



**برنامج تدريبي قائم على التصميم التعليمي في ضوء الاحتياجات
التدريبية لتنمية بعض المهارات التكنولوجية
لدى معلمي التكنولوجيا**

1430هـ - 2009م

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



﴿ قَالُوا سُبْحَانَكَ اللَّهُمَّ حِلْمَنَا إِنَّا لِلَّهِ مَا حَلَّمْنَا إِنَّكَ لَأَنْتَ الْعَلِيُّ الْحَكِيمُ ﴾

(سورة البقرة، آية 32)

اللهـراء

- ❖ إِلَّا أَصْحَابُ الْفَضْلِ الْأَوَّلِ أَهْلَ اللَّهِ الْأَعْمَارِ هُمْ... أَبْيَ وَأَمْيَ
- ❖ إِلَّا رَفِيقَةٌ دُرْبِي... زَوْجَيَ الْغَالِيَةِ
- ❖ إِلَّا شَهْرٌ أَعْتَدْتُنِي النَّزِيرُ سَكَرُولَا بِرْ مَائِهِيْ أَيَّاسُ الْعَزَّةِ وَالْكَرَامَةِ وَالنَّصْرِ
جَبَرُ حَطَّاسُ الْوَجْعِ الْفَلَسْطِينِيِّ.
- ❖ إِلَّا مِنْ عَلَمْنِي كَيْسٍ يَكُونُ الْمُنْقَسِ مقاومًا وَالْمُقاوِمَ مُنْقَفِلًا... الدَّكْسُور
فَسَعِيَ السَّقَافِيَّ رَمْحَهُ اللَّهُ.
- ❖ إِلَّا الصَّابِرَةُ... إِلَّا التَّهْرَاءُ... خَالِسِيْ "إِلَّا رَمْزِيْ" رَجَاهَا اللَّهُ.
- ❖ إِلَّا الْقَابِضِينَ عَلَى بَحْرِيَّ الدِّينِ وَالْوَطْسِ... الْمُجَاهِدِينَ الْمَرَابِطِينَ.
- ❖ إِلَّا الْأَسْوَدُ وَالرَّابِضُ خَلْفُ الْفَخْبَابِ... أَسْرَافَا الْبَوَاسِلِ.
- ❖ إِلَّا أَحْبَابِيَّ الْكَرَاءِ... أَخْمَوْلَانِيَّ وَأَخْمَوْلَانِيَّ وَأَصْهَارِيَّ وَأَصْدَرْفَانِيَّ.
إِلَيْهِمْ بِعِيَا أَهْدِيَ هَذَا الْجَهْدُ الْمُوَاضِعِ

الباحث

أحمد إسماعيل سليم (أبو سوري)

شکر و تقدیر

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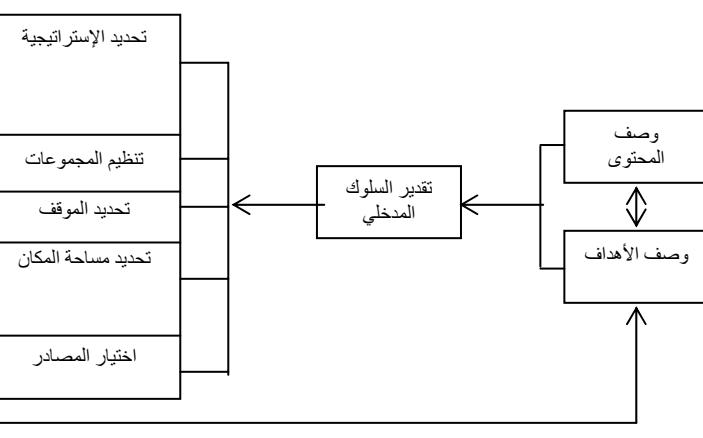
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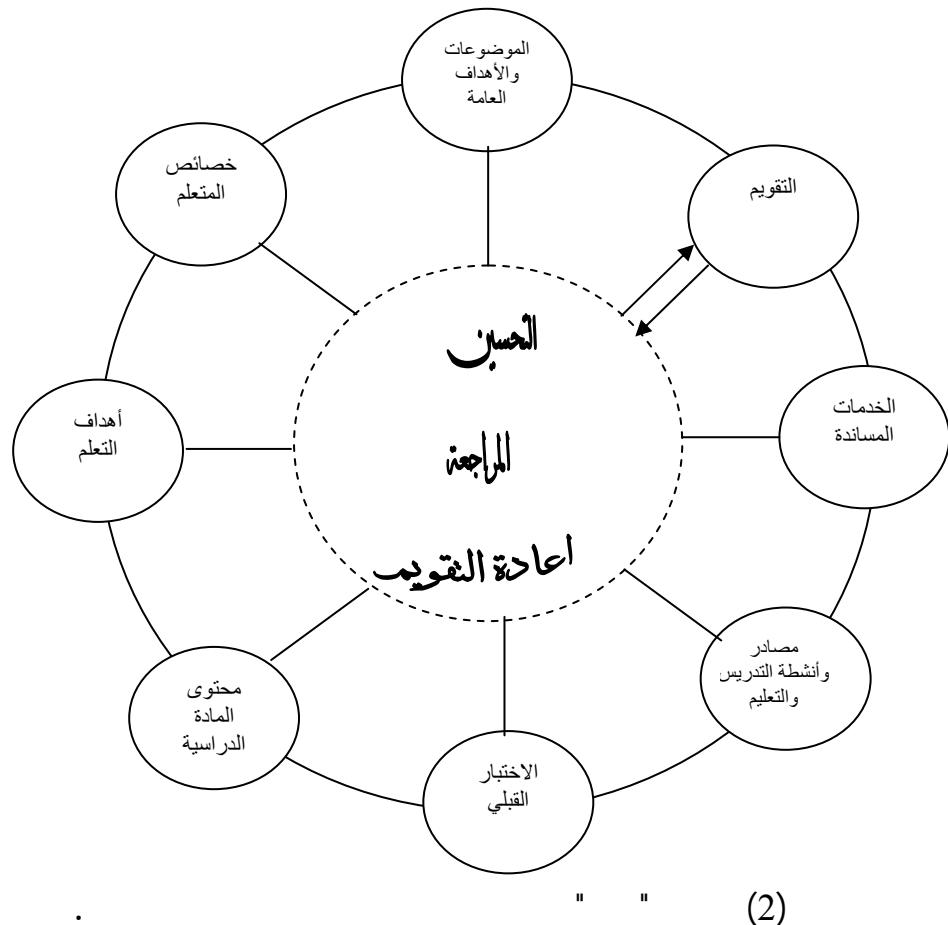
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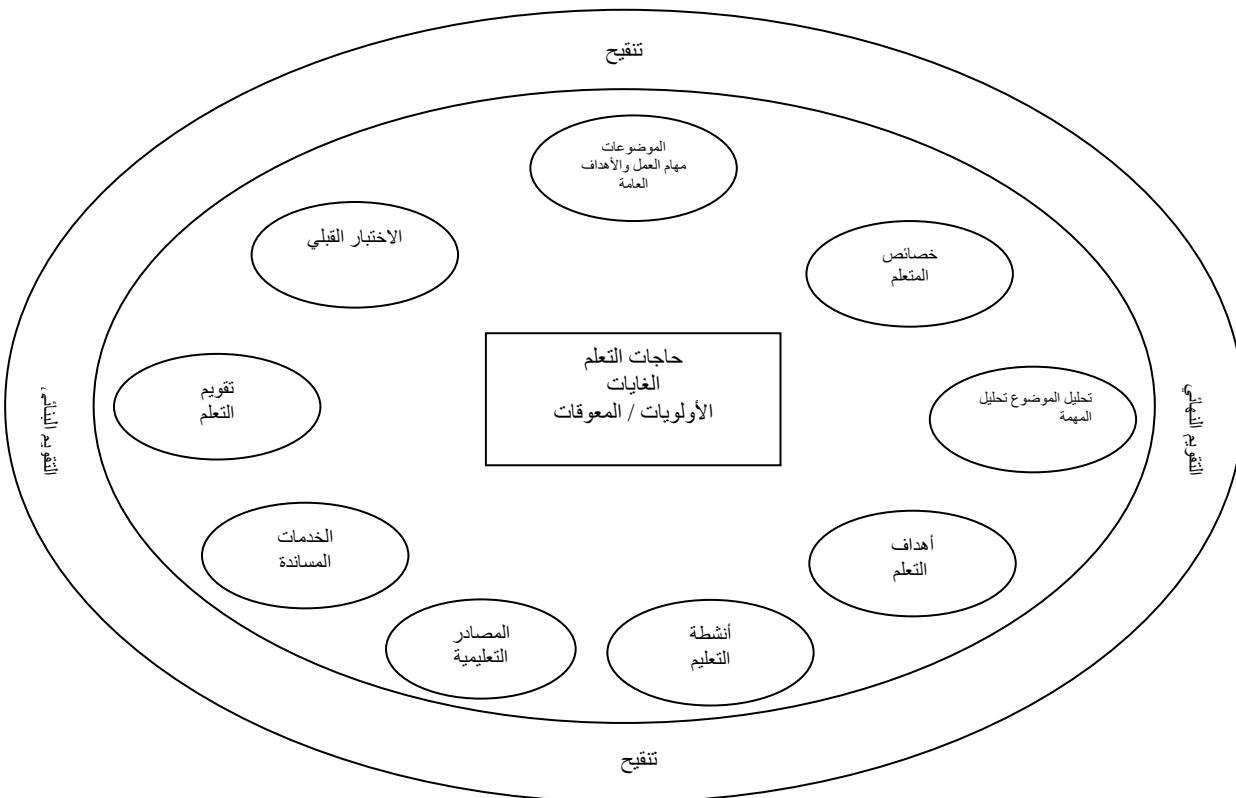
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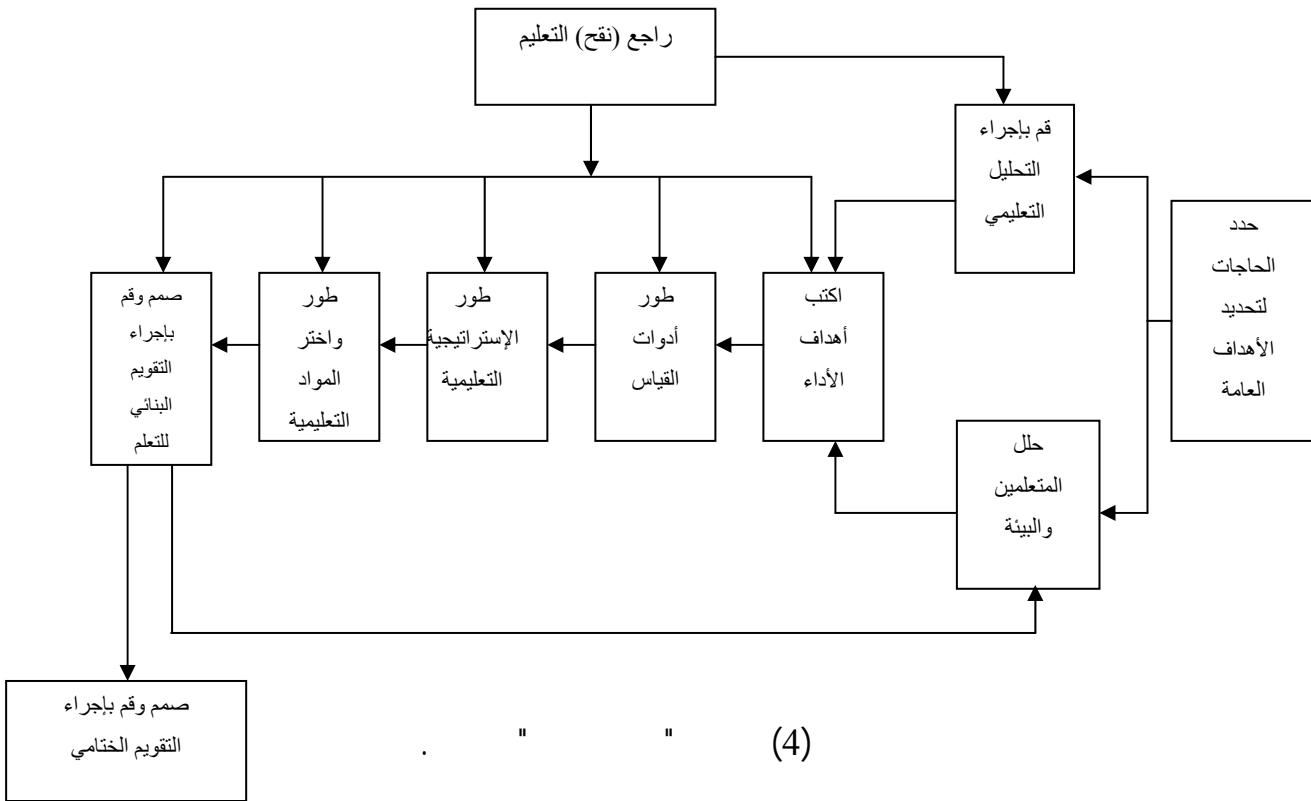
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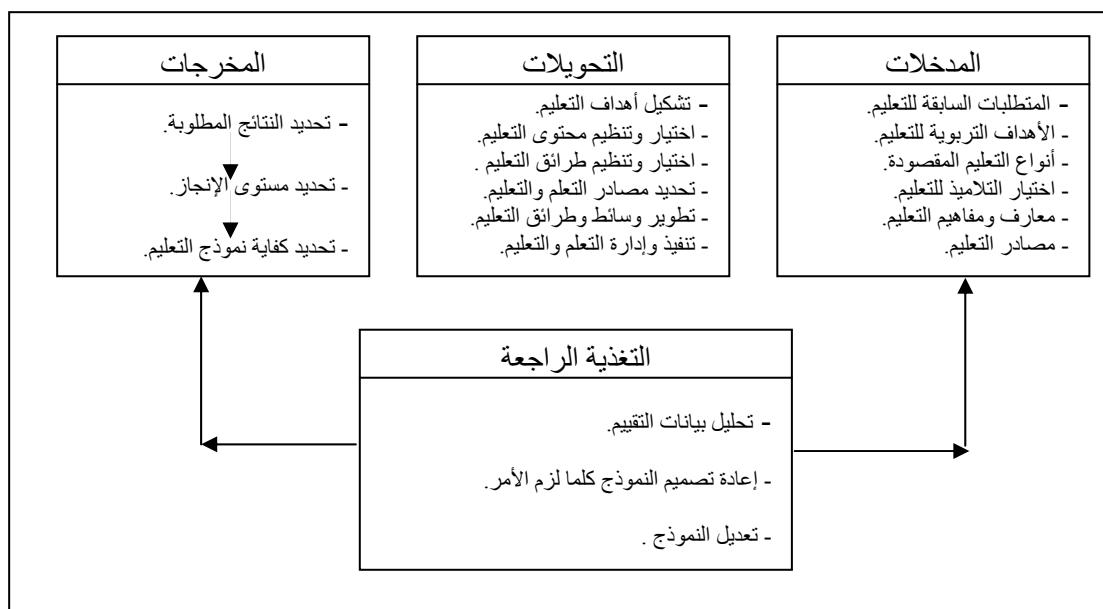


