

Classroom Participation and Its Effect on Grades¹

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INTRODUCTION

Although a good deal has been said and written about higher education in general, there has been comparatively little research conducted in the college classroom. In this pilot study I examine empirically the effects of professors' behavior in the classroom on the level of students' participation. I also explore the effect of classroom participation on student learning. Although the vast majority of college and university teachers are genuinely interested in enhancing the quality of student learning in their classrooms, there is little definitive research evidence to support their efforts. Findings on factors responsible for quality learning are inconsistent, and attempts to explain quality learning are limited by myriad confounding variables. Nevertheless, as educators and educational psychologists have expanded the body of research, at least one variable- student classroom participation- has continued to surface as a factor that correlates positively with certain types of learning.

BACKGROUND

The research in the past 30 years supports the premise of a positive relation between students verbal participation in class and their motivation, their satisfaction, their learning and their ability to solve problems (Astin, 1977; McKeachie, 1970; Smith, 1980). Participation is also associated with greater levels of content acquisition (Johnson and Butts, 1983), with long term retention (McKeachie, 1978) and the perceived value of the course/subject. Recently, the constructivist's theory has demonstrated that there is a positive correlation between class participation and learning. In fact, King (1993) affirms that when a student engages himself actively in the treatment of the information, and in a personnel and meaningful way, he has greater chances of remembering it and applying it in new situations. The cognitivist Gagne (1994) has shown that when learning is done interactively, the information stored in memory is retrieved more easily. Despite the wide range of proof supporting the positive effect of student in-class participation, the actual levels of participation remain rather low. Two studies conducted 13 years apart share

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remarkably similar results. Barns (1983) found that, on average, student participation occupies only 3.57% of class time, and Nunn (1996) found this amount to be 5.85% of the time. To that, Fassinger (1995) adds that a small number of students occupy the majority of the exchange time in the class. Two studies, ANUIES (1999) and Reynolds and Nunn (1997) show that 30% of college students have reported never participating in class. Furthermore, Fritschner (2000) found that 3 to 5 students accounted for half to three-quarters of all students' comments in a particular class.

The results of a study conducted by Kozanitis (1997) on the impact of the affective relations between faculty and students on the behaviors and the attitudes of faculty show that most of the teachers express the desire to live a satisfactory pedagogical relation. The majority of the teachers interviewed, affirmed that the pedagogical relation is an important element to their job satisfaction. They need to feel comfortable when they are in the presence of students. Teachers perceive themselves as transmitters of knowledge and try to make the class as interesting as possible for the students. They want their students to be interested in the subject and they should demonstrate it by actively participating in class. The teachers deplore, however, the fact that the majority of the students don't participate. The teachers would like students to engage themselves in their proper formation and participate more in class. The author notes that the teachers who were interviewed would like to be asked more questions from their students, and that greater interactive exchanges took place in class. Students' participation is a way for the teachers to assess of the students' interest in the class and of the subject taught. Bujold (1994) affirms that excellence in teaching appears when students engage actively in the relational dynamic in order to appropriate the course material. Teachers with students who ask questions and who give comments feel more motivated in pursuing their task and are able to give better pedagogical performances. Rogers (1984) and Walsh and Maffei (1994) affirm that students' active participation is one of the most important and more decisive factors undermining the maintaining of satisfactory pedagogical relations. Cronin (1992) believes that efficient teachers demand to receive feedback regularly from their students. The teachers interviewed in Kozanitis (1997) are also very clear on that matter, they want their students to take an active part in their learning process. They must show that they are interested by the subject and by the class. Teachers would like to be interrupted more often in order to answer questions. They encourage their students to ask them questions and they invite them to deliver comments. Despite that, we realize that the majority of the students remain passive and don't show any participative behavior. The interactions in class happen generally among a limited number of students. Thus, it isn't sufficient for teachers to invite students to ask questions or give comments, since a large number of teachers do so without any successful results. Factors influencing class participation are, therefore, multiple and do not depend exclusively on teacher characteristics or classroom behaviors.

