

COMP4912 - Capstone Project II

# COMPUTER-SUPPORTED COLLABORATIVE LEARNING IN MASS LECTURES

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# INTRODUCTION



## Project Objectives

**Create a CSCL Environment that  
encourage students' engagement in  
Large Class settings**



# Collaborative Learning

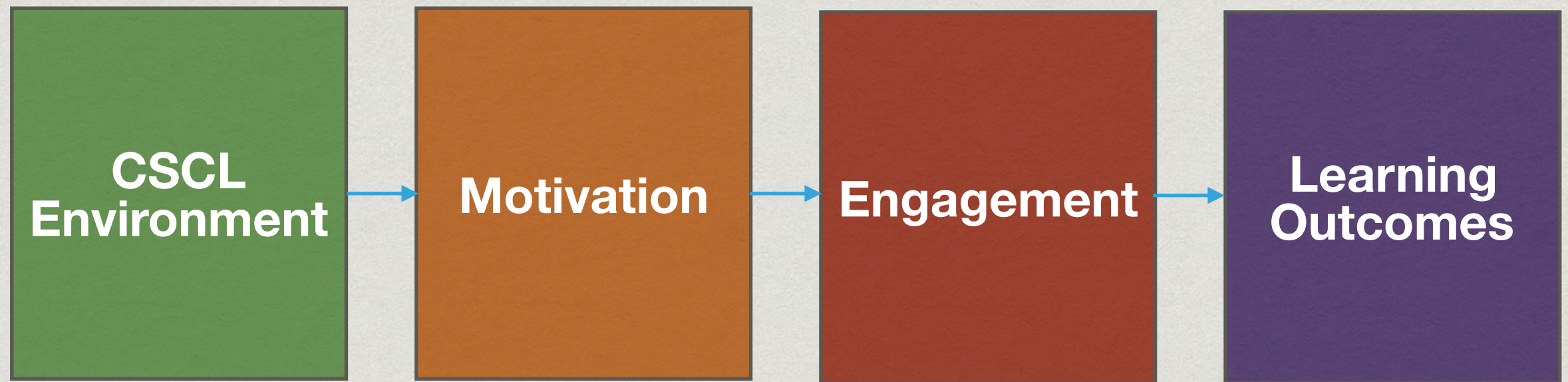
“Any learning activity that includes the coordinated engagement of 2 or more learners for the purpose of completing tasks that lead to desired learning outcomes.”

(Pluta, Richards, & Mutnick, 2013)





# Collaborative Learning



Barros-Castro, et al. (2013)



