

The impact of assessment model on students' academic performance

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RESEARCH PURPOSE

- To compare the effectiveness of Criteria-Based Assessment (CBA) and Integrated Criteria - Based Assessment Model (ICBAM) models
- To find ways to increase students' academic achievement

INTRODUCTION

- Integrated Criteria - Based Assessment Model (ICBAM), 2013
- Criteria-Based Assessment (CBA), 2016

RESEARCH QUESTIONS

RQ1: What is the impact of Integrated Criteria - Based Assessment Model (ICBAM) and Criteria-Based Assessment (CBA) models on student results (academic achievement)?

RQ2: What are the attitudes of students towards Criteria-Based Assessment (CBA) ?

RQ3: What are the students and teachers' recommendations in regards to the Criteria-Based Assessment (CBA) ?

METHODOLOGY

Methodology: The mixed research design

Sampling: Purposeful sampling

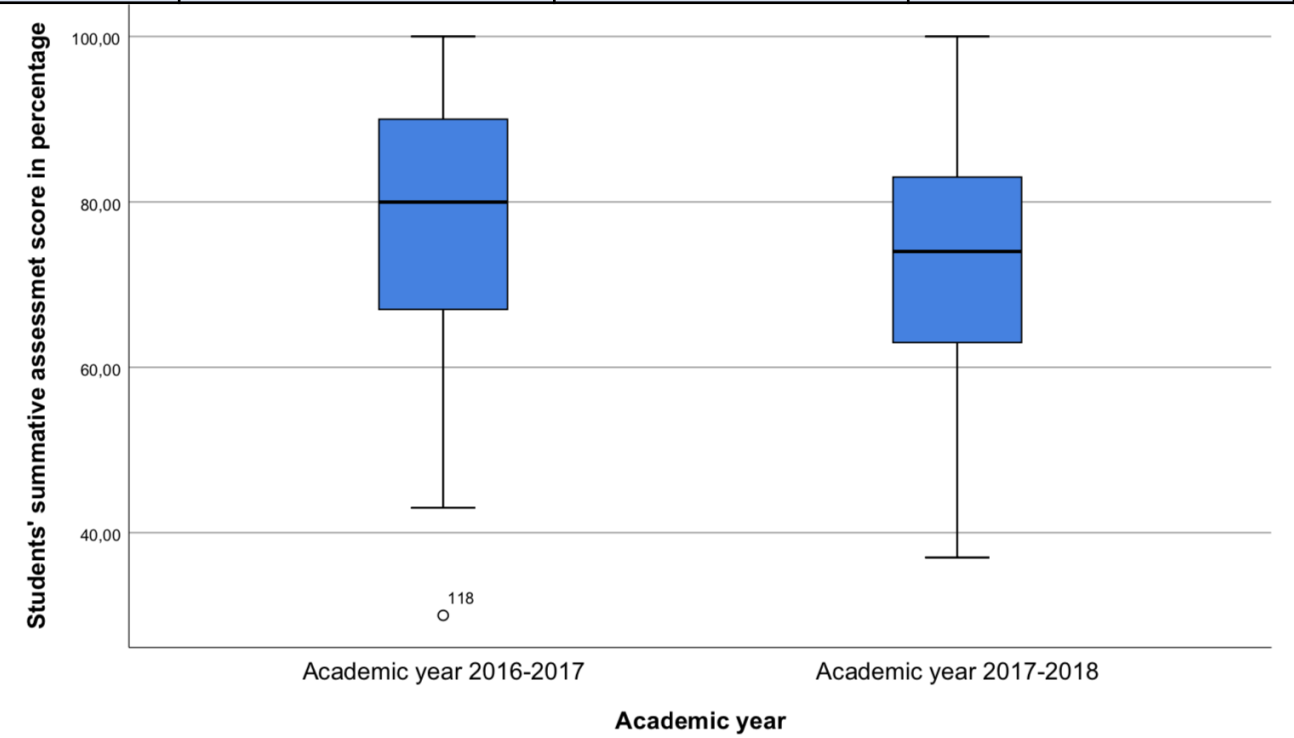
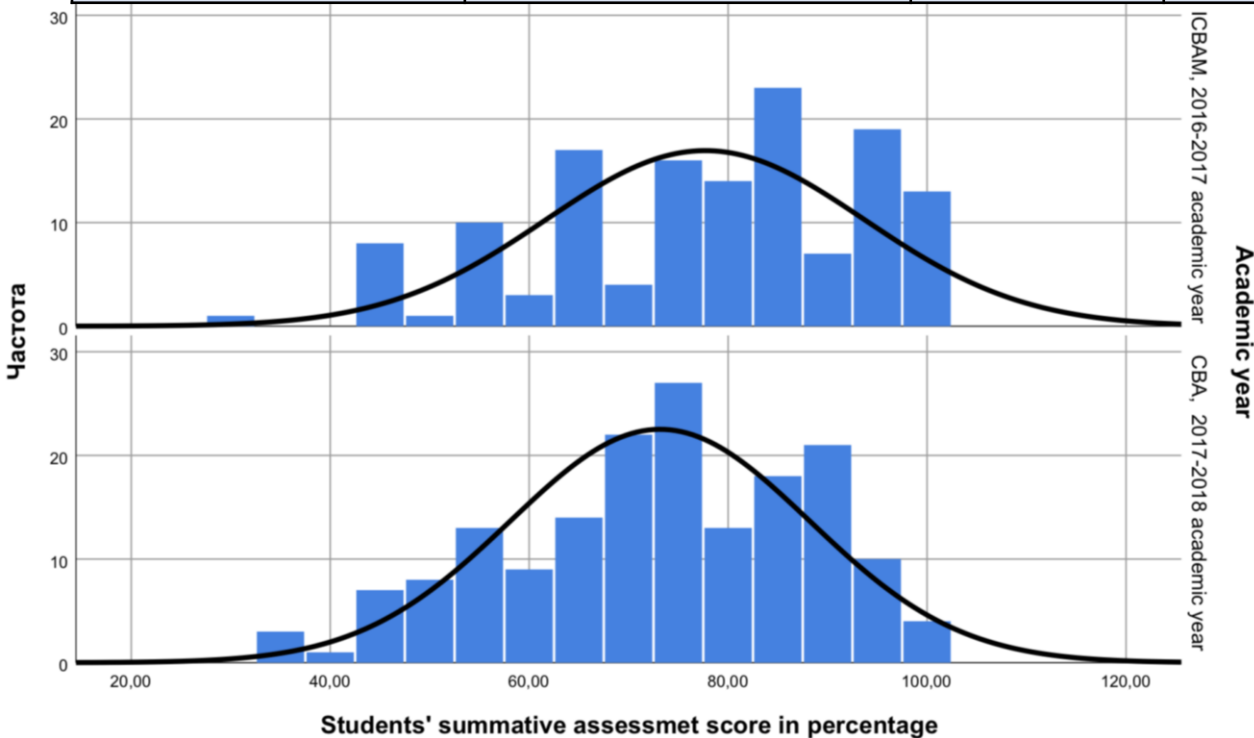
Participants: Students and teachers of Mathematics

