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(ANCOVA)

# **THE EFFECT OF USING IMAGINATION ON 5<sup>th</sup> GRADE STUDENTS' ACHIEVEMENT AND CREATIVE THINKING IN BETHLEHEM DISTRICT**

## **Abstract**

The study aim at investigating the effect of using imagination on the 5<sup>th</sup> - grade students' achievement and creative thinking in Bethlehem distinct. The study has been applied on a purposeful sample of the 5<sup>th</sup> grade student at public school, in Bethlehem district in school year 2008/2009. The sample included (140) students (59 males and 81 females). Researcher has prepared two tests: An achievement test and creative thinking test. Content validity and reliability were established for all tests. Students were assigned to experimental and control groups, the experimental group was taught by using imagination and the control group taught by the traditional method.

The experiment lasted 8 weeks, the design of the study was pre-post non-randomized group, in view of the design, both tests were administered before and after the experiment, data was analyzed using (ANCOVA).

### **The findings of the study were:**

A significant differences in students achievement and creative thinking in favor of the experimental group, a significant difference in students achievement and creative thinking between males and females due to gender in favor of males. And a significant difference in students achievement and creative thinking due to the students level of achievement in favor of high level. No significant differences in student achievement and creative thinking due to interaction between groups, gender and level of achievement based on finding of the study, the study recommended to use imagination in science teaching.



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(Geoffrey & Anderson, 2000)

.(Mc keller, 2006)

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.(Egan, 1997) (Inferiority)

.(Egan, 1992)

(Green, 1995)

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.(Hirsch, 1987)

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.(Schank, 1991)

(1993)

(Green, 1995)

(Marian & Peter, 1999)

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(White, 1990)

**rich elaboration**

.(Freedom)

(Barrow, 1990)

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.(Egan, 1992)

(creative imagination)

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.(Egan, 1992)

.(Gaullien, 1983)

: (Guided imagination)

:(relaxation) -

:concentration : -

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:(physical and sensitive awareness) -

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:(imagination practice) -

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.(Egan, 1992)

: **6.1**

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**Creative Thinking :**

**Imagination :**

.(Egan, 1997)

**Fluency :**

.(2007 )

**Flexibility :**

.(2007 )

**Originality :**

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.(Egan, 1997)

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.(Egan, 1992)

.(Williams, 1983)



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(Williams, 1983)

(Galeen, 1985)

: **1.1.2**

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.(Williams, 1983)

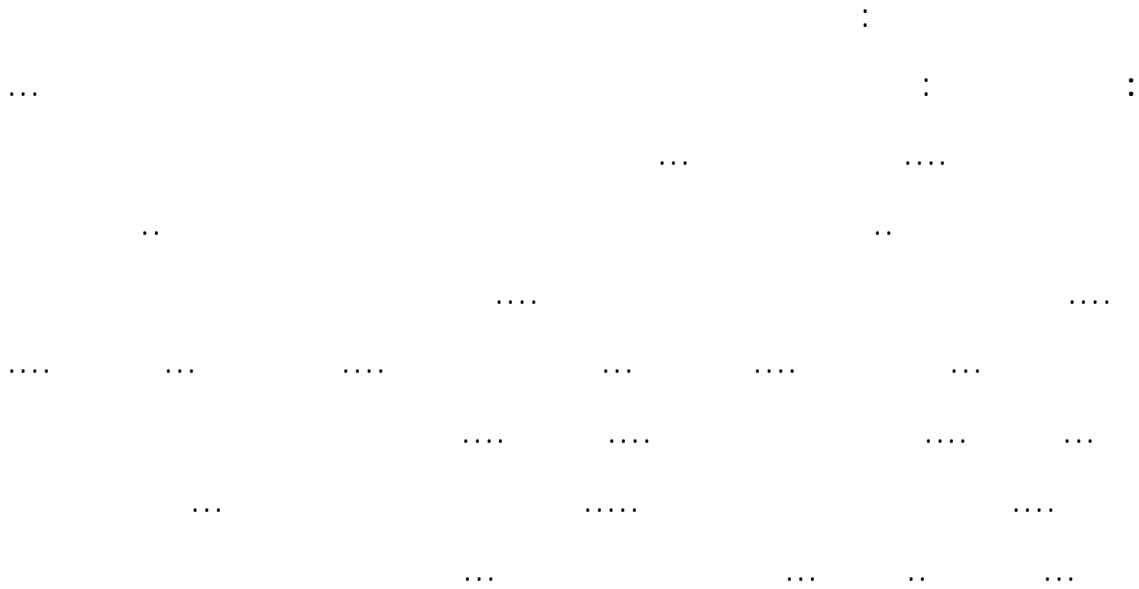
.(Williams, 1983)

.(Denis, 1991)

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### 3.1.2

.(Debono, 1995)



.(Williams, 1983)

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.(Williams, 1983)

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.(Rasinski, 1985)

.(Schank, 1991)

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(Marian & Peter, 1999)

