The effect of inquiry based learning on gifted and talented students' mental states in learning the concepts of acids-bases

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Abstract

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1. Introduction

1.1. Aim of the study

2. Method

Groups	Pretest	Treatment	Post-test
Experimental Group			
Control Group			

2.2. Data collection tools

Scale	Item number	Cronbach's α

2.3. Procedure

Figure 1. The inquiry cycle

2.4. Data Analysis

3. Results

Table 3. Tests of between subject effects

Source	Dependent variable	Type III Sum of Squares	df	Mean Square	F	p	Partial eta squared
Group	Emotions						
	Intentions						
	Internal mental representation						
	External mental representation						

Table 4. Estimated marginal means

Dependent variable	Group	Mean	Std.Error	%95 Confidence Interval	
				Lower Bound	Upper Bound
Emotions	Experimental				
	Control				
Intentions	Experimental				
	Control				
Internal mental representation	Experimental				
	Control				
External mental representation	Experimental				
	Control				

Table 5. Independent sample t-test results

Group	N	$\bar{X}$	sd	df	t	p	Levene's Test for Equality of Variances	
							F	p
Experimental								
Control								

$$\bar{X} = 130.55)$$

$$\bar{X} = 157.10$$

4. Conclusion and Discussion

$$\bar{X} = 130.55)$$

$$\bar{X} = 157.10$$

References

- Sosyal bilimlerde SPSS uygulamalari.*
- Teaching for meaningful learning: A review of research on inquiry-based and cooperative learning*
- Spectrum,*
- 28
- Educational Leadership*
- 47
- Growing up gifted: Developing the potential of children at school and at home*
- Educational Leadership 62*
- Sorgulamaya dayali ozenmenin ustun zekali ve yetenekli ogrencilerin asitler - bazlar konusunu anlamalarına ve fen ogrenimine yönelik motivasyonlarına etkisi*
- School Science and Mathematics 91*
- Science education issues and development*
- Education in Chemistry 28*
- Journal of College Science Teaching, 29*
- Guidelines for designing inquiry-based learning on the web: Online professional development of educators*
- Research in Science Education, 44*
- Inquire within: Implementing inquiry-based science standards in grades 3-8.*
- Instructional Science 36,*
- Bioscene 29*
- SPSS survival manual: A step by step guide to data analysis using SPSS for Window*
- The New Mexico tech master of science teaching program: An exemplary model of inquiry-based learning*
-). Differentiating for the young child: Teaching strategies across the content areas (K-3).*