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# **Student Engagement in Language Learning: Adult Tertiary L2 Learners- HETL Conference, Orlando 13-15 Jan 2013**

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# Introduction

- The study investigated patterns of English vocabulary inferencing strategies in L2 tertiary learners.
- Focus on *'Pre-receptive'* to *'Productive Processes'* in vocabulary development in pedagogical contexts.
- Verbalisations or Think Aloud Protocol employed to gather data in the first phase of the study.

# Research Questions

- Does pre-receptive vocabulary proficiency influence the inferencing strategies of L2 learners?
- Do L2 learners infer word meanings and formulate positive transfer strategies during academic reading activities?
- What types of strategies do L2 learners employ for text processing that assist in developing vocabulary?

# Research Objective-Question

- *To develop a theoretical model of L2 vocabulary development.*
- Does explicit reading instruction assist L2 learners in developing vocabulary from context?



# Pre-receptive vocabulary

- The study introduces the concept of '*pre-receptive vocabulary*' as the language proficiency of the L2 learner before encountering unknown words.
- In this state the L2 learner has an established L1 schema quite unlike the individual's L2 schema and how the L2 is developed may have bearing on the foundations of language learning established earlier through the acquisition of the learner's L1.
- It is distinct from the belief of word familiarity which has been used to discuss the degrees of knowledge between receptive and productive vocabulary.

# Review of L2 Acquisition Theories

- *Universal Grammar, and Principles and Parameters Theory*
- Chomsky (1968) -linguists must first ascertain the innate schema that characterizes the class of potential languages, before proceeding to make detailed studies of the nature of stimulation and environment interaction that initiates cognitive mechanisms in the learner.
- This theoretical position provides insights into how a target language can be learned and retained and how a L2 learner's prior vocabulary knowledge and established L1 schema may influence the selection of L2 inferencing or lexical strategies.

# L2 Learning Theories

- *Linguistic Schema Theory*-schemes are basic building blocks, organised systems of actions or thoughts that enable us to mentally represent the objects and events of the world in an attempt to adapt to the environment.
- *Learnability Theory*- focuses on the role of the learning environment in language learning. This premise posits that the instructional/interactive environments play important roles in all aspects of language learning including vocabulary development.
- *Cognitive Psychological Theories*-state that knowledge has to move from declarative to procedural forms through three stages: the cognitive stage, the associative stage and autonomous stage, and focuses on the impact of the stages on language learning.
- *Sociolinguistic Theories*- input is believed to represent what the L2 learner gathers and understands from a text, in addition to mediation from peers and facilitation by peers and instructors.

# Verbal Protocol Analysis ( VPA)

- VPA -a qualitative introspective technique used in second language acquisition (SLA) through which individuals' verbalisations can be seen as accurate records of information about a particular task, and involves participants 'thinking aloud' while the task is carried out (Green, 1998).
- The central notion of protocol analysis is that it enables the researcher to instruct subjects to verbalise their thoughts in a way that does not modify the order of thoughts mediating the completion of a task and therefore is acceptable as valid data on thinking (Ericsson, 2002).

Ericsson, K.A. (2002). Protocol analysis and Verbal reports on Thinking.

<http://www.psy.fsu.edu/faculty/ericsson/ericsson.proto.thnk.html>.

Green, A. (1998). *Verbal protocol analysis in language testing research: A handbook*.

Cambridge: Cambridge University Press.

# Research Methods- Phase 1

- In the study, a constructivist-interpretive paradigm is applied with the assumption that what is being investigated is a product of meanings derived from interactions and understandings of the group being studied.
- Case study analysis of the inferencing strategies employed.
- Concurrent and retrospective reports gathered(n=41).
- Data- transcribed, scored, and evaluated for levels of understanding.
- Coding categories were developed with each code corresponding to an inferencing strategy or vocabulary learning skill.
- Theoretical units of analysis developed from the data.
- Led to the development of a theoretical model of L2 vocabulary development.

# Retrospective & Concurrent VPA

- Participant group ( each individual) given a reading text and retrospective verbal protocol reports gathered following the reading.
- Concurrent data gathered while reading texts.
- Participants -sample representative of the bounded unit investigated.
- Participants verbalised their thoughts in an audio recorder.
- Written instructions and verbal explanations given to participants prior to gathering data.