LITERATURE REVIEW

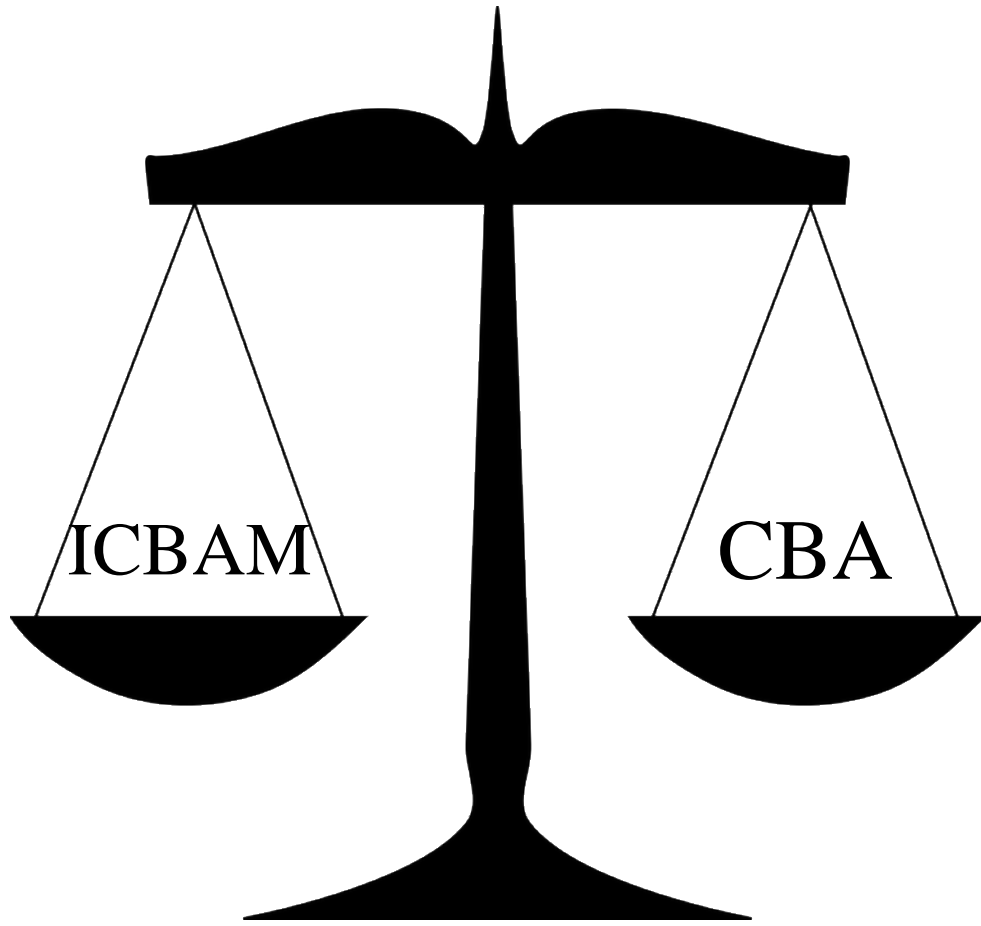
Integrating assessment with instruction increases student engagement	William (2011)
There is need for clarification between “criteria” and “standards” terms	Sadler (2005)
Formative feedback boosts achievement but requires instrumentalism	Torrance (2007)
Process assessment rather than product assessment	Ozan, Kincal (2017)
Seven principles of good feedback practice	Nicol, Macfarlane-Dick (2006)