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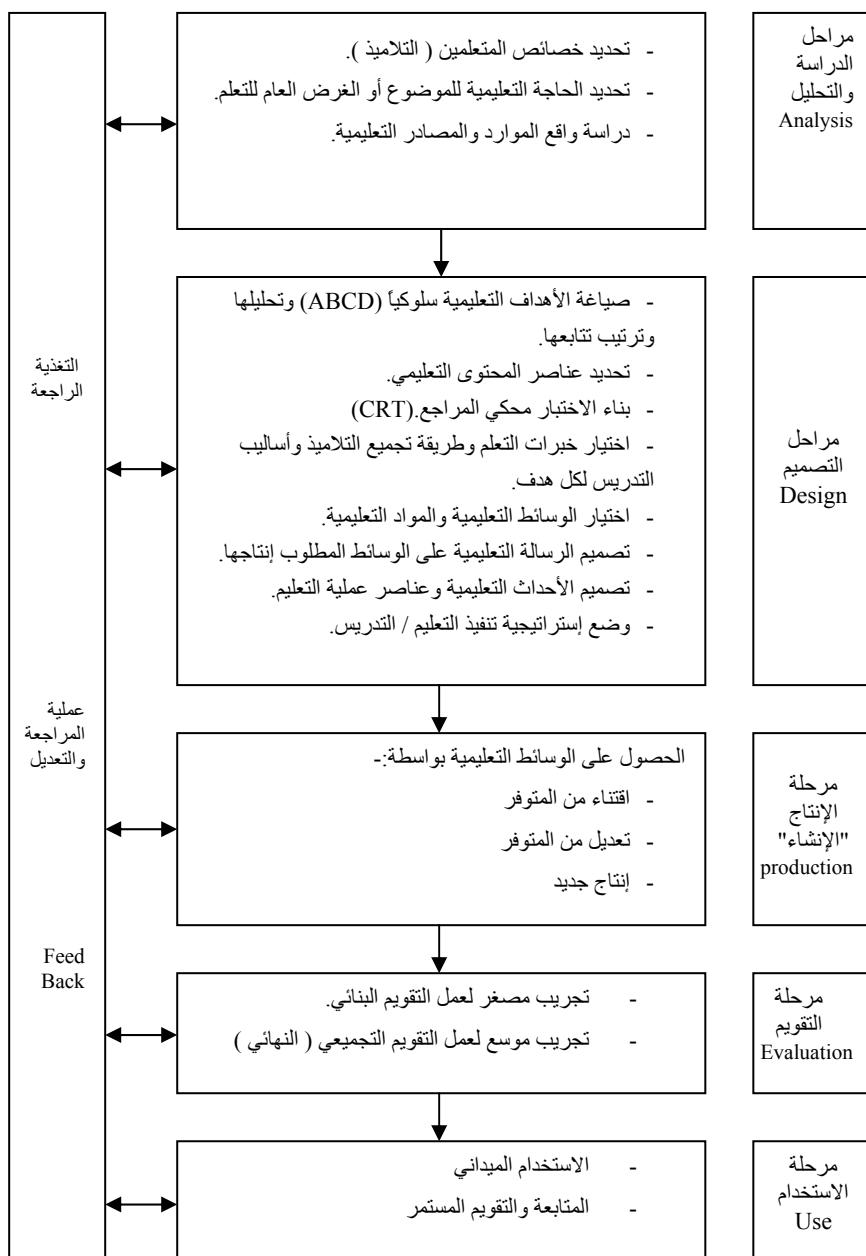
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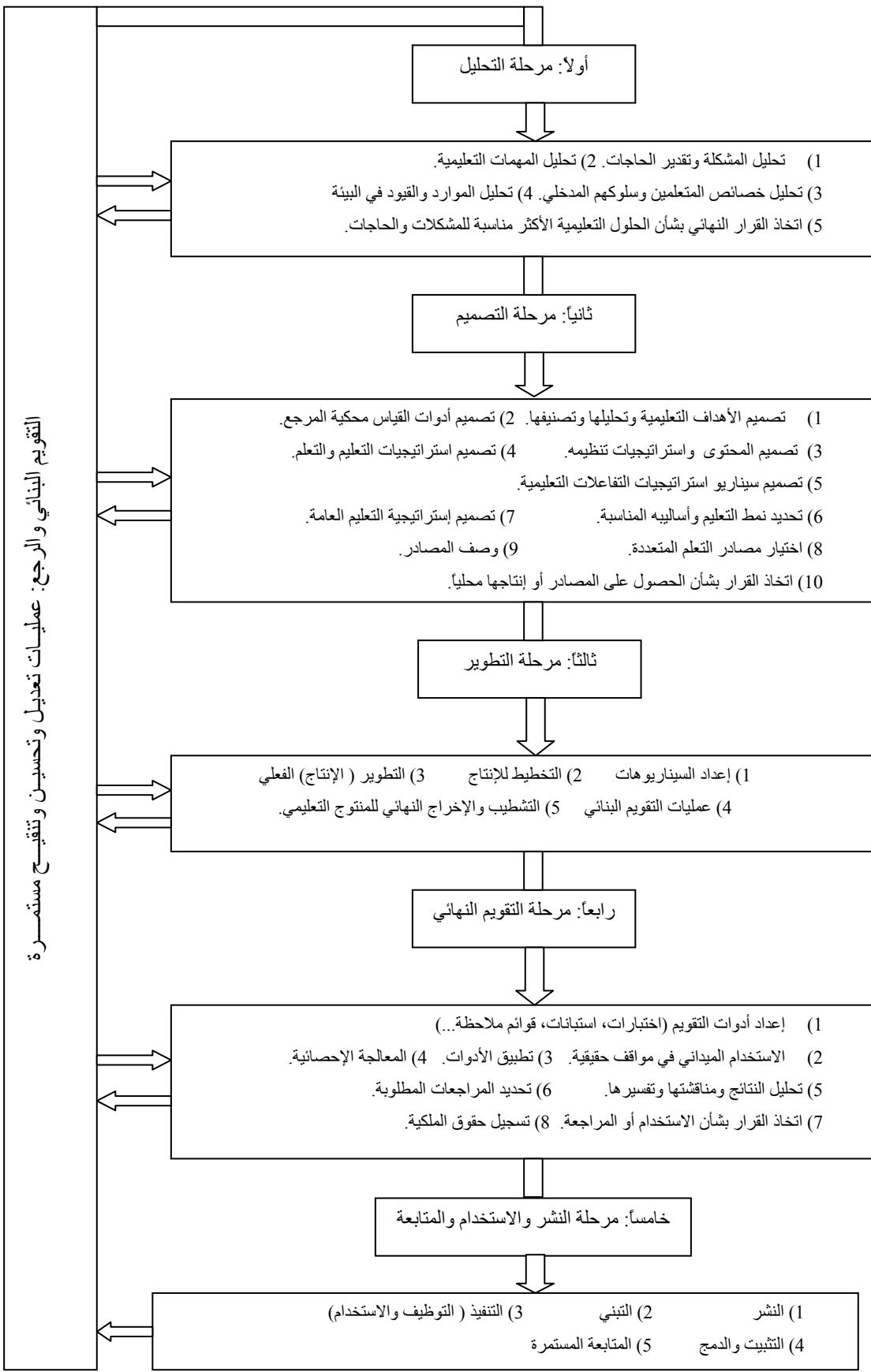
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(SPSS)

(1)

0.01	0.000	0.841	.	.1
0.01	0.000	0.733	.	.2
0.01	0.000	0.784	.	.3
0.01	0.000	0.816	.	.4
0.01	0.000	0.732	.	.5
0.01	0.000	0.670	.	.6
0.01	0.000	0.805	.	.7
0.01	0.000	0.738	.	.8
0.01	0.000	0.554	.	.9

$$0.393 = (0.01) \quad (38)$$

$$0.304 = (0.05) \quad (38)$$

(2)

0.01	0.000	0.869	.	.1
0.01	0.000	0.920	.	.2
0.01	0.000	0.829	.	.3
0.01	0.000	0.862	.	.4
0.01	0.000	0.913	.	.5
0.01	0.000	0.863	.	.6
0.01	0.000	0.704	.	.7
0.01	0.000	0.856	.	.8
0.01	0.000	0.745	.	.9

$$0.393 = (0.01) \quad (38)$$

$$0.304 = (0.05) \quad (38)$$

(3)

0.01	0.000	0.612	.	.1
0.01	0.000	0.849	.	.2
0.01	0.000	0.814	.	.3
0.01	0.000	0.717	.	.4
0.01	0.000	0.560	.	.5
0.01	0.000	0.659	.	.6
0.01	0.000	0.635	.	.7
0.01	0.000	0.577	.	.8

$$0.393 = (0.01) \quad (38)$$

$$0.304 = (0.05) \quad (38)$$

(4)

0.01	0.000	0.830	MS-Office	.1
0.01	0.000	0.756	MS-Word	.2
0.01	0.000	0.862	MS-Excel	.3
0.01	0.001	0.518	MS-Access	.4
0.01	0.000	0.797	MS-Power Point	.5
0.01	0.000	0.701	.	.6
0.01	0.001	0.495	Autocad	.7
0.05	0.025	0.355	Circuit Maker	.8
0.01	0.000	0.715	Photo Shop	.9
0.01	0.002	0.471	Flash	.10

$$0.393 = (0.01) \quad (38)$$

$$0.304 = (0.05) \quad (38)$$

(5)

:	:	:	:		
-	-	-	-	1.000	
-	-	-	1.000	0.749	:
-	-	1.000	0.511	0.880	:
-	1.000	0.550	0.544	0.788	:
1.000	0.595	0.740	0.449	0.860	:

$$0.393 = (0.01) \quad (38)$$

$$0.304 = (0.05) \quad (38)$$

(0.05) (0.01)

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(6)

0.821	0.789	9	:
0.919	0.892	9	:
0.675	0.510	8	:
0.661	0.494	10	:
0.856	0.749	36	

*

(0.856)

(0.661)

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0.894	9	:
0.948	9	:
0.832	8	:
0.855	10	:
0.949	36	

(0.832)

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(%27)

$$11 = (40 \times \%27)$$

(170 :1998)

$$\%100 \times \frac{\quad}{\quad} =$$

(8)

(8)

0.50	21	0.25	1
0.38	22	0.38	2
0.63	23	0.25	3
0.25	24	0.38	4
0.25	25	0.50	5
0.63	26	0.63	6
0.63	27	0.38	7
0.50	28	0.38	8
0.38	29	0.63	9
0.50	30	0.38	10
0.50	31	0.38	11
0.50	32	0.38	12
0.63	33	0.25	13
0.25	34	0.38	14
0.50	35	0.63	15
0.25	36	0.38	16
0.63	37	0.50	17
0.50	38	0.38	18
0.63	39	0.38	19
0.38	40	0.63	20
0.61			

(0.63 -0.25)

(0.61)

: (171 : 1998)

(9)

(9)

0.50	21	0.50	1
0.75	22	0.75	2
0.25	23	0.50	3
0.50	24	0.75	4
0.50	25	0.50	5
0.75	26	0.25	6
0.75	27	0.75	7
0.50	28	0.75	8
0.75	29	0.25	9
0.50	30	0.75	10
0.50	31	0.75	11
0.50	32	0.75	12
0.75	33	0.50	13
0.50	34	0.75	14
0.50	35	0.75	15
0.50	36	0.75	16
0.75	37	0.50	17
0.50	38	0.75	18
0.75	39	0.75	19
0.75	40	0.75	20
0.44			

(0.75 - 0.25)

(0.44)

Test Validity : -1

(15 : 1988) "

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Internal Consistency Validity :

(SPSS)

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(10)

0.01	0.000	0.741	06
0.01	0.000	0.635	16
0.01	0.000	0.561	17
0.01	0.000	0.935	18
0.01	0.000	0.760	19
0.01	0.000	0.646	22
0.01	0.000	0.935	23
0.01	0.000	0.646	24
0.01	0.000	0.721	28
0.01	0.000	0.640	29
0.01	0.000	0.746	40

0.393 = (0.01) (38)

0.304 = (0.05) (38)

(11)

0.01	0.000	0.898	09
0.01	0.000	0.615	12
0.01	0.000	0.927	25
0.01	0.000	0.810	35
0.01	0.000	0.649	38

0.393 = (0.01) (38)

0.304 = (0.05) (38)

(12)

0.01	0.000	0.791	01
0.01	0.000	0.788	02
0.01	0.000	0.793	03
0.01	0.000	0.843	04
0.01	0.000	0.918	05
0.01	0.000	0.918	10
0.01	0.000	0.718	11
0.01	0.000	0.627	20
0.01	0.000	0.571	21
0.01	0.000	0.915	27
0.01	0.005	0.431	31
0.01	0.000	0.718	37
0.01	0.000	0.799	39

$$0.393 = (0.01) \quad (38)$$

$$0.304 = (0.05) \quad (38)$$

(13)

0.01	0.000	0.731	07
0.01	0.000	0.725	08
0.01	0.000	0.812	13
0.01	0.000	0.647	14
0.01	0.000	0.575	15
0.01	0.000	0.938	26
0.01	0.000	0.640	30
0.01	0.000	0.640	32
0.01	0.000	0.731	33
0.01	0.000	0.711	34
0.01	0.000	0.676	36

$$0.393 = (0.01) \quad (38)$$

$$0.304 = (0.05) \quad (38)$$

(14)

-	-	-	-	1.000	
-	-	-	1.000	0.969	
-	-	1.000	0.863	0.939	
-	1.000	0.929	0.914	0.975	
1.000	0.901	0.875	0.937	0.966	

0.393 = (0.01) (38)

0.304 = (0.05) (38)

(0.05) (0.01)

Test Reliability :

.21

Split Half Method :

(0.950)

(0.904)

(15)

0.964	0.958	11	
0.763	0.721	5	
0.910	0.883	13	
0.899	0.883	11	
0.948	0.946	40	

*

(0.948) (0.763)

Richardson and Kuder : 21

: (144: 2008) 21
(0.978) 21

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9.52	4	-1
9.52	4	-2
14.29	6	-3
14.29	6	-4
11.90	5	-5
11.90	5	-6
16.67	7	-7
11.90	5	-8
100.00	42	

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0.01	0.920	22	0.05	0.524	1
0.01	0.924	23	0.01	0.717	2
0.01	0.910	24	0.01	0.731	3
0.01	0.888	25	0.01	0.789	4
0.01	0.924	26	0.01	0.799	5
0.01	0.888	27	0.01	0.817	6
0.01	0.926	28	0.01	0.768	7
0.01	0.915	29	0.01	0.898	8
0.01	0.937	30	0.01	0.896	9
0.01	0.900	31	0.01	0.886	10
0.01	0.889	32	0.01	0.800	11
0.01	0.883	33	0.01	0.925	12
0.01	0.938	34	0.01	0.919	13
0.01	0.938	35	0.01	0.910	14
0.01	0.942	36	0.01	0.883	15
0.01	0.929	37	0.01	0.884	16
0.01	0.932	38	0.01	0.953	17
0.01	0.893	39	0.01	0.915	18
0.01	0.931	40	0.01	0.836	19
0.01	0.905	41	0.01	0.926	20
0.01	0.919	42	0.01	0.928	21

$$0.304 = (0.01) \quad (38)$$

$$0.393 = (0.05) \quad (38)$$

(0.05) (0.01)

