Examining retainment in on-line long-term vocabulary supportive feedback strategies

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The ideal situation in language teaching

input = output

The actual situation in language teaching

input = % output

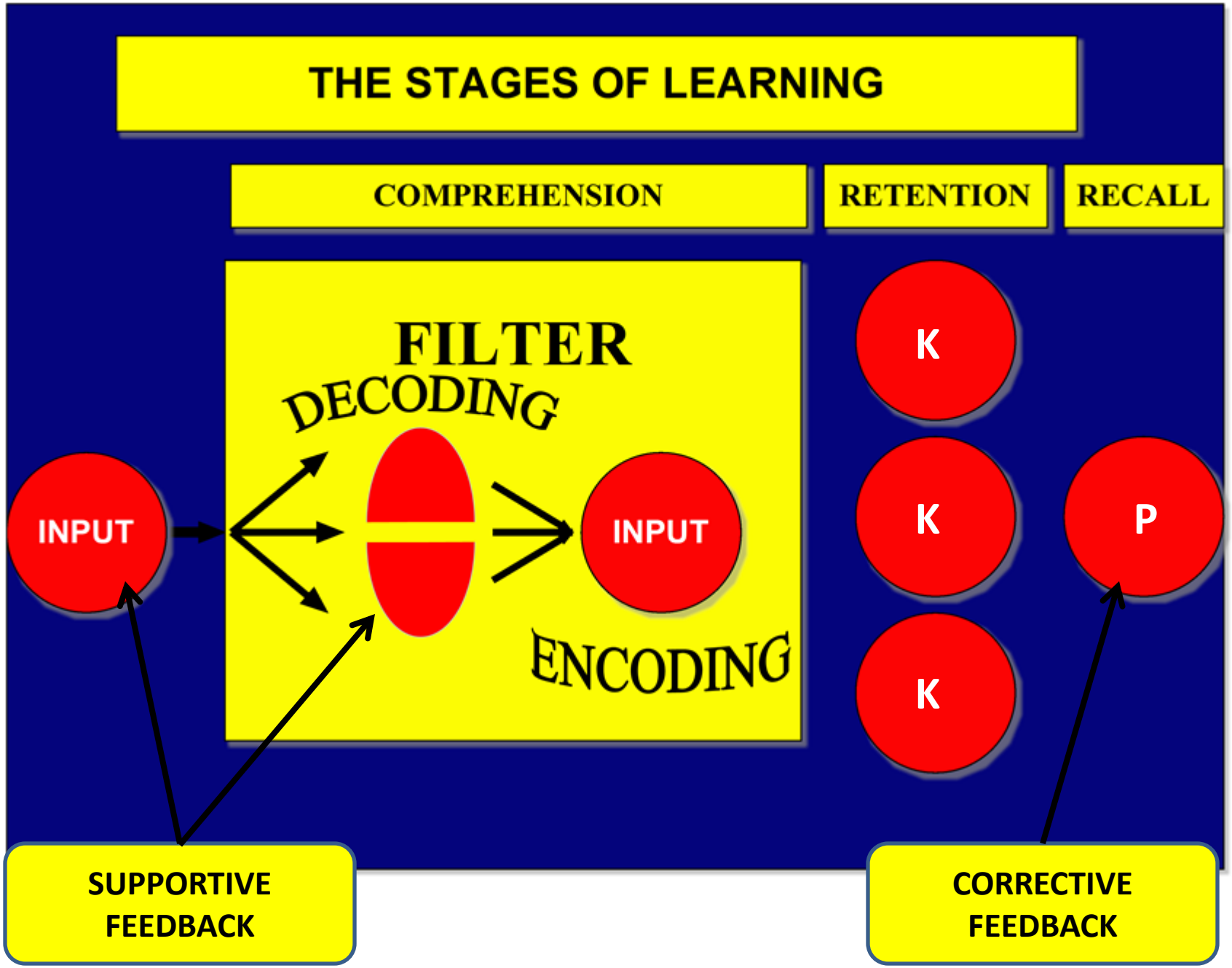
input  % output

CORRECT

OK

FALSE

FEEDBACK


THE STAGES OF LEARNING
COMPREHENSION
RETENTION
RECALL
FILTER
DECODING
ENCODING
INPUT
INPUT
K
K
K
P
SUPPORTIVE FEEDBACK
CORRECTIVE FEEDBACK

…. The CALL situation

Text text text text text text text text text text text text text text text NewVocab text text text text text text text text.