(Leboutillier & Marks, 2003)

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.(1993 )

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(Pavio)

(Gaullien, 1983)

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(Egan, 1992)

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(Costa&Kallick, 2000)

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(Metacognition)

.(Costa & Kallick, 2000)

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(Sarah, 1997)

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(Kosslyn, 2000)

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(Denis, 1991)

(Novices)

(Experts)

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.(2004 )

(Torrance)

.(Torrance, 1993)

(Hong, 2006)

(Ability)

(Process)

(Mackinnon)

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**(Creative Products) : -1**

(D. W. Taylor)

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**(Creative Process) : -2**

**(Creative Person) : -3**

**(Creative Situation) : -4**



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**8.2**

:(Factor Analysis)

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**(Fluency) : 1.8.2**

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**(Figural Fluency) : -**

**(Word Fluency) : -**

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**(Ideational Fluency) : -**

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**(Expressional Fluency) : -**

(Association Fluency) : -

.(1985 )

(Flexibility) : 2.8.2

(Rigidity) (Divergent Thinking)

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(Spontaneous Flexibility) : -

(Adaptive Flexibility) : -

.(1985 )

(Originality) : 3.8.2

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.(1985 )

(Sensitivity Of Problems) : 4.8.2

.(1985 )

**(Elaboration) : 5.8.2**

.(1992 )

**(Maintaining Direction) : 6.8.2**

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.(1992 ) **: -4**

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(Mental Labour) : .1

(Incubation) : .2

(Illumination) : .3

-Creative Flash

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.(Creative Induce)

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**1.11.2**

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(Downing, 1997).....



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**(Role Playing) :**

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**(Attributes Listing) :**

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**Torrance Test of Creative Thinking (TTCT) :**

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(Dahlberg, 2007)

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" (Valkanova, 2007)

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(Jarett & Wilke, 2006)

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(Karkochiene & Butkiene, 2005)

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.(Vilnius)

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" (Upadhyaya, 2005)

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(Lee Kyung Hwa,2005)

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(Russ, & Robins & Christiano, 1999)

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(Cho & Kim, 1998)

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(Compos & Gonzales, 1997)

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(Steven & Smith, 1997)

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(Alexander and Getton, 1994)

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(Ceci & Loftus, 1994)

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(Mayer, 1987)

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(Pavio, 1986)

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(Nunez, 1972)

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: **1.3**

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71	19	13	5	10	17	7	( )
69	13	14	9	8	18	7	( )
140	32	27	14	18	35	14	

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(Test - Retest)

(0.65 - 0.45)

(0.70-0.25)

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**2.4.3**

(Torrance, 1972)

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O1 - - : - 1  
X O2  
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**1.4**

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**( $\alpha \leq 0.05$ )**

(3.4 2.4 1.4)

:(1.4)

59.45	34.26		
69	69		
19.54	12.46		
69.80	36.37		
71	71		
14.77	14.55		
64.70	35.33		
140	140		
17.99	13.55		

: 2.4

63.15	29.49		
59	59		
14.98	11.13		
65.83	39.58		
81	81		
19.91	13.64		
64.70	35.33		
140	140		
17.99	13.55		

: (3.4)

79.55	44.20		
49	49		
13.32	13.76		
63.88	36		
32	32		
11.89	9.46		
52.81	27.59		
59	59		
14.92	10.39		
64.70	35.33		
140	140		
17.99	13.55		

(1.4)

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(ANCOVA)

( $\alpha \leq 0.05$ )

(4.4)

(ANCOVA)

:(4.4)

0.00*	170.07	2281.28	1	2281.28	
0.00*	15.81	2113.54	1	2113.54	
0.02*	5.51	736.76	1	736.76	
0.00*	30.31	4051.66	2	8103.32	
0.19	1.71	228.25	1	228.25	*
0.10	2.38	318.60	2	637.21	*
0.32	1.16	154.55	2	309.09	*
0.18	2.26	302.44	2	604.87	* *
		133.67	127	16976.24	
			140	631036.00	
			139	44983.4	

( $\alpha \leq 0.05$ )

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(0.000)

(15.811)

( $\alpha \leq 0.05$ )

(5.4)

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1.538	69.008	
1.475	60.505	

(69.008)

(5.4)

(60.505)

(5.512)

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(4.4)

( $\alpha \leq 0.05$ )

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1.621	67.456	
1.506	62.058	

(67.456)

(6.4)

(62.058)

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(0.000)

(30.311)

( $\alpha \leq 0.05$ )



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1.930	76.314	
2.125	62.905	
1.705	55.051	

L.S.D

L.S.D : (8.4)

	-		
0.000*	13.409		
0.000*	21.263		
0.000*	13.409-		
0.005*	7.854		
0.000*	21.263-		
0.005*	7.854-		

( $\alpha \leq 0.05$ )

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(8.4)

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( $\alpha \leq 0.05$ )

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( $\alpha \leq 0.05$ )