Fassinger (1995) has found that student owned factors and group characteristics influence student participation more than teacher behavior. The author asks herself whether faculty has any impact on students' participation. She believes the answer is yes. However, the interpersonal style of the teacher doesn't seem to be directly related to students' class participation. The author rather suggests that the most important impact of the teacher

remains his way of organizing the class. Teachers must create an emotional climate that helps students have trust in themselves, which will in turn encourage them to open up and participate in class. The author suggests the following exercise: invite students to write down a list of behaviors that can help them built their self-confidence (eye contact, nods of approval, for example) and a list of behaviors that don't help. After, they can discuss their ideas in small groups, sharing their fears, hearing of others' insecurities, and begin to develop empathy for their classmates.

Although, the majority of the authors above refer to college education in general, I believe the results of this article could be of an interest to all language teachers, particularly to those who teach within the communicative framework. All the more, the problem of class participation is undoubtedly present in the Mexican university context because of prior cultural and educational influences. High-school students are rarely encouraged to voice up their thoughts or raise questions in class. The pedagogical relation is mainly unidirectional causing students to believe that their role is to remain quiet while the teacher does all the talking. These habits are therefore hard to break and can cause frustrations to foreign language teachers in Mexico.

METHODOLOGY

The focus of this article is a "preliminary action research study" which will be followed up on by a more rigorously organized experimental research. In this pilot study I will seize the opportunity to test Fassinger's proposition.

This author suggests that teachers who wish to increase students' class participation should establish a safe and healthy environment that allows students to feel confident and to open up. She proposes to ask students to list behaviors that can help them participate and behaviors that don't. Afterwards, they share their thoughts among them and develop empathy for each other. I also wish to measure the levels of participation inside groups where the students are warned that they will be graded for their verbal participation. I will test he following hypotheses:

H1: The group who experiences Fassinger's proposition will obtain the highest levels of student participation.

H2: The group with the highest levels of student participation will obtain the highest grade averages.

The hypotheses are rooted in the theoretical work of King (1993) and Gagne (1994). When students engage themselves actively in the treatment of the information they have a greater chance of retrieving it and applying it in new situations.

Sample

The study was conducted in the 2000 fall semester in an undergraduate French course at *Universidad de las Americas* in Puebla, Mexico; a university with an approximate undergraduate enrollment of 7000 students. The three non-random sample classes were basic level 151 French courses, which can be a required subject for students in the SCHOOLS OF HUMANITIES and SOCIAL SCIENCES. In this course, the students are given the basis and the basic notions of French vocabulary, grammar and syntaxes. It is not, however, considered as a communicative language class, therefore the primary object is not student communication.

The date of the first day of class was on Monday the seventh of August, date on which the "thought sharing" session took place. The class sizes were of 24 students in each classroom. The classes lasted 50 minutes and all took place on Mondays, Wednesdays and Fridays. Group number one's class hour was from 11:00 to 11:50 AM, group number two's was from 2:00 PM to 2:50 PM and group number three's was from 3:00 PM to 3:50 PM. Using a chart, the observer recorded each instance of student's verbal participation. The sources of interactions were classified as questions, comments or other non related verbal expressions. Exam number one took place on September the third and quiz number one on September the fifteen.

Group 1 is the first experimental group. In this group the teacher invited the students to create lists of behaviors that build their confidence and help them participate in class and lists of behavior that diminish it. Students were then asked to discuss their ideas in small groups, hear of others' insecurities, and then discuss it along with the teacher and with the entire group.

Group 2 is the second experimental group. In this group the teacher told the students that their verbal participation in class would be graded. The students were informed that the teacher would randomly choose some days, and participation would be monitored and graded.

Group 3 is the control group. In this group the teacher did nothing out of the ordinary. He invited students, as he usually does, to ask questions at any time and told them that their comments are always welcome.

Dependent measure

The main dependent variable was class participation. I define class participation as any student's verbal manifestation, which occurs in the classroom. Three different elements comprised the measure of class participation. First was any questions asked by students, second was any comments voiced by students regarding course subject and finally any other non related comments expressed by students in class.

Independent measures

The independent variables were two teacher-instigated factors that could shape student participation. The first variable is Fassinger's "thought sharing" experiment which

can influence students' confidence. The second variable is the "grading" of class participation by the professor.