Text text text text text text text text text text text text text text text NewVocab text text text text text text text text. Text text text text text text text text text NewVocab text text text NewVocab text text text text text text text text.

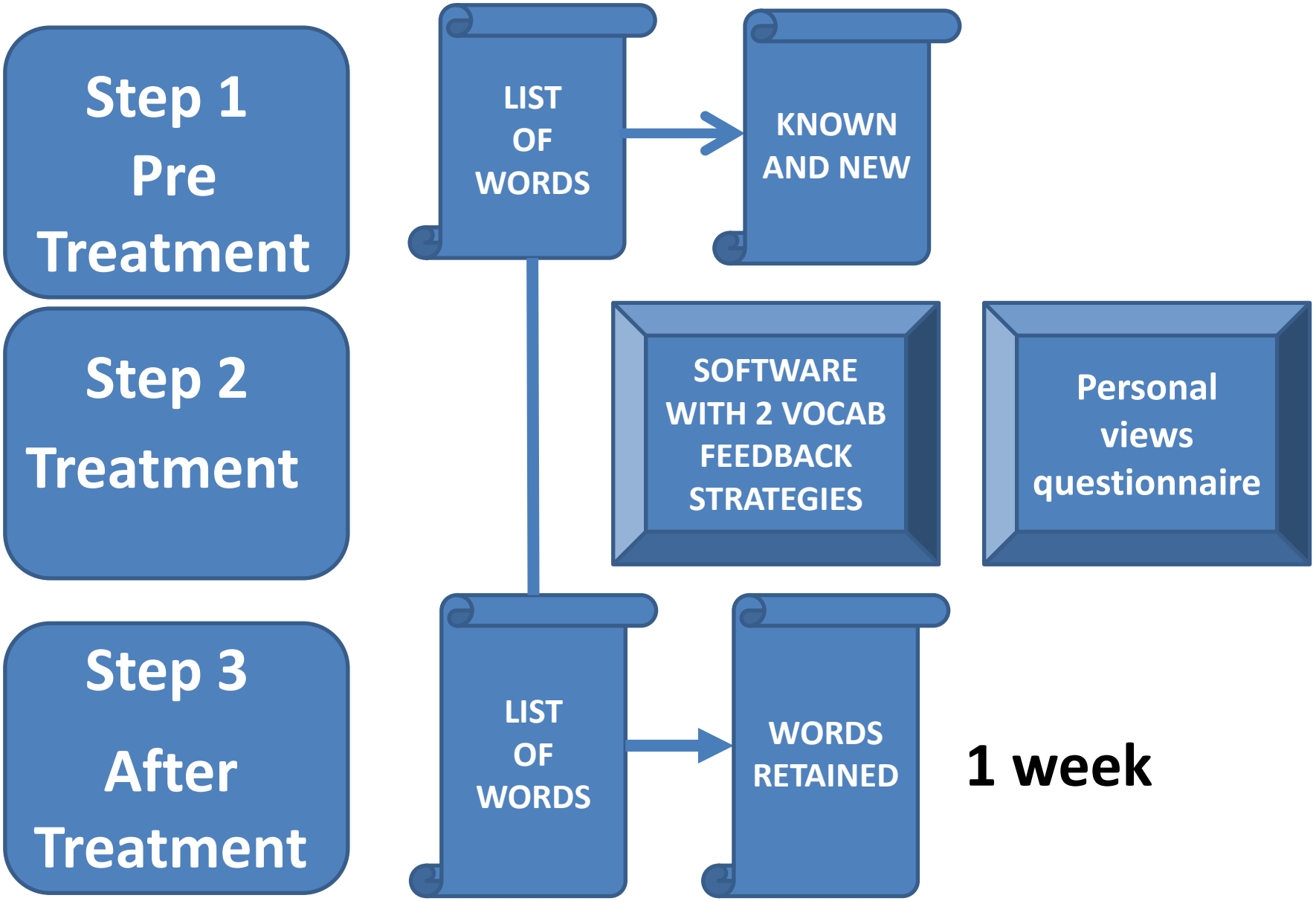
The question

What is the type of supportive feedback strategies that would need to be employed to best perform the job and increase outcome in the long-term memory of the learner?

