

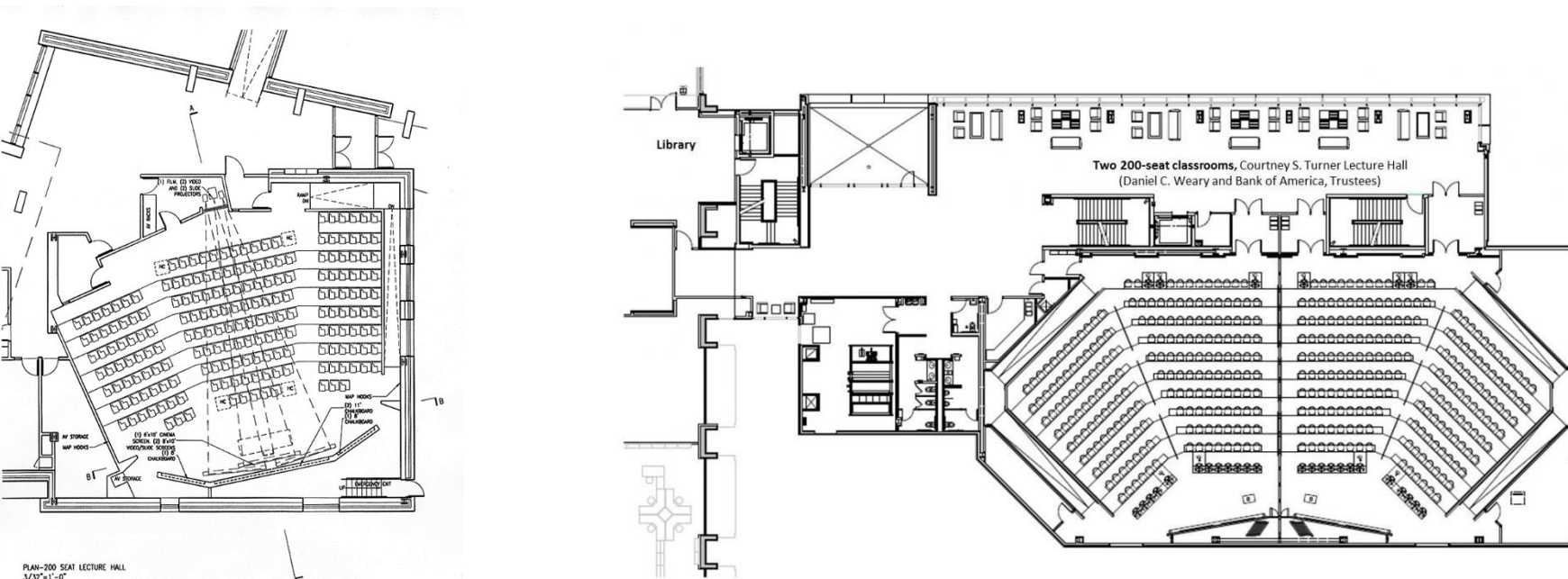
# Class Room Environment Effects on Higher Learning

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## The Class Room

-The environment in which a student learns is relevant to the effectiveness of instruction

-Physical aspects of a room can have a large positive or negative impact on a students ability to engage with: course material, other students and the instructions



## Framework of Classroom Environment

- Relationship between classroom environment, achievement goals, and reflective thinking practices
- Facets of classroom environment include;
  - Personalization factor
    - Direct interaction with the instructor
  - Involvement of students and their overall satisfaction
  - Task organization: the clearness of classroom objectives
- Also tested was factors that influence a student forming and completing achievement goals

## Avoidance Strategies

- This study aimed to answer the question of why students in higher level learning environments purposefully avoid seeking help in challenging courses
- Searches for the relationship between instructor accessibility, perceived classroom environment, and the usage of avoidance strategies
- The major hypothesis for use of avoidance strategies is preservation of self worth
  - It is thought that students who possess doubt in their abilities and competencies will use strategies to divert attention from themselves
- Although avoidance strategies may result in short term escape from judgement, poor academic performance most times will follow

## Student Motivation To Learn

- This study looks at the college student and the derivation of their desire to learn course material
- The study followed students in an introductory psychology course
- There are two types of goals that students created for themselves
  - Mastery goals
    - Goal geared towards thorough understanding of the course material
  - Performance goals
    - Goal geared towards earning a good grade in the course

## Higher Learning

-The effectiveness of the traditional lectures setting has come into question

-Upraise of pedagogical learning courses

-Use of new technology such as clicker question, online quizzing & testing and video lectures

-Just at Penn State facilities such as Pollock Testing Center and growth of online courses and world campus

-With these changes higher learning has become a dynamic structure. How should class room environment change?

