

Research Statement
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Birth of a researcher

My research identity started with random reflections on my first years of teaching English in Egypt but I did not have the tools and context to expand my ideas. In my home university, we only studied pure linguistics and empty theories. It was only when I was given the chance to start a Master degree program at UNT that I began to practice what I study and connect theory to action. I was so interested in what learners get from the classroom conversation. I had a strong belief in incidental learning and that students can acquire new vocabulary without planning from the teacher. My thesis research was the most challenging because it was my first time to engage with experiment design and participant recruitment. The design was difficult to control as it involved creating a semi-natural classroom environment and measuring vocabulary learning outcomes. It had a lot of limitations but I definitely learnt a lot from it. Since then, I became a fan of vocabulary acquisition and particularly incidental learning.

Previous research

I started my PhD degree in the Second Language Studies Program at MSU in Fall 2010. My course of study covered basic second language acquisition theories, research methods, quantitative and qualitative approaches, psycholinguistics, teaching methods and assessment. Two qualifying research papers were required to fulfill PhD candidacy. In both studies, my target was Arabic vocabulary acquisition. In the first study, I conducted a classroom-based study that looked at the effects of different vocabulary tasks on learning new word meanings. The study relied on the involvement load hypothesis which maintains that word learning and retention in a second language are contingent upon a task's involvement load (i.e. the amount of need, search,

and evaluation it imposes), as proposed by Laufer and Hulstijn (2001). English-speaking learners of Arabic were randomly assigned to three groups performing three different vocabulary learning tasks that varied in the degree of involvement: reading comprehension with glosses (low), fill-in-the-gap task (medium), and sentence writing (high). There was a main effect of task, with the sentence writing task yielding the highest rates of retention, followed by the gap-fill task, and finally the reading comprehension task. Results of the study validated the hypothesis and pointed to multiple factors at play in incidental vocabulary acquisition.

In my second research project, I was driven a further step into cognitive aspects of incidental learning. I was interested in how learners react to new vocabulary in real time and how incidental intake can be tracked and measured. I implemented the eye tracking methodology to investigate learners' reading patterns of new vocabulary in short contexts. The theoretical ground in the study was that the amount and quality of attention to novel vocabulary in context determine the acquisition of multiple aspects of word knowledge (Godfroid et al. 2013). Eye-movement results showed that learners fixated more on initial encounters with target words and that their fixation times gradually decreased from first to last exposure. The longer they looked at novel words, the more learning gains they reported, particularly in meaning recognition and recall of these words. Learning gains were the highest in form recognition and lowest in meaning recall, which points to a potential cognitive trajectory of incidental lexical development.

Current Research

I expanded the same framework for my dissertation project, which primarily aims at capturing the process of incremental development of word knowledge through exposure and context factors in natural reading. I worked with learners of English as they read a short story on the eye tracker. Tracking the effect of repetition and context richness on eye movements and

learning outcomes provided a real time record of reading comprehension and online interaction with written texts and novel words in context. Most importantly, it provided me with more insight into how incidental intake happens in reading and what factors are responsible for boosting or inhibiting new vocabulary acquisition. There was a systematic relationship between reading times and different aspects of vocabulary learning. Furthermore, it was found that different measures of eye movement tapped into different cognitive processes, thereby predicting different aspects about word learning from context.

Future Agenda

I am constructing my future research agenda with an interdisciplinary vision, taking into consideration the needs of my teaching fields and expectations about the potential work environment. My goal is to fill the gap between research and practice and put AFL on the map of SLA literature. Many aspects of vocabulary acquisition are interesting to investigate in Arabic as a second language with all its distinct morphological features. Standardized testing of proficiency and vocabulary size has not received much attention in Arabic. The current curricula for teaching Arabic need to be reconsidered based on vocabulary frequency profiles.

One route for filling these gaps is through corpus analysis. By collecting cross-sectional and longitudinal data from students' written assignments and productions, we can track the lexical development and combine a large database of the types and quality of vocabulary used on all levels. Comparing this corpus with the textbook inventory and available teaching material, we can put our hands on the current vocabulary knowledge of students and find ways to enhance vocabulary development through material and curriculum design that match a systematic frequency-based corpus of Arabic. In a parallel work, initial collaborative efforts need to be done to start a real corpus for Arabic language to allow for standardized comparisons and further

research projects. Creating corpora for Arabic written and spoken language will enable practitioners to design curricula and/or standard proficiency tests which will not only serve pedagogical purposes but meet research needs as well.

A further avenue to utilize corpus data is by looking at error analyses across levels. By tracking the features of written language development, we can address some aspects of acquisition order in Arabic language, which will definitely provide implications for curriculum and testing designs. Oral proficiency records through ACTFL can also be an additional source for establishing competence levels and acquisition order including lexical profiles. Creating rigorous assessment tools in a language program is a crucial step for establishing learning outcomes and curricular objectives.

Above all, my interest in vocabulary learning research will never fade. I anticipate collaboration with other faculty members in major projects that target both ESL and AFL students and investigate vocabulary acquisition and testing from different cognitive, pedagogical and socio-cultural approaches. I am also looking at task-based vocabulary research as one promising area that feeds into my teaching practice and goals. I have recently been involved in creating web-based learning tasks and I became interested in how technology can facilitate language learning especially in a less commonly taught language like Arabic. By integrating teaching material into interactive task-based modules with set learning goals, we can evaluate the pedagogical efficiency of online versus offline tasks in AFL and compare our findings to the domain of ESL, which has already achieved a remarkable breakthrough in online teaching and learning.

Link : [Research Portfolio](#)