



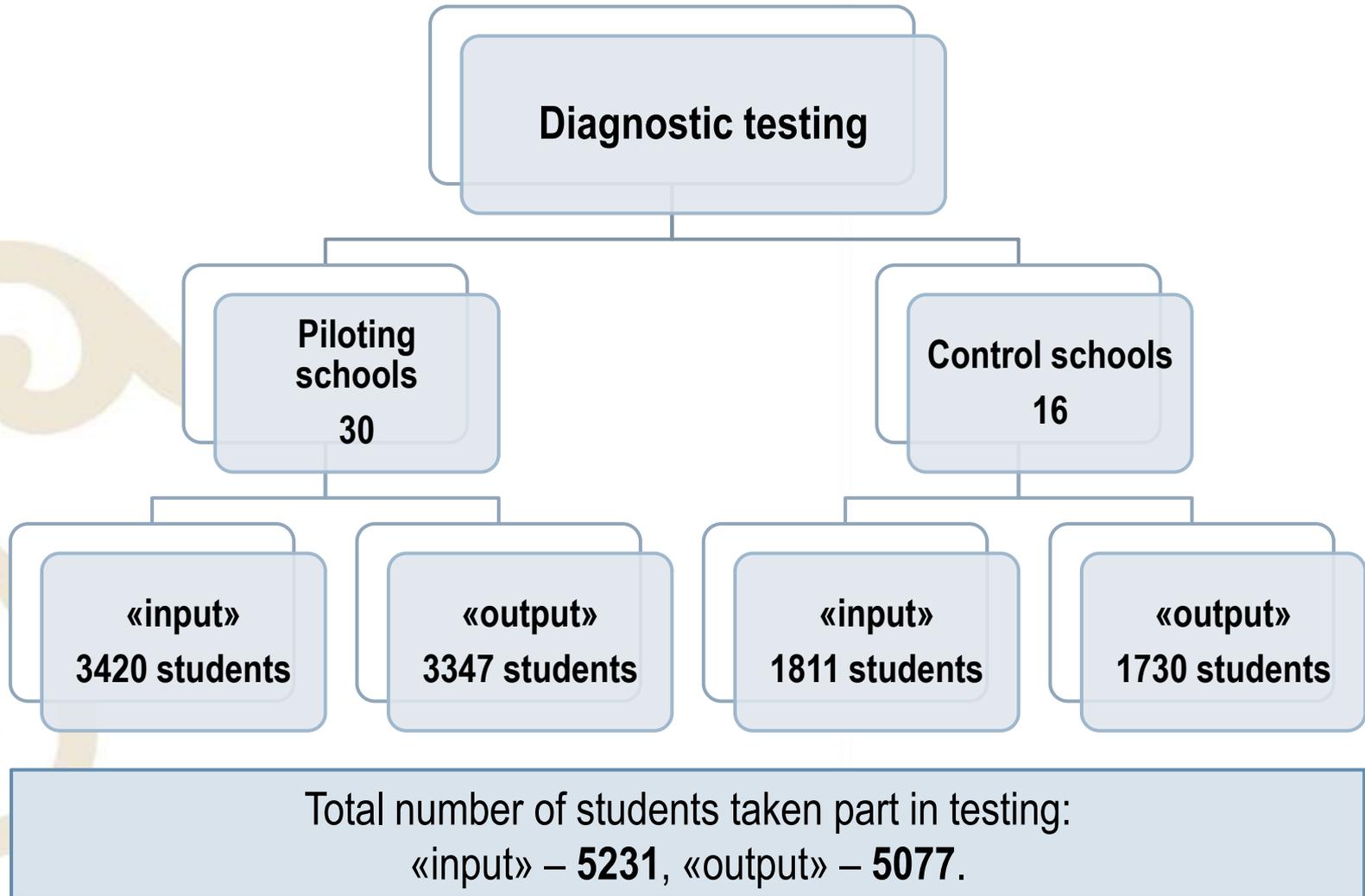
**AEO «Nazarbayev Intellectual Schools»  
Center for Pedagogical Measurements**