## Conceptual Model

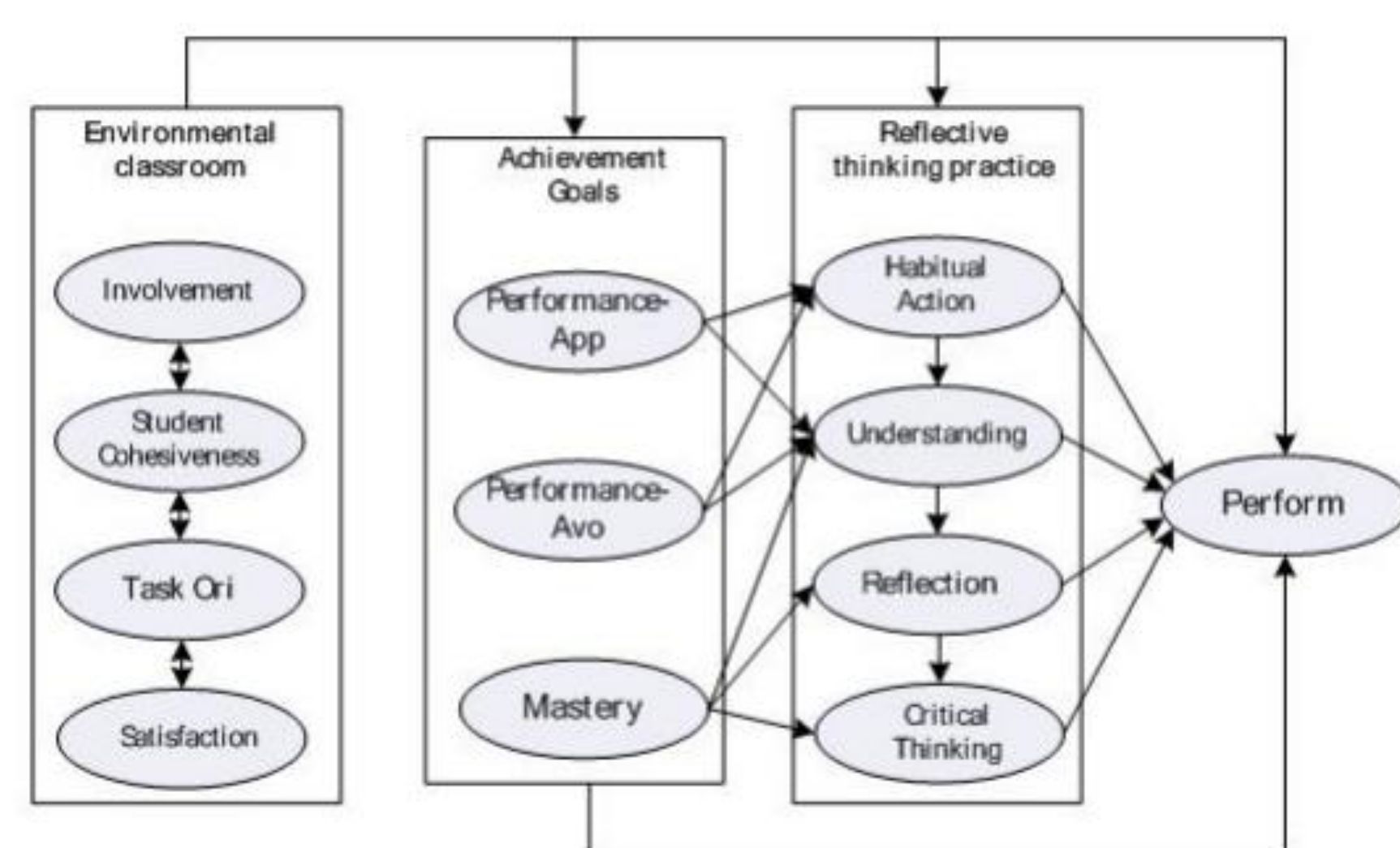