Limitations

This study has many limitations and I do not suggest results are representative of the entire population. The main limitation of this study is the small number (3) of class samples. Only one experimental group is far from sufficient to permit generalization of the results. Therefore, we must remain cautious not to jump to any hasty conclusions.

The second limitation is the fact that the teacher observed the students' interventions. A non-participant party would have been preferable in order to minimize the dangers of "experimenter bias effect".

Thirdly, the class sizes were relatively small (24 students per class), therefore we know little about the effects of these faculty behaviors on classes of 100 or even 500 students.

Finally, like much observation research, this study is limited by the possibility of uncontrolled variables that could influence classroom participation. For example, the students' age, their sex, their major, their number of years in the university, out of class communication with the teacher, the level of stress and discomfort experienced by the student, preferred learning styles, etc.

RESULTS

There are a few intriguing results from this study. Fritschner (2000) found that 3 to 5 students accounted for half to three-quarters of all students' comments. This study's findings are similar, but differences were found among the three groups. The observations reveal that between 12,5% and 25% of the students are responsible for 75% of all the verbal participation. There were twice more students participating inside group 1 than inside group 3, and 4 students inside group 2. (See table 1)

TABLE 1

Mean Number and Percentage of Students Responsible for 75% of Class Participation

group	Mean number	Mean percentage
group 1	6	25
group 2	4	16
group 3	3	12.5

Results also show differences in the number of verbal participation between the three groups. Group 1 has the highest levels of student participation with a total of 170 (see table 2), almost twice as many as group 3, which shows the lowest levels of student

participation with 88 interactions (see table 3). Group 2 is second with a combined total of 109 student interventions (see table 4). We notice that, in general, the number of questions seem to increase as the semester progresses, and this for all the groups. Within two months of classes the number of questions has more than doubled inside group 1, and has more than tripled for group 2 and group 3. The number of comments and other interventions also tend to increase with time. There is an average of 3 comments made per class for every group. Group 1 shows the highest interactions in the "other" category with a total of 15 interventions, group 2 has 5, and group 3 has 9.

TABLE 2

Group 1: Mean Number of Students' Verbal Participation

type	date						total
	8-Aug	16-Aug	30-Aug	6-Sep	20-Sep	27-Sep	
questions	13	16	22	28	30	29	138
comments	1	3	3	4	3	3	17
other	3	2	2	3	2	3	15
total	17	21	27	35	35	35	170

TABLE 3

Group 2: Mean Number of Students' Verbal Participation

type	date						total
	8-Aug	16-Aug	30-Aug	6-Sep	20-Sep	27-Sep	
questions	7	8	15	17	19	22	88
comments	2	3	2	3	2	4	16
other	1	2	0	1	0	1	5
total	10	13	17	21	21	27	109

TABLE 4

Group 3: Mean Number of Students' Verbal Participation

type	date						total
	8-Aug	16-Aug	30-Aug	6-Sep	20-Sep	27-Sep	
questions	5	5	9	12	15	17	63
comments	1	2	2	4	3	4	16
other	3	2	1	2	0	1	9
total	9	9	12	18	18	22	88

The grade averages on “exam 1” and “quiz 1” vary among the three groups. Group 1 obtains the highest grades with an average of 9.2 out of 10 on the exam 1 and 8.9 on the quiz 1. Second highest grades come from group 2, with an average of 8.2 on the exam 1, and 7.8 on the quiz 1. Group 3 comes in third place with averages 7.7 and 7.3 respectfully on exam 1 and quiz 1. (See table 5)

TABLE 5

Grade averages on exam 1 and quiz 1 per group

group	Exam 1	quiz 1
group 1	9.2	8.9
group 2	8.2	7.8
group 3	7.7	7.3

DISCUSSION

Faculty members point to the importance of students’ participation in class as a way of proving their motivation in the subject matter and as a way of engaging themselves in the course. The findings in this study were consistent with those of other researchers (Fritschner, 2000; Fassinger, 1995). The reality is that only a small number of the students verbally participated in classes. On average only 4.3 students spoke per class session in these classes. The data for the group 1 tells a different story. In this class, students participated in higher rates than in the other two groups. Group 1 is the one who experienced Fassinger’s proposition. In this class the professor created a class activity that fostered positive emotional climate and students were given the chance to develop empathy for each other. Although our limited number of samples don’t allow us to conduct any valuable statistical operations to our data, we realize that group 1 obtains the highest levels of participation. Group 1 has a total of 170 students’ interventions, almost double group 3, whereas group 2 has 109 student interventions. Thus, we consider that our hypotheses number 1 has been confirmed.

