



**CHESS SCIENTIFIC
RESEARCH
INSTITUTE**

CHESS TEACHING RESEARCH FINDINGS WITHIN THE FRAME OF PSYCHOLOGICAL THEORIES AND PRACTICES

**CHESS SCIENTIFIC RESEARCH INSTITUTE AT ARMENIAN STATE
PEDAGOGICAL UNIVERSITY**

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TEACHING AND LEARNING CHESS AND PSYCHOLOGICAL THEORIES

Behavioral theories

Teacher training
Teaching strategies
Learning
environment and
contextual factors

Cognitive theories

Cognitive processes
critical thinking,
memory, attention,
decision making,
problem solving,

Humanistic theories

Motivation,
active learning,
free choice, and
responsibility,

Social learning theory

Emotional intelligence,
social behavior
Experience, modelling,
Attitudes, relations,
communication, interaction



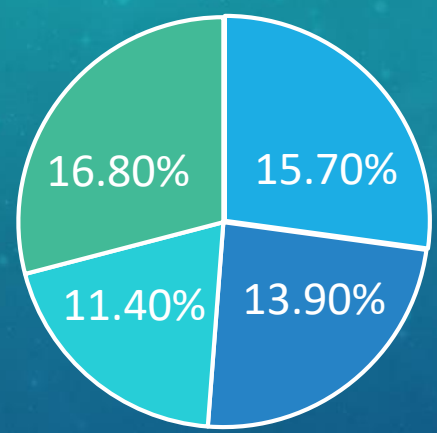
BEHAVIORIST ORIENTATION

- The focus was on **observable behavior** rather than on internal cognitive processes.
- The environment is the shaper of learning and behavior, not individual characteristics.
- The teacher's role is the most important, and in this perspective,
- **Environment** elicits the desired behaviors.



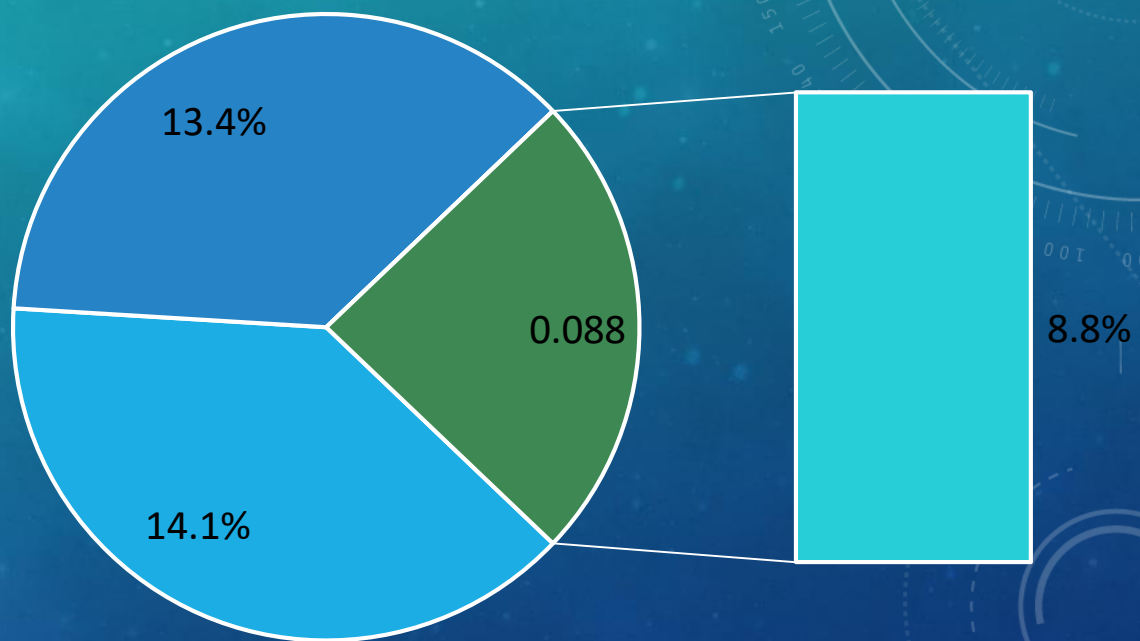
CHESS TEACHERS TRAINING EVALUATION RESEARCH

What important have you learn?