**Diagnostic testing results  
for the 1st grade students  
of piloting and control schools**

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# Contingent



# Structure of Diagnostic testing

Section of the test		Number of tasks	Test duration	Format
«Input»	«World Understanding and Natural Science»	5	25-30 minutes	Teacher – Student
	«Literacy Learning»	5	25-30 minutes	
	«Mathematics»	10	25-30 minutes	
«Output»	«World Understanding and Natural Science»	7	15-20 minutes	Teacher – Class
	«Literacy Learning»	8	25-30 minutes	
	«Mathematics»	10	45 minutes	

# Test specification: examples of assessment criteria

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Section of the test	Topic/Theme	Assessment criteria
«World Understanding and Natural Science»	Human	Learner matches the name of human sense body with the names of the sense: eye – sight
«Literacy Learning»	Understanding of the text content	Learner defines the topic / theme of the text (about grove)
«Mathematics»	Natural and rational numbers	Learner on the bases of the picture identifies the composition of the number, if the sum is known

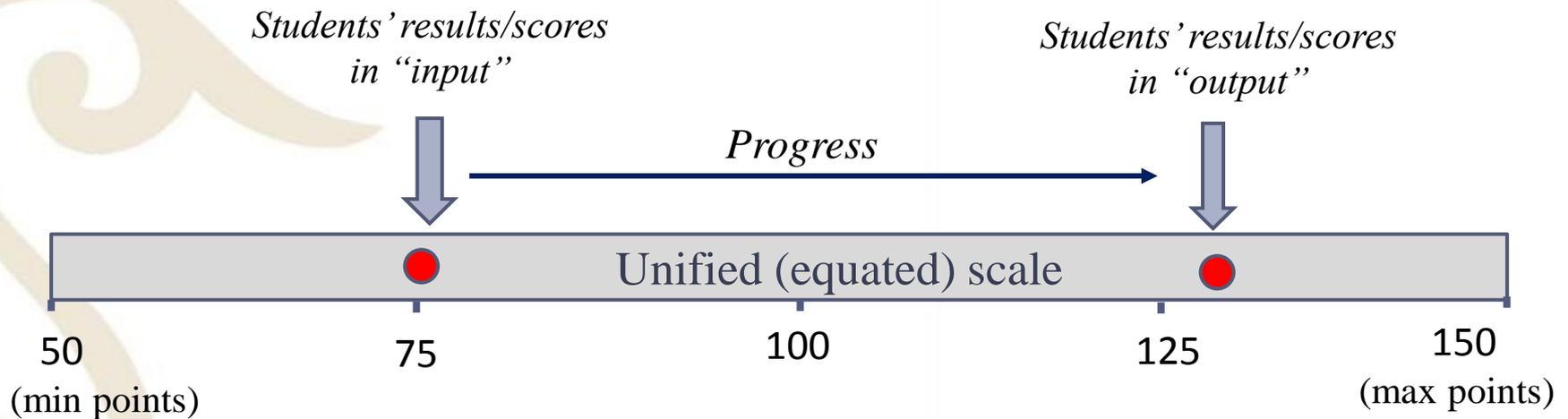
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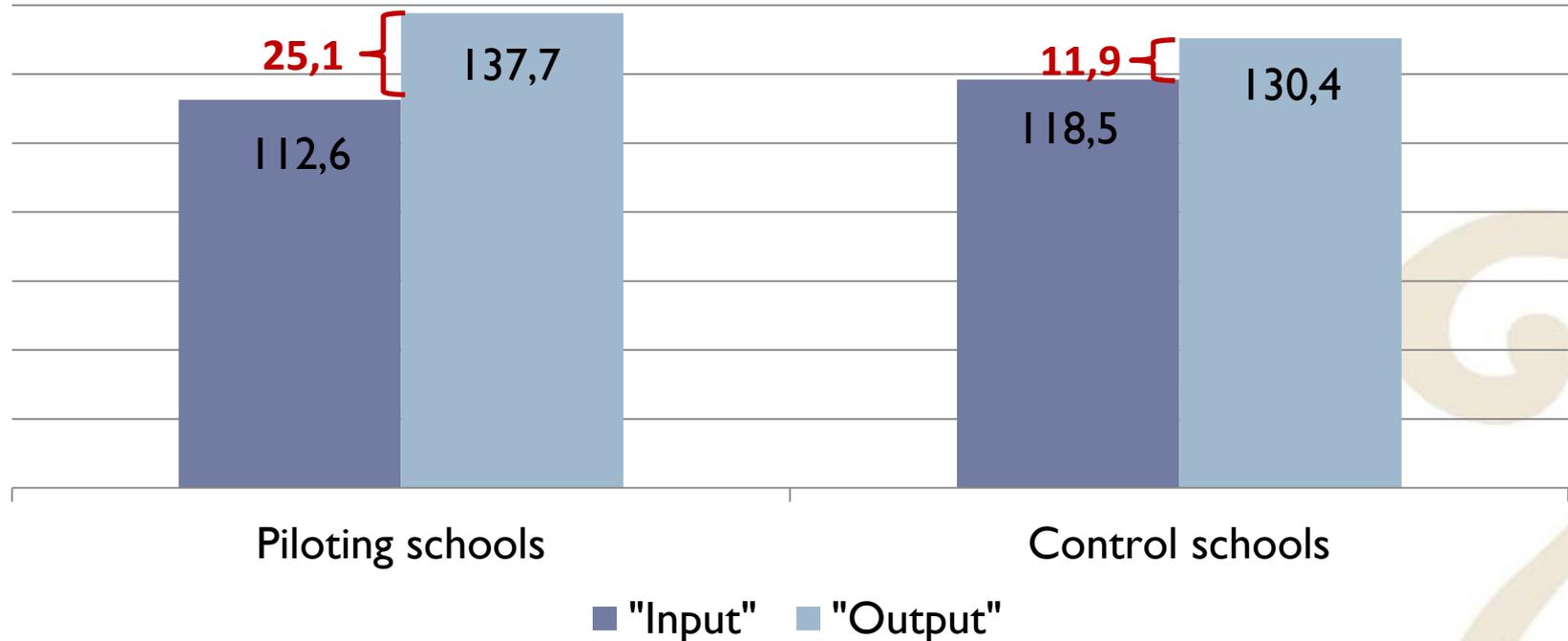
# Analysis of results