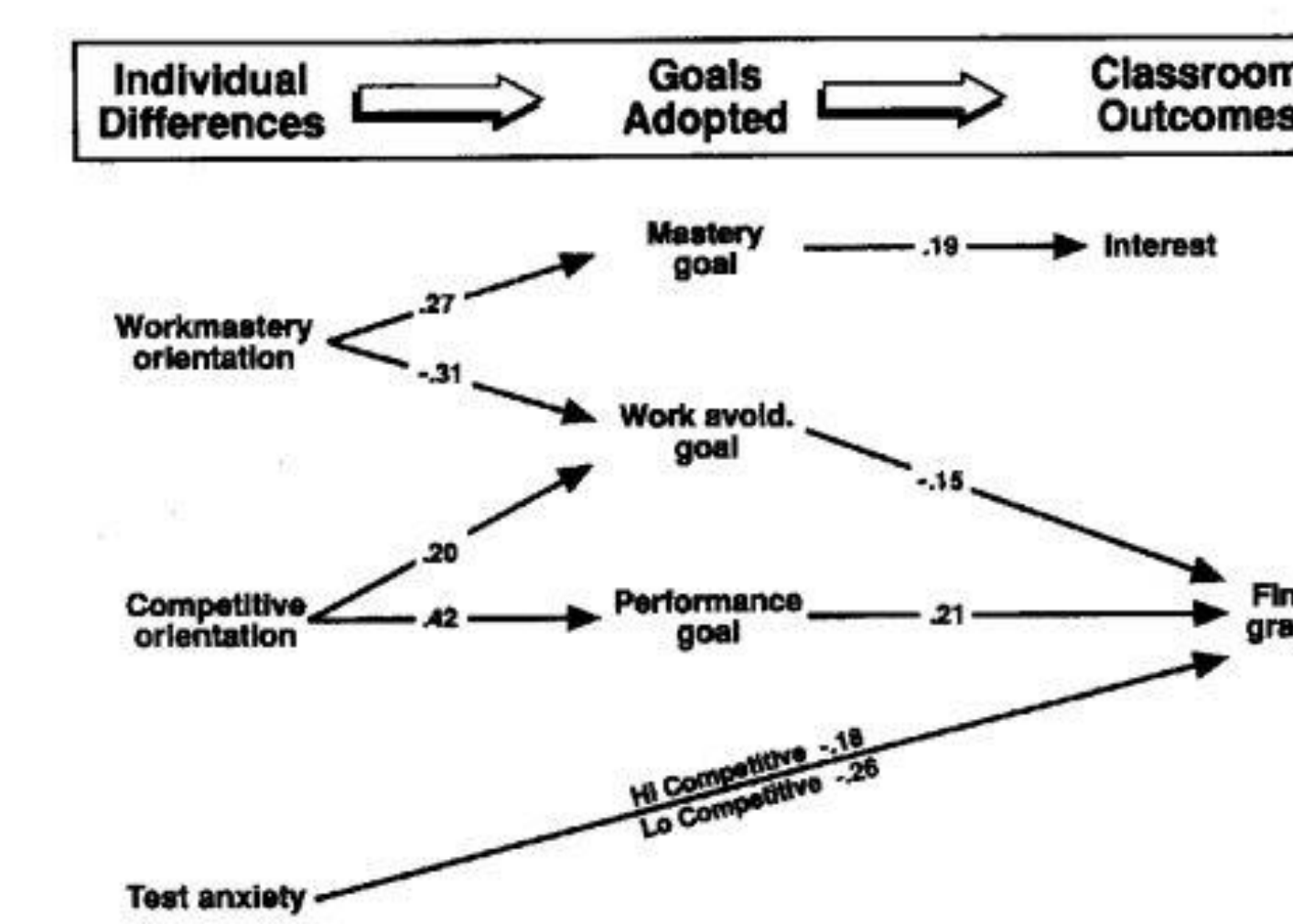