Split Half Method : .1

(0.952) (0.908)

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: (58 : 1997)

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0.865	126	17	109	3	42

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	Wilcoxon,	-2
		-3
" Pearson "		-4
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.MS-Office	.1
.MS-Word	.2
.MS-Excel	.3
.MS-Access	.4
.MS-Power Point	.5
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.Autocad	.7
Circuit Maker	.8
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(19)

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8	59.58	0.97687	1.7875	.	1
9	57.08	1.17132	1.7125	.	2
6	61.25	1.01188	1.8375	.	3
7	60.00	0.87728	1.8000	.	4
1	70.42	0.99357	2.1125	.	5
5	63.33	0.98854	1.9000	.	6
4	63.75	0.97037	1.9125	.	7
2	68.75	0.87647	2.0625	.	8
3	64.58	1.02307	1.9375	.	9

" (5) (19)

(%70.42)

(%68.75)

(%59.58)

(%57.08)

.1

.2

.3

.4

.5

.6

(20)

3	52.08	1.11200	1.5625		1
4	50.00	1.22216	1.5000		2
5	49.17	1.13600	1.4750		3
9	45.00	1.08032	1.3500		4
7	46.25	1.21690	1.3875		5
8	45.42	1.11655	1.3625		6
5	49.17	0.96751	1.4750		7
2	55.00	1.14847	1.6500		8
1	56.25	1.03842	1.6875		9

(9) (20)

(%56.25)

(%55.00)

" (%45.42)

" (%45.00)

.1

.2

.3

.4

(21)

2	61.67	0.90148	1.8500	.	1
7	51.67	0.97954	1.5500	.	2
8	48.33	1.02993	1.4500	.	3
5	56.25	1.07437	1.6875	.	4
1	63.33	1.00127	1.9000	.	5
6	52.92	1.002	1.5875	.	6
2	61.67	1.020	1.8500	.	7
4	61.25	1.02431	1.8375	.	8

" (5) (21)

" (%63.33)

" (%61.67)

" (%61.67)

" (%51.67)
. (%48.33)

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" " ".4

" ".5

"

(22)

7	53.33	1.19704	1.6000	MS-.Office	1
10	48.33	1.32072	1.4500	.MS-Word	2
6	57.50	1.09052	1.7250	.MS-Excel	3
2	70.42	0.85675	2.1125	MS-Access	4
8	52.92	1.15500	1.5875	MS-Power Point	5
9	48.75	1.16862	1.4625	.	6
5	57.92	0.97752	1.7375	Autocad	7
3	68.33	0.97954	2.0500	. Circuit Maker	8
4	65.83	0.94098	1.9750	Photo Shop	9
1	71.25	0.91047	2.1375	.Flash	10

" (5) (22)

" (%71.25) ".Flash
(%70.42) " MS-Access

" .MS-Word " (%48.75)
" (%48.33)

MS-Access Flash .1

MS-Flash .2
 Access
 Flash .3
 .MS-Access
 MS-Word .4

(23)

(23)

63.19	:
49.81	:
57.14	:
59.46	:

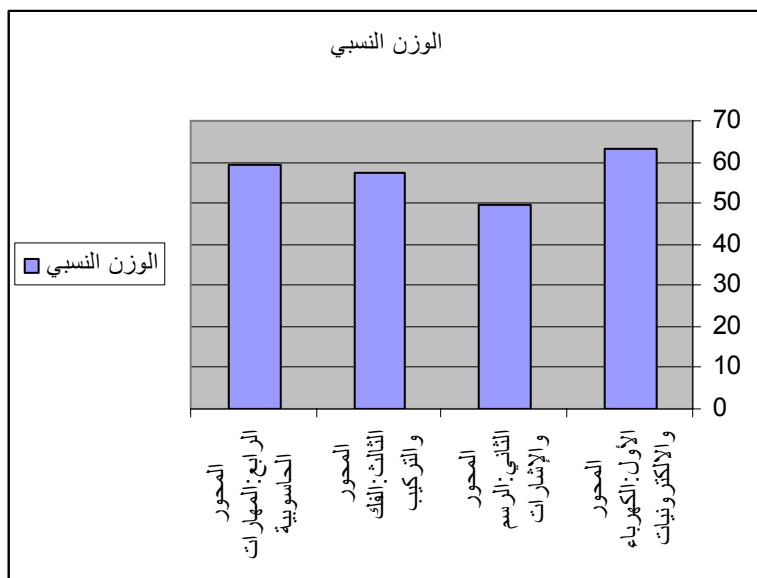
" (23)

" (%63.19)

" (%59.46)

" (%57.14)

.(%49.81)



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(5) 1985

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(10) (9)

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(0.05 \geq α)

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(0.05 \geq α) :

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(172 :1998) Wilcoxon,T

"Z"

(24)

(18=)

"Z"						
دالة عند 0.01	3.026	10.5	10.500	1		
		125.5	8.367	15		
				2		
دالة عند 0.01	3.384	0	0.000	0		
		105	7.500	14		
				4		
دالة عند 0.01	3.734	0	0.000	0		
		171	9.500	18		
				0		
دالة عند 0.01	2.771	12	4.000	3		
		108	9.000	12		
				3		
دالة عند 0.01	3.693	1	1.000	1		
		170	10.000	17		
				0		

$$1.96 = (0.05) \quad (Z)$$

$$2.58 = (0.01) \quad (Z)$$

$(0.01 \geq \alpha)$

"Z" (24)

$(0.05 \geq \alpha)$

: (43 : 2004)

"η²"

$$\frac{2}{4 + 2} = ^2 =$$

(Wilcoxon Test)

Z :

: (25)

(25)

"Z"

حجم التأثير	إيتا تربيع	$Z^2 + 4$	Z^2	Z	المهارة
	0.696	13.159	9.159	3.026	
	0.741	15.449	11.449	3.384	
	0.777	17.941	13.941	3.734	
	0.658	11.680	7.680	2.771	
	0.773	17.636	13.636	3.693	

" " (25)

.2

.3

.4

.(23-21 : 2003)

.(48:1997)

.(163:2001)

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(LCD)

(2008) (2008) (2008)

$(0.05 \geq \alpha)$

$(0.05 \geq \alpha)$

Wilcoxon,T

"Z"

(26)

(18=)

	"Z"					
دالة عند 0.01	3.778	0	0.000	0		
		171	9.500	18		
				0		
دالة عند 0.01	3.740	0	0.000	0		
		171	9.500	18		
				0		
دالة عند 0.01	3.734	0	0.000	0		
		171	9.500	18		
				0		
دالة عند 0.01	3.734	0	0.000	0		
		171	9.500	18		
				0		
دالة عند 0.01	3.738	0	0.000	0		

	"Z"					
		171	9.500	18		
				18		
دالة عند 0.01	3.732	0	0.000	0		
		171	9.500	18		
				18		
دالة عند 0.01	3.729	0	0.000	0		
		171	9.500	18		
				0		
دالة عند 0.01	3.749	0	0.000	0		
		171	9.500	18		
				0		
دالة عند 0.01	3.724	0	0.000	0		
		171	9.500	18		
				0		

$$2.58 = (0.01) \quad (Z)$$

$$(0.01 \geq \alpha)$$

$$"Z" \quad (26)$$

$$(0.05 \geq \alpha)$$

$$: \quad (30) \quad " \eta^2 "$$

(27)

"Z"

حجم التأثير	إيتا تربيع	$Z^2 + 4$	Z^2	Z	المهارة
	0.781	18.271	14.271	3.778	
	0.778	17.984	13.984	3.740	
	0.777	17.944	13.944	3.734	
	0.777	17.944	13.944	3.734	
	0.777	17.971	13.971	3.738	
	0.777	17.924	13.924	3.732	
	0.777	17.904	13.904	3.729	
	0.778	18.055	14.055	3.749	
	0.776	17.871	13.871	3.724	الدرجة الكلية

(27)

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1. AECT (1994) :**The Definition of Educational Technology**, Washington.
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http://www.qariya.com	.1
http://www.electroarab.com	.2
http://www.staff.zu.edu.eg	.3
http://www.elearning.edu.sa	.4

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رابعاً: المهارات الحاسوبية.

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بسم الله الرحمن الرحيم

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فلا ينكر جزيل الشكر

الباحث

أحمد إسماعيل أبو سويف

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Palestinian National Authority
Ministry of Education & Higher Education

السلطة الوطنية الفلسطينية
وزارة التربية والتعليم العالي



الرقم : و ت غ / مذكرة داخلية ٥٢٣
التاريخ : 2008 / 11 / 2

السادة / مديرى التربية والتعليم - محافظات غزة
اللهم اخراج عبادك و رحمة الله و برحمته

الموضوع : تسهيل مهمة بحث

يقوم الطالب / محمد اسماعيل أبو سويرح ، المسجل لدرجة الماجستير في التربية تخصص مناهج وأساليب تدريس / تكنولوجيا التعليم ، بعمل بحث بعنوان " برنامج تدريبي قائم على التصميم التعليمي في ضوء الاحتياجات التدريبية لتنمية بعض المهارات التكنولوجية لدى معلمى التكنولوجيا ".
لا مانع من قيام الباحث من تطبيق أداة بحثه الأولى وهى عبارة عن استبانة وذلك على عينة من مدرسي مادة التكنولوجيا بالمرحلة الأساسية وحسب الأصول .

رئيسي البعثة (الباحث)

د. زياد ثابت

وكيل وزارة التربية والتعليم العالي المساعد



نسخة : وزير التربية والتعليم العالي
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/ وكيل الوزارة المساعد
/ الملف

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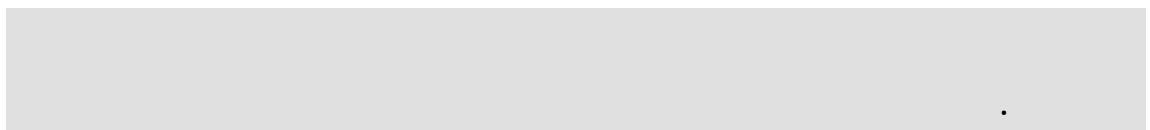
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- (6)	- (10)	- (20)	-	3
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- (6)	1.5	- (10)	-	
- (6)	(20)	- (20)	-	
(DMM)	-	-	-	
LCD	+	-	-	5

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LCD	+	-	1
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LCD	-	-	9

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LCD	+						4
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		-(12)					
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		-(20)					
		(30)					

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❖	LATCH SPDT	.5
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❖	(LDR)	.5

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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السلام عليكم ورحمة الله وبركاته ...

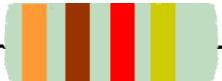
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مع تمنياتنا للجميع بالتفوق والنجاح.

ملاحظة:

أخي المعلم/ اختي المعلمة : يرجى نقل رمز إجابتك إلى مفتاح الإجابة في الجدول التالي:

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.	(+).	.	.

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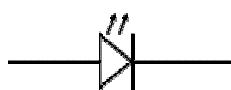
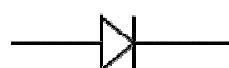
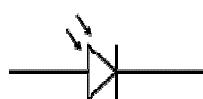
.19

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.20

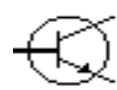
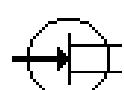
.21

.22



NPN

.23

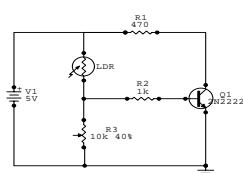


.24

.25

(+).

.26



.27

N/C

N/O

DPDT

PS

..... .28

				.29
R2 1k	M1	R1 10k 40%		
				.30
				.31
				.32
N/O	ON/OFF	MS	N/C	
				.33
				.34
				.35
				.36
LDR	LED	DMM	MS	
				.37
				.38
LDR	500	LED	2N2222	
				.39
NOT	OR	AND	NA 555	
				.40
			DMM	

(7)

..... /

:						
						1
						2
						3
						4
:						
						5
						6
					DMM	7
					DMM	8
:						
						9
					DMM	10
						11
					DMM	12
						13
						14

						15
						16
						17
						18
						19
						20
						21
						22
					DPDT	23
					SPDT	24
					V 220	25
					(DMM)	26
						27
						28
						29
						30
					(DMM)	31
						32
						33
						34

						35
					(LDR)	36
						37
						:
					(AND)	38
					(OR)	39
					(NOT)	40
					(AND)	41
						42

(8)

	.	.1
	.	.2
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/	.	.4
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	.	.7
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(9)

(6)

.1

.2

.1

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.1

.2

(- 1)

.1

.2

.(2)

	LCD + - . -(6) 1.5 -(10) -(6) -(10) -(20) (DMM) - - . . (DMM)	- - - - -	1 2 3	
	LCD + - . -(6) 1.5 -(10) (20) -(6) -(20) (DMM) - - . . ()	- - - - -	.(+) 4	
	LCD + - . -(20) 1.5 -(20) -(6) - - -(10)	- - - - -	5 6 7	

.1

.2

(1)

.1

	+ LCD -(10) -(10) ..(DMM)	-		1
		-		2
		-	(+) (DMM)	3 4
		-	(DMM)	5
	+ LCD	-		6
		-		7
	+ LCD	-		8
		-		9

.1

.2

(1)

.2

	LCD + - - - -	- - - -		1
	LCD + - - - -	- - - -		2
	LCD + - - - -	- - - -		3
		- - - -		4
	- - - - - (3) (DMM)	- - - -	(DMM)	5
		- - - -	(DMM)	6
	LCD + - - - -	- - - -		7
	-(10) -(10) - (6)	- - - -		

	-(10) - (6)			
	LCD + : -(10) - - -(10) - -(6) -(10) - - -			-

.1

.2

.1

.(90)

	LCD +			1
	LCD + -(6) -(6) -(20)			2
	LCD + - -(6) (6) - (6) -(35) (6)			3

	LCD	+	-		4
	-	.	.		
	-(6)	.	.1		5
	-(6)	-(6)	.		
	(40)	-(6)	.2		
	-(6)	-(40)	.		
	-(12)	-(6)	.3		
	-(12)	-(20)	-(40)		
	(6)				6
				-1	
				-2	
				-3	

.1

.2

(30)

.2

	LCD + -	-		1
	LCD + - -(6) SPDT - (6) -(40) - (6) .(6)	-		2
	LCD + - - (6) SPDT - - (6) (20) - (6) -(6) .(6)	-		3

.1

.2

(1) .1

	LCD + (6) - : -(6) DPDT -(6) - (40) . (6)	- DPDT - - - - - DPDT	.DPDT	4
	LCD + - (6) : -(6) -SPDT . (20)	LATCH SPDT - - - - SPDT .LATCH	SPDT .LATCH	5
	LCD + - - -SPDT	- SPDT - - SPDT	SPDT	6
	LCD +	-		7

	- : - -(6) (40) (6) - (6)			
--	------------------------------------	--	--	--

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	LCD +		- -) (-	1
	LCD +			2
	-(6) -(20) -(6) (20)			3

.(1) .1

	LCD + -(6) -(20) -(6) (20)	-	-	3
	LCD + : -(6) (20)	-	-	4
	1 -(12) - 2 -(20) -(6) (30)	-	-	5

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.(1) .2

	LCD +	-	-	1
	NPN : -(6)	-	-	2

	DMM	-(30) - (6) (12) -(6)	.	.1	.
			.	.2	.
			.	.3	3
			.	-	.
	LCD	+	-	-	.
			-	-	.
	NPN		-	-	.
			-	-	4
		-(12) -(12) -(12) (20)	-	-	.
			-	-	.

