

ما وراء الذاكرة لدى عينة من طلبة جامعة اليرموك في ضوء متغيرات الجنس وقلق الاختبار والتحصيل الدراسي

كلية التربية - جامعة اليرموك
إربد - الأردن

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الخلاصة

هدفت الدراسة إلى الكشف عن مستويات ما وراء الذاكرة (المهمة، والاستراتيجية، والقلق، والتحصيل، والكفاءة، والتغير، والتحكم)، وإلى الكشف عما إذا كانت هذه المكونات تختلف باختلاف جنس الطالب، وتحصيله الدراسي، وقلق الاختبار لديه. تكونت عينة الدراسة من (463) طالباً وطالبة، (176، ذكور، 287 إناث) من طلبة جامعة اليرموك.

ولتحقيق أهداف الدراسة استخدم مقياس ما وراء الذاكرة الذي أعده ديكسون وهلتسش وهيرتزوج (Dixon, Hultsch, & Hertzog, 1988) بعد تكيفه على البيئة الأردنية. وقد كشفت نتائج الدراسة عن أن مكونات التحكم والتحصيل والمهمة جاءت بمستوى مرتفع، وأن مكونات الاستراتيجية، والقلق، والكفاءة، والتغير، جاءت بمستوى متوسط. كما تبين أن الإناث تتفوق على الذكور في مكونات الاستراتيجية والقلق والتحكم. وأن مكونات المهمة والاستراتيجية، والتحصيل، والتحكم تختلف باختلاف مستوى التحصيل الدراسي للطلبة، ولصالح ذوي التحصيل الأعلى باستمرار. وقد أشارت نتائج الدراسة إلى اختلاف مستوى مكونات التغير والقلق والتحصيل باختلاف مستوى قلق الاختبار.

الكلمات المفتاحية: ما وراء الذاكرة، قلق الاختبار، التحصيل الدراسي، طلبة الجامعة.

خلفية الدراسة:

(Kellogg, 1995)

(Waldrop, 1987)

(Pressley, 1982)

:

(Flavell, 1971) 35

(Kreutzer, Leonard & Flavell, 1975)

Knowledge

(Dixon, 1989)

Feeling

Beliefs

:

(Light, 1991)

:

(Van Ede, 1995)

(Pandura, 1986)

(Dixon, Hultsch, & Hertzog, 1988)

:

(Hertzog, Hultsch & Dixon,
:

1989)

(Huet & Marine, 1997)

Person Variables :

Declarative Knowledge

Task Variable

:

Declarative Strategy Variable

Procedural Strategy

Variable

(Van Ede & Coetzee,, 1996)

Monitoring

Mental representation of

Time allocation
.information

:

(Cavanaugh & Poon, 1989,

.Hultsch, Hertzog & Dixon, 1987)

ما وراء الذاكرة لدى عينة من طلبة جامعة اليرموك في ضوء متغيرات الجنس وقلق الاختبار ...

(Cavanaugh & Poon, 1989)

(Dixon & Hultsch,

1983, Gilewski, Zelinski & Schae, 1990).

(Yussen & Berman, 1981)

(5.5)

(5.9)

(Hultsch et al.,

1987)

(Persinger & Richards, 1995)

(Butts et., al., 1995)

(Jonker & Smits, 1997)

(MAI)

(Leal, 1987)

(Hertzog, 1992)

العلاقة بين قلق الاختبار والذاكرة والتحصيل الدراسي:
(1995)

(Kessler,

Foster, Saunders, & Stang, 1995)

(Woodword

& Fergusson, 2001)

(Hill & Wigfield, 1984)

(0.60-)

.(Ashcraft, 2002)

(562) (Hembree, 1988)

(Shobe, Brewin & Carmack, 2005)

ما وراء الذاكرة لدى عينة من طلبة جامعة اليرموك في ضوء متغيرات الجنس وقلق الاختبار ...

