

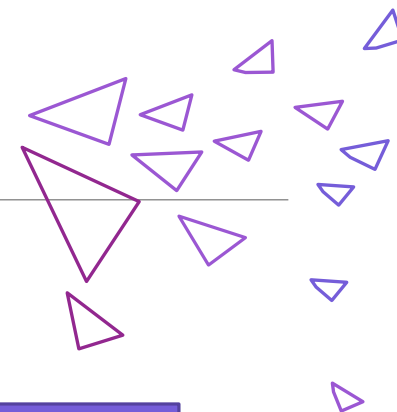


LEARNING STYLES AND TEACHING STRATEGIES AT CHESS LESSONS



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Research problem



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Ваш логотип или название

Problem statement:

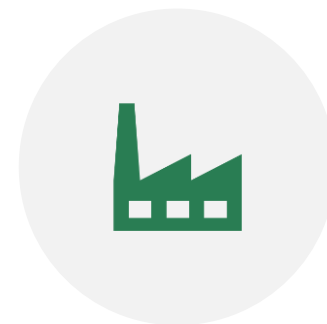
New opportunity for research and teacher training

No evidence of combining strategies and styles

Only outcomes instead of process

Impact on other subjects is too difficult to find

The lack of previous experience



The ways of teaching and learning chess in the classroom have not fully been submitted to the respective discussion

These skills were not experimentally confirmed.

Researches devoted to chess in a school program in Armenia mostly refer to the effects of teaching chess

How chess is being taught in the classroom, how students learn this subject

How well teachers are prepared for teaching chess in primary schools



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Previous research findings

(Mirzakhanyan, Gevorgyan, Sargsyan, Daveyan, 2017, p. 42)



Chess is perceived as positive

Chess as an academic discipline is mostly referred to as a positive factor for pupils' personal development



Parents involvement is crucial

Parents' educational level is one of the frequently expressed contextual factors for sufficient implementation of chess in schools



Teachers impact is most important

Teachers' pedagogical impact and attitudes towards education for all are also considerably demanded for effective chess education in primary schools



Key categories: teaching strategies

Active learning strategy provides students' active participation at lessons through discussions, group work, collaboration, and reflection.

Cognitive activation strategy promotes students' development of critical thinking, problem-solving, and decision-making skills.

Directive strategy emphasizes the teacher's active role in the classroom. Making explicit the learning goals, providing a summary of previous lessons or asking short, fact-based questions are examples of practices that help to structure lessons

(Teaching strategies, 2016, p. 6).



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Key categories: learning styles

Deep/surface styles involve how students approach learning materials.

They do this in a way that helps them understand the meaning of the materials (**deep style**)

Students, who approach learning with a **surface style** fail to link what they are learning to a larger conceptual framework. They tend to learn in a passive way, often memorizing information.

Deep learners are more likely to actively construct what they learn and give meaning to what they need to remember. Thus, deep learners take a constructivist approach to learning (Sandrock, 2011).



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Think before or to act quickly ?

Impulsive students often make more mistakes than reflective students. **Reflective students** are more likely than impulsive students to do well at these tasks (Jonassen & Grabowski, 1993): *remembering structured information; reading comprehension and text interpretation; and problem solving and decision making.*

Reflective students also are more likely than impulsive students to set their own learning goals and concentrate on relevant information have higher standards for performance.

Reflective students learn more effectively and do better in school than impulsive students.





Deep: actively construct and give meaning to what they need to remember

Impulsive: often make more mistakes

Reflective: have higher standards for performance

Surface: memorizing information.

Students' learning styles

The purpose of current research

The collection and analysis of data to examine the interrelations between teaching strategies and pupils' learning styles at chess lessons in primary schools.

Research hypothesis:

Students' learning styles, such as reflective and deep learning styles, appear more frequently during chess lessons in comparison with math and native language lessons;

Chess lessons provide necessary learning facilities for developing students' deep and reflective learning styles.



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Empirical research

Stage 1

This study was conducted in seven schools in Yerevan. 10 teachers were involved in the research. Each learning style prompt was asked to be scored from 1 to 4.. Learning styles among 331 pupils (7-8 years old) were assessed.