## Collaborative Learning

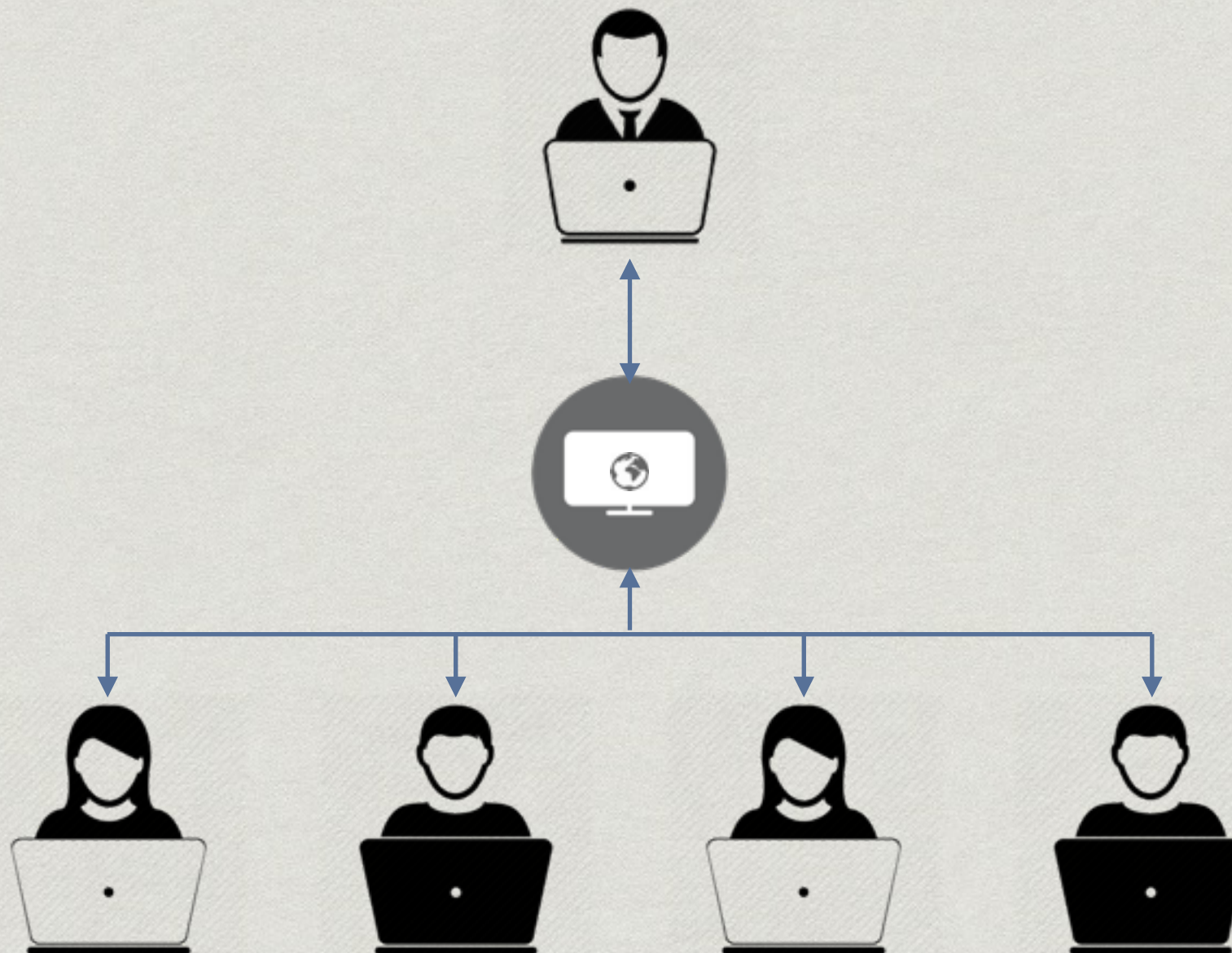




**SOLUTION**

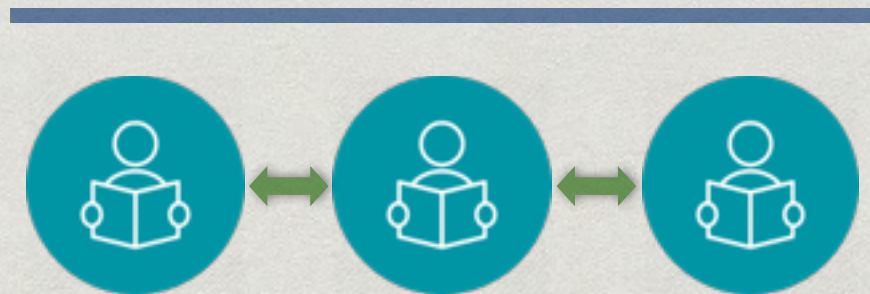


# Real-time Question-raising Application

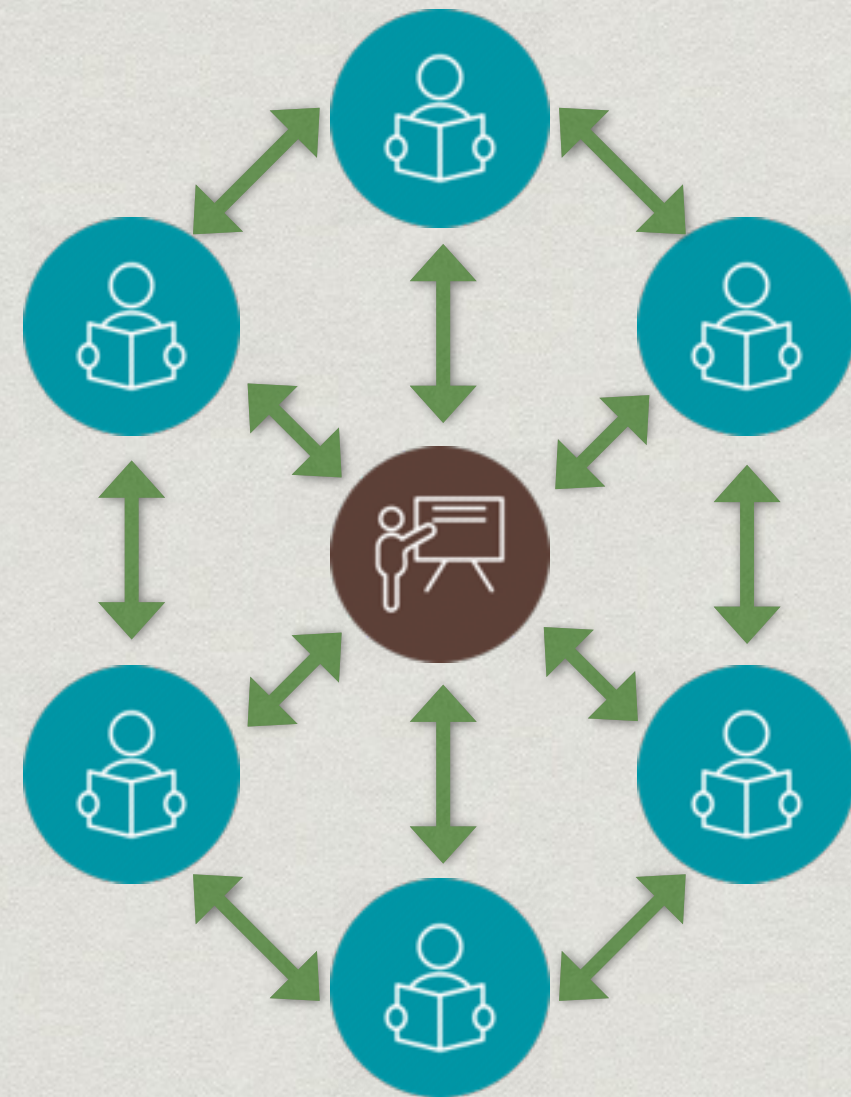




## Existing (Passive Learning)



## New Solution (Collaborative Learning)

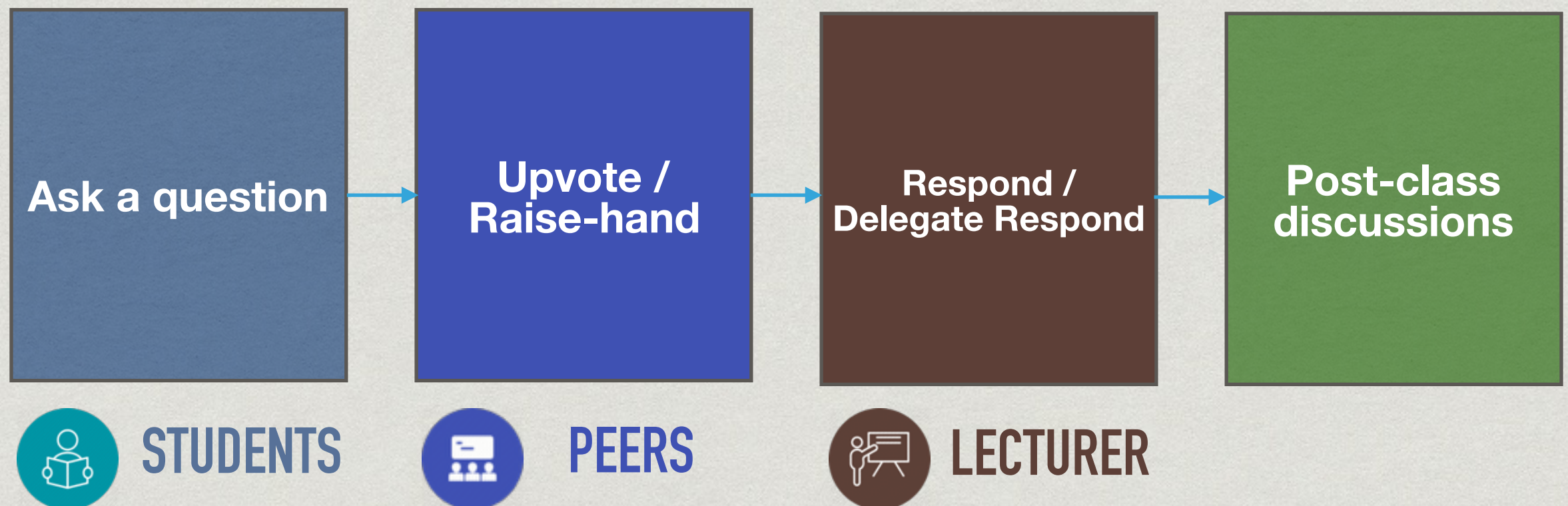




# Demo



# The Collaboration Process





# Affordance of Computer-supported