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## **NERCOMP Annual Conference**

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### **What Makes the Biggest Impact on Student Learning?**

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## **Background**

*“The mediocre teacher tells.  
The good teacher explains.  
The superior teacher demonstrates.  
The great teacher inspires.”*

-William Arthur Ward

My high school Economics teacher was the best teacher I ever had. What I learned most from his class went far beyond the subject matter. It was how he taught the class that made it fun and engaging for the students. He unknowingly motivated and *inspired* me to teach and I strive to be the best teacher that I can be while trying to impact the lives of my own students.

I have been working in higher education for the last 13 years training and consulting with faculty and students in higher education, specifically those teaching face-to-face, web-enhanced, and online classes using various course management systems. I work full-time as an Instructional Developer at the University at Albany and I thoroughly enjoy teaching Public Speaking as an Adjunct Professor, which I find to be very rewarding.

At the end of the semester, students will often say they learned a lot, but their feedback is limited to standard course evaluations that provide generic responses; hence I am always left wondering what exactly did they learn? I chose the topic of student learning because I am very interested in the teaching methods and classroom dynamics that affect the learning process. The purpose of this report is to take a closer look at the tangible factors that promote or detract from student learning in higher education.

## **Data Collection**

I developed a survey focusing on questions pertaining to this topic. Each question listed the most common answers students would likely give, while also leaving a space where they could write in an answer and provide comments.

The survey was sent out via surveymonkey to about 350 University at Albany students and I received 114 responses. A portion of the students are my current and past students. About 60% of the responses were taken from a Psychology lecture hall class of 200+ students. There was no specific reason why I chose that class, other than I knew the professor and I needed to generate a larger sample size. The feedback received from those students varied greatly from the results I had already received. This was very enlightening and I will touch upon these differences in my findings.

## **Student Demographics**

71% Females, 29% Males  
29% Seniors, 40% Juniors, 18% Sophomores, 12% Freshmen

## **Majors**

39% Psychology Majors  
23% Communication Majors  
38% Other Majors

## **Summary of Findings**

Fifty-two percent of the students report that the professor is the most important factor that impacts student learning in the classroom. I think this holds true at all levels of education from kindergarten through college. It's not *what* you take, it's *who* you take. Student interest in the class was the second biggest factor.

Twenty-seven percent of the responses to the aforementioned question said the "textbook and assigned readings" had the least amount of impact on their learning - a majority of who are Communication majors. Interestingly, the majority of Psychology majors rated the "textbook and assigned readings" much higher.

I polled my students over a few semesters and their responses were unanimous that the textbook (regardless of the textbook I used) had no impact on their learning and did not make them become better, more confident public speakers, which is the goal of my class. Based on student feedback, I stopped using a textbook, however, I still use it as a reference and I incorporate key information into my slides along with assigning some other short readings. This example is unique to my class, because the focus is on speaking - not reading, but if something is not beneficial to student learning then you have to ask yourself, "Why are you using it?"

In Psychology and other disciplines, the textbook is used much more extensively. Certainly, reading is needed, and the amount will vary per class, but for the students who find reading a chore, is assigning an extensive amount really conducive to learning?

Receiving a good grade was rated the most important factor that motivates students to learn/do well in a class by 30% of students, with the professor being a close second, while student interest in the class was third.

Student learning is highly motivation-dependent. Students who are surface learners are extrinsically motivated and usually only want to study for what will be asked on the test (Campbell, 1998). Students who are deep learners are intrinsically motivated and want to integrate new concepts they are learning with current knowledge and personal experience (Campbell, 1998). A student can be a surface learner in one course, but highly motivated in another; likewise, a student's outlook can shift within a course as a semester progresses.

In a class of 20-30 students, 72% of the students prefer the student-centered classroom over the traditional one-way lecture. Interestingly, 89% of a majority of Communication major respondents, preferred the student-centered classroom, whereas, only 60% of a majority of Psychology major respondents answered similarly, which I found surprising. The Communication majors are predominantly active learners who prefer classroom engagement, whereas 30% of the Psychology majors are passive learners. Overall, a student's learning style appears to have some correlation to their major.

For the vast majority of students who preferred the student-centered classroom, I asked, how, or in what ways, does an interactive/engaging classroom impact your learning or does it just make the class more interesting and fun to attend? I received a lot of student feedback on this and I included some of their responses below. Click the link to view all of their responses.

[http://www.albany.edu/faculty/dmamorella/surveyresults\\_student\\_comments.pdf](http://www.albany.edu/faculty/dmamorella/surveyresults_student_comments.pdf)

*“It captures my attention for a longer period of time”*

*“Helps me stay focused”*

*“Helps me understand and retain information longer”*

*”Makes me want to come to class and participate”*

*“Encourages me to voice my opinion”*

*“We as students have short attention spans so it helps keep us awake”*

*“Makes a more comfortable learning environment”*

*“Gives you a sense of responsibility and belonging”*

Sixty-three percent of students chose multiple-choice and short answer tests as the most effective ways professors can measure their learning, with written assignments and papers being a close second. Multiple-choice tests generally measure student knowledge at a superficial level of their ability to memorize and recall information - which is often forgotten shortly after the course has ended. If assessments focus on recall, this will lead students to surface learning. Several studies administered at several universities world-wide found that students became stronger surface learners over their years in college and not deep learners (Campbell, 1998). Campbell argued that heavy workloads and extensive lecturing do not promote deep learning. On the other hand, writing skills are essential in today's society and encourage deep learning. The more written assignments and papers required of students can only help them become better writers.

