

ORIGINAL ARTICLE

Mandatory class participation: Factors that influence, classroom practices and learning outcomes

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Mandatory class participation: Factors that influence, classroom practices and learning outcomes

ABSTRACT

Most studies on class participation examine spontaneous class participation that naturally takes place in a class and the factors that influence it. Very few studies have considered situations where class participation is mandated for particular modules and contributes to a significant proportion of the final grade. This paper looks at these issues.

On the whole, there were more similarities than differences between the factors that emerged as salient in this context as compared to studies cited in the literature. However, some new factors (such as how class participation is emphasized and monitored) have emerged, whilst others (such as creating sufficient and equal opportunities), have gained more prominence in this context.

The effects of mandating class participation seem positive, with survey results suggesting that the majority of students seem more prepared for classes, as well as more confident in speaking in class after attending several modules. Those who have participated more also seem to have done better in the examinations.

INTRODUCTION

Class participation can serve many useful purposes. It may make students more motivated (Junn, 1994), help them learn better (Daggett, 1997; Howard & Henney, 1998; Weaver & Qi, 2005) and improve their communication (Berdine, 1986; Dancer & Kamvounais, 2005) and higher order thinking skills (Garside, 1996). Besides these positive outcomes, students of this generation may also be accustomed to a more interactive learning environment (Allred & Swenson, 2006), and class participation requirements can enhance student engagement. Not surprisingly, many professors include class participation as one of the assessment components of their modules.

This has also been the general practice at the Business School, National University of Singapore. However, in 2011, the Business School made it mandatory for class participation to be set at a minimum of 30% of the final grade for certain selected core modules. This meant that a professor assigned to teach one of those modules could not decide to do away with class participation or accord it lesser weightage. Currently, there are three core level one and two core level two modules that fall within this scheme.

The main reason why the Business School started mandating class participation for these modules was because it felt that it was crucial for students to be better able to communicate their ideas effectively. Given this context, class participation was defined to mean student communication within the classroom that was addressed to the whole class, as opposed to communication that took place within groups in class, or communication that took place outside class, such as on online forums.

Various studies (to be elaborated on below) have examined the level of class participation that takes place and the factors that influence it. However, no study seems to have considered the factors that influence participation in situations where class participation is

- a) mandated by the school,
- b) incorporated into several modules and
- c) accounted for a significant proportion of the final grade.

Given this context, this study seeks to examine whether there are any differences in the factors influencing class participation in the present context, compared to the factors already identified in the literature. Following from the findings of the study, this article also explores some possible classroom practices and approaches that can help tackle the issues identified. The article concludes by citing some positive outcomes of class participation in the present context.

PRIOR RESEARCH

According to the literature, the level of participation that takes place in class depends on a multitude of factors. One key factor is the impact students have on one another. In this regard, Fassinger (1995) states that the interaction norms in the class set the level of participation. In addition, peer support can have a positive effect (Wade, 1994) while peer criticism can have the opposite effect (Berdine, 1986; Wade, 1994; Howard & Henney 1998; Weaver & Qi, 2005). High interpersonal familiarity between students can increase participation too (Neer & Kircher, 1989; Green, 2008), whereas the presence of dominating students can hamper class participation (Wade, 1994).

The literature also suggests that awarding marks can encourage students to participate (Berdine, 1986; Smith, 1992; Howard & Henney, 1998), though Berdine (1986) states that 'they may do so resentfully'. The perceptions the student has of the module could be relevant as well. If the student finds the module interesting or relatable, it is more likely that the student will participate more (Berdine, 1986; Wade, 1994; Green, 2008). On the other hand, if the student perceives the module or content to be difficult, that may reduce the student's willingness to participate (Berdine, 1986). Similarly, quantitative modules may generate less discussion (Berdine, 1986). If the student is not confident or if s/he fears making mistakes or being judged, that is likely to discourage participation (Wade, 1994; Fassinger, 1995). The personality of the student

(with regard to confidence) could also be relevant. Introverted persons are less likely to participate (Berdine, 1986).

The literature also suggests that the amount of preparation the student does before class could be an important factor (Fassinger, 1995; Howard & Henney, 1998; Weaver & Qi, 2005). This could be because, as stated by Weaver and Qi (2005), preparation can have an 'indirect effect by influencing students' confidence and fears'. Besides preparation, self-motivation on the part of the student can also have a positive influence (Wade, 1994; Howard & Henney, 1998; Green, 2008). Wade (1994) and Green (2008) further suggest that students' perception of the value of class participation can have an impact on the extent of contribution. In addition, the amount of knowledge a student has can have an impact on his/her ability to participate (Wade, 1994; Howard et al, 1996; Green, 2008); so too could a student's ability to react quickly (Wade, 1994) or to concentrate in class (Berdine, 1986; Wade, 1994).

