

The construct(s) measured by productive tests of lexical gain in a Pakistani EAP context

Nuzhat Jafari

Overview

- Research literature
 - Brief background and rationale
 - Literature review and context of this study
 - Research gap
- Research questions
- Research design and methodology
- Findings
- Summary of results

- **What is vocabulary learning strategy**

- *The process by which information is obtained, stored, retrieved and used.*

- (Rubin and Schmitt, 1997)

- *Learning strategies are specific actions taken by learners to make learning easier, faster, more enjoyable, more self-derived, more effective and more transferable to new situations. (Oxford, 1990)*

- **What aspects of vocabulary learning knowledge are addressed in this study**

- Being able to produce the word to express the meaning

- Being able to produce the word correctly in context to express the meaning

- Know grammatical function

Brief background and rationale

- Learning vocabulary is an essential part of mastering second language. (Schmitt, 2008).
- Vocabulary learning is as important as other language skills to learn the language (Nation, 2001).
- Vocabulary learning involves vocabulary learning strategies and other behaviours which learners adopt consciously or unconsciously (Nation, 2001)
- Language learners use more strategies in vocabulary learning than in any other linguistic competences (Schmitt, 1997).
- Higher-achievement learners use more strategies than lower-achievement peers (Ahmad, 1989; Gu, 1994; Schmitt, 1997 and Fan, 2003)

Related studies

- Ahmad (1989) Vocabulary learning strategies
- Schmitt (1993, 1997, 2000) Vocabulary learning strategies and language learning outcome
- Gu and Johnson (1996); Gu (1994, 1996, 2002, 2003, 2010 and 2012)
- Wu (2005) Vocabulary learning strategies used by Taiwanese EFL university students
- Zhang and Li (2011) Classification of L2 VL strategies

Research gap

- “The research which has been done on vocabulary learning strategies has tended to deal with individual or small numbers of strategies, with very few studies looking at the group as a whole” (Schmitt, 1997).
- There is hardly any longitudinal work done on vocabulary learning which combines curricular and extracurricular vocabulary learning strategies in Pakistani tertiary context.
- To partially fill such a gap, this study is designed,
 - to explore vocabulary learning strategies in lexical progression in Pakistani university context.
 - The study also offers important implications for the construct(s) measured by the two types of productive vocabulary tests in an EAP context.

Research questions

1. What are the curricular vocabulary learning strategies adopted by Pakistani tertiary students to learn English vocabulary?
2. What are the extra-curricular vocabulary learning strategies adopted by Pakistani tertiary students to learn English vocabulary?
3. What is the impact of the curricular and extra-curricular vocabulary learning strategies on vocabulary gain in this context?

Methods

- Longitudinal research
- The 'mixed methods approach' is adopted here
- The study consists of the pilot and the main study
- The instruments:
 - Productive Vocabulary Levels Test (PVLТ)
 - Production Course-related Vocabulary Test (PCVT)
 - Questionnaire on vocabulary learning strategies (VLSs)
 - Structured weekly vocabulary learning diary reports
 - Interviews
- Data analysis: Qualitative and Quantitative

Participants

- Total number of participants for main study: 578
- Intermediate level students
- Learning English as a second language
- Business and Accountancy students

Data collection

- January 2013
- Pre-Productive Vocabulary Levels Test (PVLТ) (N=578)
- Pre-Productive Course-related Vocabulary Test (PCVT) (N=578)

- January 2014
- Post-PVLТ (N=578)
- Post-PCVT (N=578)
- VLSs questionnaire (N=578)
- Structured weekly diary reports (N=120)
- Semi-structured Interviews (N=120)

Productive Vocabulary Levels Test (Laufer and Nation 1999) (PVLТ)

- Valid and reliable (Laufer and Nation 1995,1999; Schmitt, 2000; Cobb, 2000; Nation and Gu, 2007)
- Four parts and each part had 18 items
- Four levels
- Pre & Post (to see any progress)
- Conducted during class time: 72 minutes

Productive course-related Vocabulary test (Read, 2000; Nation, 2001)(PCVT)

- To observe the course vocabulary progression
- Pre & Post
- Adopted by Read (2000) and Nation (2001)
- Sentence writing
- Contents: total 30 items
- Taken during class time: 60 minutes

PCVT Construction

- Adopted from previous studies
- Consulted class teachers, course managers, past papers, syllabus, reviewed related literature, conducted pilot study to pilot instrument
- Content: course books, lists, selected one vocabulary item in each one hundred items. 30 items were selected out of 3500 items.