RESEARCH DATA / FOCUS GROUP

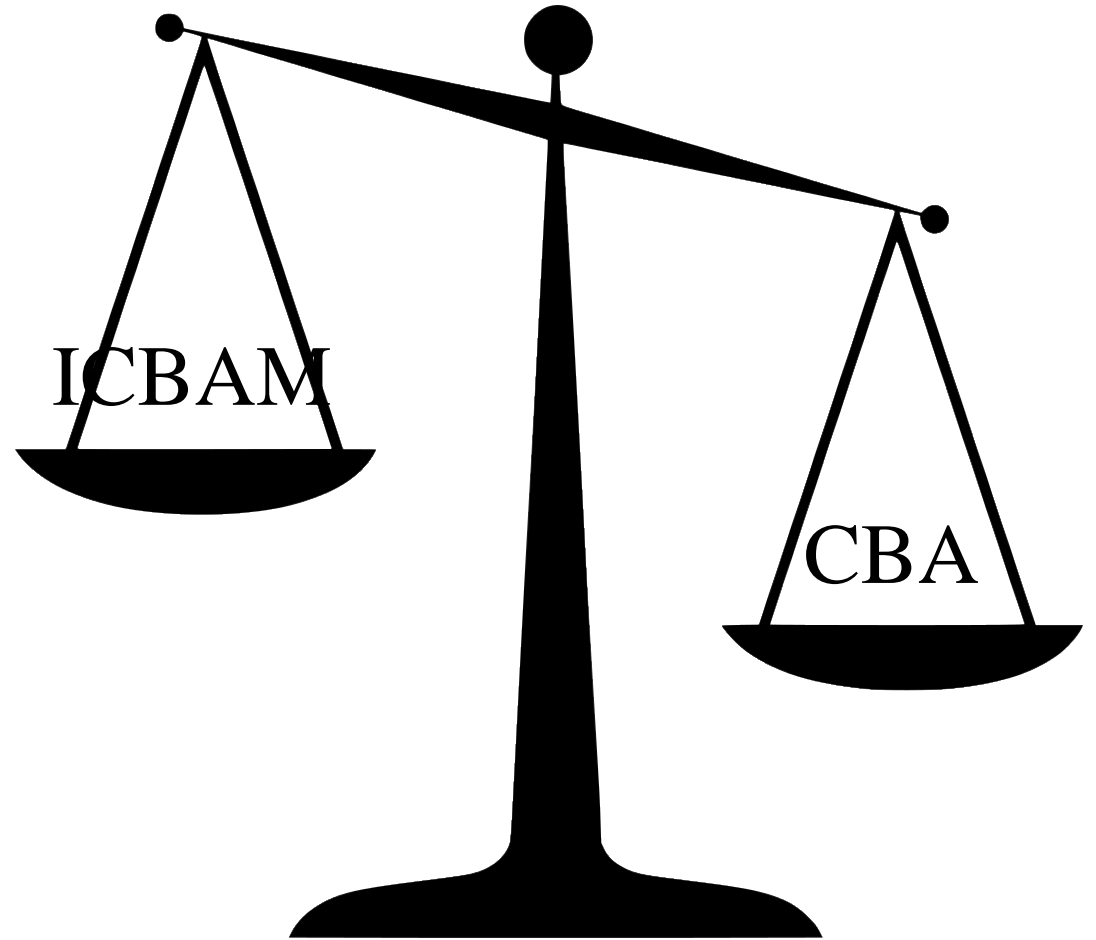
Assessment model	Academic year	Group	Grade	Number of student	Mean, μ	Variance, δ^2
ICBAM	2016-2017	#1	8	137	77,64%	254,97%
CBA	2017-2018	#2	8	170	73,24%	227,70%



RESEARCH HYPOTHESIS



Null hypothesis



Alternative hypothesis

SPSS, T- test

	Academic year	N	Mean	Std. Deviation	Std. Error Mean
Students' summative assessment score in percentage	2016-2017	137	77,6423	15,96768	1,36421
	2017-2018	170	73,2471	15,08980	1,15733

		Levene's Test Equal of variances		t-test for Equal Variances of Mean						
Students' summative assessment score in percentage		F	Sig	t	df	Sig.(2-tailed)	Mean difference	Stan. Error Difference	Lower	Upper
	Equal variances assumed	0,583	0,446	2,472	305	0,014	4,39528	1,77813	0,89633	7,89423
	Equal variances not assumed			2,457	283,876	0,015	4,39528	1,78899	0,87390	7,91665