.1

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	LCD + : - NPN k 1 (12) -(12) -(12) - - (20)	- - - - -	.	5
	LCD + : - NPN -(12) k 1 (12) - (12) (12) (12) - (6) - - (20)	- - - - -	.	6
	LCD + : - (10) -(12) NPN -(6) (30) -(20) .	.(LDR) .(LDR) .(LDR) .	.(LDR) .	7
	LCD + : -(20) --(6) NPN . (12)	- - - -	.	8

.1

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(1)

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		.(NOT)	-	
	LCD + -(10) NE555 IC -(40) -(6) NE555 IC -(20)		-	6
	LCD + اسلاك توصيل عد(40)- -(6) -(6) (AND) دائرة غياب الضوء عد(6)-دائرة غياب الرطوبة عد(6).		.(AND) . (AND) ..(AND) (AND)	7

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(10)
()

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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(10-7)

" (DC)

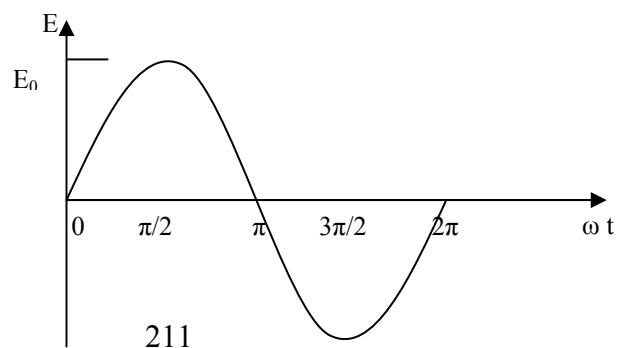
Direct Current .1



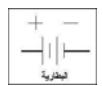
Alternating Current .2

.Hz 50

V 220



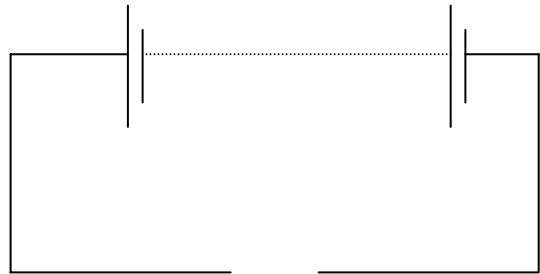
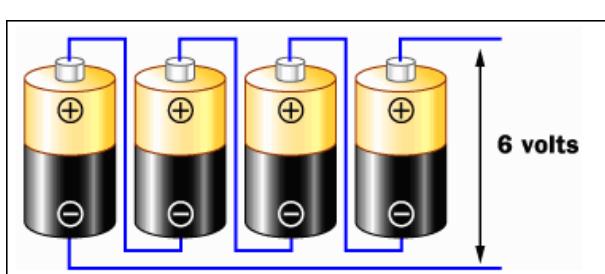
Battery



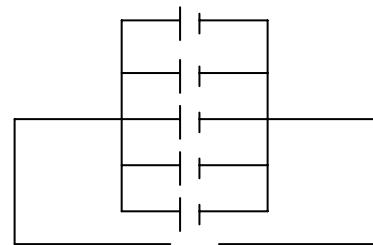
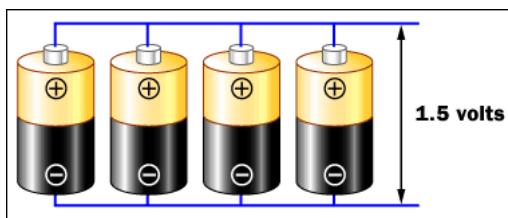
(+)

(-)

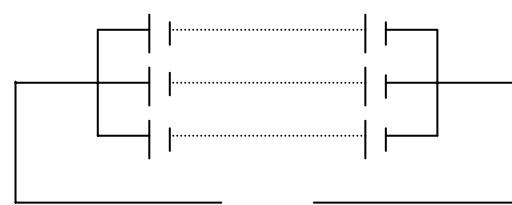
.1



.2



.3



DMM

توماس أديسون

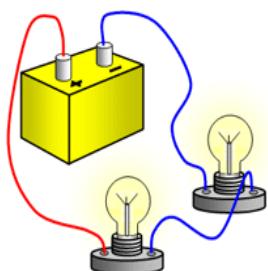
المخترع

1879

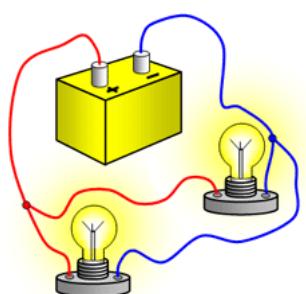
24



.1



.2



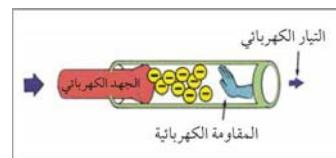
214

Electrical Resistance

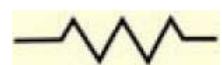


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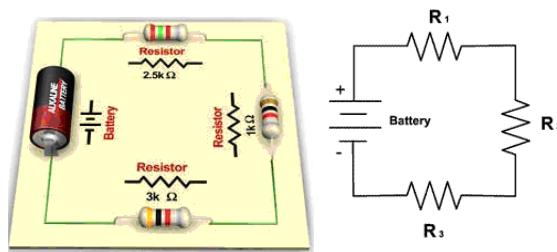
Ω



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.2
.3
.4

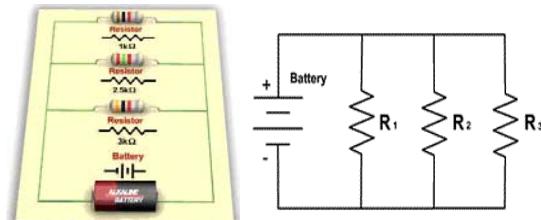
:Resistors in Series .1

$$R = R_1 + R_2 + R_3$$

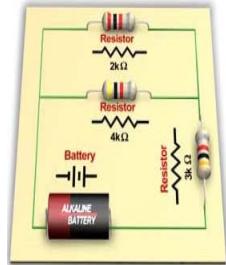


.2

$$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$$



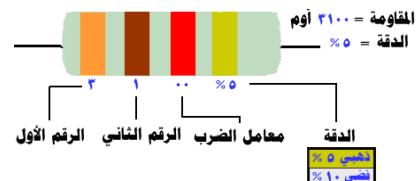
.3



.1

.2

أسود	صفر	X 1
بني	1	X 1.
أحمر	2	X 1..
برتقالي	3	X 1...
أصفر	4	X 1....
أخضر	5	X 1.....
أزرق	6	X 1.....
وردي	7	X 1.....*
رمادي	8	X 1.....**
أبيض	9	X 1.....***



3=

1=

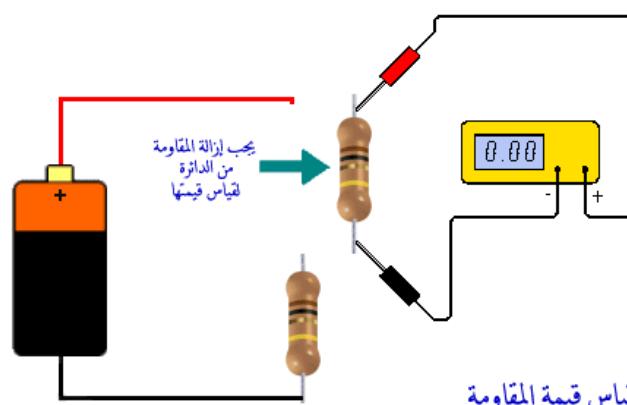
100

$$3100 = 100 \times 31$$

%5

:

" "



Ohm's Law

(V) الجهد

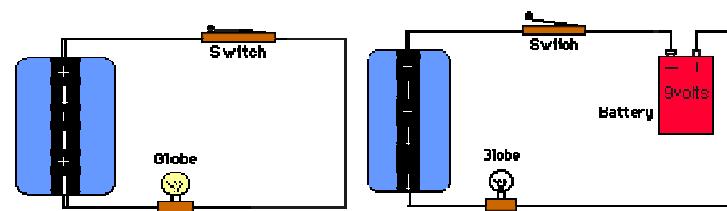
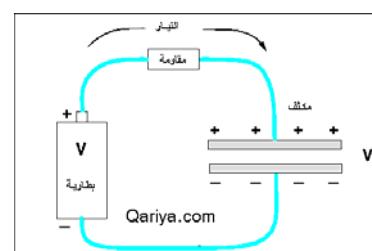
المقاومة (R)

التيار (I).

نص قانون أوم:

$$/ = * =$$

$$V = IR \quad \text{or} \quad I = \frac{V}{R}$$



10

.1

.2

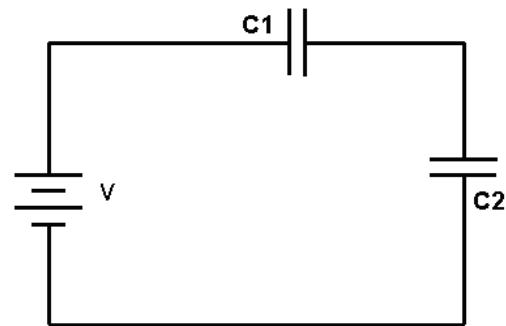
() .3

farads

.. pF .. nF .. μ F ..

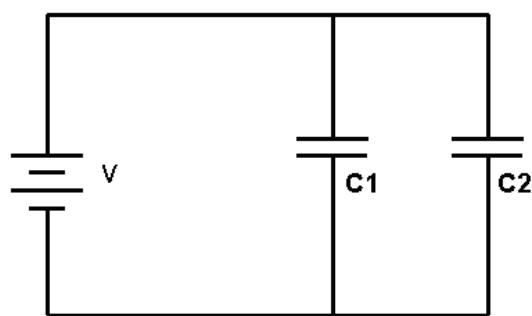
Prefix				
10^{-12}	0.00000000001		pico	p
10^{-9}	0.000000001		nano	n
10^{-6}	0.000001		micro	μ
10^{-3}	0.001		milli	m

.1



$$\frac{1}{C_t} = \frac{1}{C_1} + \frac{1}{C_2}$$

.2



$$C_t = C_1 + C_2$$

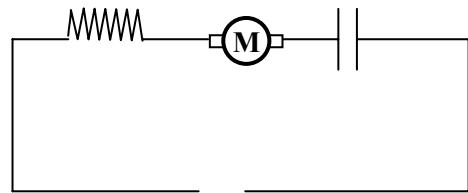
.1

.2

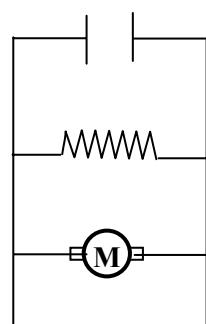


101	100pF	0.1n*	0.0001μF*
221	220pF	0.22n (n22)	0.00022μF*
102	1,000pF	1n (1n0)	0.001μF
332	3,300pF	3.3n (3n3)	0.0033μF
103	10,000pF*	10n	0.01μF
473	47,000pF*	47n	0.047μF
104	100,000pF*	100n	0.1μF (μ1)
824	820,000pF*	820n	0.82μF
105	1,000,000pF*	1000n*	1.0μF

.1



.2



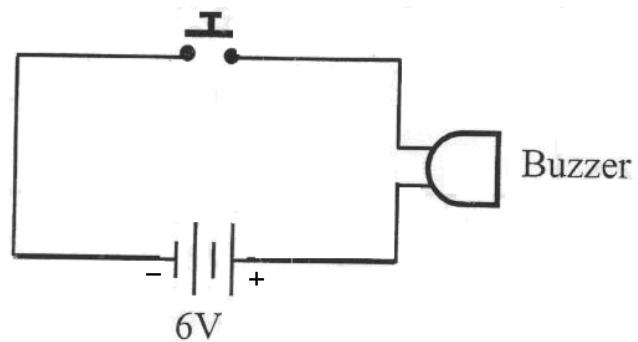
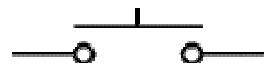
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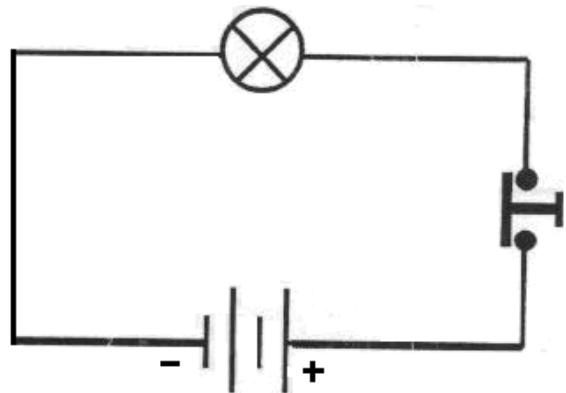
Push Switches