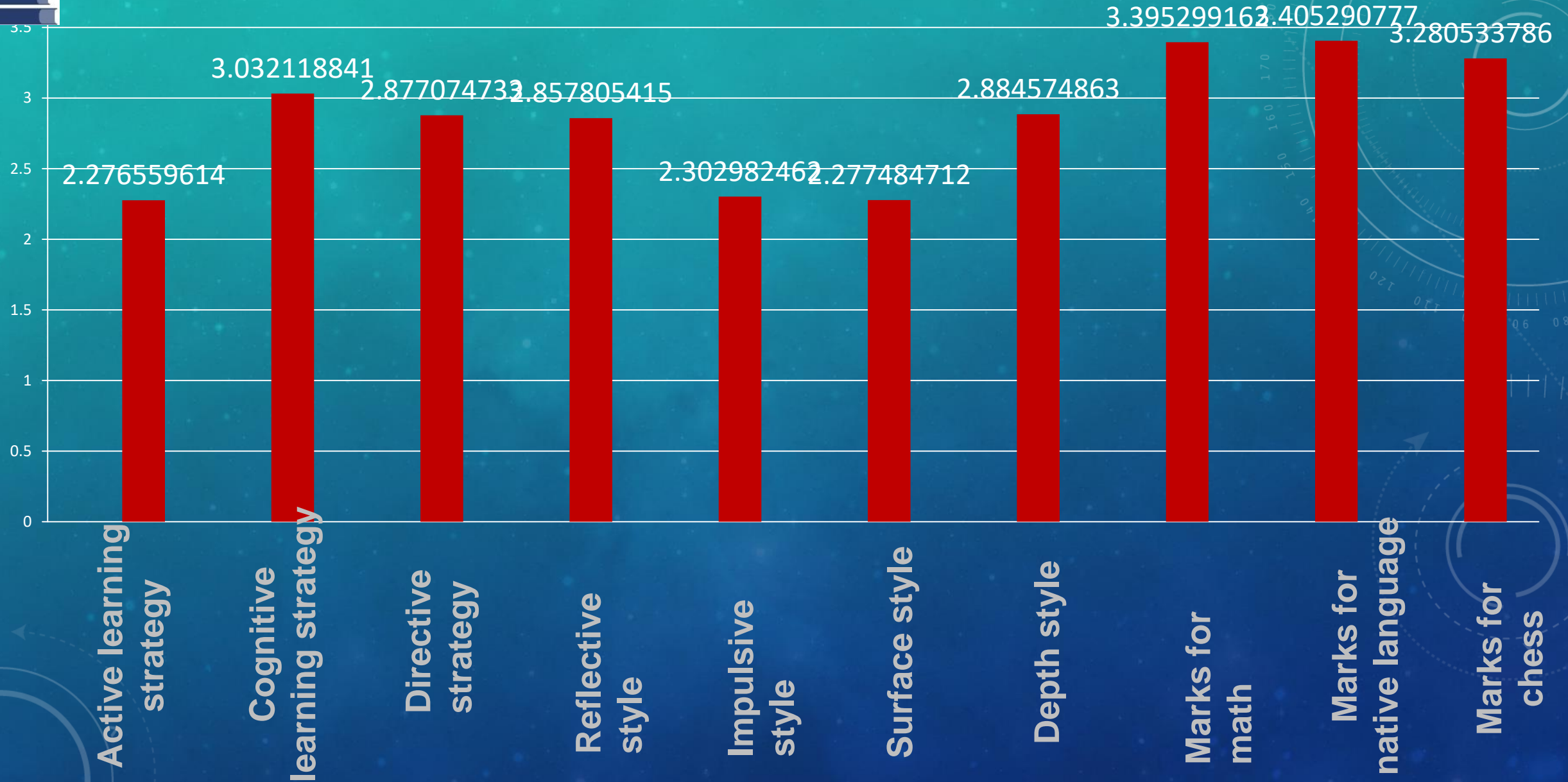


- Psychological and Pedagogical Knowledge
- Chess knowledge
- Experience exchange
- Collaborative atmosphere

What would you like to be improved in training?