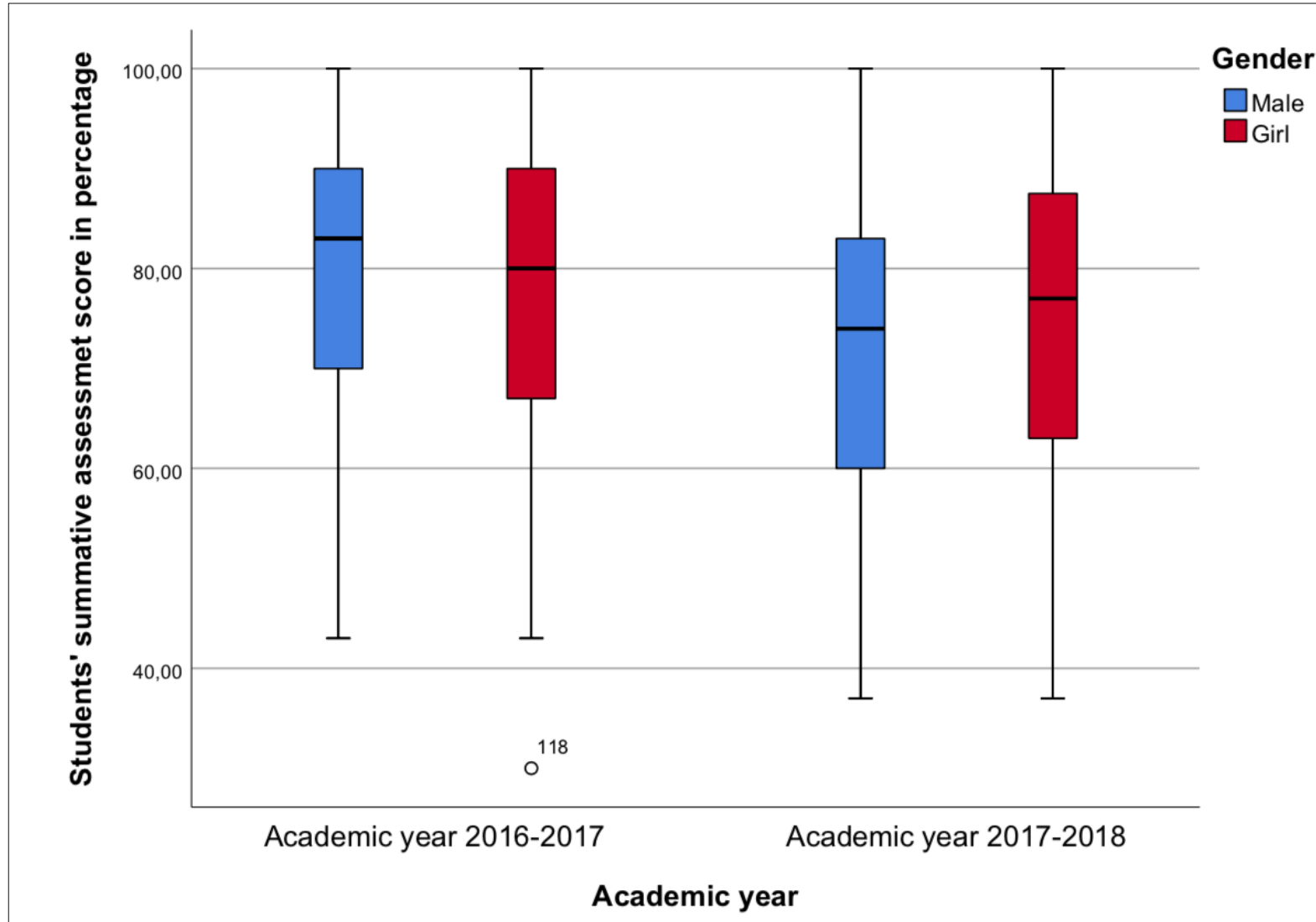
EVALUATE the t- test result

- $\alpha = 0,05$, $t = 2,472$
- the p – value for this t-test is 0,014. So, $0,014 < 0,05$