.1

Normally Open



Normally Closed



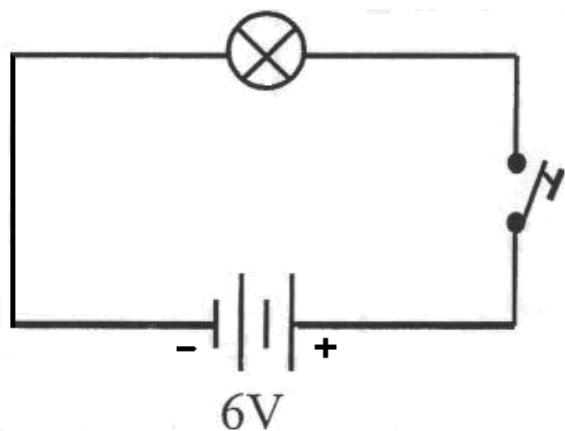
ON/OFF Switches

.2

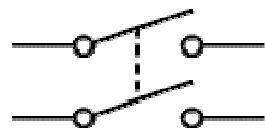


ON

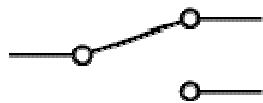
OFF



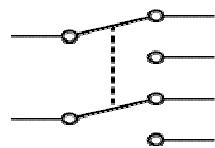
DPST



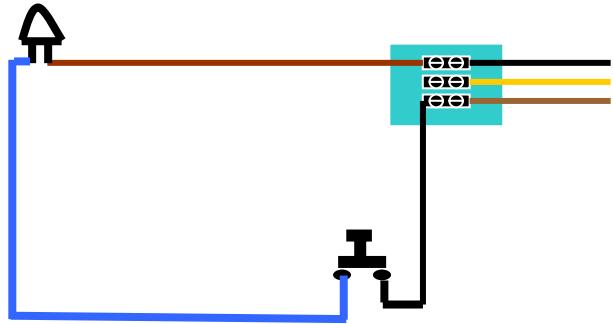
SPDT



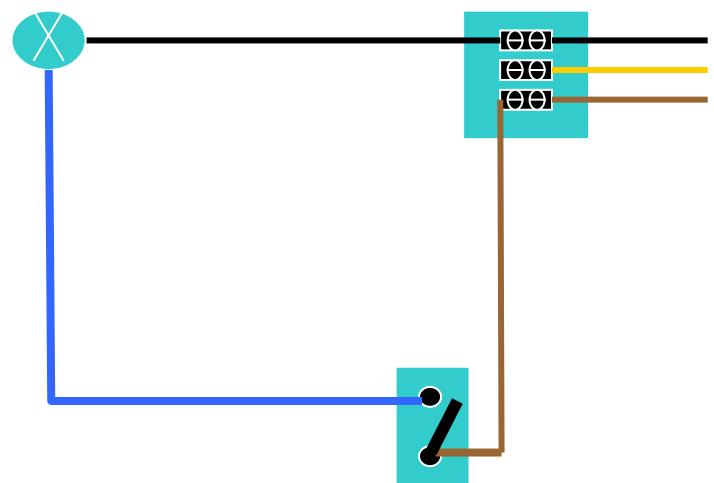
DPDT



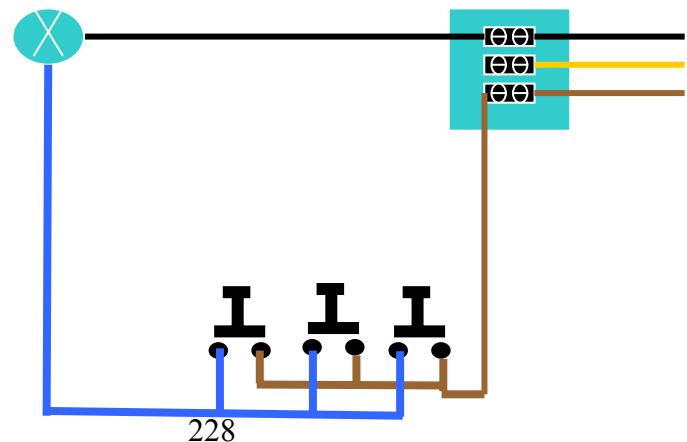
.1



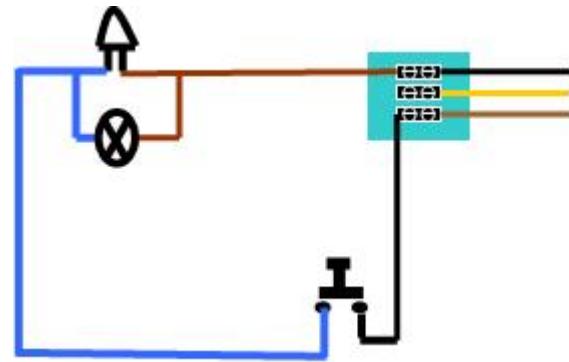
.2



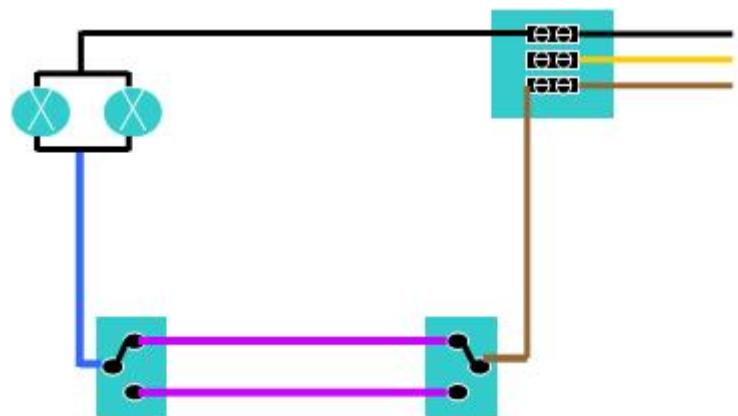
.3



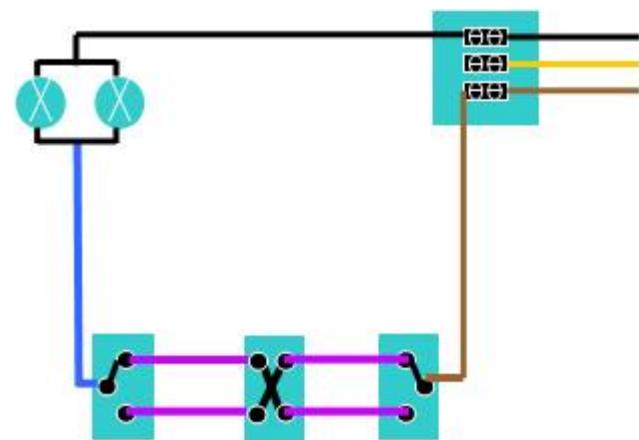
.4



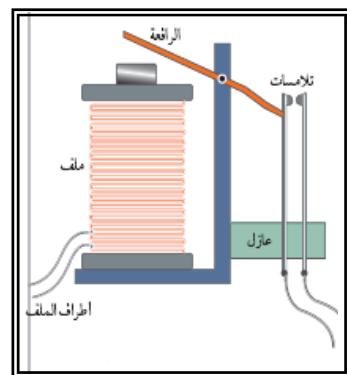
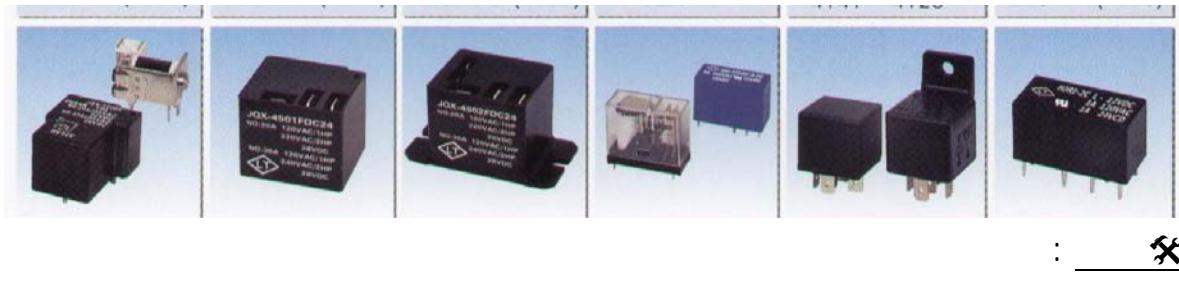
.5



.6



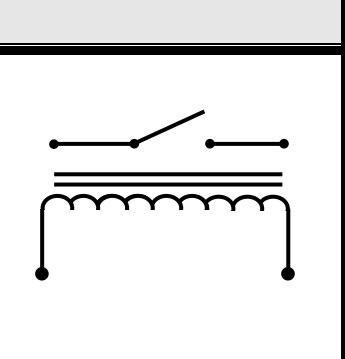
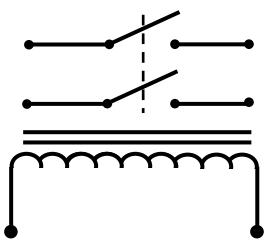
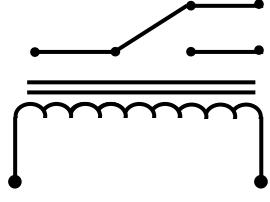
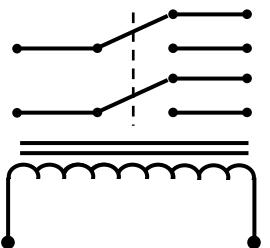
Relays



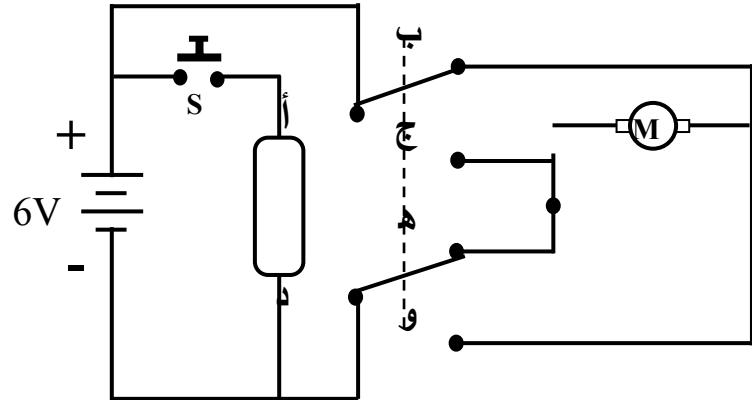
:

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	.SPST () . ()	-1
	.DPST . ()	-2
	. SPDT () (NC) . () (NO)	-3
	.DPDT	-4

(1



DPDT

DPDT

(S)

(Latch)

SPDT

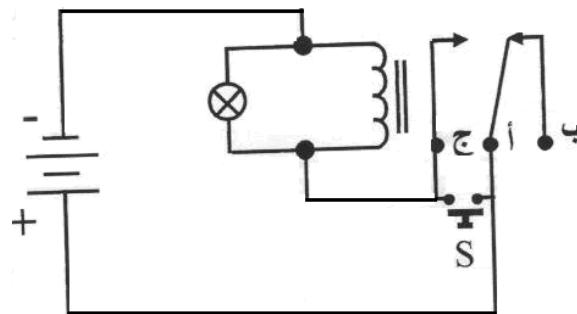
(2

(S)

() ()

(ON)

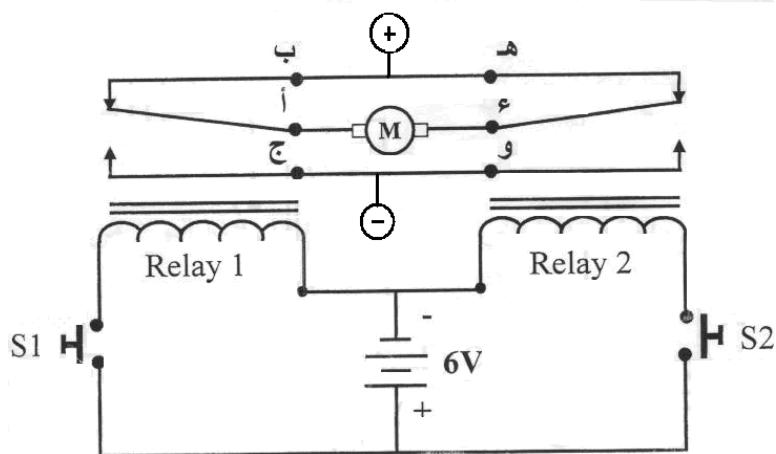
() ()



SPDT

(3)

SPDT



SPDT

:

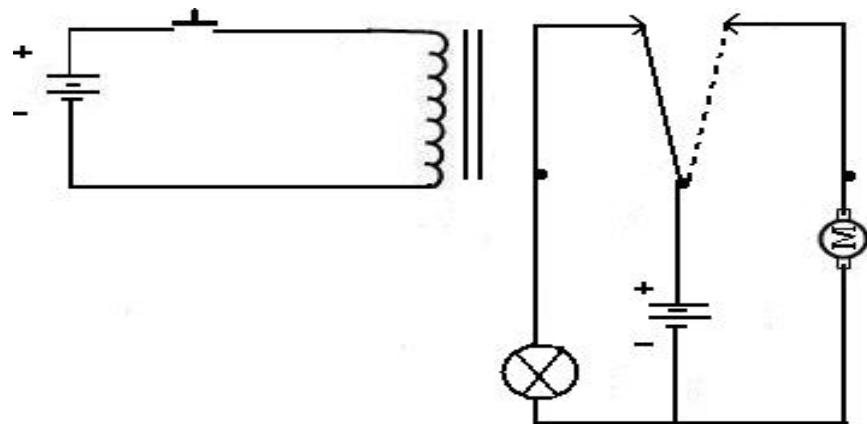
S2	S1			
0	0	+	+	stop
0	1	-	+	clockwise
1	0	+	-	anticlockwise
1	1	-	-	stop

(4

()

()

()



(5

Un-

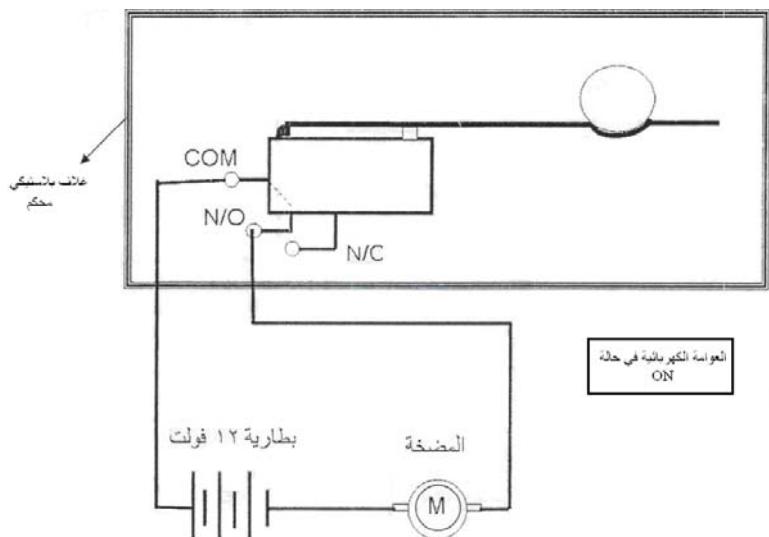
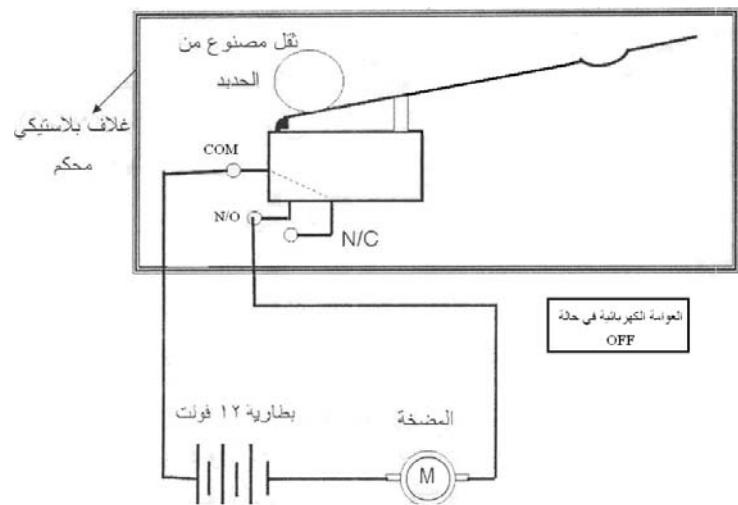
SPDT

switched

.1

.2

.3



.1

.2

.3

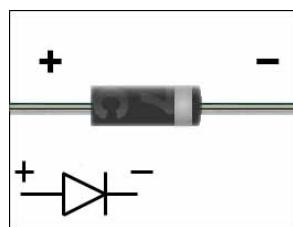
.(N-type semiconduction)

.1

(P-type semiconduction)

.2

Diode



N-

Diode

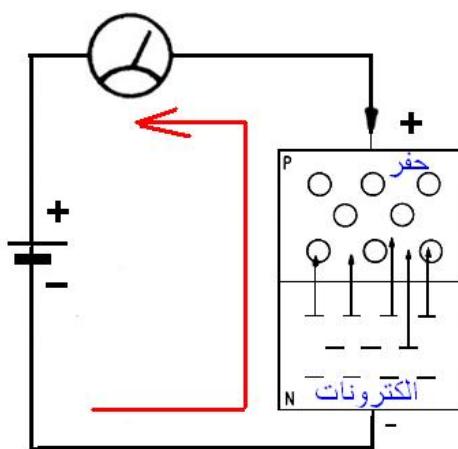
p-type

type

3

(V 0.3)