- Trainings date and conditions
- More frequent meetings
- Prolonged trainings



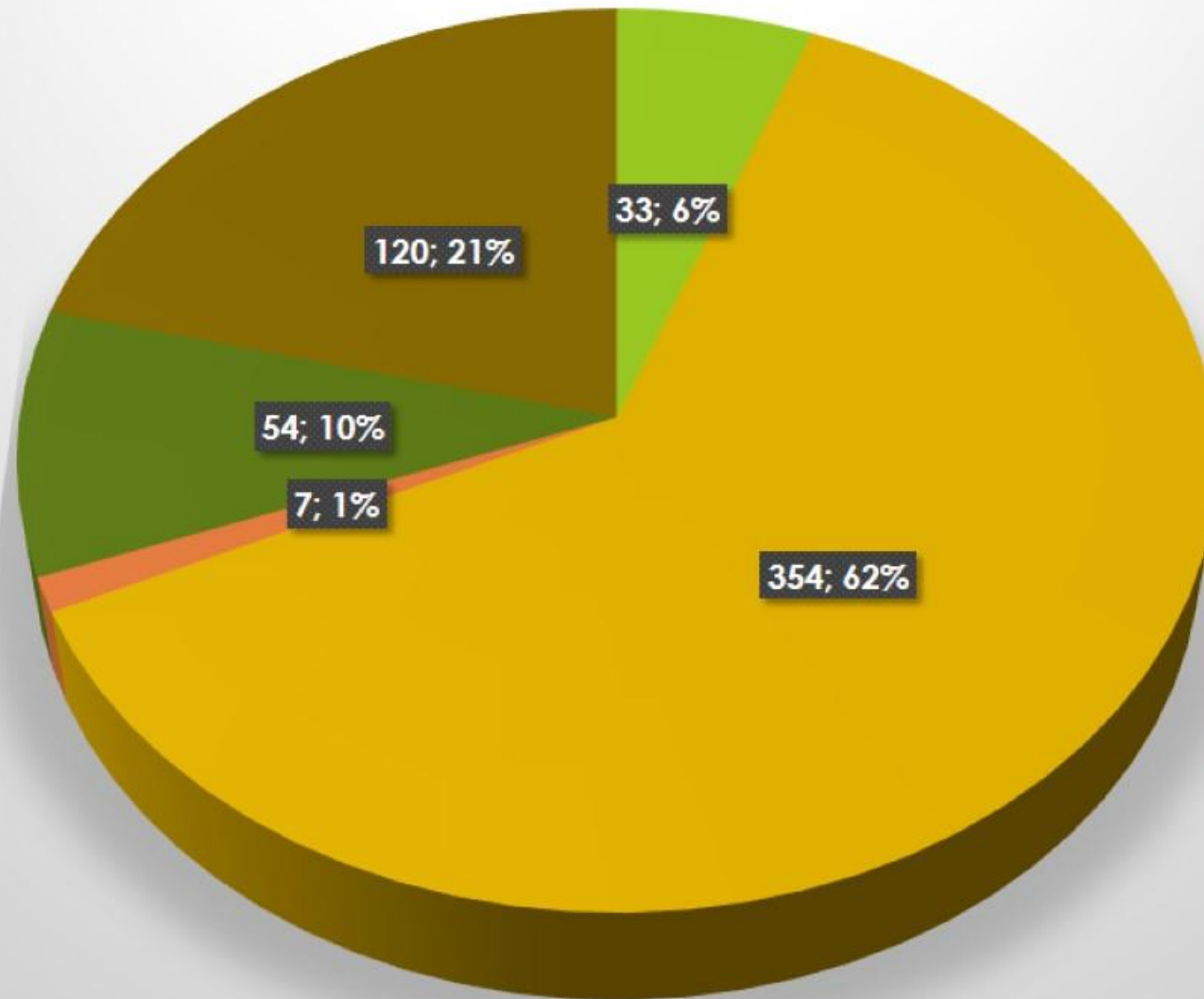
COGNITIVE ORIENTATION

- Cognitive theories of learning are concerned with processes which occur **inside the brain** and nervous system as a person learns. They share the perspective that people actively process information and learning takes place through the efforts of the learner.
- New information is linked to old knowledge, schema and scripts.



Impact of Chess on Schoolchildren

Which are the positive aspects of teaching chess at school?



1. Cognitive skills 62%
2. Self management skills 6%
3. Neutral responses 21%
4. Negative responses 1%
5. Other 10%





CHESS AND COGNITIVE ABILITIES

- Empirical research has found that there is a high correlation between the good in chess students' attention effectiveness and sustainability, intellectual capability and analytical-synthetical abilities.
- Correlational links have been registered between students creativity and chess skills.