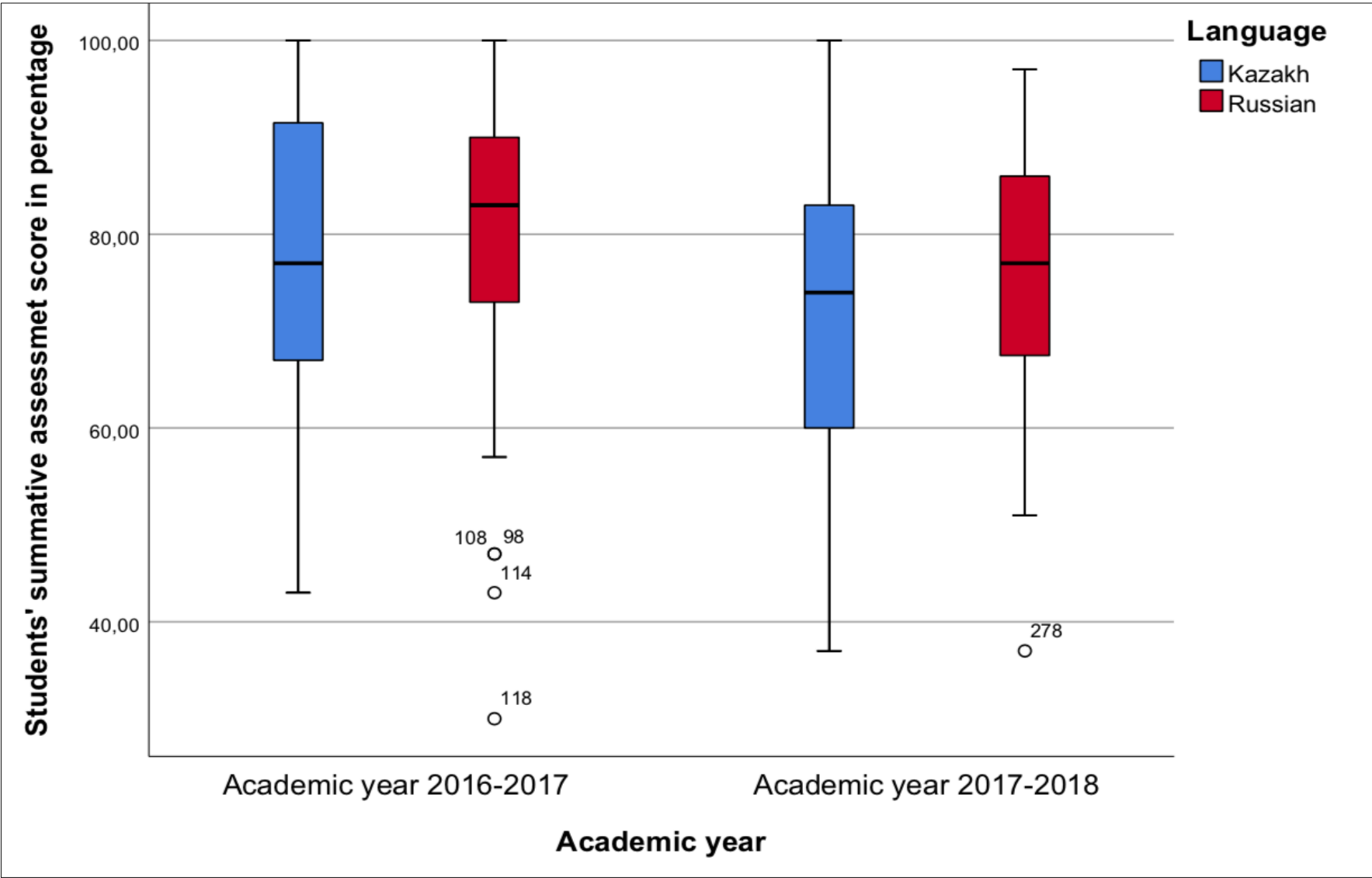
Conclusion

- Based on the previous calculation we concluded the null hypothesis is rejected. Therefore, we can conclude that there is significant evidence that the summative assessment mean score of the ICBAM model is more than the CBA model

Boxplots by gender



Boxplots by language



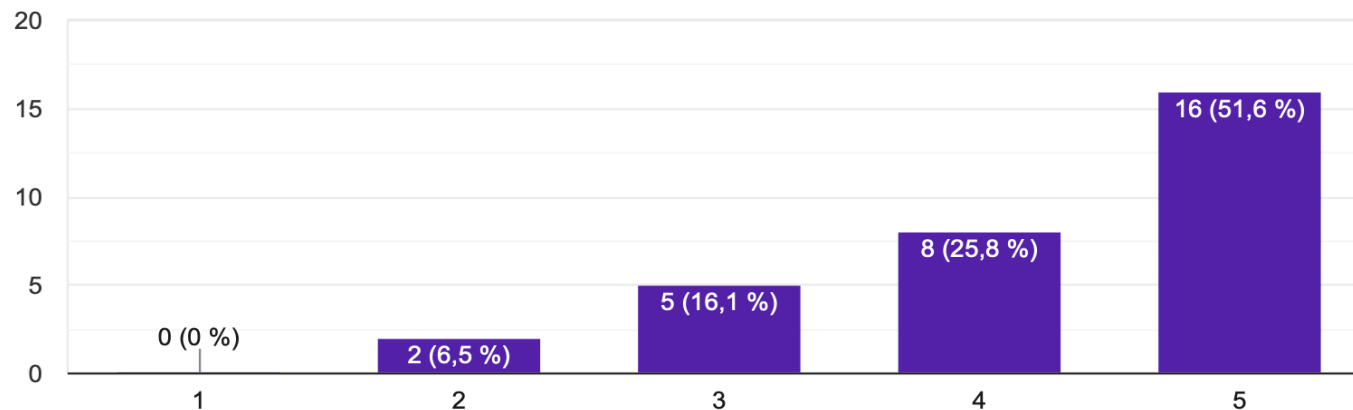
What are the attitudes of students towards CBA?