Specimen

Write a sentence for each of the following words (prepositions, idioms and words) to show that you know what the word means and how it is used. You may choose a different form of the word if you wish.

Fall back	
Hanker after	
Hostile to	
Make away with	

Productive course-related vocabulary test

“This type of test can allow the learners to demonstrate **several aspects** of their vocabulary ability: whether they **understand the meaning** of the target word; whether they know the word functions **grammatically** within a sentence and more generally, whether they use the word ‘**productively**’ in their writing”

(Read, 2000, p.175).

Expert focus group discussion

- Discussed
- Applied
- Finalised
- Re-test by each participants/marking real tests according to marking scheme with feedback
- Compare results from each rater
- Finalised

Finalised Marking Scheme	
2	Demonstrates a full understanding and accurate grammatical use.
1 a) full meaning+ partial grammatical accuracy b) partial meaning+ full grammatical accuracy c) partial meaning+ partial grammar d) partial meaning	Demonstrates full/partial understanding of meaning and/or partial/ full grammatical accuracy.
0	Fails to demonstrate any understanding No marks are awarded for a sentence which clearly shows that the learner does not understand the target word or has confused it with a similar one.

Questionnaire

- Adopted from previous studies (Gu and Johnson, 1996; Nation, 2001; Schmitt, 1997, 2010; Zhang and Li, 2011)
- To discover the vocabulary learning strategies from all participants
- At the end of twelve months of study
- 105 items, 72 items curricular VLSs, 33 items extra-curricular VLSs
- The response format five-point Likert-scale
- Bilingual: English with L1 translation to make it more simple and easier to be respond
- During class time; 60 minutes

Interviews

- “Can be used in conjunction with other methods in a research undertaking” Cohen, Lawrence and Keith (2000).
- To obtain information about adopted vocabulary learning strategies
- In English, Semi-structured, audio recorded
- 120 Student participants (out of 578)
- 10 teacher participants (out of 20)

Structured weekly diary reports

- Deeper insight of the issues” (Schumann,1977; Baily,1983,1996; Mackey and Gass, 2005)
- To obtain the details of adopted vocabulary learning strategies and factors
- Collected on weekly basis at the end of their course
- (120x4) Participants
- A structured diary study format-diary sheet
- Bilingual: English with L1 translation

Preliminary analysis

- No missing data
- Test of Normality (Kolmogorov-Smirnov; Shapiro-Wilk)
- Item analysis of each instrument
- Wilcoxon Signed Rank Test
- Factor analysis

Item analysis: PVLТ

Scale PVLТ	N of Items	Cronbach's Alpha
Pre- PVLТ	72	.955
Post-PVLТ	72	.963

- A good internal consistency
- All items reflected the corrected item-total correlation values above 0.25 except 4 items (Post-PVLТ)
- Same items valued above 0.25 (Pre-PVLТ), not affecting on alpha values

Inter-rater reliability of productive course-related vocabulary test

- Correlation between each pair of raters by using Spearman rho

Pre-PCVT	Rater1	Rater2	Rater3	Rater4
Rater1	.000			
Rater2	0.998	.000		
Rater3	0.995	0.994	.000	
Rater4	0.994	0.994	0.999	.000
Post-PCVT	Rater1	Rater2	Rater3	Rater4
Rater1	.000			
Rater2	0.992	.000		
Rater3	0.991	0.991	.000	
Rater4	0.990	0.990	0.993	.000

Wilcoxon Signed Rank Test

Test		Mean	Median	SD	Wilcoxon
PVLT	Pre	9.75	7.00	10.79	Z=-20.81 P<0.001
	Post	28.48	30.00	16.03	
PCVT	Pre	3.79	0.00	5.51	Z=-20.74 P<0.001
	Post	14.92	11.63	12.33	