Collaborative Learning





## Collaborative Learning



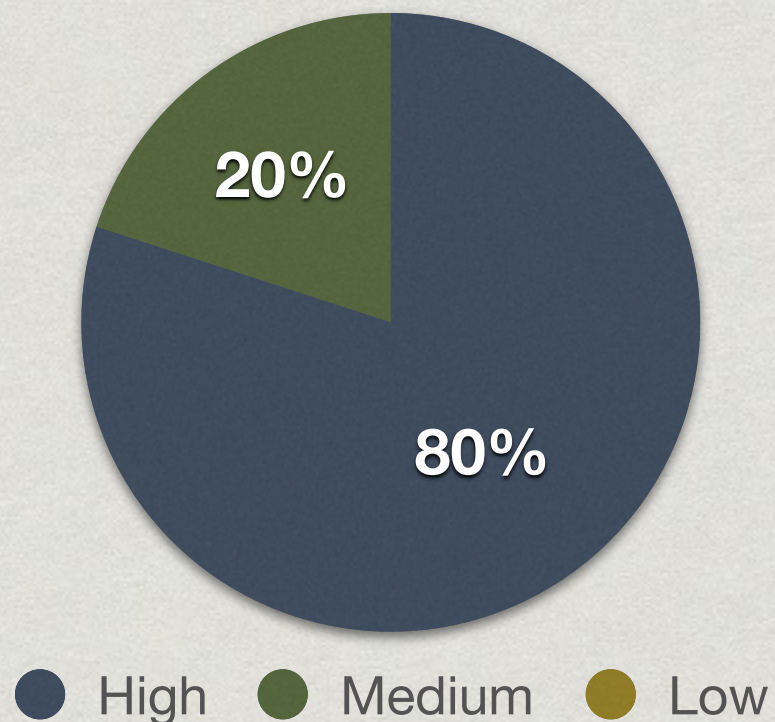


# TESTING

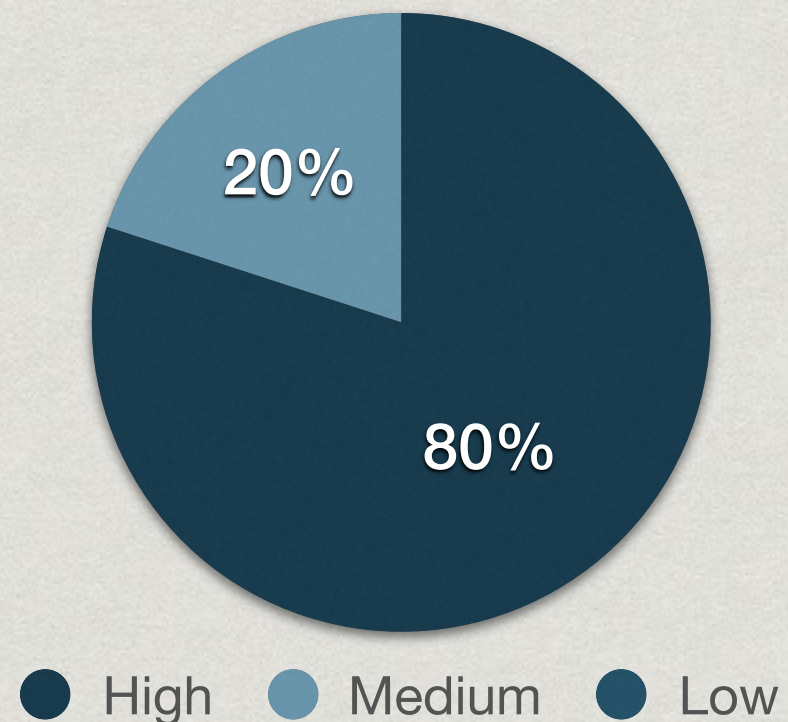


# Preliminary Research

PERCEIVED  
USEFULNESS

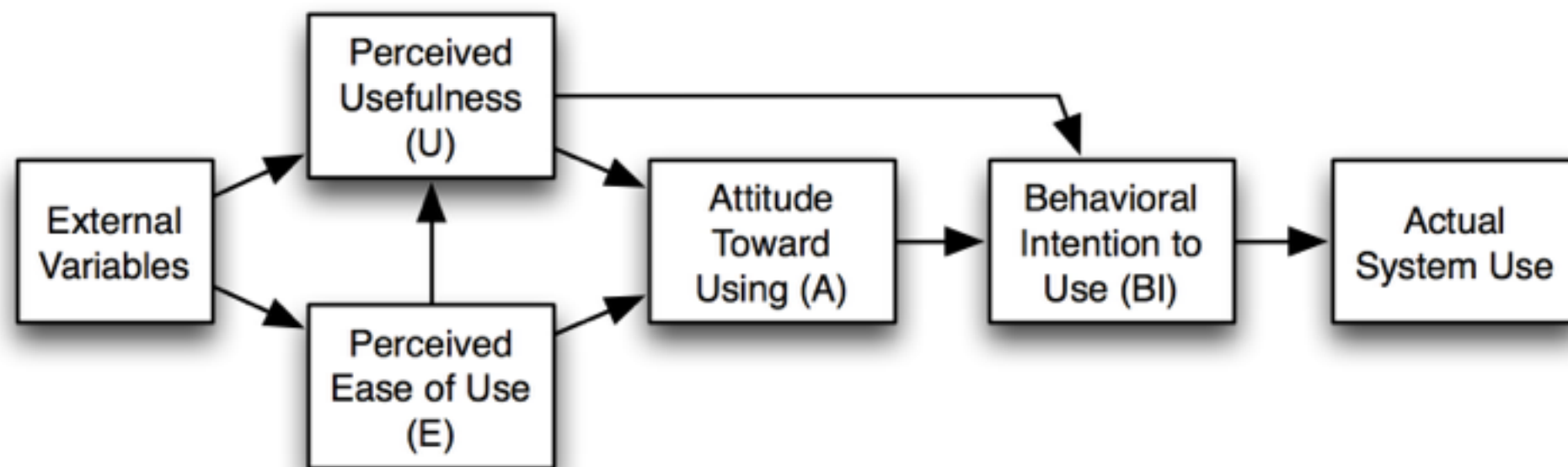


PERCEIVED  
EASE OF USE





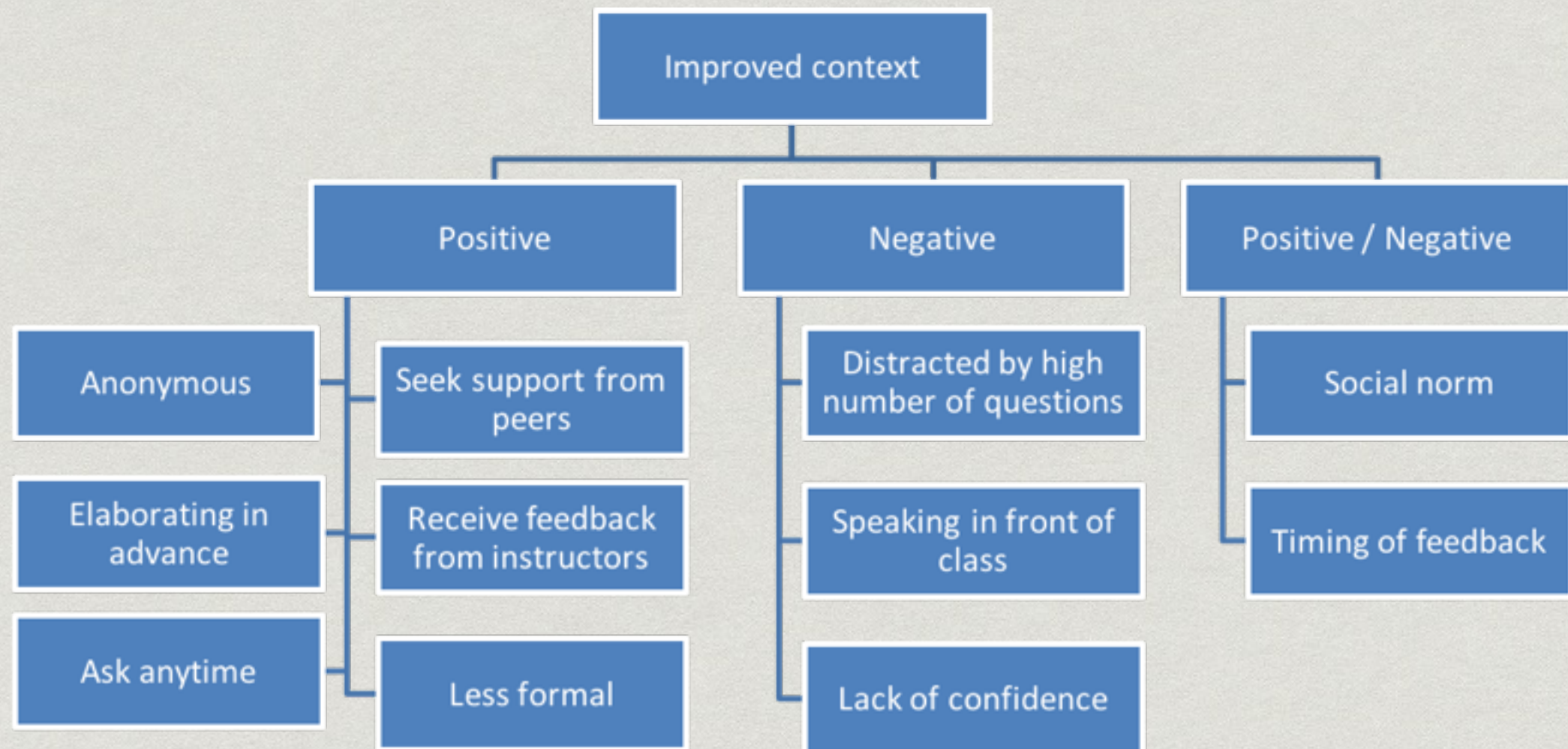
# Preliminary Research



Davis, Bagozzi, & Warsaw (1989)



# Preliminary Research





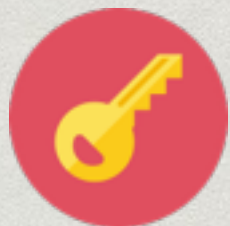