(Ashcraft & Kirk, 2001)

(Held & Bartlett, 1988)

(Dutke & Stöber, 2001)

الدراسات السابقة:

:

(Sullivan, 2002)

Charlleston

(24)

Sarason

(Julie, Joanna & Jim, 2005)

(10-9)

(15 15) (30)

(Grimley, Dahrai & Ridng, 2008)

anxiety-stability

(179)

(13-12)

:

:

(Leal, 1987)

(General Metamemory)

(20)

(44)

(64)

(18.89)

(21-17)

(22)

(16.86)

(%77)

accuracy

(67)

(Sinkavich, 1988)

(10)

(Sinkavich, 1991)

(49)

:

(Sinkavich, 1994)

(Pittsburgh)

(30.8)

(30)

(45)

(15)

(Ponds & Jellemer, 1996)

(86-24)

(1899)

:

» (1999)

«
55) (79) (172) (35) 44) (38)
(93) (20.2) (Van Ede & Coetzee).
:

()

()

(2000)

:
(30) (87) (27)
(30)

(Stevens, Kaplan, Ponds, &

Jolles, 2001)

(15)

(82-25)

(1398)

()

(Rawson, Dunlosky &

McDonald, 2002)

(2007)

(241)

(185)

(426)

()

تعقيب على الدراسات السابقة:

(Sullivan, 2002)

(Julie et al., 2005)

(Grimley et al., 2008)

(Leal, 1987)

(Sinkavich, 1991; 1994)

(Sinkavich, 1991 1999)

(Stevens et al., 2001
(Ponds & (Hultsch et al., 1987; Ponds & Jellemer, 1996)
Jellemer, 1996)

(Dixon et al., 1988)

(2007)

مشكلة الدراسة:

)

(

:

.1

.2

أهمية الدراسة:

:

التعريفات الإجرائية:

:

20)

(93 90 80 74 51 50 44 43 34 31 21

16 14)

(89 58 56 54 41 39 38 32 30 28

6)

(108 98 94 85 81 75 67 60 57 36 29 25 17

9 2)

(105 104 100 97 95 91 88 77 71 62 52 49 19

8 5) : •
(99 84 78 70 66 53 42 23 22 15 12

7 4) : •
(103 86 68 65 55 37

63 61) : •
(106 102

محددات الدراسة:

(Dixon, et al, 1988)

Sarason

ما وراء الذاكرة لدى عينة من طلبة جامعة اليرموك في ضوء متغيرات الجنس وقلق الاختبار ...

عينة الدراسة:

(463)
(176) (287)

(%15.52)

.2009 /2008

(1)

(1)

(-)					
44	8	20	16		27%
79	6	42	31		
123	14	62	47		
78	4	66	8		27%
135	10	116	9		
213	14	182	17		
54	13	31	10		
73	19	44	10		
127	32	75	20		
176	25	117	34		
287	35	202	50		
463	60	319	84		

أداتي الدراسة:

:

أولاً: مقياس ما وراء الذاكرة Metamemory in Adulthood Questionnaire (MIA) (Dixon et al., 1988) (108)

:

(2).

(1 2 3 4 5)

:

	(1 2 3 4 5)		(5 4 3 2 1)
(90 16)	:		
(80 16)	(70 14)	(90 18)	(85 17)
		(90 18)	(45 9)

:

(3.33 -1)
(3.67 -2.34)
(5 - 3.68)

إجراءات صدق وثبات المقياس:

(Dixon et al., 1988)

صدق المقياس في الدراسة الحالية:

(542)

(49-19)

Factor analysis

(25.32)

ما وراء الذاكرة لدى عينة من طلبة جامعة اليرموك في ضوء متغيرات الجنس وقلق الاختبار ...

	(%33.44)	()
(%3.95)	(%8.81)	(%10.64)
(%2.31)	(%2.79)	(%2.89)
	(0.30)	(%2.05)
	(76)	32
	(2)	.

(2)

*														
<u>64</u>	60	57	<u>48</u>	36	29	25	17	<u>11</u>	6	<u>3</u>	0.79	14	18	Strategy
	108	98	94	85	81	75	67							
50-	44-	43-	34-	31-	21-	20-	<u>1-</u>				0.76	12	16	Task
<u>107</u>	<u>96-</u>	93-	90-	80-	74-	<u>72</u>	51-							
71-	62-	59	52-	49-	<u>27</u>	19-	9-	2-			0.82	15	17	Capacity
-	104-	100-	97-	95-	91-	88-	77-							
			105											
41	39	38	32	30	28	<u>18-</u>	16	14	<u>10-</u>		0.88	12	18	Change
	<u>92-</u>	89	<u>82-</u>	<u>76-</u>	58	56	54	<u>45-</u>						
-	53-	42-	23-	22-	15-	12-	8-	5-			0.80	11	14	Anxiety
	99-	<u>87</u>	84-	78-	70-	66								
<u>47-</u>	<u>46-</u>	<u>40-</u>	37-	<u>26</u>	<u>24</u>	<u>13-</u>	7-	4-			0.70	8	16	Achievement
	103-	86-	<u>83-</u>	<u>79-</u>	68-	65-	55-							
-	102-	<u>101</u>	<u>73</u>	<u>69-</u>	63-	61-	<u>35</u>	<u>33</u>			0.67	4	9	Control
			106											
												76	108	