Rate the level of support provided by teacher

3. Rate the level of support provided by a teacher in the framework of the Integrated Criteria-Based Assessment Model (ICBAM) while in grade 8. (note that 1 is the least and 5 is the highest rating.)

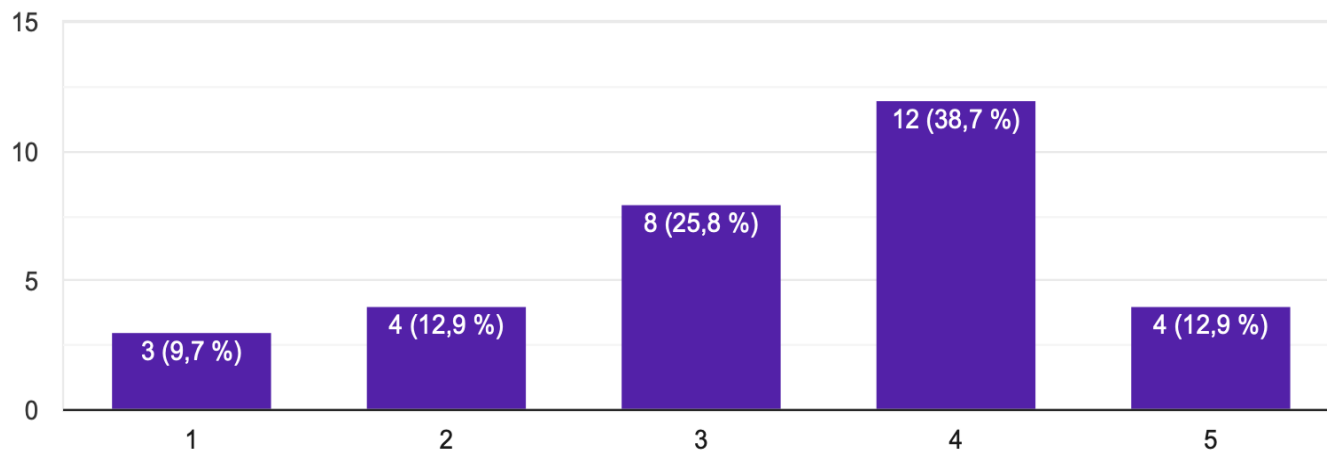
31 ответ



4. Rate the level of support provided by a teacher in the framework of Criteria-Based Assessment (CBA) in grades 9 and 10.(COP и СОЧ)