(V 0.7)



Diode Types -

Zener diode .1



(V2)



:Photo Diode .2

(PN)



:

.1

.(Dark Current)

"

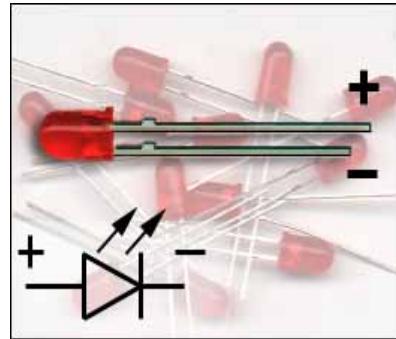
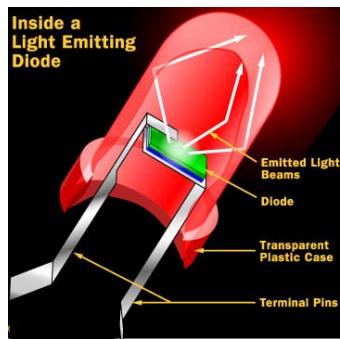
.2

"

.(Light Current)

:LED .2
LED

.LED 1 680



.1

.2

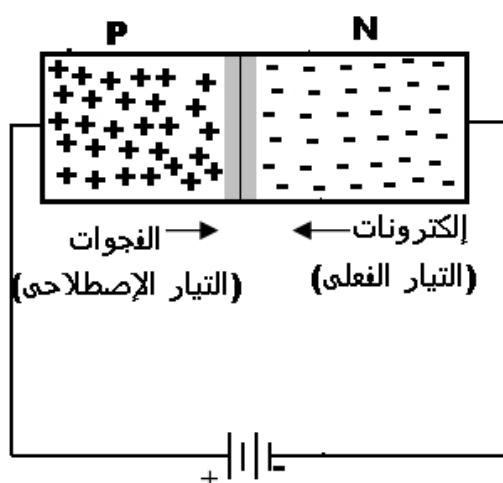
(Remote Control)

.3

.4

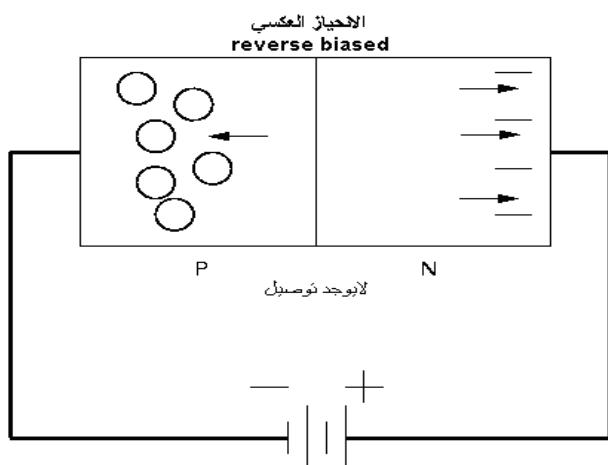
.1

p-type
N-type



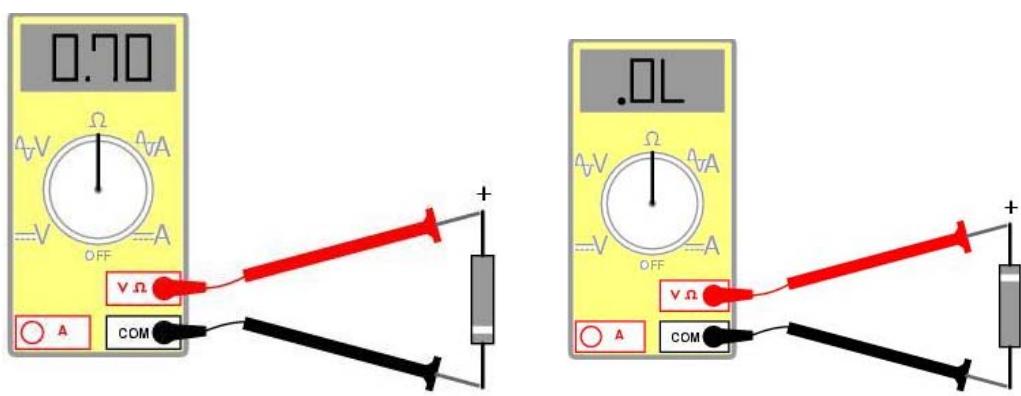
.2

p-type
N-type

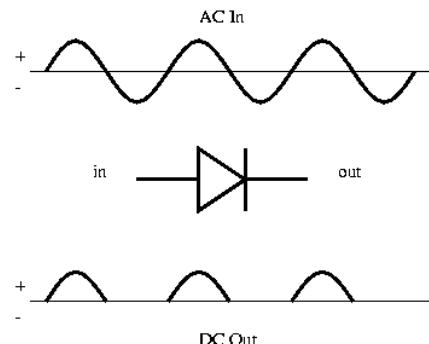


DMM"

DMM



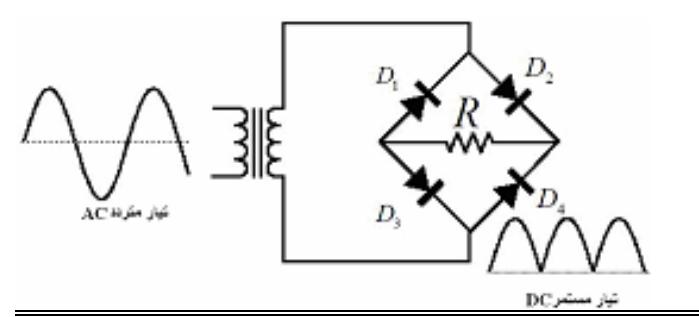
(AC) : .1



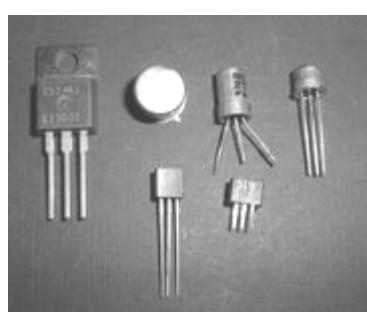
: .2

(D1)
(D1)
(D2)

.(D2) (D1)



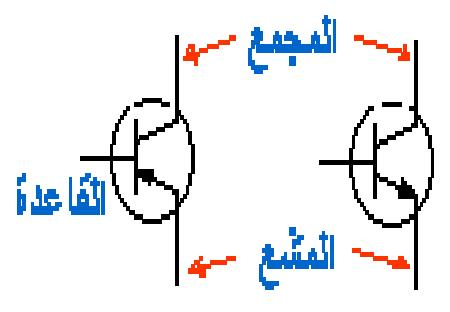
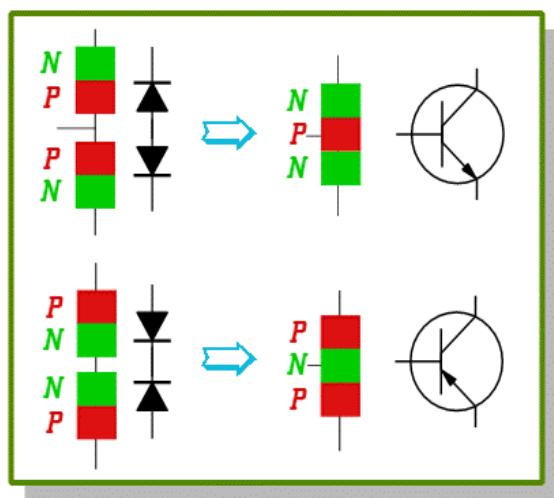
1947



يمكن استخدام الترانزستور كمفتاح أو كمكبر للجهد أو التيار أو كلاهما.

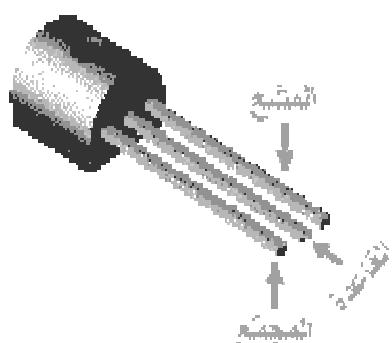
PNP .1

NPN .2



PNP

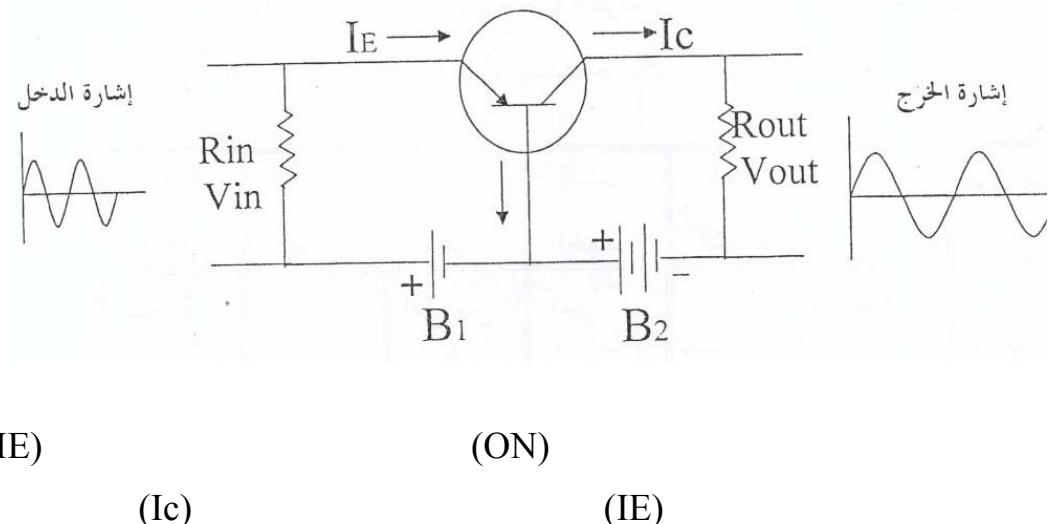
NPN



C	(Collector)	.3
B	(Base)	.4
E	(Emitter)	.5

Common Base

.1



$$I_E = I_B + I_C$$

$$I_C = I_E$$

$$\frac{V_{in}}{R_{in}} = \frac{V_{out}}{R_{out}}$$

$$\frac{V_{out}}{V_{in}} = \frac{R_{out}}{R_{in}}$$

(B1)

(B2)

$R_{out} > R_{in}$

$V_{out} > V_{in}$

				1		

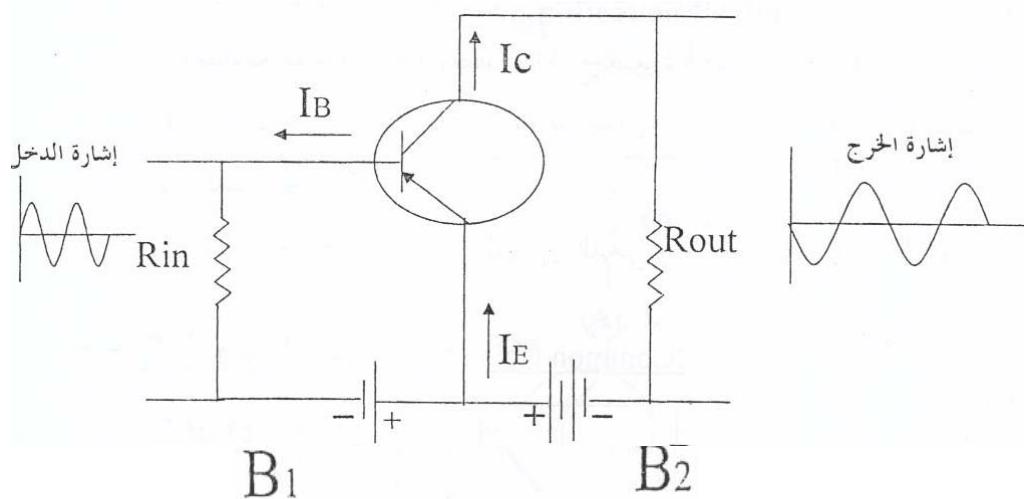
⋮ _____

.1

.2

.3

.2



(ON)

.(Ic)

(IB)

(IE)

$$I_E = I_B + I_C$$

(Ic)

β

$$\beta = \frac{I_C}{I_B}$$

200 50

.100 النسبة

180						

:

.1

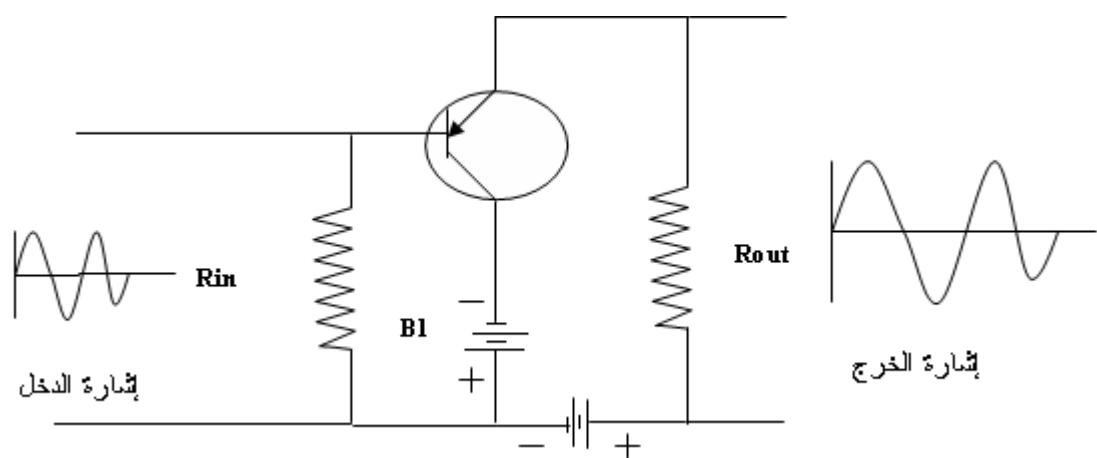
.2

.3

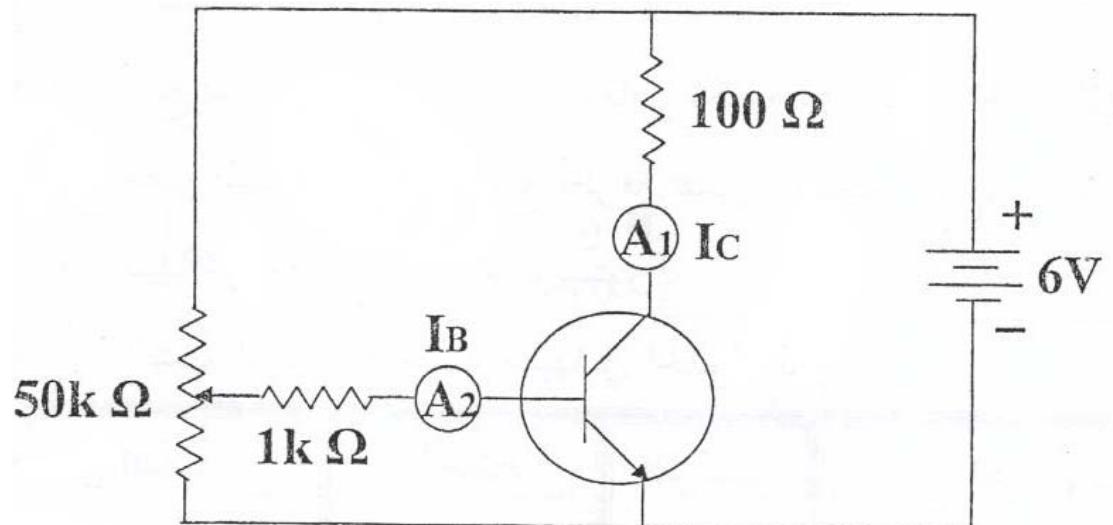
.4

.5

.180



Transistor Amplification Factor



(I B)