Support from the professor is also absolutely crucial. Support can come in various forms. Remembering student names (Gleason, 1986; Smith, 1996), calling them by their names (Auster & MacRone, 1994; Nunn, 1996; Fritschner 2000) and using or building on student ideas (Nunn, 1996) may encourage participation. The way in which the professor responds to student answers or comments is also of vital importance. If the professor gives praise when due (Nunn, 1996), that is likely to encourage participation whereas if he 'cuts students off in the middle of sentences', that is likely to discourage participation (Berdine, 1986; Wade, 1994). The literature also suggests that professors should create a safe (Hyde & Ruth, 2002) or comfortable environment (Auster & MacRone, 1994; Hyde & Ruth, 2002). If instead, professors put down, talk down to (Fritschner 2000) or criticize students (Wade 1994; Nunn, 1996), they are likely to discourage participation. Giving feedback (Howard & Henney, 1998; Green, 2008) especially formative feedback (Dancer & Kamvounias, 2005) can also have a significant impact on class participation.

The personality of the professor could also have some bearing: if the professor is moody, boring or unfriendly, this is unlikely to generate much discussion in class (Berdine, 1986). On the other hand, if s/he adds humour (Nunn, 1996), moves physically closer to the students (Fritschner, 2000) and discloses more about him/herself (Gleason, 1986; Fritschner, 2000), that may be helpful. The professor should also create equal opportunities for all and in this regard, favoritism on the part of the professor can have a negative impact on class participation (Fassinger, 1995). The type of questions raised by professors could also make a difference. For instance, questions of interpretation or analytical questions may be more appropriate, compared to questions of fact (Gravett, 1985; Auster & MacRone, 1994). It is also necessary for the professor to give adequate wait time for the students to digest information and give comments (Wade, 1994; Auster & MacRone, 1994). The general lack of time for participation could also hamper participation (Wade, 1994) though this may depend on how the professor plans or conducts his/her lessons.

Various studies have also established the link between class size and the level of participation (Berdine, 1986; Neer, 1987; Auster & MacRone, 1994; Fassinger, 1995; Howard & Henney, 1998; Weaver & Qi, 2005; Green, 2008). The seating arrangements in the class could have some influence as well. Berdine (1986) suggests that seating in a circular structure (as opposed to in rows) will be more ideal. The time of the day during which the class is held could yet be another relevant factor. In this regard, Berdine (1986) suggests that classes taught early in the morning and at night may not be so ideal.

METHODOLOGY USED IN CURRENT STUDY

For the purpose of this study, students taking the Legal Environment of Business (BSP1004) module that has mandatory class participation, were approached to participate in a survey while they were in class. They could choose whether or not to participate. Most students present did participate in the survey. In the relevant semester, there were eight groups involved. The number of students in each group varied from 40 to 49. They were first-year students in their second semester at school. Up to that point, the students would typically have taken three modules with a high class participation weightage.

A questionnaire was administered during class with the permission of the professors towards the end of the semester. There were 12 questions in the questionnaire and students were given five to seven minutes to complete it. The questionnaire related to *all* the modules the students had taken with a high class participation weightage and not just BSP1004. 10 of the 12 questions were close-ended while two were open-ended. Aside from demographics, the close-ended questions were designed to elicit views on matters such as the effect of awarding marks. The two open-ended questions related to students' opinion as to the three most important factors which encouraged and discouraged class participation, respectively. There were 351 students taking BSP1004 and 321 of them (91%) participated in the survey.

The responses to the open-ended questions were coded and analyzed by the author with the help of a student assistant. Some clear patterns emerged and the comments were sorted into 26 categories. Some comments were sorted into more than one category (for instance, when a student referred to the 'environment created by the lecturer and the students' within the same line). On the other hand, similar comments by the same student were sorted into the same category and counted only once (for instance, when a student wrote 'lecturer' both in the positive and negative columns). Most of the categories highlighted below are self-explanatory. However, some categories may need further explanation. 'Support from Professor' encompasses forms of support from the professor not categorized elsewhere (e.g. factors 5 and 10), such as the professor calling students by name or prompting students. 'Other General Issues Relating to the Professor' relates to general comments not categorized elsewhere such

as 'lecturer' or 'environment created by lecturer.' 'Response to Student Comments by Professor' covers responses other than recognition and feedback such as not listening to student comments or ridiculing students. 'Class Management by Professor' relates to comments not categorized elsewhere (e.g. factors 3 and 5), such as the professor not noticing when students raised their hands or not controlling dominant students. As alluded to above, it should also be highlighted that the categories identified typically included both negative and positive comments. For instance, if one student stated that friendly classmates encouraged participation and another stated that classmates who were critical discouraged participation, both comments were placed under 'Student-to-Student Impact'. Finally, it should also be mentioned that 15 comments were uncategorized as they were ambiguous and hence excluded from analysis.

RESULTS

A. The Factors Influencing Class Participation

The factors that emerged from the student survey are set out below. Some of these factors are discussed later in the paper and they are highlighted in bold for easier identification subsequently.