Almost half the students found surveys, self-assessments, pre-quizzes, and creating projects/products to be beneficial in measuring learning. Surveys can provide insight to professors as to how students are comprehending the material and they could be implemented in

the classroom using iclickers, surveymonkey.com, or twtpoll.com. Self-assessments can also provide insight to professors as to how students feel they are progressing with the material. I have my students submit self-assessments via the Journal tool in Blackboard after their oral presentations; this is invaluable in helping me gauge how nervous they are and how they feel they are progressing with public speaking. Usually, you are your hardest critic and I find students are brutally honest when assessing their own speeches. Short online pre-quizzes can gauge student knowledge before your lecture and they could be implemented using the Assessment tool in Blackboard. Student projects/products could potentially be used towards creating a portfolio. In order to assess accurately what students have learned, instructors should use a variety of assessment methods that include qualitative and quantitative evidence and have enough sampling of students' work.

Interestingly, 70% of respondents (from the survey of 46 respondents, where 52% were Communication majors) rated creating a project/product as the most beneficial type of assignment to their learning, whereas, only 26% of respondents (from the survey of 68 respondents, where 65% were Psychology majors) felt the same.

Another not-so-surprising finding is that 47% of a majority of Communication major respondents preferred oral presentations, whereas, only 15% of a majority of Psychology major respondents found it beneficial. Considering public speaking is regarded as the #1 fear by many studies, it is not surprising it was rated so low by the Psychology majors.

Seventy-three percent of students expect professors to use Blackboard or technology to some extent in the classroom and 86% find the professor's use of Blackboard, if used effectively in the delivery of the course, improves their learning. They list: viewing course content, viewing



their grades/feedback on assignments/tests, communicating and/or receiving information from the professor and other students, and submitting assignments/tests online to be the biggest advantages to using Blackboard.

Forty-five percent of the students found technical difficulties to be the biggest weakness or disadvantage to using Blackboard and 42% report the professor's lack of using Blackboard a close second. I think these answers will vary depending on the student, their major, their technical proficiency, and how much their professors use it.

There were mixed results between how participating in a required online discussion impacts student learning. Forty-two percent of the students said it depends on the class and the topic being discussed, 31% said it makes little to no difference on learning; it's just viewed as a requirement or busy work, while 27% said it had a positive impact.

## **Conclusion**

This survey provides some insight into student learning, while also reinforcing some commonly held beliefs. It's not *what* you take, it's *who* you take. A lot of reading is required in many college classes; however, more than a ¼ of the students find that it has the least amount of impact on their learning. Receiving a good grade and the professor were the top two factors that motivated students to learn/do well in a class. In a class of 20-30 students, nearly ¾ of the students preferred a student-centered classroom over the traditional one-way lecture, yet the majority of classes are lecture-based and this does not even account for lecture hall classes.

Sixty-three percent of students felt that multiple-choice / short answer tests were the most effective ways to measure their learning, while 59% chose written assignments / papers. Students have different learning preferences based on their major and how their courses are taught. For example, the Communication majors rated creating projects/products and oral presentations much higher than the Psychology majors.

Technology does not teach students - effective teachers do. You can still have an excellent course without the use of technology, though, 73% of the students expect professors to use Blackboard or technology to some extent in the classroom and 86% find the professor's use of Blackboard, if used effectively in the delivery of the course, improves their learning. However, 42% of the students say professors rarely use Blackboard beyond uploading a few files. We offer plenty of training workshops and webinars and we encourage more professors to use it. Technical difficulties were listed as the biggest weakness or disadvantage to using Blackboard. If I were to do this survey again, a follow-up question would be: Were the technical problems more due to the professor or the student or both?

Feedback from all students taking online classes at the University at Albany would be needed to determine how participating in required online discussions impacts student learning. From the results that I have gathered, future research needs to ask how instructors can enable effective online discussions that are not seen as obligations, but rather as ways that encourage deeper analysis of the course material.

Overall, a much larger sample size from a cross-range of majors is needed; perhaps sending a survey out to all University at Albany students. I think it would be interesting to compare results of student learning across majors.

Our primary goal as educators should be to impact the lives of our students, get them to chase their dreams and achieve their ultimate potential, and when they graduate from the University at Albany they are a better person for having attended.

## **Reference**

Campbell, Elizabeth. (1998). Teaching Strategies to Foster “Deep” Versus “Surface Learning”.  
[http://www.uottawa.ca/academic/cut/options/Nov\\_98/TeachingStrategies\\_en.htm](http://www.uottawa.ca/academic/cut/options/Nov_98/TeachingStrategies_en.htm)