# Data Analysis

- Transcripts transcribed according to orthographic conventions recommended by Lemke ( 2005).
- Inter-rater reliability was established for the transcribed and coded data.
- Symbols developed for the transcripts with two raters via discussions held.
- 15 theoretical units of analysis identified- with sub categories. Four new strategies or variants of strategies identified through the study.



# Strategies Identified

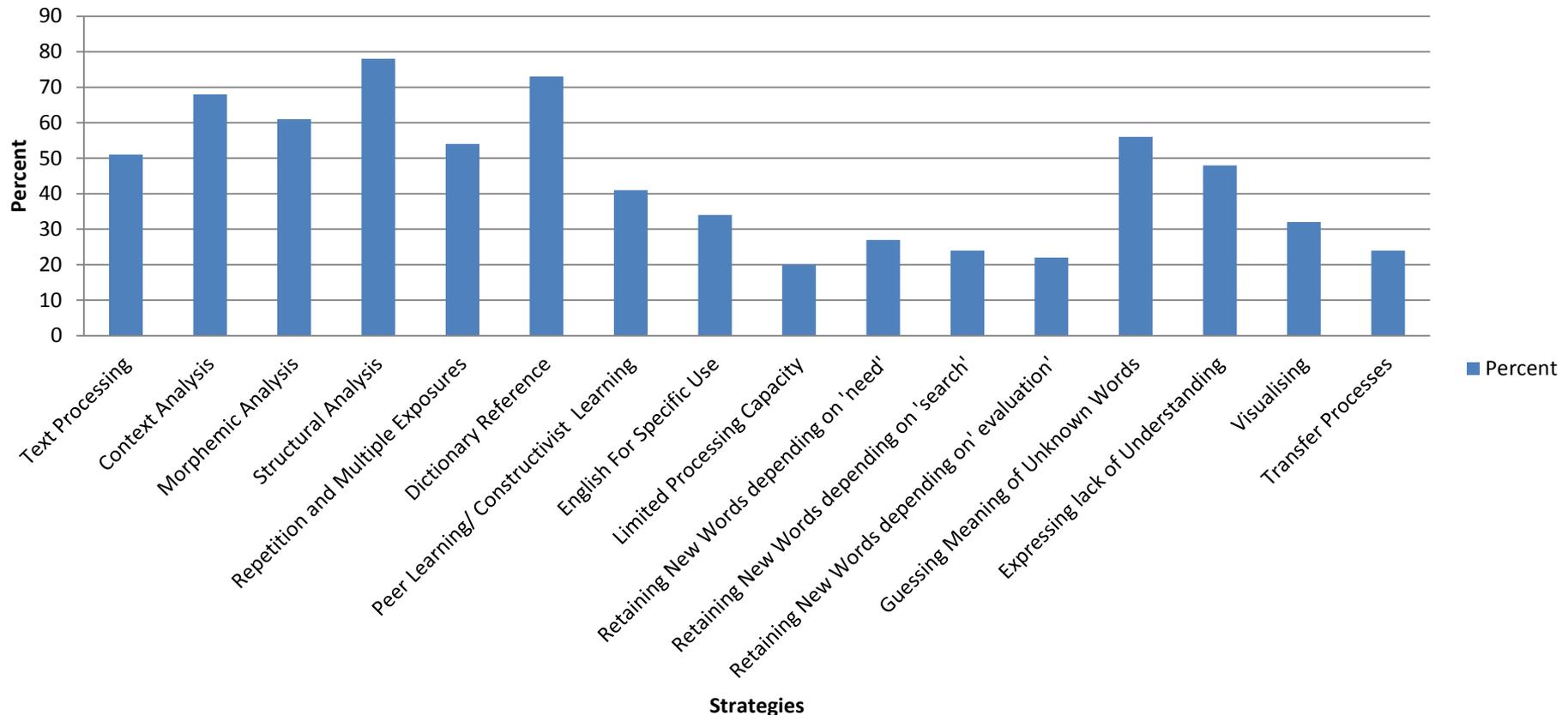
No	Strategies	Definitions
1	Text Processing	noticing unfamiliar words
2	Context Analysis – new strategy	Developing inferential word learning
3	Morphemic Analysis	Conscious of word parts
4	Structural Analysis Strategy	Syntactic information used for text processing
5	Repetition and Multiple Exposure	Generating explanation from multiple encounters
6	Dictionary Referrals	For finding meanings of difficult words
7	Peer learning Strategy	Asking learners who are more knowledgeable
8	English For Specific Use	Learning terms that are specific to disciplines
9	Limited Processing Capacity	Skipping over words not deemed important
10	Retaining new words depending on ‘need’	Motivational Concerns
11	Retaining new words depending on ‘search’- new strategy	Referring to search engines such as Google
12	Retaining new words depending on ‘evaluation’	Making a decision based on semantic fit of words
13	Guessing meaning of unknown words	Using background knowledge to guess meanings of words
14	Expressing lack of understanding – new strategy	Learner acknowledges lack of knowledge
15	Visualising- new strategy	Imagining what the word looks like
16	Transfer Process	From learner’s L1