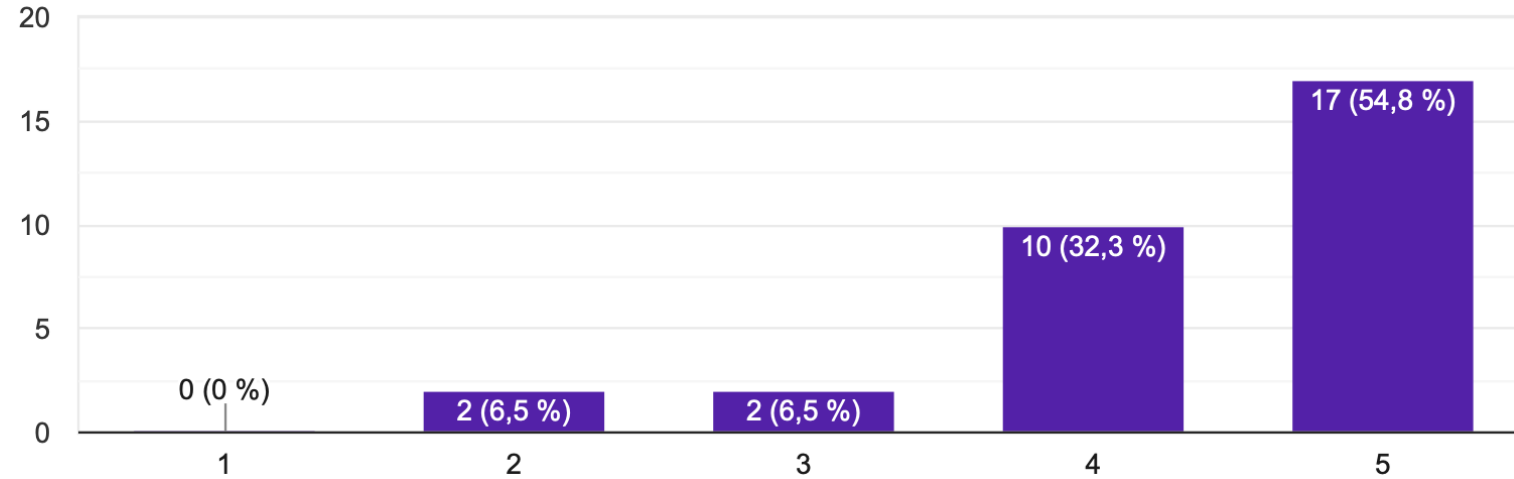
31 ответ



Rate the level of your success

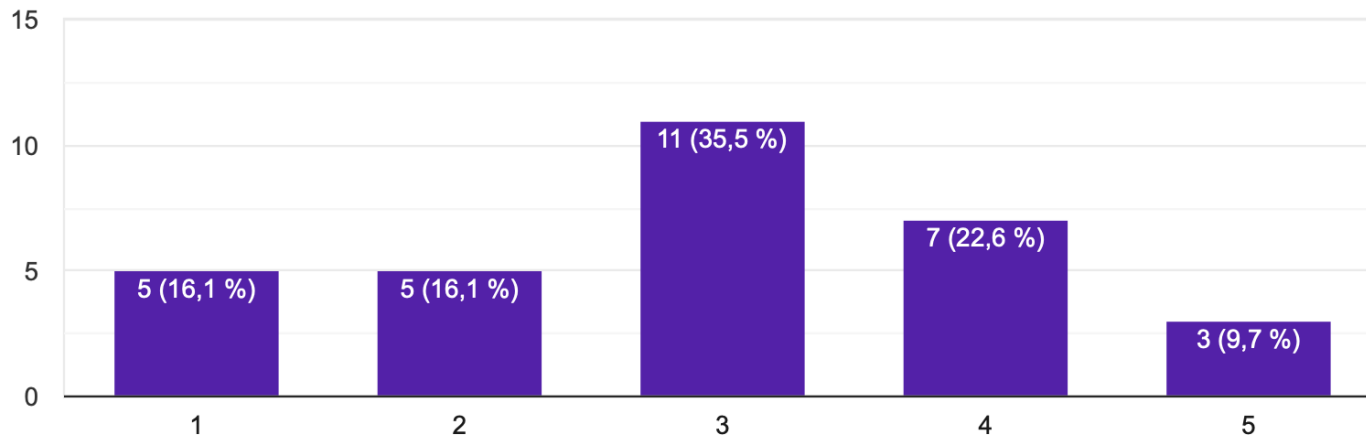
5. Rate the level of your success in the framework of the Integrated Criteria-Based Assessment Model (ICBAM) while in grade 8

