2. Autonomous learning and self-growth	3,36	0,71
3. Self-awareness and social skills	3,16	0,74
4. Democratic and civil competencies	3,38	0,69
5. Digital and media literacy	2,7	0,81
6. Cultural competencies	3,16	0,8
7. Mathematical and natural-science competencies	3,22	0,74
8. Economic competencies	3,18	0,83

Value factor analysis identified five dimensions, the most significant being personal and intellectual development, including qualities such as critical thinking, reflection, and social responsibility.

Expert evaluations of chess teaching materials also confirmed the value of the programme, especially in strategic thinking, emotional development, and digital-methodological innovation.

Table 5

Rotated Factor Loading Matrix for Five Factors (Terminal and Instrumental Values of Chess Teachers)

Factor Loadings by Components	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
T1. Self-discipline	1,421884	1,162856	–0,55186	0,853485	–0,31502
T2. Autonomy	1,856276	1,3832	–0,11291	0,626002	–0,0415
T3. Flexibility	1,877472	–1,83307	–0,70855	0,0507	–0,58551
T4. Creative outlook	1,177311	–2,15923	–1,07705	0,301838	0,335811
T5. Individual stance	1,689758	–0,69353	–0,57259	0,401238	–0,12098
T6. Openness to embrace novelties	1,715524	0,964009	–0,12131	–0,00565	0,339006
T7. Discipline	2,06705	–0,46454	–0,33151	–0,34167	1,062264
T8. Digital tools	1,66184	0,786847	0,342761	0,032285	–0,15229
T9. Motivating learners	1,719723	–0,46968	0,830609	–0,0962	0,136056
T10. Self-coordination	1,785228	–0,14627	0,767975	–1,55484	–0,2736
T11. Creative learners	1,650783	1,619877	–1,14181	–0,7369	0,142857
T12. Educational innovations	1,414023	0,259213	–1,06144	0,005223	0,219193
T13. Public recognition	1,920997	–0,38913	–0,81324	–0,28252	–0,41002
T14. Material prosperity	1,737946	0,691528	–0,30524	0,077581	–0,25603
T15. Self-growth	1,606038	0,416432	–0,50115	–0,17257	–0,6117
T16. Intellectually advanced learners	2,098611	0,087307	0,64425	–0,74693	0,083696
T17. Inner balance	1,944071	0,017614	0,880282	–0,22709	0,042703
T18. Critical thinking	1,897133	0,449946	1,204822	0,83786	0,127055
T19. Social responsibility	1,976346	–0,55433	0,845023	1,133925	–0,20967
T20. Chess traditions	1,918069	–1,49539	0,73254	0,170199	0,152556
T21. Collaboration	0,065109	–0,04971	0,016535	–0,10921	–0,28208
T22. Tolerance	–0,01581	–0,03149	0,100396	–0,1104	–0,33651

Note: the table presents the numerical values of the factor loadings obtained by the principal component method with Varimax rotation.

Table 6

Expert Evaluation of the Content and Methodological Potential of Chess Teaching Materials Used in Schools

№	Indicator	Average score	Standard deviations	Coefficient of Variation
1	Do the instructive materials imparted contribute to the development of a strategic way of thinking?	4,00	0,82	0,20
2	Are the respective sets of digital tools, game-based methods, and group-based methods applied?	4,14	0,90	0,22
3	Do the instructive materials imparted contribute to the development of emotional intelligence, self-expression, and reflection?	4,29	1,11	0,26
4	Are the tasks designed to increase in difficulty, in line with age-based peculiarities, gradually?	3,71	1,25	0,34
5	Are the materials imparted sufficiently inclusive and adjusted to the variety of respective needs?	3,86	1,46	0,38

№	Indicator	Average score	Standard deviations	Coefficient of Variation
6	Are the materials relevant to the formation of the system of values?	3,86	1,46	0,38
7	How emotionally responsive and interested do young learners become due to these assignments/tasks?	4,00	1,53	0,38
8	How do the materials imparted combine the traditional and contemporary pedagogical approaches?	3,67	1,75	0,48

Discussion

This study provides a new perspective on socialisation and the development of key competencies through the lens of the cultural-historical approach. Teachers emphasise chess's role in fostering responsibility, rule-following, and self-management. According to Zuckerman, reflective actions are a key element in the ability to learn. Teachers highlighted that chess helps children plan, accept rules, and develop emotional resilience. The reflective-activity approach also supports student agency when tasks are suitably challenging. Positive views of chess were more common among experienced and flexible teachers. Expert ratings matched teacher feedback, identifying: — Emotional intelligence and reflection — Game-based and group methods — Strategic thinking Factor analysis confirmed five clusters of educational values: 1. Personal and intellectual development 2. Social recognition and external motivation 3. Pedagogical and organisational skills 4. Humanism and openness 5. Stability and order

Conclusion

The study shows that teachers perceive chess not only as a cognitive tool, but also as a means of fostering personal, moral, and pedagogical values. They associate chess with self-regulation, resilience, and respect for rules.

This view is closely linked to teachers' experience and instructional style, as confirmed by statistical analysis. Thus, chess education can be seen as a culturally significant practice where innovation and tradition are successfully combined.

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