Stage 2

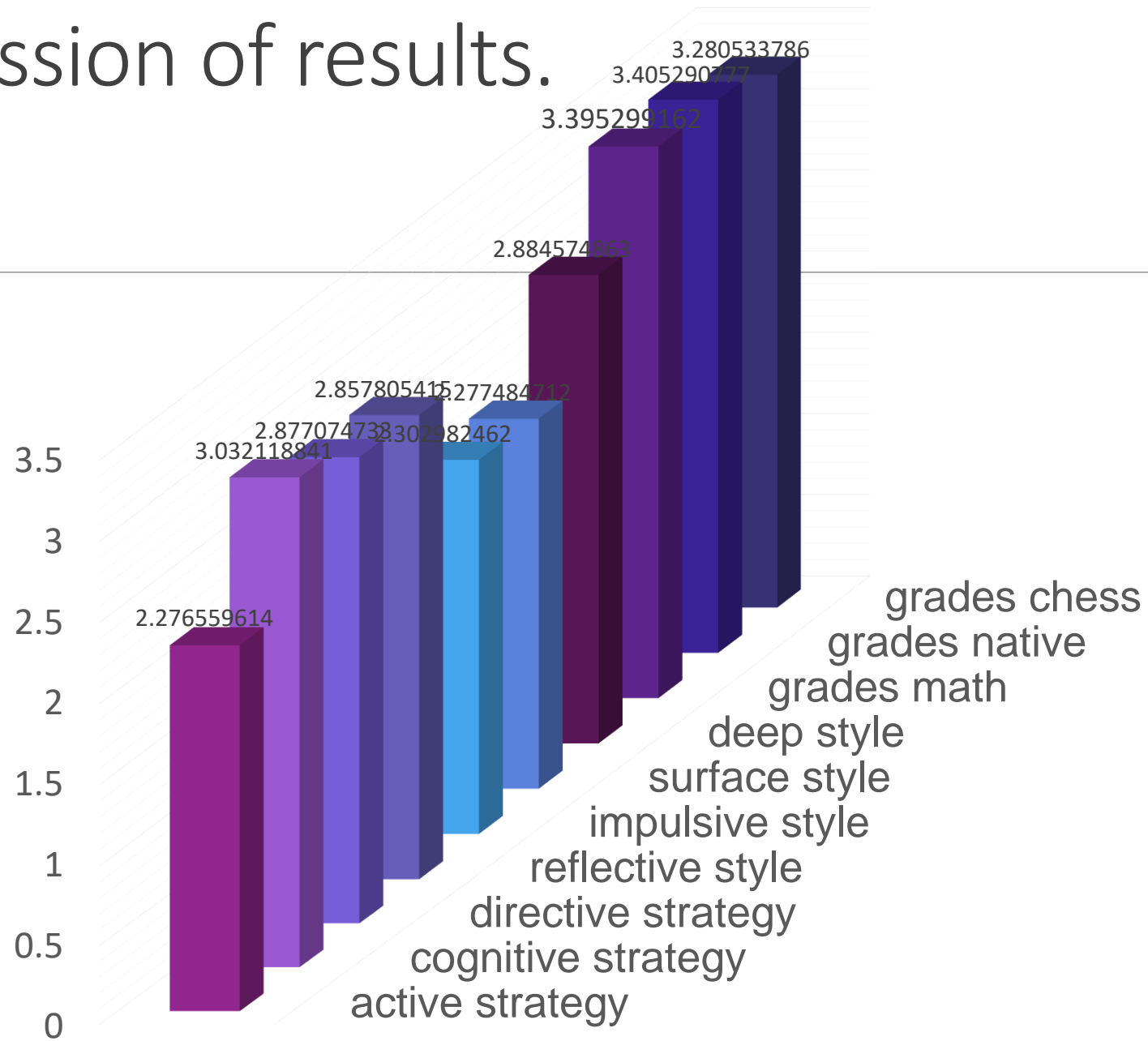
The 331 pupils were asked to complete the questionnaires assigning the teacher the appropriate characteristics. Pupils had to give their teachers marks from 1 to 4 relying on teachers' teaching behavior with three strategies involved: active, cognitive, and directive.



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Discussion of results.



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	Active learning strategy	Cognitive learning strategy	Directive instruction strategy	Reflective learning style	Impulsive learning style	Surface learning strategy	Deep learning style	Grades Math	Grades Native language	Grades Chess
Active learning	1.00000	0.46850	0.66833	0.09521	-0.08538	0.18732	0.16529	-0.10293	-0.13800	0.02783
Cognitive learning	0.46850	1.00000	0.69929	<i>0.23374</i>	-0.17358	0.06141	<i>0.24893</i>	-0.07567	-0.06867	0.12751
Directive instruction	0.66833	0.69929	1.00000	0.21121	-0.23858	0.03826	<i>0.21839</i>	-0.08633	-0.08676	0.06168
Reflective learning style	0.09521	<i>0.23374</i>	<i>0.21121</i>	1.00000	0.04068	-0.32634	0.75220	0.36798	<i>0.36419</i>	0.58066
Impulsive learning style	-0.08538	<i>-0.17358</i>	<i>-0.23858</i>	0.04068	1.00000	0.19214	0.11207	0.04453	0.01066	0.05335
Surface learning	0.18732	0.06141	0.03826	-0.32634	0.19214	1.00000	-0.22924	-0.25811	-0.21533	-0.29225
Deep learning	0.16529	<i>0.24893</i>	<i>0.21839</i>	0.75220	0.11207	-0.22924	1.00000	<i>0.28255</i>	<i>0.27546</i>	0.51908
Grades from Math	-0.10293	-0.07567	-0.08633	<i>0.36798</i>	0.04453	-0.25811	<i>0.28255</i>	1.00000	0.79028	0.63159
Grades from Native language	-0.13800	-0.06867	-0.08676	<i>0.36419</i>	0.01066	-0.21533	0.27546	0.79028	1.00000	0.63840
Grades from Chess	0.02783	0.12751	0.06168	0.58066	0.05335	-0.29225	0.51908	0.63159	0.63840	1.00000



Conclusions and recommendations

- ❖ Recognizing and identifying the learning styles of the pupils and adequately respond.
- ❖ Implementation of active and reflective learning practices in chess lessons
- ❖ let students **set their own learning goals** and *prevent surface and impulsive learning styles*.
- ❖ Enhanced teachers' training materials
- ❖ Usage of assessment methods and strategies to **encourage students' reflective and deep learning styles**
- ❖ Taking time to explain the necessity of deep and reflective learning styles.



Thank you for
attention



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