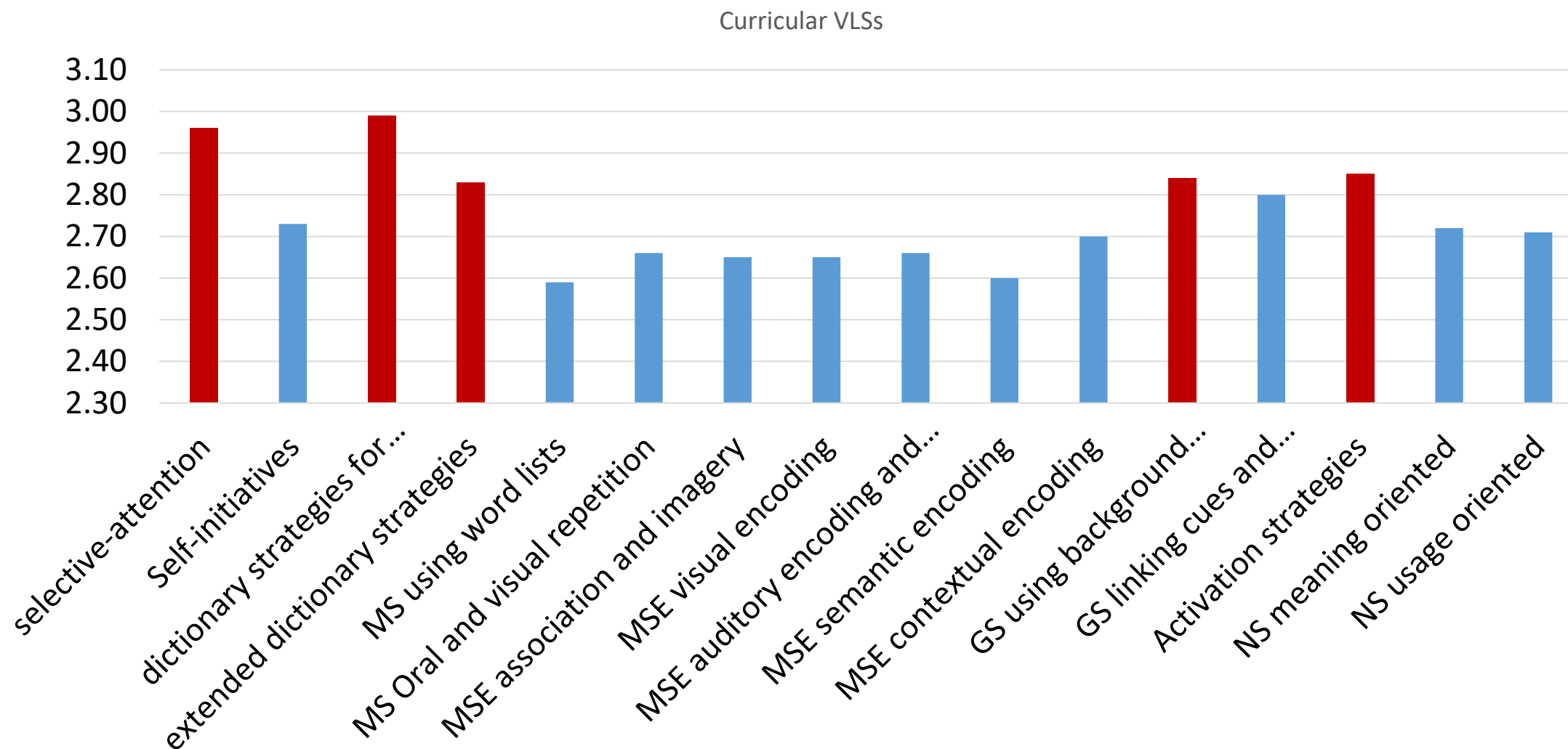
Two factors of vocabulary learning strategies (total variance explained 74.03%)

Factors	Eigen values	%of Variance	alpha
Curricular VLSs	69.13	65.84	0.994
Extra-curricular VLSs	8.60	8.19	0.992