The Hypothesis

There is no difference in long-term retention between an X and a Y supportive feedback strategy

THE METHOD: The procedure



The Subjects

The 48 subjects were all 4th, 5th and 6th grade primary school learners varying from 9 to 12 years old (with two subjects at 13), living on Kalymnos island (Greece).

STUDENTS LEVEL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4th GRADE	14	29,2	29,2	29,2
	5th GRADE	16	33,3	33,3	62,5
	6th GRADE	18	37,5	37,5	100,0
	Total	48	100,0	100,0	

Student level and Age

STUDENTS LEVEL * PARTICIPANTS AGE Crosstabulation

Count

		PARTICIPANTS AGE					Total
		9	10	11	12	13	
STUDENTS LEVEL	4th GRADE	7	6	1	0	0	14
	5th GRADE	0	5	10	1	0	16
	6th GRADE	0	0	6	10	2	18
Total		7	11	17	11	2	48

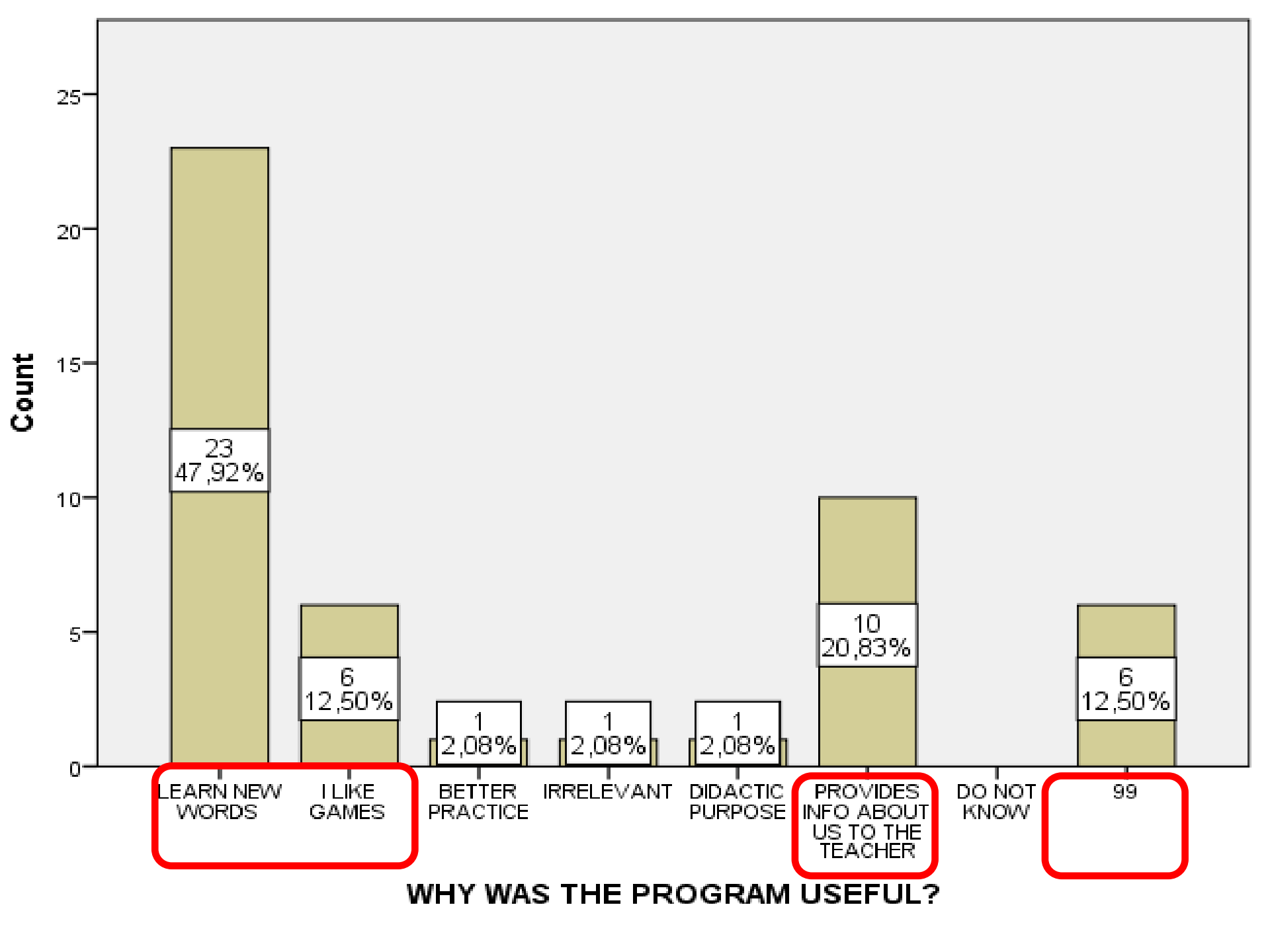
Correlation of Age with Total Words retained