Grading participation doesn’t seem to have an important impact on students actual level of participation, since results show that the percentage of student participation inside group 2 is just slightly above group 3, with only one student more. The difference in the number of interactions is also very slim. The difference in the number of questions is only 25 in favor of group two. There is no difference in the number of comments, and there is a difference of 4 interventions in the other category, with an overall difference of 21 in favor of group 2. The findings indicate that certain instructor behaviors can influence participation. Our data suggest that developing student confidence could be an instructor’s first step in promoting class participation. Because confidence seems mostly affected by interaction norms, professors might consider starting a semester with discussions and

exercises that encourage students to help strengthen their peer's confidence. Most of the student participation was in the question category and interactions in general increased as the semester progressed. Many explanations can be given to justify this behavior, however I think this increase is due to the students' confidence. At the beginning of the course the teacher faced 24 unknown and unnamed students who knew nothing about him, his culture, or the way he was accustomed to teach. Everyone gradually got to know each other, this enhanced student security, and as that improved, so did participation. The increase in the number of participation was greater inside group 2 and group 3, in fact the results show that the number of question inside these two groups has more than tripled with time, where as it has only doubled inside group 1. Nevertheless, the levels of participation remain higher inside the first group. One probable explanation is that a secure environment took more time to establish within group 2 and group 3 than with group 1. When the level of security felt by the students of group 2 and 3 increased to a tolerable point, so did the rates of participation.

There is a growing body of literature (King, 1993; Gagne, 1994) that suggests that students learn best when they are actively participating in class. Our findings clearly indicate that the highest grade averages correspond to group 1, this group also presents the highest levels of participation. In fact, group one's grade average on "exam 1" scores 1.5 points higher than group three's average, and 1 point higher than group two's average. Similar results are obtained when we compare the grades of "quiz 1". Group one's grade average is 1.6 points above group three's, and 1.1 points above group two's. If we attribute students' grades as an indicator of quality of education, we can safely suppose that class participation is an important contributing element. Thus, our second hypotheses can be considered as confirmed.

All these are quantitative results that support the idea that student class participation has a positive impact on them, since learning seems to occur in a better manner, grade averages are higher and students seem to experience a more intrinsic motivation for learning. However, I found that higher levels of student participation also influence positively the instructor. These are more qualitative results that are worth mentioning. For instance, the instructor felt much more relaxed and more at ease inside group 1, than he did inside group 2 or group 3. He was more eager to find himself among the students of the first group and felt a warmer welcome on his behalf. It is my belief that the affective domain can greatly contribute to the settlement of more comfortable pedagogical relations, who will eventually end up in the increase of student participation, and therefore the increase of the quality of learning.

CONCLUSION

Although the measures in this study were based on single experimental and control groups, making any conclusion hazardous, the results offer some potentially useful insights into instructor's behavior encouraging class participation. Furthermore, few empirically sound studies have been conducted to examine how specific behaviors by faculty members affect the level of student's participation.

In this study I have attempted to increase students' class participation by testing Fassinger's proposition. Group 1 was given the chance to share insecurities and to create a warm and question-welcoming environment, which has proven to increase class

participation and furthermore, positively affect students' grades. I believe that faculty can act upon class atmosphere by alleviating students' discomfort by providing them the chance to exchange and to build up empathy one for another.

Further rigorously organized experimental research should investigate specific teacher attitudes and behaviors that can help increase student participation. The affective domain in the pedagogical relation can prove itself as being an important element in the quality of student learning and can, moreover provide a better environment for student development.

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