*

ثبات المقياس:

(Dixon et al., 1988) :

(84-18)

(0.93)

(0.71)

:

(520)

(0.88 -0.67)

(2)

ثانياً: مقياس قلق الاختبار:

(1988)

(Sarason)

(33)

()

()

()

(33)

(1)

:

(12 -1)

(23 -12)

(33 -23)

(1988)

:

(82)

(0.73)

(1988)

:

(0.81)
(84)

(0.86)

:

(3) (50)

تصميم الدراسة والمعالجة الإحصائية:

()

:

: :

▪ : () :

▪ : () : (33 - 23)

() (23 - 12)
() (12 - 1)

▪ : () : (%27)

() (%27)

)

.(

) :

(

:

▪

▪

نتائج الدراسة ومناقشتها:

:

(3)

(3)

0.67	4.08		1
0.51	4.06		2
0.55	3.99		3
0.56	3.44		4
0.63	3.32		5
0.71	3.00		6
0.58	2.60		7

(3)

(4.08)

« »
(0.67)

« »

« »

(0.51)

(4.06)

« »

(0.55)

(3.99)

« »

(3.44)	«	»	(0.56)	«	»	
	«	»	(0.63)	(3.32)	«	»
(0.70)	«	»	(3.00)	«	»	
«	»	(0.58)	(2.60)	«	»	
				«	»	
			(20)			

(2007)

(4).

(4)

0.25	3.44	0.62	3.94	0.57	4.01	0.73	2.91	0.58	2.56	0.59	3.37	0.63	3.31	0.60	3.98			
0.23	3.54	0.68	4.17	0.47	4.10	0.69	3.06	0.58	2.62	0.53	3.49	0.63	3.33	0.52	4.00			
0.30	3.64	0.70	4.35	0.56	4.22	0.78	3.06	0.74	2.66	0.61	3.66	0.70	3.36	0.58	4.16			
0.08	3.49	0.57	4.08	0.37	4.06	0.66	2.99	0.49	2.55	0.48	3.40	0.60	3.35	0.39	4.03			
0.28	3.38	0.68	3.83	0.62	3.91	0.71	2.96	0.55	2.61	0.56	3.31	0.60	3.25	0.67	3.76			
0.34	3.56	0.79	4.15	0.53	4.15	0.81	2.77	0.68	2.62	0.68	3.49	0.63	3.62	0.55	4.11			
0.18	3.49	0.61	4.06	0.42	4.08	0.63	3.00	0.53	2.57	0.51	3.43	0.60	3.30	0.47	4.00			
0.32	3.46	0.76	4.09	0.81	3.82	0.80	3.32	0.68	2.72	0.62	3.45	0.62	3.05	0.85	3.81			

(4)

($\alpha = 0.05$)

(Dixon et al., 1988)

(5)

(5)

(one way MANOVA)

	F					
0.865	0.029	0.008	1	0.008		
0.734	0.116	0.043	1	0.043		
0.028	4.841	1.412	1	1.412		
0.290	1.122	0.380	1	0.380		(0.051)

ما وراء الذاكرة لدى عينة من طلبة جامعة اليرموك في ضوء متغيرات الجنس وقلق الاختبار ...

	F				
0.037	4.395	2.063	1	2.063	
0.106	2.626	0.642	1	0.642	
0.001	12.252	4.898	1	4.898	
0.000	14.949	4.199	2	8.398	
0.343	1.072	0.394	2	0.787	
0.000	14.282	4.166	2	8.332	
0.348	1.058	0.358	2	0.717	
0.072	2.646	1.242	2	2.484	(0.815)
0.000	9.420	2.303	2	4.605	
0.000	19.981	7.987	2	15.974	
0.116	2.160	0.607	2	1.213	
0.000	16.452	6.037	2	12.074	
0.682	0.382	0.112	2	0.223	
0.260	1.350	0.457	2	0.914	
0.000	13.160	6.176	2	12.352	(0.882)
0.005	5.393	1.318	2	2.636	
0.528	0.640	0.256	2	0.512	
		0.281	457	128.360	
		0.367	457	167.694	
		0.292	457	133.304	
		0.339	457	154.818	
		0.469	457	214.467	
		0.244	457	111.709	
		0.400	457	182.675	
			462	140.034	
			462	180.776	
			462	143.610	
			462	157.097	
			462	229.661	
			462	121.324	
			462	205.115	