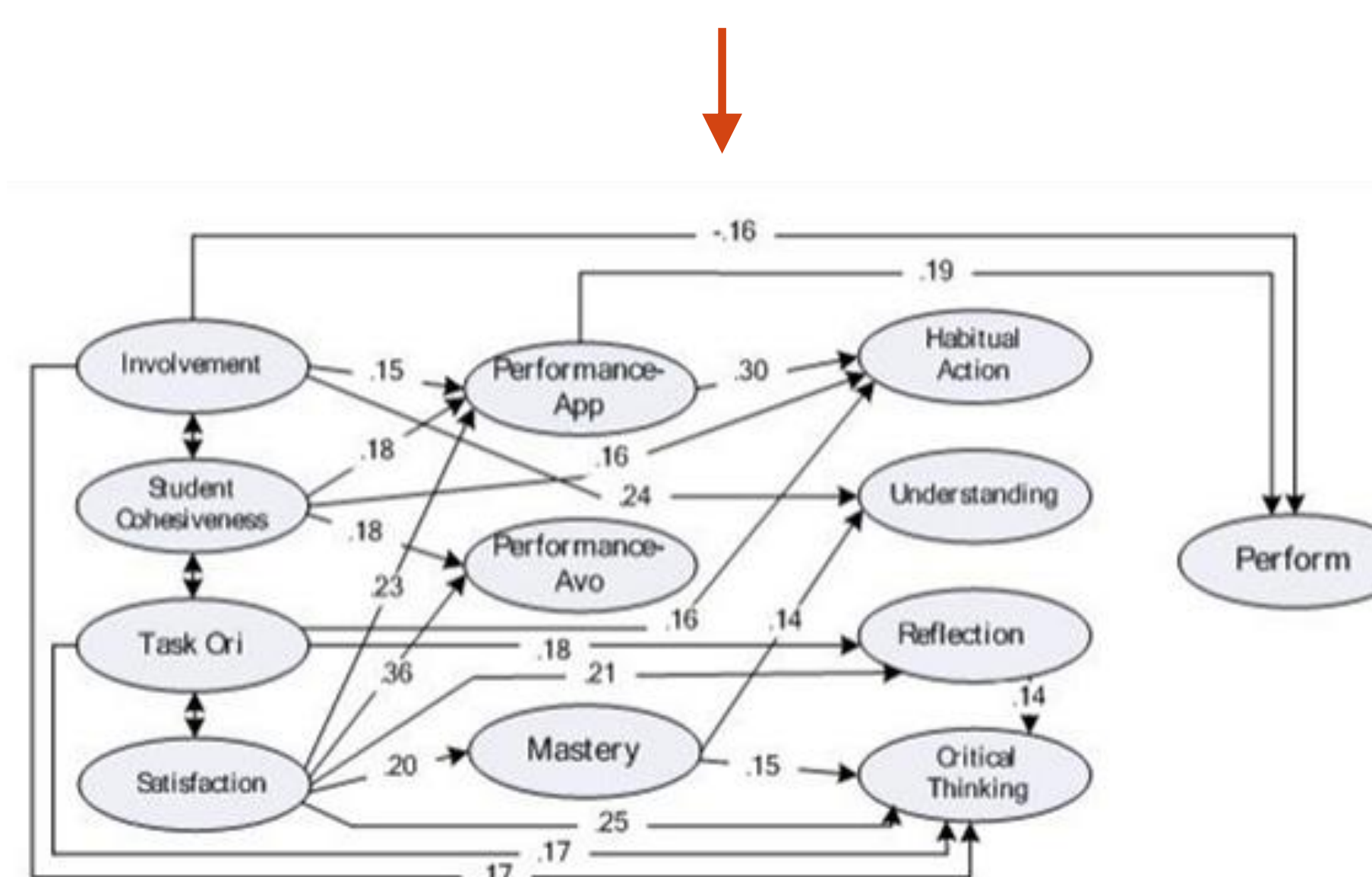