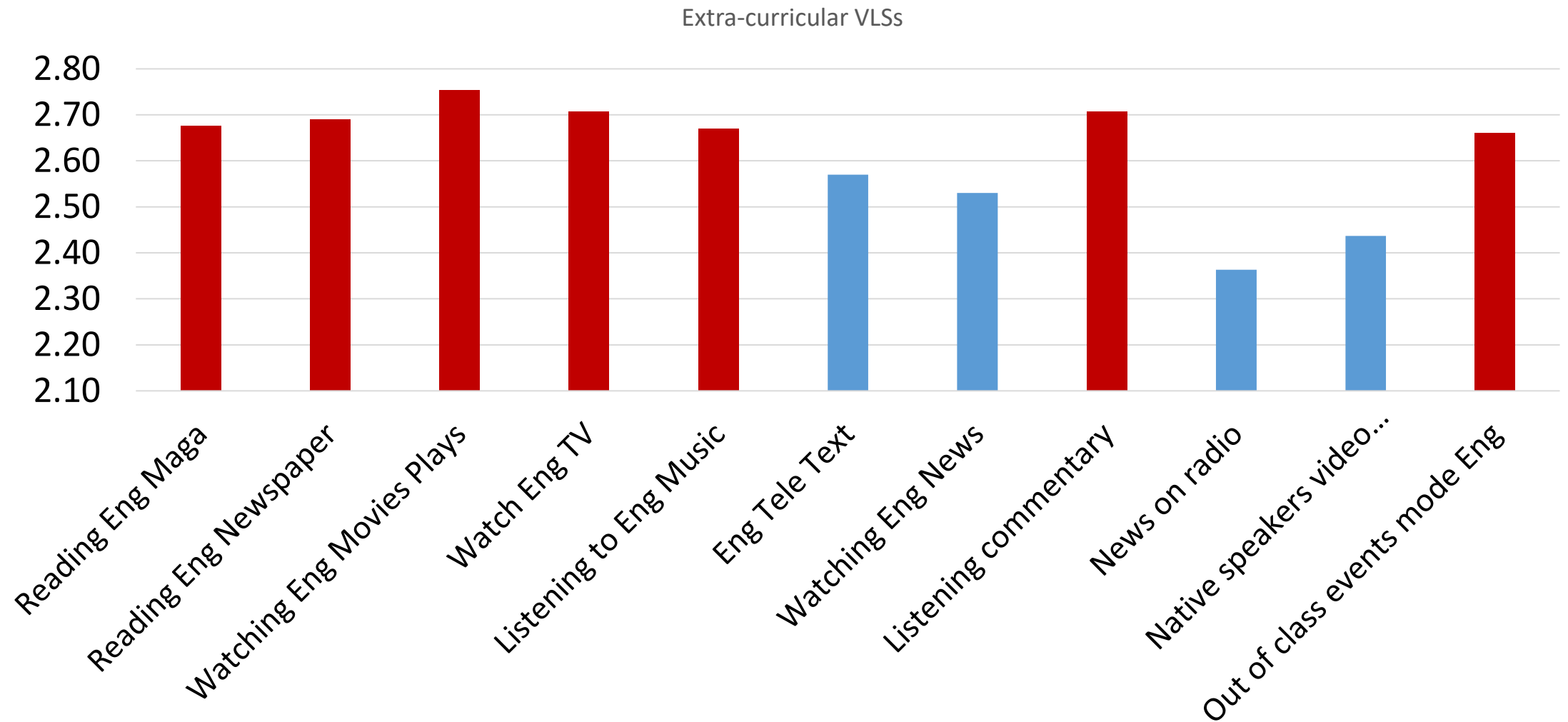
Research question 1, 2

- Descriptive statistics
- Kruskal-Wallis tests, Post-hoc comparisons with Bonferroni
- Interviews data
- Structured Diary Reports data