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$(\alpha \leq 0.05)$

(11.04 10.4 9.4)

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66.35	48.19		
69	69		
22.34	22.58		
73.06	50.01		
71	71		
21.41	22.90		
69.75	49.11		
140	140		
22.05	22.68		

:(10.4)

64.32	33.59		
59	59		
21.71	15.75		
73.70	60.42		
81	81		
21.58	20.17		
69.75	49.11		
140	140		
22.05	22.68		

:(11.4)

87.47	66.12		
49	49		
10.77	16.74		
72.75	51.53		
32	32		
13.99	16.26		
53.41	33.68		
59	59		
20.57	19.23		
69.75	49.11		
140	140		
22.05	22.68		

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( $\alpha \leq 0.05$ )

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(ANCOVA)

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0.00	109.08	14835.75	1	14835.75	
0.01*	7.51	1020.82	1	1020.82	
0.00*	23.81	3238.03	1	3238.03	
0.00*	6.22	845.34	2	1690.67	
0.67	0.19	25.17	1	25.17	*
0.74	0.30	41.18	2	82.37	*
0.73	0.32	42.98	2	85.97	*
0.48	0.74	100.99	2	201.97	* *
		136.01	127	17273.73	
			140	748700.0	
			139	67598.25	

( $\alpha \leq 0.05$ )

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( $\alpha \leq 0.05$ ) (0.007) : (12.4) (7.505) :  
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1.546	74.252	
1.492	68.353	

(74.252) (13.4)  
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(23.807) ( ) (12.4)  
 ( $\alpha \leq 0.05$ ) (0.000)

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1.873	78.325	
1.712	64.280	

(78.325)

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( $\alpha \leq 0.05$ )

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2.014	77.206	
2.159	70.404	
1.997	66.298	

L.S.D

:(16.4)

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0.019*	6.802		
0.001*	10.907		
0.019*	6.802-		
0.184	4.106		
0.001*	10.907-		
0.184	4.106-		

( $\alpha \leq 0.05$ )

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بسم الله الرحمن الرحيم

Al-Quds University  
Faculty of Educational Science  
Graduate Studies Programs



جامعة القدس  
كلية العلوم التربوية  
برامج الدراسات العليا

الرقم: ب د ع/08/12/65/12  
التاريخ: 2008/12/14

حضرة مدير التربية والتعليم المحترم  
مديرية بيت لحم

الموضوع: تسهيل مهمة

تحية طيبة وبعد،،

تقوم الطالبة: اسبرانس سابا قطيمي ورقمها الجامعي (20714355)، بدراسة تتعلق برسالة  
ماجستير، بعنوان

" أثر استخدام الخيال في تنمية التفكير الإبداعي والتحصيل لدى طلبة الصف  
الخامس الأساسي "

لذا يرجى من حضرتكم تسهيل مهمة الطالبة المذكورة أعلاه والتعاون معها.

شاكرين لكم حسن تعاونكم

والله موفق

د. محسن عدس

منسق برامج الدراسات العليا / كلية العلوم التربوية



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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Palestinian National Authority  
Ministry of Education & HE  
Directorate of Education \Bethlehem



السلطة الوطنية الفلسطينية  
وزارة التربية والتعليم العالي  
مديرية التربية والتعليم/بيت لحم

الرقم: نت ب/ ١/٣ /  
التاريخ: ٣٠ / ١٢ / ٢٠٠٨  
الموافق: ٣ / محرم / ١٤٣٠ هـ

مديرة مدرسة التماسيح الأساسية المحترمة  
تحية طيبة وبعد،،،

#### الموضوع: تسهيل مهمة

لا مانع من تسهيل مهمة الباحثة اسيرانس ساليا قطيمي والسماح لها بتنفيذ الفعاليات المتعلقة برسالة الماجستير الخاصة بها تحت عنوان (( أثر استخدام الخيال في تنمية التفكير الإبداعي والتحصيل لدى طلبة الصف الخامس الأساسي)) وذلك بالتعاون مع معلمة العلوم في المدرسة على ألا يؤثر ذلك على سير العملية التعليمية.

مع الاحترام

أ. عبد الله شكارنة

مدير التربية والتعليم

التعليم العام  
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عاصمة الثقافة العربية  
Capital of Arab Culture  
2009



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إذنا الترحيب

Palestinian National Authority  
Ministry of Education & HE  
Directorate of Education \Bethlehem



السلطة الوطنية الفلسطينية  
وزارة التربية والتعليم العالي  
مديرية التربية والتعليم/بيت لحم

الرقم: ت/ب/ ١/٣

التاريخ: ٣٠/١٢/٢٠٠٨

الموافق: ٣/ محرم / ١٤٣٢ هـ

مديرة مدرسة بنات الناصرة الأساسية المحترمة  
تحية طيبة وبعد،،،

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أ. عبد الله شكارنة

مدير التربية والتعليم

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عاصمة الثقافة العربية  
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