Table 1  
Factor Pattern Coefficients for the Eight-Factor Structure of the CMS

Item	Factor Pattern Coefficients							
	I	II	III	IV	V	VI	VII	VIII
Believing in Me								
I can do my work correctly in this class.	.640	-.072	.098	-.090	-.069	.031	.115	-.025
I can do as well as most kids in this class.	.734	-.041	-.236	-.008	.147	-.025	-.004	-.047
I can help other kids understand the work in this class.	.380	-.004	.082	.165	.024	-.064	.036	-.088
I can be a very good student in this class.	.607	.096	.092	.047	-.157	.050	-.172	.119
I can do the hard work in this class.	.617	-.055	-.102	-.073	.181	-.083	.053	-.090
I can get good grades when I try hard in this class.	.625	.082	-.220	.014	.004	.044	.059	.004
I know that I will learn what is taught in this class.	.366	-.013	.200	.126	.077	.019	.084	-.045
I expect to do very well when I work hard in this class.	.573	.124	.030	-.025	-.151	-.016	-.117	.099
My Teacher								
My teacher listens carefully to me when I talk.	-.112	.701	.081	-.015	.038	-.015	.073	-.032
My teacher helps me when I need help.	.060	.658	-.132	.036	.081	.042	-.040	-.115
My teacher respects me.	.067	.757	-.075	.000	-.025	.048	-.026	-.084
My teacher likes having me in this class.	.081	.681	-.064	.089	-.127	.054	.023	.084
My teacher makes it fun to be in this class.	.086	.472	.286	-.224	.118	-.112	-.035	.049
My teacher thinks I do a good job in this class.	.530	.140	.134	.076	-.069	-.028	.010	.040
My teacher is fair to me.	-.021	.559	.161	.012	.092	-.059	.017	.041
Taking Charge								
I want to know more about the things we learn in this class.	.011	.067	.426	.034	.115	.038	-.082	-.049
In this class, I can guess what my grade will be when I turn in my work.	.305	-.013	.189	.030	.182	-.135	.081	-.172
I work as hard as I can in this class.	.450	.021	.308	-.044	-.069	-.032	-.029	.080
I find and fix my mistakes before turning in my work.	.329	-.113	.450	-.019	.101	.021	.019	-.196
I learn because I want to and not just because the teacher tells me to.	.301	.006	.458	-.014	.008	.108	-.049	.043
When the work is hard in this class, I keep trying until I figure it out.	.490	-.120	.432	-.060	-.101	.008	-.015	.124
I know the things I learn in this class will help me outside of school.	.148	.146	.306	.089	.073	.022	.082	-.144
I can tell when I make a mistake on my work in this class.	.248	.020	.350	.010	.031	.031	.105	.003
My Classmates								
I have a lot of fun with my friends in this class.	-.159	.082	.131	.735	-.054	-.037	.045	.002
My friends care about me a lot.	.092	.019	-.152	.820	.018	-.045	-.041	.059
I have friends to eat lunch with and play with at recess.	.043	.062	.009	.611	-.022	.005	.042	.026
I have friends that like me the way I am.	-.092	.100	.004	.760	-.026	-.014	.030	.017
My friends like me as much as they like other kids.	.070	-.076	-.047	.739	.064	-.018	.030	-.039
I have friends who will stick up for me if someone picks on me.	.045	-.160	.042	.788	-.002	.068	-.051	-.038



## ClassRoom Layout

- The physical arrangement of a classroom can affect student performance and learning
- Are large lecture halls turning the classroom experience into a presentation and not an interactive experience?
- Are students willing to engage in smaller classroom settings?
- What affect does student distance from the instructor have on academic performance

## Teacher Student Interaction

- Student teacher interaction affects the classroom environment
- Resources such as office hours can greatly affect a student's performance and motivation in a class
- Utilization of resources such as office hours is significantly dependent on comfort of student with an instructor
- Improving a student instructor interactions can promote a more collaborative culture within a course
- How can student improve student-teacher interactions?
- How can student improve student-teacher interactions?

## Results

- More involvement from the instructor as well as discussion directly lead to lower academic performance from the students
  - Possible explanation
    - The study looked at a mathematics class where individual study is conducive to success and most times parallels a student who is less willing to participate in discussion
  - Enjoyable classroom environments encouraged critical analysis of students own knowledge and a desire to achieve clearly outlined learning objectives
  - Course mastery was seen when students reported a non threatening environment
    - Instructor's tendency to stray from normal evaluation methods lead to a less threatening environment

## Results

- The results indicated a strong correlation between a student's perception of instructor approachability and usage of avoidance strategies
- Students were more willing to seek help when needed if they believed that the instructor would be understanding of their follies
- It can be inferred that a useful tactic for instructors in today's classroom is to make it obvious that they are accepting of failure as long as the desire to learn is obvious
- Based on the results of this study, mastery of the course material will be a direct result of a classroom environment that encourages seeking of help
- Professor Van Hook, a Penn State physics instructor, regularly invites students to office hours which is a great example of this strategy

## Results

- Students who made goals for themselves in the class had self derived source of motivation
- Differences between the two types of goals
- Mastery based goals showed more interest in the class as measured by surveys filled out by the students
- Performance based goals showed a better overall academic performance
- Despite having better academic success with performance based goals, both types of goals had positive influences on the students experience in the course

## References

- [http://www.investigacion-psicopedagogica.org/revista/articulos/16/english/Art\\_16\\_269.pdf](http://www.investigacion-psicopedagogica.org/revista/articulos/16/english/Art_16_269.pdf)
- [http://www.psych.rochester.edu/research/apav/publications/documents/1997\\_HarackiewicaBarro nCarterLehtoElliot\\_Predictorsandconsequences ofachievementgoals.pdf](http://www.psych.rochester.edu/research/apav/publications/documents/1997_HarackiewicaBarro nCarterLehtoElliot_Predictorsandconsequences ofachievementgoals.pdf)
- <http://pdfsr.com/pdf/theclassroomenvironment-andstudentsreportsofavoidancestrategies-inmathematicsamultimethodstudy>