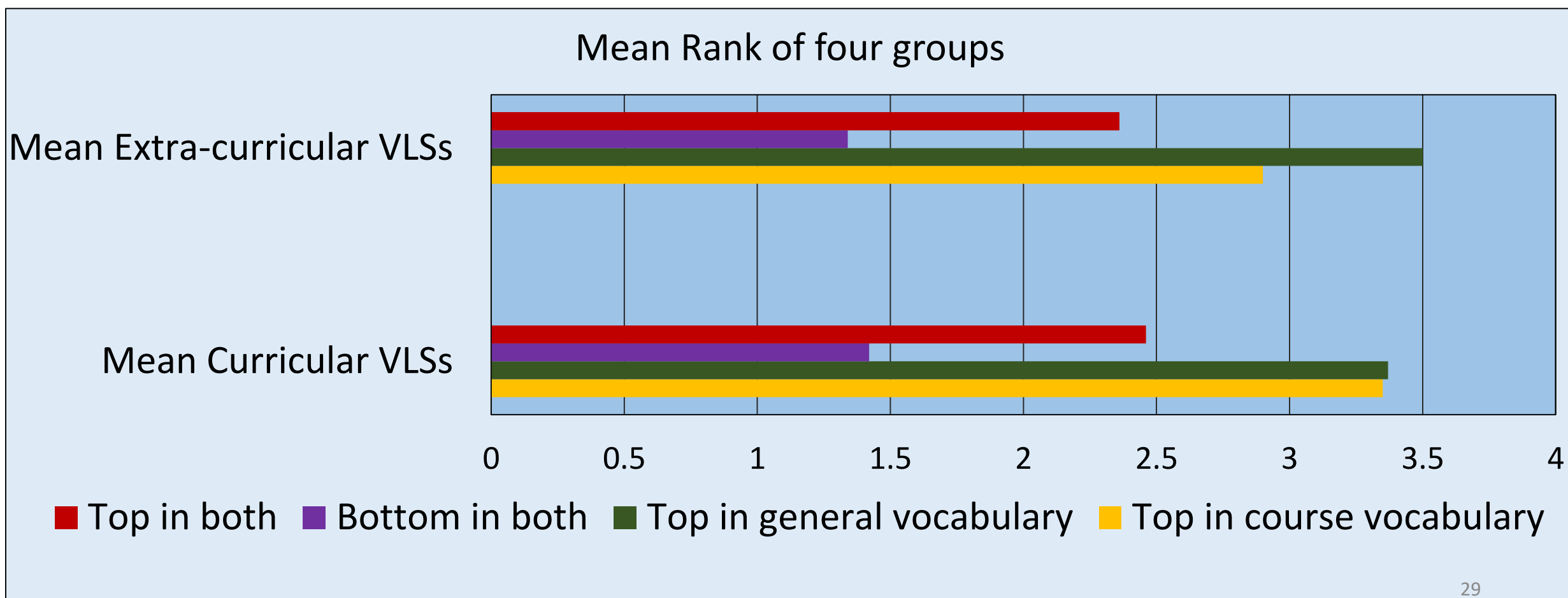
RQ1



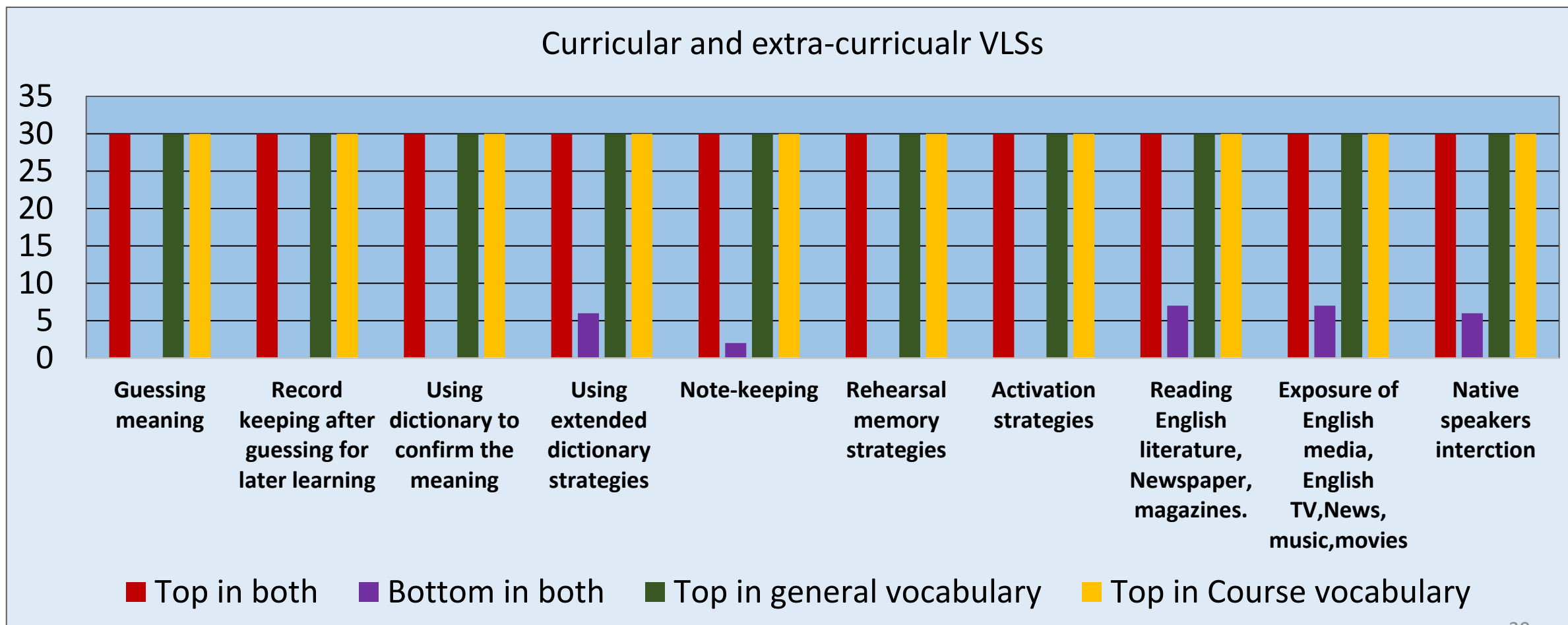
RQ2



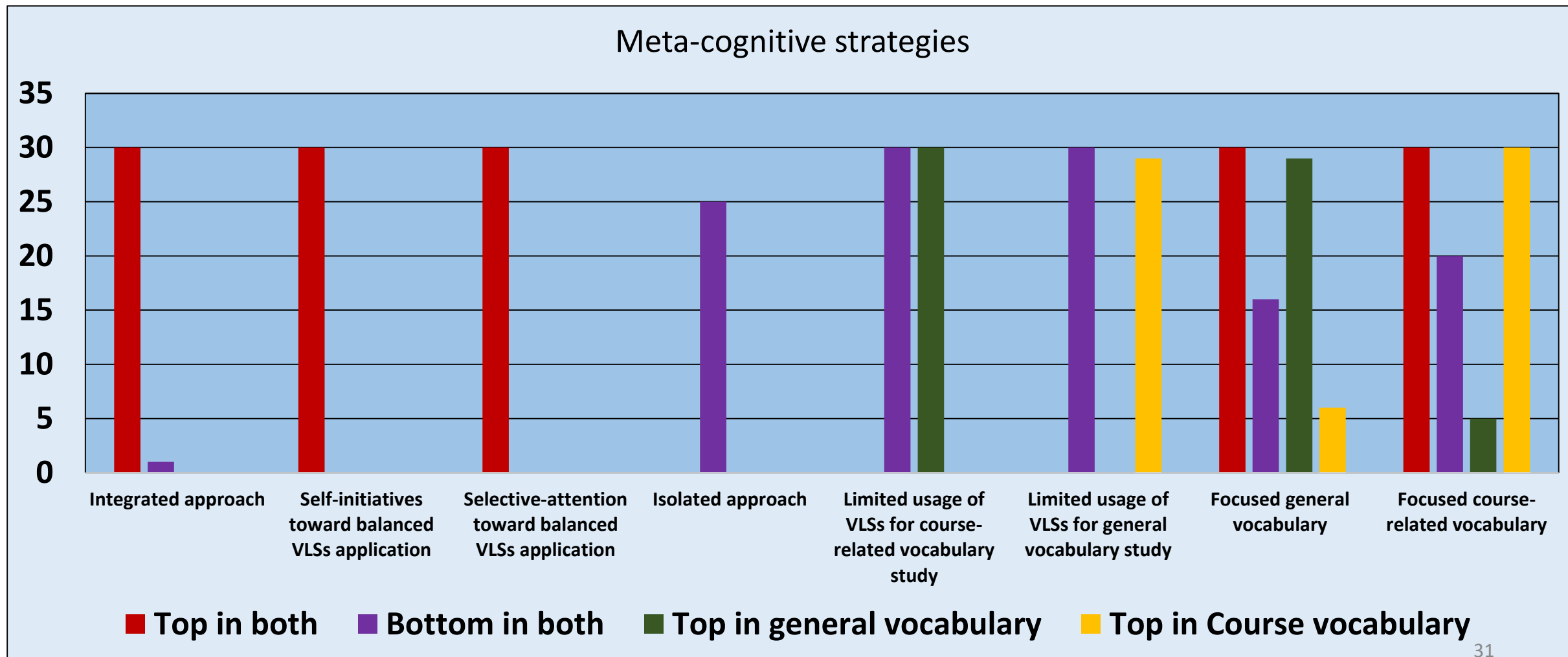
Kruskal-Wallis tests, Post-hoc comparisons with **Bonferroni** (Curricular VLSs $P < 0.001$; extra-curricular VLSs $P < 0.001$).