31 ответ



6. Rate the level of your success in the framework of Criteria-Based Assessment (CBA) in grades 9 and 10. (COP и COЧ)

31 ответ

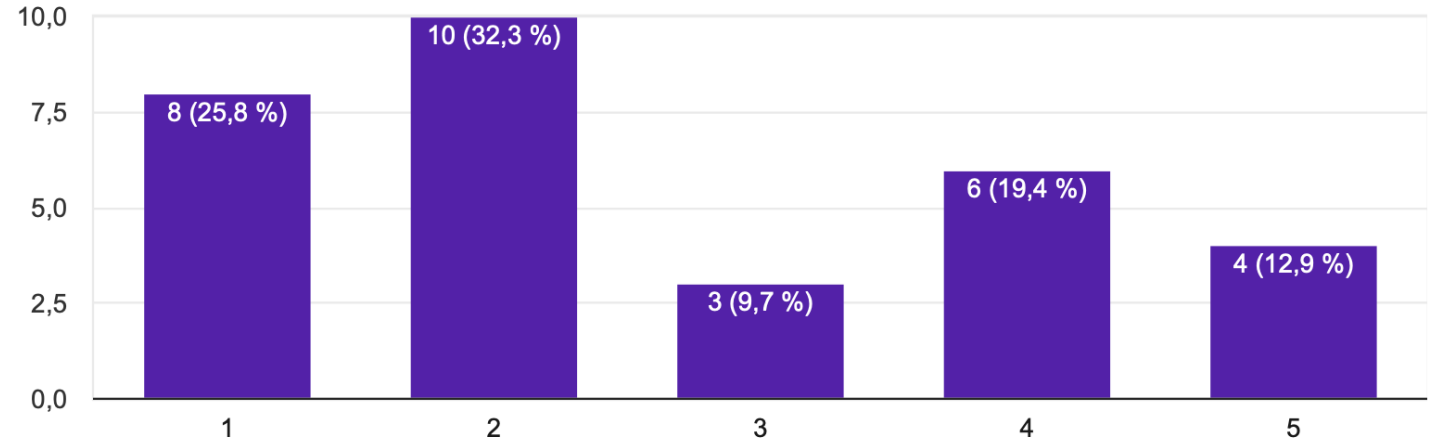


Rate the level of your stress

7. Rate the level of stress in the framework of ICBAM while in grade 8.



31 ответ

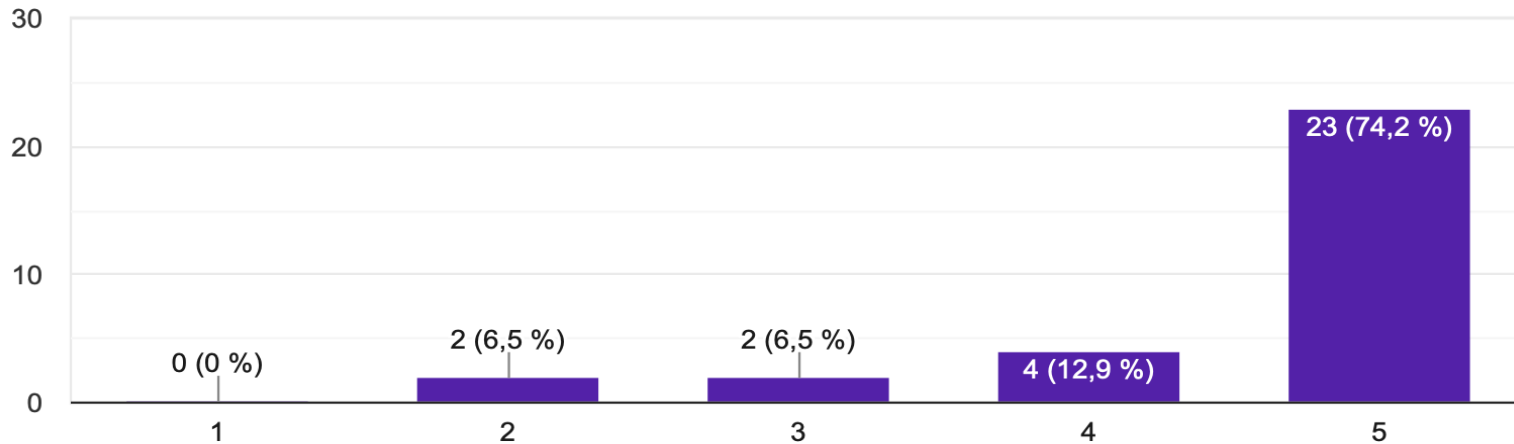


8. Rate the level of stress in the framework of CBA in grades 9 and 10.



СОР и СОЧ

31 ответ



CONCLUSION

What is the impact of Integrated ICBAM and CBA assessment models on student results?

- Support from teacher
- Stress during assessment

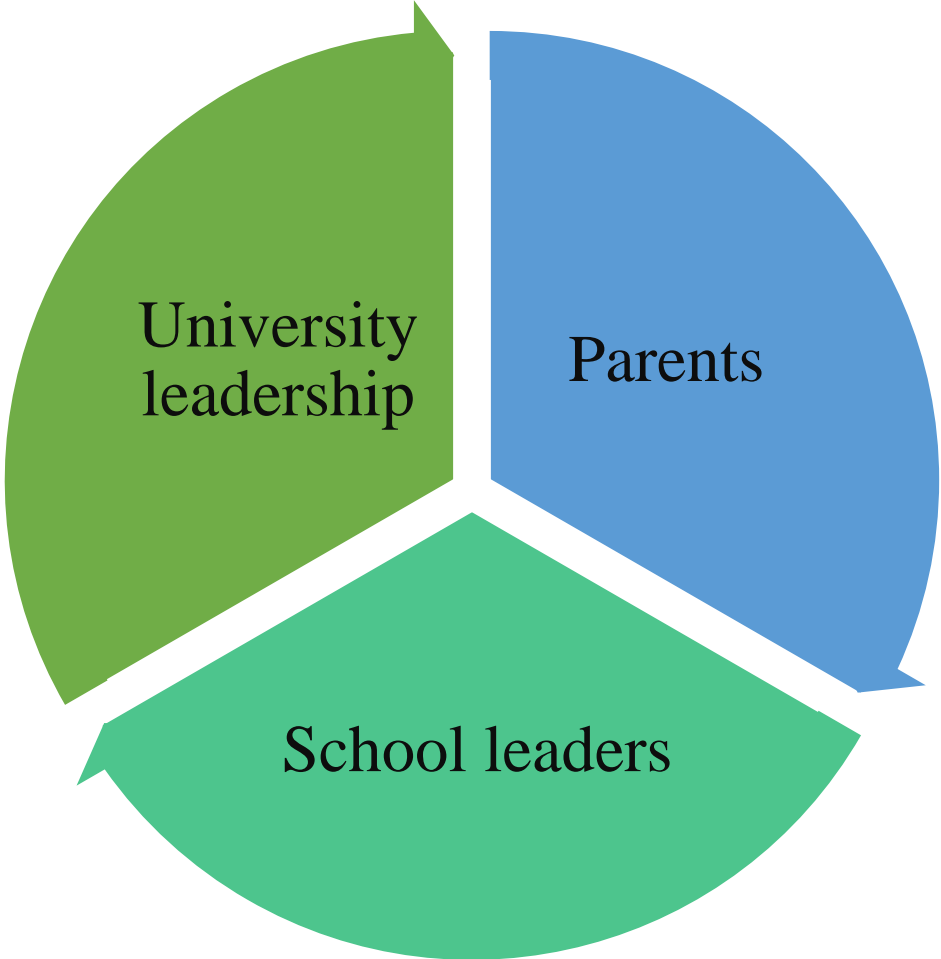
What are the attitudes of students towards Criteria-Based Assessment

- Students are more inclined to ICBAM
- Peer tutoring
- Student expectations

What are the students' and teachers' recommendations in regards to the CBA?

- Highlighted the importance of formative assessment
- Self-regulated learning
- Teaching study skills
- Provide better feedback

Research implications



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