($\alpha=0.001$) (4)

()

(2.91) (3.37)

(4.17) (3.06) (3.49)

(3.94)

(2003)

(Hultsch et al., 1987)

(Ponds & Jellemer, 1996)

($\alpha=0.001$)

(5)

(6)

(6)

0.086	0.060	0.133		
0.001	0.067	0.398		
0.001	0.059	0.265		
0.001	0.061	0.268		
0.001	0.068	0.352		
0.381	0.061	0.084		
0.018	0.056	0.159		
0.000	0.063	0.317		
0.018	0.055	0.158		
0.001	0.072	0.271		
0.001	0.080	0.523		
0.002	0.071	0.252		

ما وراء الذاكرة لدى عينة من طلبة جامعة اليرموك في ضوء متغيرات الجنس وقلق الاختبار ...

($\alpha=0.05$)

(6)

(Goldstein & Golding, 1984; Carr & Borkowski, 1987;
(Leal, 1987) Sinkavich, 1991; 1994)

(Sinkavich, 1991) (Geary et al., 1990)
(1999)

($\alpha=0.001$)

(5)

(7)

(7)

0.000	0.074	0.323		
0.000	0.102	0.575		
0.013	0.085	0.252		
0.023	0.084	-0.231		
0.000	0.116	-0.545		
0.005	0.096	-0.314		

0.575	0.061	0.064		
0.001	0.084	0.324		
0.001	0.070	0.260		

($\alpha=0.05$)

(7)

(1995)

(Shobe et al., 2005)

(Ashcraft

& Kirk, 2001)

(Held & Bartlett, 1988)

(Sullivan, 2002)

(Dutke & Stöber, 2001)

(Julie et al., 2005)

توصيات الدراسة:

:

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-
-

المراجع:

- 1 - (1995) . : : : .
- 2 - (2007) . 3 (1) 89-105 .
- 3 - (1999) . 2 (2) 298-330 .
- 4 - (2000) . 16 (1) 30-59 .
- 5 - (1988) . 15 (1) 68-80 .
- 6 - (2003) . : : : .
- 7 - Ashcraft, M. H. (2002). Math anxiety: Personal, educational and cognitive consequences. **Current Directions in Psychological Science**, 11, 181–185.
- 8 - Ashcraft, M. H., & Kirk, E. P. (2001). The relationships among working memory, math anxiety and performance. **Journal of Experimental Psychology – General**, 2, 224–237.

- 9 - Butts, S., Mixon, K., Mulekar, M., & Bringmann, W. (1995). Gender Differences in Eyewitness Testimony. **Perceptual and Motor Skills**, **80**, 59-63.
- 10 - Carr, M., Borkowski, J. G.(1987). Metamemory in Gifted Children. **Gifted Child Quarterly**, **31** (1), 40-44.
- 11 - Cavanaugh, J.C. & Poon, L.W. (1989). Metamemory Predictors of Memory Performance in Young and Older Adults. **Psychology and Aging**, **4**, 365- 368.
- 12 - Dixon, R. A.(1989). Questionnaire research metamemory and aging: Issues of structure and function, In L. W. Poon, D. C. Rubi, & B. A. Wilson (Eds), **Everyday cognition in adulthood and late Life** (394-415), New York: Cambridge University Press.
- 13 - Dixon, R. A., Hulstsch, D. F.(1983). Structure and Development of Metamemory in Adulthood. **Journal of Gerontology**, **38**, 682-688.
- 14 - Dixon, R. A., Hulstsch, D. F, & Hertzug, Ch. (1988). The Metamemory in Adulthood (MIA) Questionnaire. **Psychopharmacology bulletin**, **24** (4), 671-688.
- 15 - Dutke, S., & Stöber, J. (2001). Test anxiety, working memory, and cognitive performance: Supportive effects of sequential demands. **Cognition and Emotion**, **15**, 381–389.
- 16 - Flavell, J. (1971). First Discussant's Comments: What Is Memory Development the Development of? **Human Development**, **14**, 272–278.
- 17 - Flavell, J. H., & Wellman, H. M. (1977). Metamemory. In R. V. Kail, Jr., & J. W. Hagen (Eds.), **Perspectives on the development of memory and cognition** (pp. 3-33). Hillsdale, N J: Erlbaum.cognition (pp. 3-33). Hillsdale, N J: Erlbaum.
- 18 - Geary, DC., Klosterman, IH., & Adrales, K.(1990). Metamemory and Academic Achievement: Testing the Validity of a Group-Administered. **Journal of Genetic Psychology**, **151**, 439-450.
- 19 - Gilewski, M., Zelinski, E., & Schae, K. W. (1990). The Memory Functioning Questionnaire for Assessment of Memory Complaints in Adulthood and old Age. **Psychology of Aging**, **5**, 482-490.
- 20 - Goldstein, D., & Golding, J.(1984). Metamemory Ability in Learning Disabled Children with and without a Memory Deficit. **ERIC Digest**. **ED269937**.
- 21 - Grimley, M; Dahraei, H; & Riding, R. (2008). The relationship between anxiety-stability, working memory and cognitive style. **Educational studies**, **34** (3), 213-223.