Data from interviews and diary studies



Data from interviews and diary studies



Research question 3

- Multiple Regression Analysis
- Interview data
- Structured diary reports

Multiple regression (DV: PVLTV ; $R^2=0.395$)

Predictor	Std.Beta	t	p
Curricular VLSs	0.159	3.188	0.002
Extra-curricular VLSs	0.498	9.967	0.000

Multiple regression (DV: PCVT ; $R^2=0.240$)

Predictor	Std.Beta	t	p
Curricular VLSs	0.682	12.175	0.000
Extra-curricular VLSs	-0.309	-5.511	0.000

Multiple regression (DV: PVLТ ; $R^2=0.363$)

Predictors	Std.Beta	t	Sig.
Selective-attention	.275	3.620	.000
Self-initiatives	.318	4.911	.000
Dictionary Strategies For Comprehension	-.091	-.981	.327
Extended Dictionary Strategies	-.117	-.990	.323
Using Word List MS Rehearsal	.134	1.699	.090
Oral and Visual Repetition MS Rehearsal	-.010	-.129	.898
Association and Imagery MS Encoding	.081	.975	.330
Visual Encoding MS Encoding	-.043	-.499	.618
Auditory Encoding and Word Structure MS Encoding	-.134	-1.570	.117
Semantic Encoding MS Encoding	-.017	-.192	.848
Contextual Encoding MS Encoding	-.005	-.061	.951
Using Background Knowledge Wider Context GS	-.070	-.636	.525
Using Linguistic Cues And Immediate Context GS	.170	1.826	.068
Activation Strategies	-.086	-.942	.347
Meaning Oriented Note-Taking Strategies	.082	.752	.452
Usage Oriented Note-Taking Strategies	.130	1.533	.126

Multiple regression (DV: PCVT ; $R^2=0.250$)

Predictors	Std.Beta	t	Sig.
Selective-attention	.216	2.617	.009
Self-initiatives	.021	.295	.768
Dictionary Strategies For Comprehension	.217	2.165	.031
Extended Dictionary Strategies	-.035	-.275	.783
Using Word List MS Rehearsal	-.047	-.551	.582
Oral and Visual Repetition MS Rehearsal	.019	.227	.821
Association and Imagery MS Encoding	.202	2.227	.026
Visual Encoding MS Encoding	-.029	-.308	.758
Auditory Encoding and Word Structure MS Encoding	.000	-.002	.998
Semantic Encoding MS Encoding	-.226	-2.418	.016
Contextual Encoding MS Encoding	.139	1.432	.153
Using Background Knowledge Wider Context GS	.004	.036	.971
Using Linguistic Cues And Immediate Context GS	.000	.003	.998
Activation Strategies	.144	1.456	.146
Meaning Oriented Note-Taking Strategies	.065	.547	.585
Usage Oriented Note-Taking Strategies	-.207	-2.245	.025

Multiple regression (DV: PVLТ ; $R^2=0.411$)