(I C)

I _B	10μA	20μA	30μA	40μA	50μA	60μA
I _C	2.5 mA	5 mA	7.5 mA	10 mA	12.5 mA	15mA

Δ I B)

Δ I c)

hFE

Transistor Amplification Factor

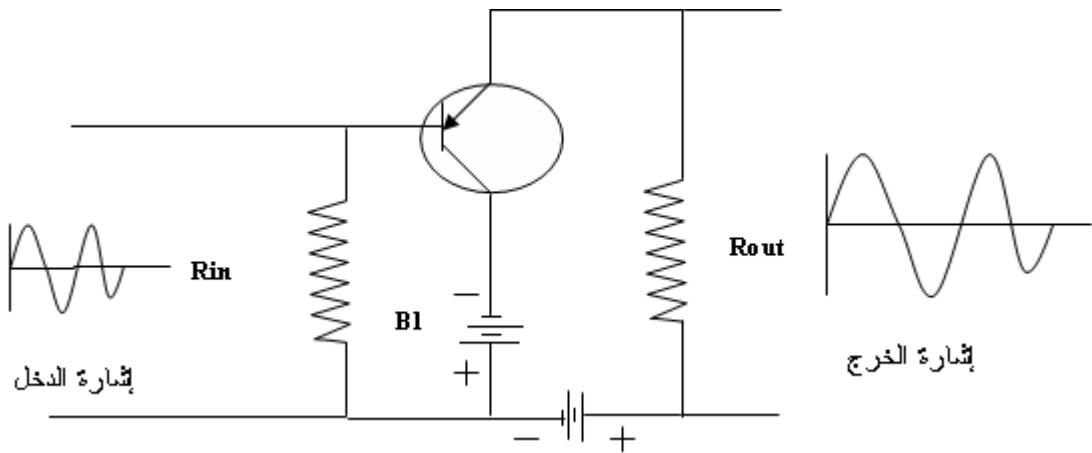
$$h \text{ FE} = \frac{\Delta I_c}{\Delta I_B}$$

200 50

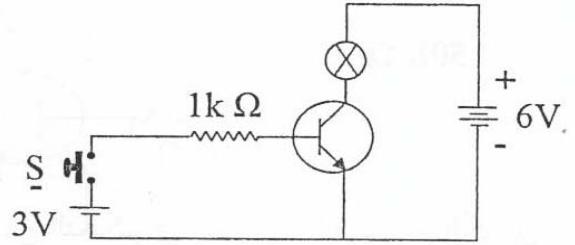
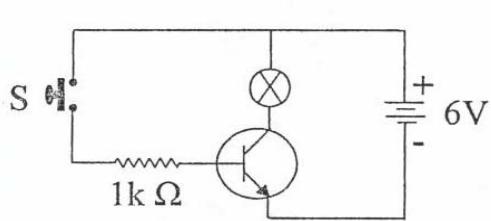
.(100)



- :
-1
h FE -2
-3



: _____ .1



.1

.2

:

NPN

-1

PNP

-2

.(OFF)

-3

(ON)

-4

(0.7V)

-5

(0.7V)

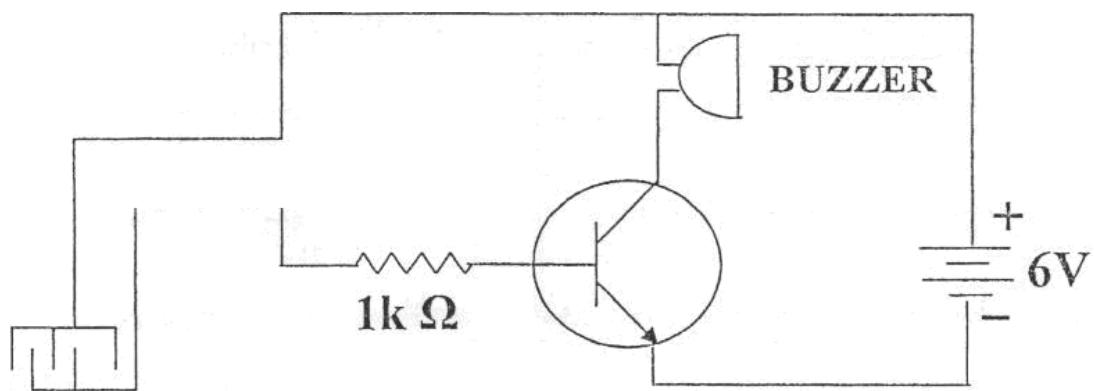
-6

(OFF)

(ON)

: _____ -1

(1 k Ω)



مجم رطوبة

-1

-2

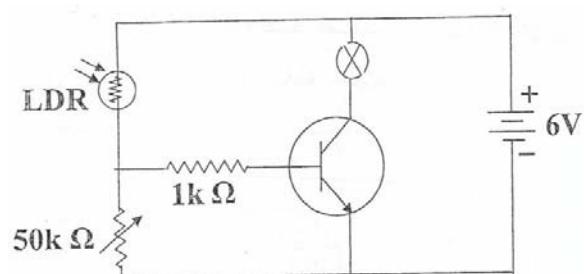
-3

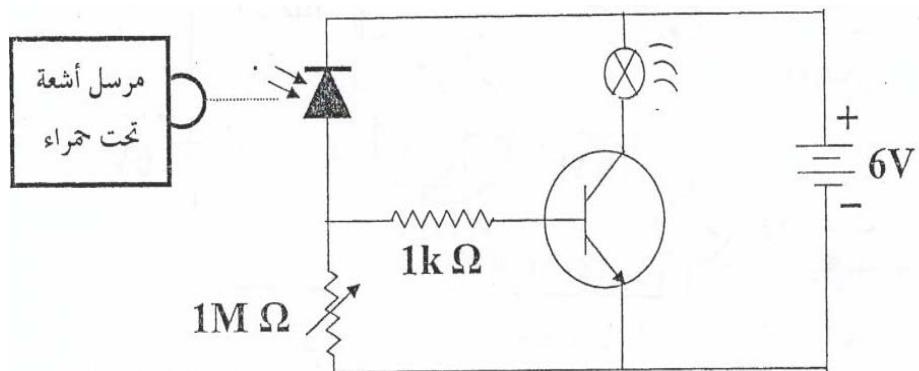
-4

-5

: (_____) -2

(LDR)



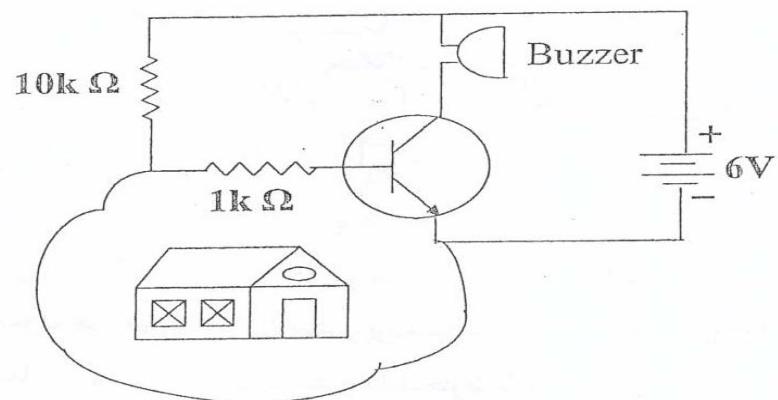


(Photodiode)

2

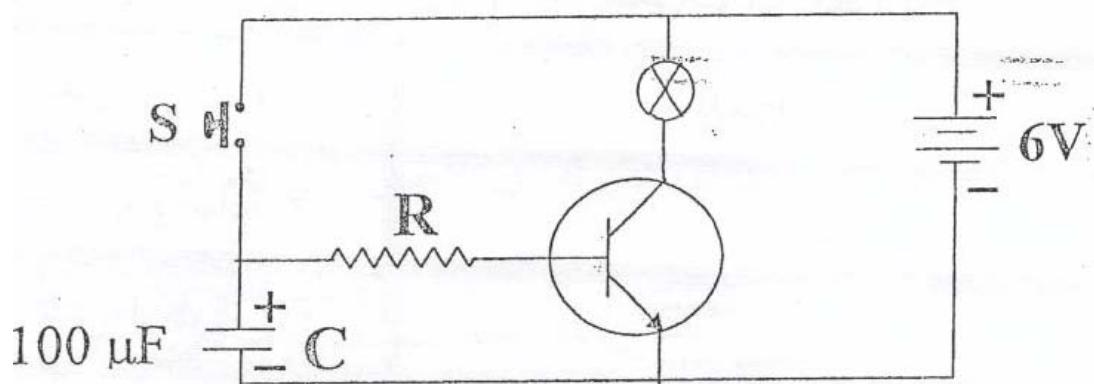
($1\text{ k}\Omega$)

($1\text{ M}\Omega$)

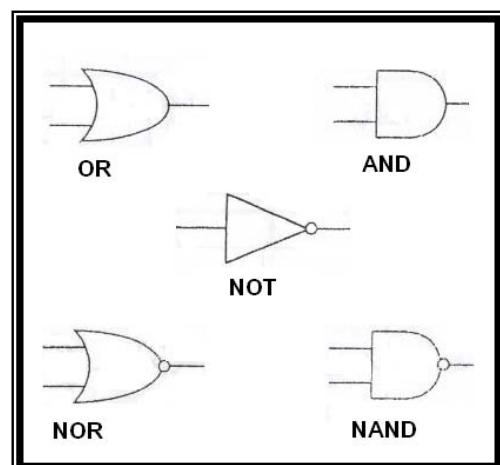
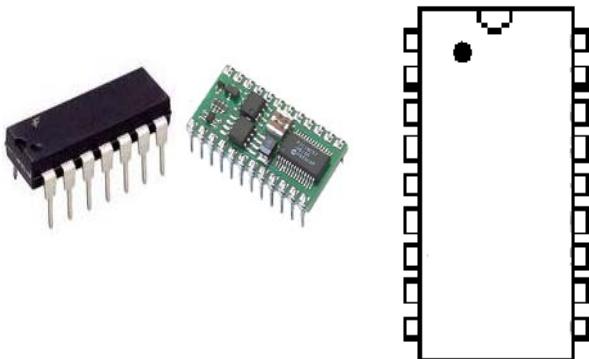


عندما نضغط على المفتاح الكهربائي (S) فإن المكثف الكيميائي يتم شحنه ثم يبدأ هذا المكثف بتفريغ شحنته عبر المقاومة الثابتة الموصلة بقاعدة الترانزستور ويستغرق ذلك فترة زمنية يمكن التحكم فيها بزيادة أو إنفاص قيم كل من المقاومة الثابتة (R) والمكثف الكيميائي (C) حيث ان:

$$T \propto RC$$



الدوائر المتكاملة

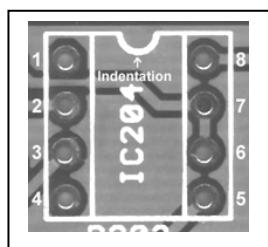


.1

;(Dual in Line)

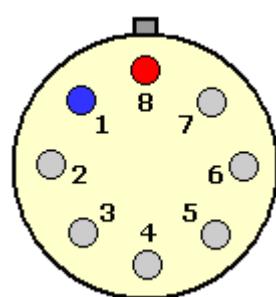
.2

24 16 14 8



(1)

.3



.1

.2

.3

.4

.5

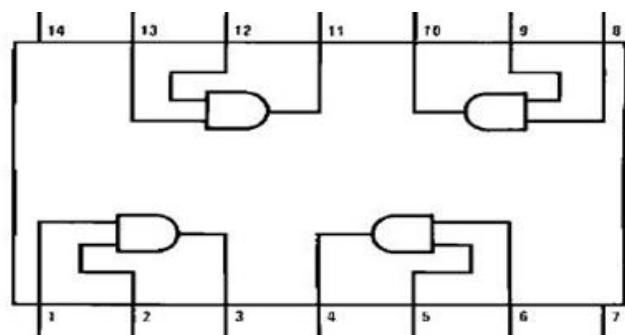
NE555

Liner

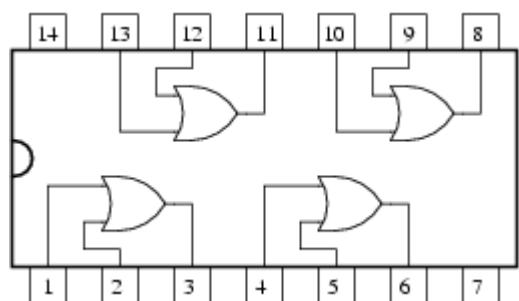
.1

: Digital .2

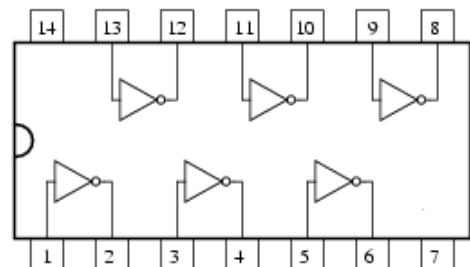
.AND 7408 -



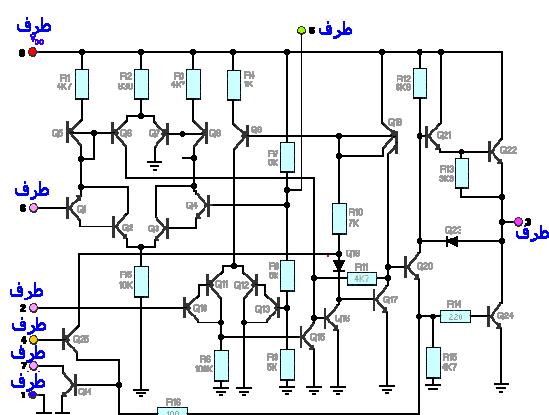
.OR 7432 -



.NOT 6 7404 -



NE555



Signecic	1971	NE555	
:		NE555	SE555
	Astable Multivibrator		.1
	Monostable Multivibrator		.2

الشركة	الرمز
ECG Philips	ECG955M
Exar	XR-555
Fairchild	NE555
Harris	HA555
Intersil	SE555/NE555
Lithic Systems	LC555
Maxim	ICM7555
Motorola	MC1455/MC1555
National	LM1455/LM555C
NTE Sylvania	NTE955M
Raytheon	RM555/RC555
RCA	CA555/CA555C
Sanyo	LC7555
Texas Instruments	SN52555/SN72555