# Vocabulary Learning Strategies Summary



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## Vocabulary Learning Strategies



# Research Methods- Phase 2

- In phase two the study investigated if vocabulary increments were achieved via the explicit teaching of the vocabulary inferencing strategies (identified in phase 1) in comparative groups of study participants.
- Criterion Referenced Tests-diagnostic pre-tests measured contextualised lexical meanings for receptive and productive vocabulary knowledge, and vocabulary depth.
- The vocabulary skills measured through the items ( 53 items) in the pre-tests illustrated recognition skills, lexical knowledge, depth of vocabulary knowledge, knowing meanings in different contexts, and technical vocabulary skills, inclusive of both receptive and productive vocabulary knowledge.

## Research Methods- Phase 2 ( cont'd)

- CRT-post tests measured vocabulary increments.
- The analysis of scores attained by the participants for each item in the post-tests show how participants demonstrated their receptive and productive knowledge following explicit instructional mediation of vocabulary learning strategies in experimental groups.
- The mean scores had increased from 17.5 to 21.3 in tests 1 and 2 and from 16.9 to 18.4 in tests 3 and 4 for the experimental group C showing noteworthy incremental vocabulary.
- The mean scores had increased in the post-tests for the experimental group E from 17.8 in pre-tests 1 and 2 to 22 in the post-tests 1 and 2 and from 15.3 in the pre-tests 3 and 4 to 18.4 in post-tests 3 and 4 showing that vocabulary gains had indeed occurred significantly as result of explicit teaching of vocabulary strategies.

# *t*-test results

- The *t*-tests conducted between control and experimental groups show significance (*p*) values ranging between 0.005 and 0.0002, indicating a high degree of significance as the current study employed an independent sample *t*-test which is a one-tailed *t*-test with the level of significance set (*p*) as = 0.01.

# Discussion

- In addition to cognitive, meta-cognitive, and memory strategies employed by participants, social strategies such as asking peers and individuals in the social realm of learning required the learners to institute social communication with others, emphasising the constructivist domain of vocabulary learning.
- The structural analysis strategy was used most frequently by participants. This is a complex strategy that requires higher decoding skills indicative of the fact that the average of 12-13 years spent learning English as a second language assisted in fostering constructive vocabulary learning strategies.
- Encountering unknown words is arguably an impediment to meaning construction and comprehension, however how an L2 learner negotiates meaning and selects suitable strategies to move through receptive to production processes determine the development of mental lexicons.

# Conclusion

- Verbalisations inform L2 learner strategy use effectively.
- Allows for data gathering in the form of words that depicts the rich experiences of participants.
- Theoretical analysis of this data informed the conceptualisation of a specific model of L2 vocabulary development model.
- The test results indicate that the experimental groups demonstrated an incremental understanding of word meanings and relationships including the ability to use context to infer word meanings from texts.
- In addition, the experimental groups showed better skills in decoding and word-reading abilities and the ability to use derivations of words in different contexts through the test items that focussed on these skills.



# Conclusion( cont'd)

- The five aspects of lexical knowledge tested were recognition skills, lexical knowledge, depth of vocabulary knowledge, vocabulary meaning in different contexts, knowing how to use the word in different situations and technical vocabulary knowledge.
- Supportive study environments and developing awareness of vocabulary inferencing and vocabulary learning strategies, encourage L2 learners to learn meanings of new words and to consolidate their knowledge of words better.





**Thank You**