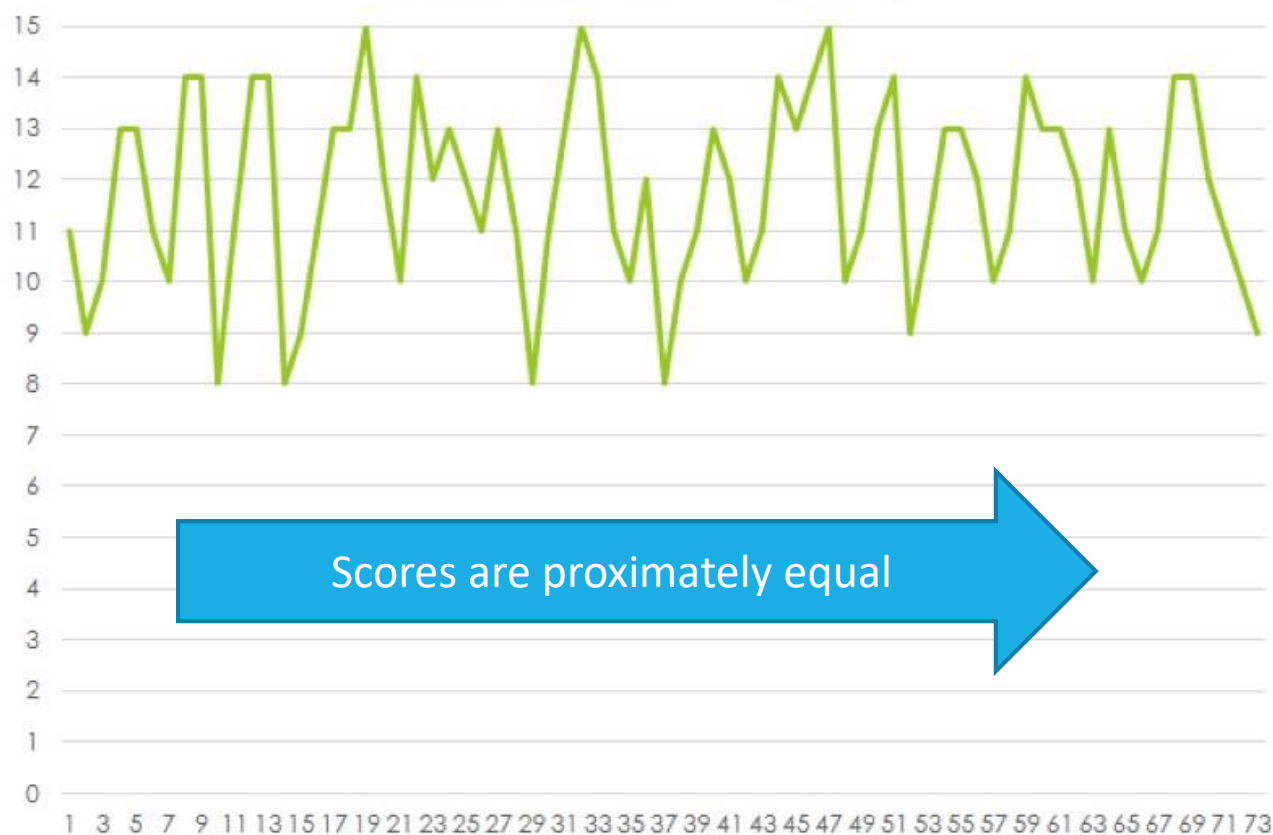
Database



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Data processing through *STATISTICA 12* software

Distribution of Scores (Points)