# CONCLUSION



# Contribution



**Computer-supported  
interactive learning experience**



**Mitigate barriers of  
in-class interactions & collaboration**



**Enable Teachers to  
receive feedback of teaching activities**



# Future Development



**Improvement in Text Mining**



**Integration with existing LMS**



**Furtherer Evaluation**



**THANK YOU**



**Q & A**



# Reference

- \* Barros-Castro, R., Córdoba-Pachón, J., & Pinzón-Salcedo, L. (2014). A systemic framework for evaluating computer-supported collaborative Learning—Mathematical problem-solving (CSCL-MPS) initiatives: Insights from a colombian case. *Systemic Practice and Action Research*, 27(3), 265-285.
- \* Davis, F. D.; Bagozzi, R. P.; Warshaw, P. R. (1989), "User acceptance of computer technology: A comparison of two theoretical models", *Management Science*, 35: 982–1003.
- \* Jeong, H. and C. E. Hmelo-Silver (2016). Seven Affordances of Computer-Supported Collaborative Learning: How to Support Collaborative Learning? How Can Technologies Help? *Educational Psychologist*, 51:2, 247-265.
- \* Pluta, W., Richards, B., & Mutnick, A. (2013). PBL and beyond: Trends in collaborative learning. *Teaching and Learning in Medicine*, 25, 9-16.