- ▶ Data were processed on the basis of **Item Response Theory (IRT)** with the application of **one-parameter logistic model (OPLM)**.
- ▶ The points of students were turned into the **points of abilities** and placed on a unified scale from 50 to 150 for the correlation of results/scores.



- ▶ The indicator of students' **progress** is considered to be the difference in average scores of students during "input" (September) and "output" (April) testings.

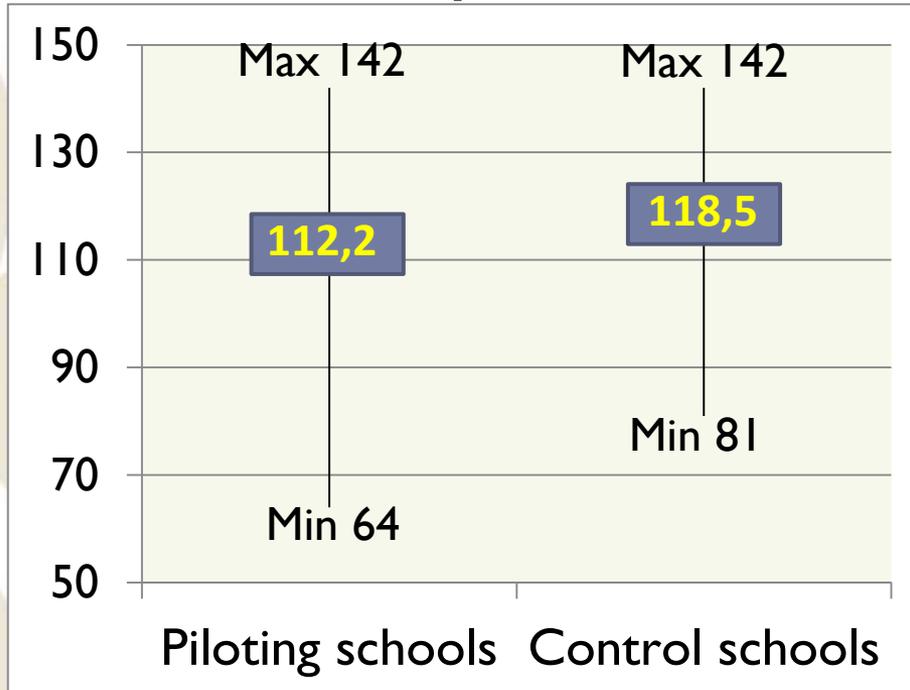
# Progress in average score



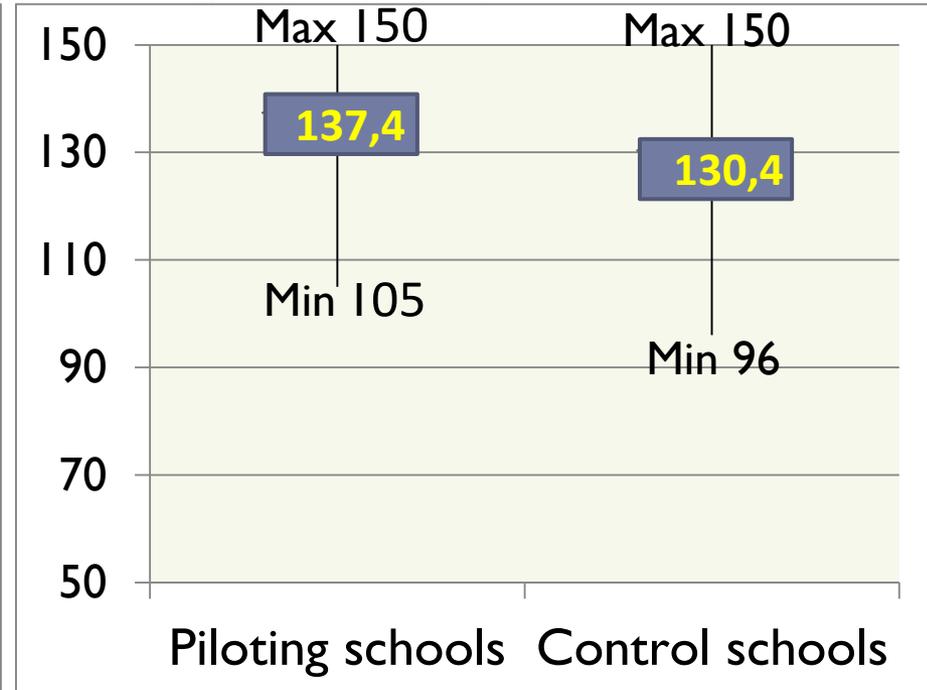
The **increase** in average score is observed in both: piloting and control schools. However, the updated content of education and methodology of teaching applied in piloting schools have allowed students to demonstrate considerable **advantage** in testing.

# Difference between minimum and maximum scores

«Input»



«Output»



Category of school	«Input»				«Output»			
	Minimum score	Percentage of students, %	Maximum score	Percentage of students, %	Minimum score	Percentage of students, %	Maximum score	Percentage of students, %
Control	81	0,1	142	10,6	96	0,2	150	10,6
Piloting	64	0,06	142	3,5	105	0,03	150	24,1

# Diagnostic testing results in terms of indicators

Piloting schools		
Progress in average score: +25,1	school type	
	ungraded schools	+17,3
	secondary school	+23,7
	school-lyceum	+20,5
	school-aymnasium	+27,6
	language of instruction	
	kazakh	+25,4
	russian	+24,3
	uigur	+8,1
	type of locality	
	rural	+22,7
	urban	+25,4

Control schools		
Progress in average score: +11,9	school type	
	ungraded schools	+11,5
	secondary school	+11
	school-lyceum	+15,8
	school-aymnasium	+11,6
	language of instruction	
	kazakh	+10,1
	russian	+13,4
	uigur	+14,8
	type of locality	
	rural	+6,9
	urban	+13,7

# Main conclusions

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- ▶ According to the testing results, students of piloting schools demonstrate **higher performance rate**.
- ▶ There is a **significant increase** in all indicators of students of piloting schools.
- ▶ **Reduction of differentiation** between excellent and underperforming, urban and rural, school-lyceum and general secondary school students serves as the evidence of **equal access** provision to quality education services.
- ▶ The obtained data evidence about the **effectiveness** of updated content of education programs and methodology of teaching applied in the 1st grades.





**Thank you for attention!**

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