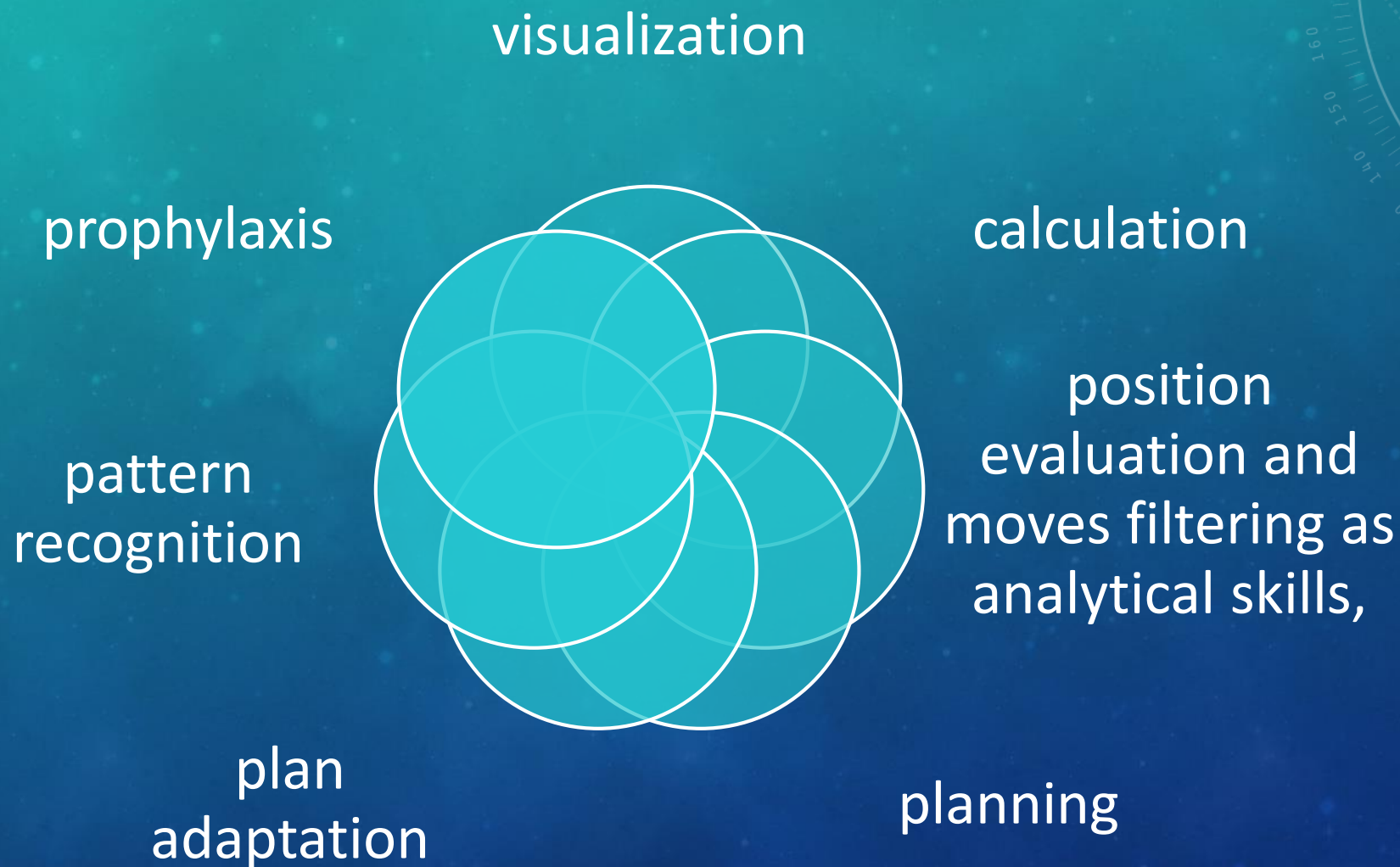


Degree of Complexity of Assignments





CHESS SKILLS TESTING IN PRIMARY SCHOOL





CHESS SKILLS: RESEARCH RESULTS AND RECOMMENDATIONS

Research findings

- Visualization skills are the simplest in terms of primary school chess and they showed the highest level of formation.



Recommendations.

- **Improve school curriculum to develop these skills in primary school.**
- **Find out paths to transfer chess skills to other components of learning process.**



HUMANIST ORIENTATION

- Humanistic theories shift the emphasis to the **potential** for individual growth in the learner. They bring the affective **functioning of the human** into the arena of learning.
- Motivation, choice, and responsibility are influences of learning. Life's experiences are the central arena for learning.





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- We all are mini scientists...
- Constructive alternativism...