- 22 - Held, J., Bartlett, J. (1985). Test anxiety and effect-toward- comprehension in sentence memory. Paper Presented at the Annual Meeting of the American Educational Research Association (69th, Chicago, IL, March 31-April 4, 1985). **ERIC Digest. ED260114.**
- 23 - Hembree, R. (1988). Correlates, Causes, Effects, and Treatment of Test Anxiety, **Review of Educational Research, 58** 47-77.
- 24 - Hertzog, C. (1992). Improving memory: The possible roles of metamemory. In D. Herrmann, H. Weingartner, A. Searleman & C. McEvoy (eds.) **Memory Improvement: Implications for Memory Theory.** New York: Springer-Verlag. pp 61-78.
- 25 - Hertzog, C., Hulstsch, D., & Dixon, R. (1989). Evidence for the Convergent Validity of two Self-Report Metamemory Questionnaires. **Developmental Psychology, 25**, 687-700.
- 26 - Hill, K.T., & Wigfield, A. (1984). Test Anxiety: A major educational problem and what can be done about it, **Elementary School Journal, 85**, 105-126.
- 27 - Huet, N., & Marine, C. (1997). Metamemory Assessment and Memory Behavior in A Simulated Memory Professional Task. **Contemporary Educational Psychology, 22**, 507-520.
- 28 - Hulstsch, D.F., Hertzog, C., & Dixon, R.A. (1987). Age Differences in Metamemory: Resolving Inconsistencies. **Canadian Journal of Psychology, 41**, 193-208.
- 29 - Jonker, C. Smits, C. H. (1997). Affect – related Metamemory and Memory Performance in a Population – based Sample of Older Adults. **Educational Gerontology, 23** (2), 115-129.
- 30 - Julie A. H., Joanna, B., & Jim, S. (2005). State Anxiety and Working Memory in Children: A test of processing efficiency Theory. **Educational Psychology, 25** (4), 379-393.
- 31 - Kellogg, R. (1995). **Cognitive Psychology.** London, Stage Publications Ltd.
- 32 - Kessler, R. C., Foster, C. L., Saunders, W. B., & Stang, P. E. (1995). Social consequences of psychiatric disorders I: Educational attainment. **American Journal of Psychiatry, 157**, 1026-1032.
- 33 - Kreutzer, M., Leonard, M., & Flavell, J. (1975). An interview study of children's knowledge about memory. **Monographs of the Society for Research in Child Development, 40.** (1, Serial No. 159).