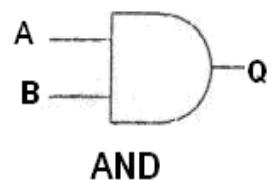
(ON)

(0-1)

. ()

AND GATE -1

. (1) (1)



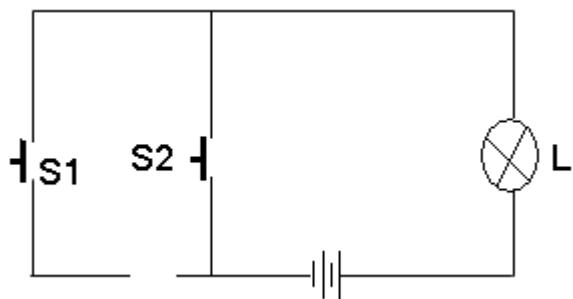
$$Q = A \cdot B = A \text{ and } B$$

A,B,Q

.(0)

(1)

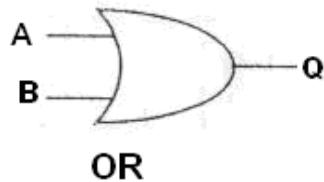
A	B	Q
0	0	0
0	1	0
1	0	0
1	1	1



S1	S2	L
0	0	
0	1	
1	0	
1	1	

OR GATE .2

(1)



(0)

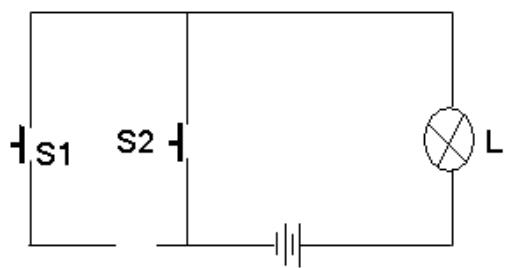
(0)

(1)

$$Q = A + B = A \text{ or } B$$

A	B	Q
0	0	0
0	1	1
1	0	1
1	1	1

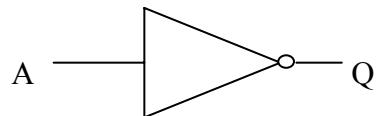
:



S1	S2	L
0	0	
0	1	
1	0	
1	1	

.(NOT) .3

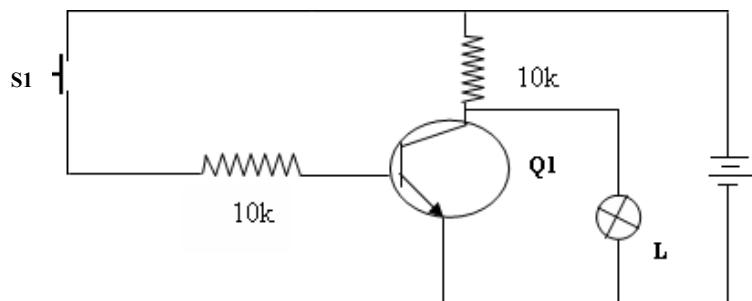
()



$$Q = A = \bar{A}$$

A	Q
0	1
1	0

(NPN)



S1	L
0	
1	

NOT

:NAND(/) .3

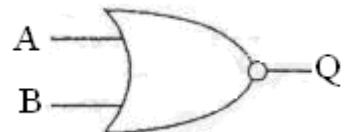
. AND()



$$Q = \overline{A \cdot B}$$

A	B	$A \cdot B$	$Q = A \cdot B$
0	0	0	1
0	1	0	1
1	0	0	1
1	1	1	0

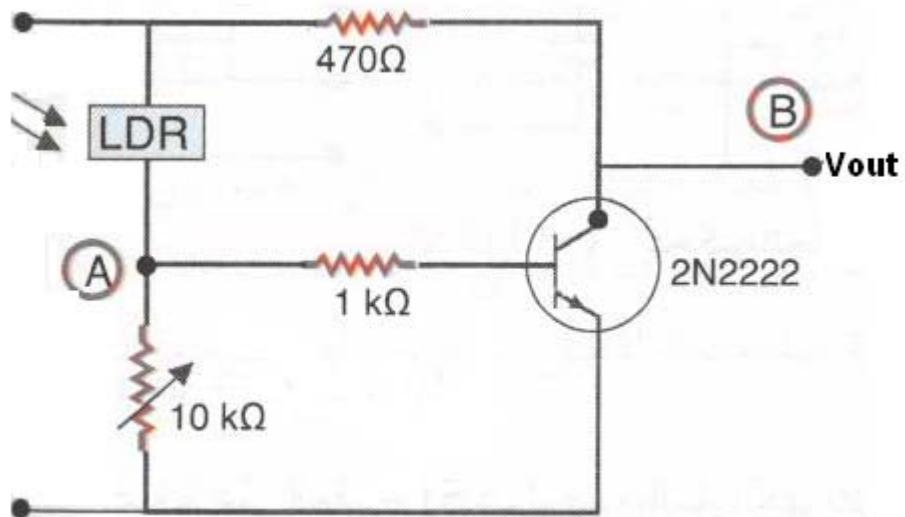
.5 .
NOR(/) : وهي بوابة مركبة يمكن الحصول عليها بوصول بوابة العاكس NOT على مخرج
. OR() بوابة



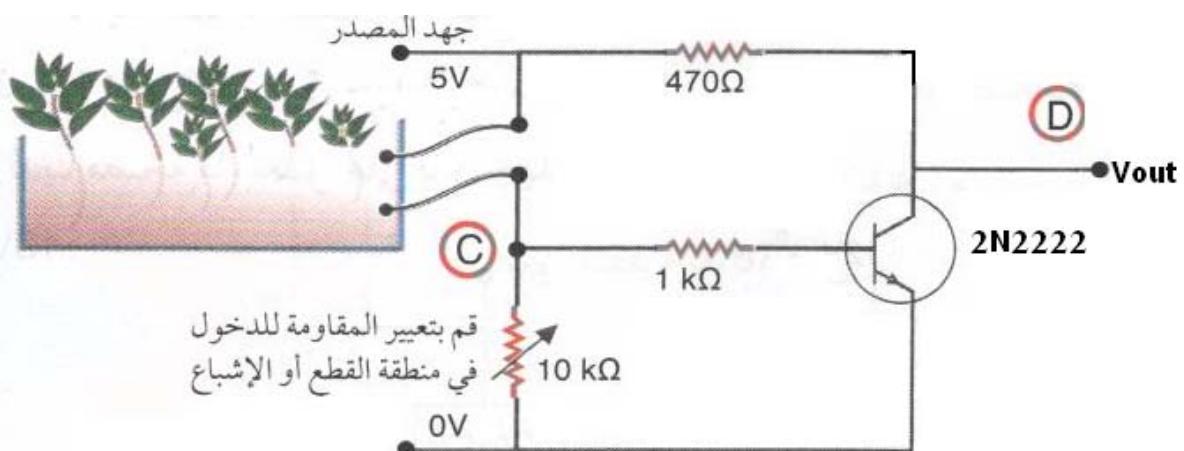
$$Q = \overline{A+B}$$

A	B	$A+B$	$Q = \overline{A+B}$
0	0	0	1
0	1	1	0
1	0	1	0
1	1	1	0

.1



.2



(11)



السلطة الوطنية الفلسطينية
وزارة التربية والتعليم العالي
الإدارة العامة للتخطيط التربوي

حفظه الله...

السيد/ مدير التربية والتعليم - محافظة الوسطى

السلام عليكم ورحمة الله وبركاته...

الموضوع: تسهيل مهمة بحث في الماجستير

يقوم الطالب: **أحمد اسماعيل أبو سويرم**، والمسجل لدرجة الماجستير في التربية تخصص مناهج وأساليب تدريس /تكنولوجيا التعليم، بعمل بحث بعنوان "برنامج تدريبي قائم على التصميم التعليمي في ضوء الاحتياجات التدريبية لتنمية بعض المهارات التكنولوجية لدى معلمي التكنولوجيا".

يرجى من سعادتكم التكرم بمساعدة الباحث بتطبيق أداة بحثه وهى عبارة عن برنامج تدريبي وذلك على عينة من مدرسي مادة التكنولوجيا بالمرحلة الأساسية وذلك حسب الأصول.

رئاسة مجلس نائب الادارة

أ. جمال محمود أبو هاشم
وكيل الوزارة المساعد للشئون الإدارية والتطوير



الدكتور/ مصطفى فهمي الد

خاتمة صحة وديم.

لبيان سماحة لدكتور/ مصطفى فهمي الد

مع تحيات

٢٠٠٩.٤.٥



نسخة* وزير التربية والتعليم

*وكيل الوزارة

*وكيل الوزارة المساعد للشئون التعليمية

الملف

(12)

2009 / 06 " "

مديرية التربية والتعليم بالوسطى تنظم دورة تدريبية لمعلمي التكنولوجيا

غزة- معا- أقامت مديرية التربية والتعليم بالمحافظة الوسطى دورة تدريبية لمعلمي التكنولوجيا للمرحلة الأساسية بعنوان المهارات الكهربائية والالكترونية، وذلك بمكتبة مدرسة رودلف فلتر الأساسية، الواقع (6) لقاءات دراسية، حيث هدفت الدورة إلى تنمية المهارات الكهربائية والالكترونية الواردة في منهاج التكنولوجيا للصفوف من السابع وحتى العاشر الأساسي لدى معلمي مبحث التكنولوجيا، وقام كلا من أ.احمد أبو سويرح رئيس قسم التقنيات بمديرية الوسطى، وأ.شادي أبو عزيز رئيس قسم التقنيات بمديرية رفح بتدريب المعلمين على موضوعات البرنامج التدريسي للدورة، بمشاركة (20) معلم من معلمي المبحث في مديرية الوسطى.

وشملت الدورة العديد من الموضوعات من أبرزها التوصيلات المختلفة للبطاريات والمصابيح، والمكثفات والمقاومات الكهربائية وتطبيقاتها المختلفة، والمرحلات، والدوائر الكهربائية، وال الثنائيات، والترانزستور، والدوائر المتكاملة والبوابات المنطقية.

وقد أبدى المعلمين المشاركون في الدورة رضاهم عن مستوى البرنامج التدريسي الذي أتاح لهم التدرب على العديد من المهارات التكنولوجية والقيام بتنفيذ أنشطة عملية وتطبيقية بشكل متميز ساهم في تطوير أدائهم في تلك المهارات.

<http://www.maannews.net/arb/ViewDetails.aspx?ID=161348>
نشر الأربعاء 06/05/2009 الساعة 17:32

(13)

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِيْمِ



الجامعة الإسلامية - غزة
The Islamic University - Gaza

هاتف داخلي: 1150

عمادة الدراسات العليا

الرقم Ref.

العنوان Date 35/غ/35

2009/05/10

شكر وتقدير

تتقدم عمادة الدراسات العليا بالجامعة الإسلامية بجزيل الشكر والتقدير إلى الأخوة في مدرسة روالف فلتر الأساسية ممثلة بمديرها الأستاذ الفاضل/ خليل بشير، على جهودهم المباركة في استضافة وإنجاح البرنامج التدريسي الخاص بدراسة الباحث/ أحمد إسماعيل أبو سویرح.

شاكرين لكم حسن تعاونكم، ووفقنا الله وإياكم لخدمة ديننا وخدمة مسيرة العلم والعلماء.

والله ولي التوفيق ، ،

عميد الدراسات العليا

د. زياد إبراهيم مقداد



(14)

أسماء المعلمين(المتدربين) المشاركون في البرنامج التدريبي

()		.1
()		.2
()		.3
		.4
()		.5
		.6
()		.7
()		.8
()		.9
()		.10
		.11
()		.12
()		.13
		.14
		.15
()		.16
		.17
()		.18



In the light of the results, the researcher suggested making new researches to build training and educational programs to develop the teachers needed skills in various courses, taking into account the reality of the society and the requirements and the challenges of this age. The researcher also suggested building training programs addressing other technological skills like Drawing and Signs, Dismantling and Assembling and Computer Skills that are needed too according to this research. It was also suggested to make studies and researches trying to find the training needs for the various educational levels and for the various courses. In addition, it was suggested to study the effect of applying The Instructional Design Models in building training and educational programs and to make field studies about the application of the technology course and any obstacles in front of that application.

3. In the light of the results of the training needs questionnaire, a training program was built by the researcher using "Kemp Model" that includes the design of educational and training programs, in order to develop the most needed technological skills. The most needed skills, according to the analysis of the questionnaire results were the 'Electrical and Electronic Skills'.
4. The researcher used an attainment test to measure the knowledge side of the technological skills that the teachers trained on during the program. The test contained 40 paragraphs, and it was applied on the 18 teachers who passed the program.
5. The researcher used observation card to measure the performance side of the technological skills that the teachers trained on during the program. The test contained 42 paragraphs, and it was applied on the 18 teachers who passed the program.

The results of the research:

1. The researcher determined a list of the technological skills that are needed by the technology teachers. The list contained 4 main types of skills: the Electrical and Electronic Skills (73 skills), Drawing and Signs Skills (72 skills), Dismantling and Assembling Skills (66 skills), Computer Skills (10 Skills).
2. The researcher arranged the training skills according to the proportional weights of their types. The first type was the Electrical and Electronic. Its proportional weight is 63.19%. The second type was the Computer Skills. Its proportional weight is 59.46%. The Dismantling and Assembling Skills came third and their proportional weight is 57.14%. The fourth type was the Drawing and Signs came last since their proportional weight was 49.81%.
3. The usage of Instructional Design Models was found to be helpful in designing the training program to develop the technological skills.
4. An influence was found for the application of the program on teachers as follows:
 - The researcher found statistical differences at the level $\alpha \leq .05$ in the teachers' average grades in technological skills before and after applying the attainment test, for the advantage of the application.
 - The researcher found statistical differences at the level $\alpha \leq .05$ in the teachers' average grades in technological skills before and after applying the observation card, for the advantage of the application.

Abstract:

The goal of this research is to build a training program based on Instructional Design in the light of the training needs to develop some technological skills for the teachers of technology and to measure the effect of this program after being applied.

The problem addressed by this research is:

What is the training program that is based on Instructional Design in the light of the training needs in order to develop technological skills for the teachers of technology?

This question is branched into the following sub-questions:

1. What are the technological skills needed by the teachers of technology?
2. What is the level of the training needs of the technology teachers regarding the technological skills that are needed in order to teach the technology curriculum?
3. What is the proposed model for the Instructional Design that is used to build the training program?
4. Are there statistical differences at the level $\alpha \leq .05$ in the teachers' average grades in technological skills before and after applying the attainment test?
5. Are there statistical differences at the level $\alpha \leq .05$ in the teachers' average grades in technological skills before and after applying the observation card?

To answer these questions, the researcher built the research tools:

1. A list of the technological skills needed by the teachers of technology for the primary level (7 - 10).
2. The list of the technological skills was transformed into a questionnaire in order to determine the training needs. The questionnaire contained 36 paragraphs split into 4 dimensions, before being presented to a group of referees in order to be sure about its correctness and applicability.

The researcher chose a random sample of 80 technology teachers of both genders in Gaza. The descriptive analytical methodology was used to determine the level of the training needs of the technology teachers in order to build the training program in the light of these needs.

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