CHESS LESSONS AND STUDENTS' LEARNING MOTIVATION

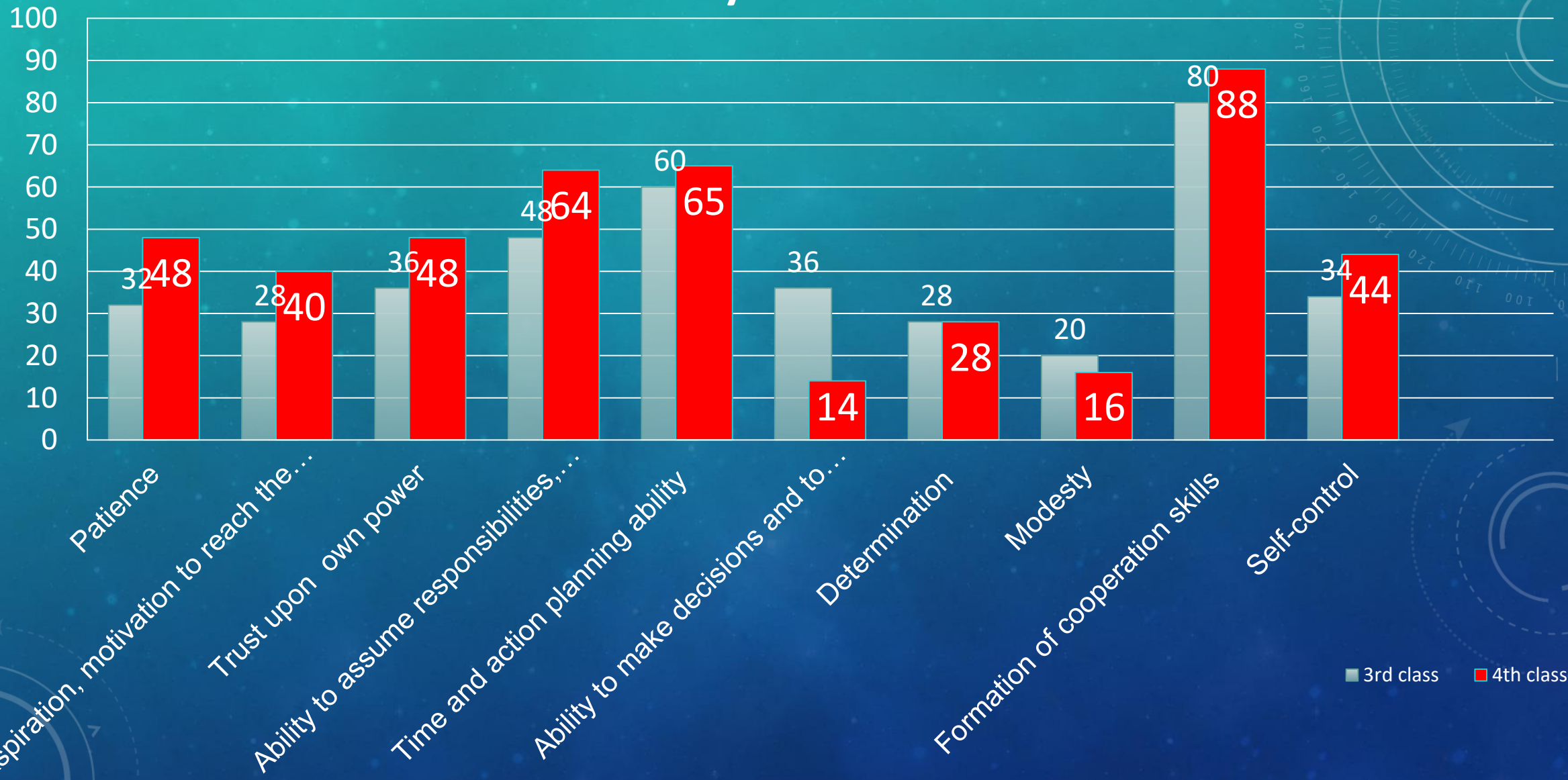
- ☐ Children are originally motivated by chess
- ☐ Passing from game – studying to lesson- studying can demotivate students





“WHAT HAS CHESS GIVEN TO ME?”

Content analyses of the results





An evidence of chess as a subject which promotes thinking and reflection.

- **During chess lessons reflective style was higher than the impulsive style**
- *Active learning strategy is not fully implemented by schools.*



SOCIAL LEARNING ORIENTATION

- The **interactions** between people as the primary mechanism of learning. Learning based on **observation**
- All four processes **attention**, **retention** (memory), **behavioral rehearsal**, and **motivation** contribute to learning by observation.





THE MAIN FACTORS FOR CHESS LEARNERS' SUCCESS

Parents'
involvement in
the learning
process of
children

Socio-economic
status of the
family parents'
participation in
the learning
process of
children.

School and
teacher should
be interested in
active
cooperation
with parents.



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THANK YOU