- 34 - Leal, L. (1987). Investigation of the Relation between Metamemory and University Students Examination Performance. **Journal of Educational Psychology**, **79** (1), 35-40.
- 35 - Light, L.L. (1991). Memory and Aging: Four Hypotheses In Search of Data. **Annual Review of Psychology**, **42**, 333-376.
- 36 - Lucangeli, D., Galderisi, D., & Cornoldi, C. (1995). Specific and General Transfer Effects Following Metamemory Training. **Learning Disabilities Research and Practice**, **10** (1), 11-21.
- 37 - Pandura, A. (1986). **Social Foundation of Thought and Action**. Englewood Cliffs, NJ: Prentice Hall.
- 38 - Persinger, M., & Richards, P. (1995). Women Reconstruct More Details Than Men for A Complex Five Minute Narrative: Implications for Right-Hemispheric Factors in the Serial Memory Effect. **Perceptual and Motor Skills**, **80**, 403-410.
- 39 - Ponds, W.H., & Jellemer, J.(1996). The Abridged Dutch Metamemory In Adulthood (MII) Questionnaire: Structure and Effect of Age, Sex, and Education. **Psychology and aging**, **11** (2), 324-332.
- 40 - Pressley, M. (1982). Elaboration and memory development. **Child Development**, **53**, 296-309.
- 41 - Rawson, K., Dunlosky, J., & McDonald, S. (2002). Influences of metamemory on performance predictions for text. **Quarterly Journal of Experimental Psychology**, **55A**, 505-524
- 42 - Shobe, E., Brewin, A., Carmack, S. (2005). A Simple visualization exercise for reducing test anxiety and improving performance on difficult math test. **Journal of worry & affective experiences**. **1** (1), 34-52.
- 43 - Sinkavich, F. J.(1988). Multiple Choice Examination Performance and Metamemory Accuracy in Good and Poor Students. **ERIC Digest**. **ED302570**.
- 44 - Sinkavich, F. J.(1991). Metamemory, Study Strategies, and Attributional Style: Cognitive Processes in Classroom Learning. **Paper Presented at the Annual Meeting of the American Educational Research Association (chicago, IL, April 1991)**. **ERIC Digest**. **ED331846**.
- 45 - Sinkavich, F. J. (1994). Metamemory, Attributional Style, and Study Strategies: Predicting Classroom Performance in Graduate Students. **Journal of Instructional Psychology**, **21** (2), 172-183.

- 46 - Stevens, F., Kaplan, Ch., Ponds, R., & Jolles, J. (2001). The Importance of Active Lifestyles for Memory Performance and Memory Self-Knowledge. **Basic & Applied Social Psychology**, **23** (2), 137-145.
- 47 - Sullivan, L.(2002). The Effect of Test Anxiety on Attention and Memory Skills in Undergraduate Students. **Chrestomathy: Annual Review of Undergraduate Research at the College of Charleston, Volume 1**, 263-273.
- 48 - Van Ede, D.M. (1995). Adapting the Metamemory in Adulthood Questionnaire for cross-cultural application in South Africa. **South African Journal of Psychology**, **25**, 74-80.
- 49 - Van Ede, D. M., & Coetzee, C. H. (1996). The Metamemory, Memory Strategy and Study Technique Inventory: A factor analytic study. **South African Journal of Psychology**, **26**, 89-109.
- 50 - Waldrop, M.M. (1987). The workings of working memory. **Science**, **237**, 1564 – 1567.
- 51 - Wellman, H. M. (1977). Tip of the Tongue and Feeling of Knowing Experiences: A Developmental Study of Memory Monitoring. **Child Development**, **48**, 13-21.
- 52 - Woodward, L. J., & Fergusson, D. M. (2001). Life course outcomes of young people with anxiety disorders in adolescence. **Journal of the American Academy of Child and Adolescent Psychiatry**,**40**, 1086–1093.
- 53 - Yussen, S. R., & Berman, L. (1981). Memory predictions for recall and recognition in first-, third-, and fifth-grade children. **Developmental Psychology**, **17**, 224-229.



Metamemory among Yarmouk University Students as Related to Gender, Test Anxiety and Academic Achievement

Dr. Abd Alnasser Aljarrah

Department of Counseling and Educational Psychology, Faculty of Education
Yarmouk University
Irbid - Jordan

ABSTRACT

The study aims to identify levels of metamemory: (task, strategy, anxiety, achievement, efficacy, change and control) and whether these variables differ in relationship to a student's gender, academic achievement and test anxiety. The study sample comprised 463 students (176 male and 287 female) from the Jordanian University of Yarmouk.

To achieve the study aims, a modified Jordanian version of Dixon's et al. (1988) metamemory scale was used. The findings indicate that the control, achievement and task variables were of a high level, and the strategy, efficacy and change variables were of an intermediate level. Results also demonstrate that females were found to perform higher than males in the strategy, anxiety and control variables. Additionally, the task, strategy, achievement, and control variables differed according to level of academic achievement (remaining constant for high achievers). The findings indicate that the change, anxiety and achievement variables differed according to levels of test anxiety.

Keywords: Metamemory, test anxiety, academic achievement, university students.