Correlations

Correlations

		PARTICIPANTS AGE	TOTAL WORDS REMEMBERED AFTER ONE WEEK
PARTICIPANTS AGE	Pearson Correlation	1	,375**
	Sig. (2-tailed)		,009
	N	48	48
TOTAL WORDS REMEMBERED AFTER ONE WEEK	Pearson Correlation	,375**	1
	Sig. (2-tailed)	,009	
	N	48	48

**. Correlation is significant at the 0.01 level (2-tailed).


Count
25
20
15
10
5
0
23
47,92%
6
12,50%
1
2,08%
1
2,08%
1
2,08%
10
20,83%
6
12,50%
LEARN NEW WORDS
I LIKE GAMES
BETTER PRACTICE
IRRELEVANT
DIDACTIC PURPOSE
PROVIDES INFO ABOUT US TO THE TEACHER
DO NOT KNOW
99
WHY WAS THE PROGRAM USEFUL?

PREFERED STRATEGY TO RECEIVE FEEDBACK

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DIRECT - TRADITIONAL	18	37,5	38,3	38,3
	OFF SCREEN WRITING				

Symmetric Measures

		Value	Approx. Sig.	Exact Sig.
Nominal by Nominal	Phi	,601	,000	,000
	Cramer's V	,601	,000	,000
N of Valid Cases		47		

					18
					29
Total		15	30	2	47

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	16,954[a]	2	,000	,000		
Likelihood Ratio	18,126	2	,000	,000		
Fisher's Exact Test	16,386			,000		
Linear-by-Linear Association	2,989[b]	1	,084	,142	,142	,000
N of Valid Cases	47					

a. 2 cells (33,3%) have expected count less than 5. The minimum expected count is ,77.

b. The standardized statistic is -1,729.

Analysis of the dependent variables

NUMBER OF WORDS REMEMBERED DIRECT METHOD ONE WEEK

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	NUMBER OF WORDS REMEMBERED DIRECT METHOD ONE WEEK - NUMBER OF WORDS REMEMBERED WRITING STRATEGY ONE WEEK	-,917	1,088	,157	-1,233	-,601	-5,836	47	,000

1	9	18,8	18,8	35,4
2	16	33,3	33,3	68,8
3	9	18,8	18,8	87,5
4	4	8,3	8,3	95,8
5	2	4,2	4,2	100,0
Total	48	100,0	100,0	

Summary-1 - CALL

- the off-screen SFS showed higher retainment than the direct traditional
- the off-screen element in CALL, which has been neglected for years, would need to be activated in dedicated language learning site design
- age seems to be a significant factor of word retainment. Whether this relates to brain maturity or to higher language learning experience would be difficult to answer at this point. Language learning sites for children would need to contain a lighter work load

Summary-2 – BRAIN LEARNING

- both SFSs perform well in vocabulary item retention, which shows that the human brain adapts to both situations
- participants do not realize the difference between the two questions (preferred SFS and SFS that they learn better with), a reaction that occurred in previous Ypsilandis' (2006, 2014) studies

shortcomings

- small number of subjects
- short treatment period
- non exclusion of children with learning difficulties which may have had a significant negative impact on test scores

SOME CONCLUSIONS

- a) the human brain has a mind of its own (i.e. it does not obey the 100% vocabulary learning command),
- b) the individual is not aware of his/her mind learning preferences

THE FINAL CONCLUSION

the human does not have a 100% control of its brain and s/he does not know how it works