Predictors	Std.Beta	t	Sig.
Reading English Magazines _ECVLS	.223	2.034	.042
Reading English Newspaper _ECVLS	-.195	-1.682	.093
Watching English Movies And Plays _ECVLS	.224	1.951	.052
Watching TV Programmes _ECVLS	-.018	-.161	.872
Listening English Music _ECVLS	.122	1.294	.196
Watching Programme With English Tele Text _ECVLS	.092	.995	.320
Watching English News _ECVLS	.193	2.009	.045
Watching Matches And Listening to English Commentary _ECVLS	-.069	-.744	.457
Listening News On Radio _ECVLS	-.120	-1.515	.130
Video Conferencing With Native Speakers of English _ECVLS	-.086	-.992	.322
Out Of Class Events Where Mode Of Communications English _ECVLS	.289	3.615	.000

Multiple regression (DV: PCVT ; $R^2=0.073$)

Predictors	Std.Beta	t	Sig.
Reading English Magazines _ECVLS	.091	.663	.508
Reading English Newspaper _ECVLS	-.093	-.636	.525
Watching English Movies And Plays _ECVLS	.084	.580	.562
Watching TV Programmes_ ECVLS	.058	.421	.674
Listening English Music _ECVLS	.061	.515	.607
Watching Programme With English Tele Text _ECVLS	-.098	-.843	.399
Watching English News _ECVLS	-.051	-.421	.674
Watching Matches And Listening to English Commentary _ECVLS	.180	1.553	.121
Listening News On Radio _ECVLS	-.105	-1.060	.290
Video Conferencing With Native Speakers of English _ECVLS	-.187	-1.711	.088
Out Of Class Events Where Mode Of Communications English_ECVLS	.278	2.776	.006

Summary of main findings

- **RQ1 & RQ2**

- ❖ Selective attention, self initiatives, guessing strategies, dictionary strategies, memory strategies, notetaking strategies, activation strategies
- ❖ Reading English magazines and newspaper, watching English TV, movies and plays, listening to English music and sport commentary, social interaction with native speakers

- **RQ3**

- ❖ Students who progressed in both general and course-related vocabulary used a variety of strategies in combination, and their balanced and integrated approach seems the most effective.
- ❖ Curricular VLSs are the best predictors for course-related vocabulary gain and extra-curricula VLSs are the general vocabulary gain.
- ❖ Selective attention, self initiatives, reading English magazines, watching English movies and plays and out of class events turned out the best predictors of general vocabulary gain.
- ❖ Selective attention, dictionary strategies, memory strategies, out of class events turned out the best predictors of course related vocabulary gain.

Contribution of the study

- Confirmation of the PVLТ reliability as a measure of productive vocabulary in Pakistani context
- Confirmation of PCVT reliability as a measure of productive vocabulary in Pakistani context
- 1st study on Pakistani tertiary students, a starting point for further studies in this context
- 1st study in a Pakistani EAP context, longitudinal, large scale, mixed methods: work will contribute to the theory of vocabulary learning and practice of vocabulary teaching
- Quantitative results with the collaboration of detailed qualitative results recommends some pedagogical implications for ESL learners in terms of general and course-related vocabulary learning

Thank you for your attention

Contact:

Nuzhat.Jafari@beds.ac.uk

1. Selective-attention (which words are important for learning)
2. Self-initiatives (just follow teacher/ expand vocabulary learning)
3. Dictionary Strategies For Comprehension (checking meaning)
4. Extended Dictionary Strategies (checking usage)
5. Using Word List MS Rehearsal (keeping vocabulary lists and revise them)
6. Oral and Visual Repetition MS Rehearsal (repeat it aloud/write it again and again)
7. Association and Imagery MS Encoding (creating a mental image)
8. Visual Encoding MS Encoding (remembering the spelling by breaking it into several visual parts)
9. Auditory Encoding and Word Structure MS Encoding (similar sounds/spell words together)
10. Semantic Encoding MS Encoding (grouping words into categories)
11. Contextual Encoding MS Encoding (remembering context where it occurred)
12. Using Background Knowledge Wider Context GS (guessing with cues of context)
13. Using Linguistic Cues And Immediate Context GS (grammatical structure/ examples in context)
14. Activation Strategies (using newly learned word in communication)
15. Meaning Oriented Note-Taking Strategies (making note of meaning, synonyms, antonyms)
16. Usage Oriented Note-Taking Strategies (noting down examples, usage)