

# Seeing What Teachers See.... Learning what Teachers Know

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## Outline

- Academic Background
- Teaching Experience
- Overview of PhD Project
- Pilot Study (March/April)



## Academic Background

- BA: Linguistics & Anthropology/Education
- MA: TESOL (Second Language Acquisition)
- MSc: CADES (Anthropology: Cultures & Dev.)



 UNIVERSITY AT ALBANY  
State University of New York



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# Academic Background

## TC:

### *Second Language Acquisition:*

A Matter of Time: what is the role and relevance of temporal concepts in second language acquisition?

### *Second Language Assessment:*

ILET (Introductory Level English Test: Literacy) for Students With Interrupted Formal Education



## KUL

The Cautionary Tale of Rural Development: a critical view of agricultural knowledge and extension praxis

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## Teaching Experience

- NYC: 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> Grade ESL at MS 45
- Peace Corps: Agro-forestry, Literacy Skills, Environmental Education, HIV/AIDS Awareness, Community Development...
- Berlitz, International Refugee Center of Albany, LVA, Missoula Continuing Education...



# Research Project

## Transition and Its Impact on Teachers' Expertise Development

- **Study 1:** *How do teachers at various stages in their career and various levels of deliberate practice describe classroom management?*
- **Study 2 :** *How do teachers at various stages in their career and various levels of deliberate practice describe their own classroom management?*
- **Study 3:** *How do teachers who actively engage in improving their professional competencies develop their classroom management skills over the course of their career? How do they differ from teachers who do not have such professional goals?*





## Pilot Study



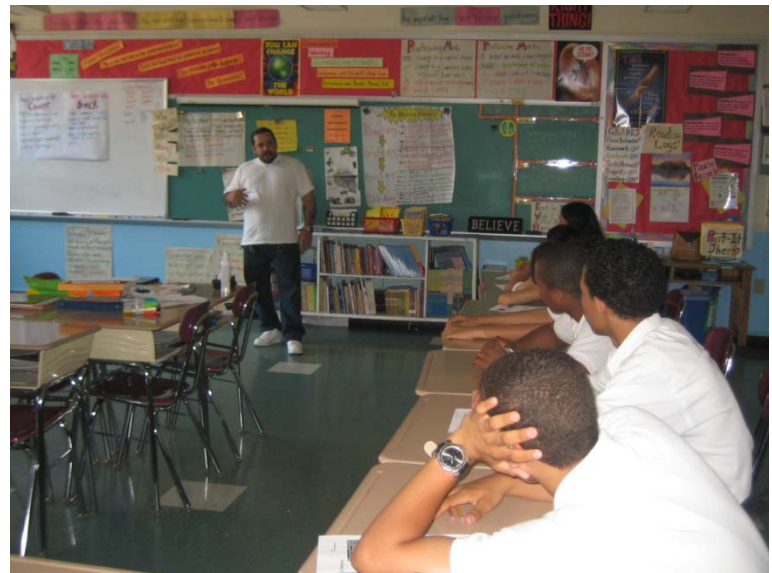
Seeing what teachers see:  
exploring the use of eye tracking  
in teacher expertise studies

- Eye tracker comparison: HED v. RED
- Visual perception & attention
- Cognitive processes & knowledge structures
- Differences between expert/novice teachers



## Classroom Scene

Let's have a look at a classroom video:



- What do you notice?
- What seems relevant in terms of classroom management?





## Classroom Scene



### Experts

- tend to analyze and generate multiple hypotheses in the process of recognizing and solving discipline problems
- Can scan the classroom while simultaneously noting individual S behavior
- Strategies employed depend on the specific problem
- recognize the importance of T-S and S-S interactions during instruction



### Novices

- tend to represent discipline problems in terms of the solution and seem unable to elaborate on the underlying causes
- Lack the ability to even recognize many discipline problems
- Often focus on only one student rather than considering the class(room) as a whole
- Concentrate more on the actions of the T rather than interactions between the T-S or S-S



## Research Questions

What are the comparative advantages and challenges to using either a **mobile eye tracker** during a classroom situation or a **remote eye tracker** viewing a classroom situation to investigate covert processes of teachers?

MOBILE EYE-TRACKER (HED)	REMOTE EYE-TRACKER 250 (RED)
	

Images © SensoMotoric Instruments, [www.smivision.com](http://www.smivision.com)



## Research Questions

What are the comparative advantages and challenges to using the SMI HED during a classroom situation or the SMI RED reviewing a classroom situation?

- To what extent can each data collection setting capture:
  - cognitive processes?
  - perceptual processes?
  - overt behavior
- Can these data types be compared across experts and novices?
- What is the acceptance level of the teachers for each method?
- What are the conclusions for the ecological validity of each method?