Table 1: Factors Influencing Class Participation

Factor	Counts	%
1. Student-to-Student Impact	210	15.5
2. Marks	131	9.7
3. Support from Professor	99	7.3
4. Student's Perception of Module	99	7.3
5. Sufficient Opportunities Created by Professor	92	6.8
6. Other General Issues Relating to Professor	80	5.9
7. Equal Opportunities Created by Professor	79	5.8
8. Response to Student Comments by Professor	78	5.8
9. Student's Confidence and Personality	72	5.3
10. Type of Questions/Answers Raised/Expected by Professor	60	4.4
11. Student's Level of Preparation	57	4.2
12. Student's Self-motivation	49	3.6
13. Student's Perceived Value of Class Participation	48	3.5
14. Student's Level of Knowledge	29	2.1
15. Characteristics of Professor	24	1.8
16. Class Management by Professor	23	1.7
17. Recognition and Feedback from Professor	20	1.5
18. Assessment of Class Participation by Professor	19	1.4
19. Class size	19	1.4
20. Emphasis on Class Participation by Professor	15	1.1
21. Time to Think Given by Professor	14	1.0
22. Student's Ability to Concentrate	9	0.7
23. Student's Ability to React Fast	9	0.7
24. Seating Position/Arrangement in Class	9	0.7
25. Class Timing	5	0.4
26. Time Limitations of Class	4	0.3
Total	1353	100

B. The Differences and Suggestions

On the whole, while studies cited in the literature were conducted in a slightly different context, the factors which affect participation appear similar to those that emerged in our context. In addition, there are a few new factors. Some previously recognized factors also seem to have gained a greater prominence in this context. These will now be discussed and some approaches to deal with them will be suggested.

1. *Student-to-Student Impact (Factor 1 in Table 1 above)*

Some comments within this category of ‘Student-to-Student Impact’ centered on competition amongst students, the resulting stress and the negative impact on participation. However, the issue of competition does not appear to be salient in other contexts. It is likely that the mandatory nature of class participation, its heavy weightage (of at least 30% of the final grade) and the fact that it applies to several modules, may have contributed to this problem, at least in the minds of some students.

One way to address this problem would be to give students the option of not counting their grades towards the grade point average score (which the University has implemented in relation to certain type of modules), although this may not always be feasible. Apart from that, if the professor tries to create a safer and more comfortable atmosphere in class (Auster & MacRone, 1994; Hyde & Ruth, 2002), incorporates humour (Nunn, 1996; Banas et al, 2011) and stops emphasizing participation merely for the sake of marks, s/he will likely be able to significantly reduce the tension in class.

2. *Marks (Factor 2)*

In relation to ‘Marks’, while the literature (Berdine, 1986; Smith, 1992; Howard & Henney, 1998) and this survey show that marks have an important role to play in encouraging participation, it should be highlighted that grading may at times have the opposite effect on a minority of students. For instance, one student commented, ‘the fact that class participation contributes [to the final grade] creates stress in participation[,] ironically stifling participation’. Another student stated that ‘marks for class part[icipation] actually brings up a lot of unnecessary and rephrased answers’, which discouraged meaningful participation in general.

However, it is possible that in this case, like with many other factors, the professor may also be able to control such negative experiences. For instance, in relation to unnecessary or rephrased answers, the professor should highlight such issues during the first lesson and create an awareness of the futility of such practices. This should also be tactfully enforced throughout the semester.

3. *Sufficient Opportunities (Factor 5)*

The factor of ‘Sufficient Opportunities’, has not been specifically featured in the literature. In this category, there were both positive as well as negative comments. With regards to the negative comments, it appeared that mandatory class participation without sufficient opportunities for meaningful participation may have added to the

stress felt by some students. There may not have been sufficient opportunities for class participation as some professors may not have been intimately familiar with how to create such opportunities, despite participation being mandated by the school.

In this regard, it could be made known to professors that decreasing the amount of “lecturing” (Berdine, 1986) and introducing informal debates (Smith, 1996), role-playing (Cohen, 1991), brain storming (Cohen, 1991) and group discussion activities (Gleason, 1986) may help create more opportunities. In addition, where power point slides are used, the professor should consider incorporating in-built questions, instead of just having facts and information, where possible.

4. *Equal Opportunities (Factor 7)*

While the factor of ‘Equal Opportunities’ has been recognized in the literature (Fassinger, 1995), it appears to have taken on a greater significance in the context of this study. For instance, one student commented that, ‘Teachers who are biased towards a certain gender/certain people’ discouraged participation. Again, given that class participation was graded for several modules and constituted a large percentage of the final grade, students might have been more concerned or sensitive and rightly so. However, as highlighted earlier, like most factors, there were both negative as well as positive (such as the professor giving equal chances to all and encouraging participation) comments in this category.

Some students have suggested that in order to ensure equal opportunities, students should be called on systematically according to the class roster. However, there were also others who felt that this was not a method to be favoured, possibly because of the impact that may have on spontaneity. Alternating between both methods may be one solution. Whatever it is, granting equal opportunities is absolutely fundamental, or else the objectivity of the whole scheme may be questioned (Lyons, 1989; Daggett, 1997).

5. *Types of Questions/Answers (Factor 10)*

With regard to ‘Type of Questions/Answers’, although asking open ended or analytical questions has been promoted in the literature (Gravett, 1985; Auster & MacRone, 1994), this study found that there were some students who felt that questions asked should not be too difficult, and that expected answers need not be of that high a quality. For instance, one student commented that the ‘Tutor’s focus on quality [left] no chance for weaker students.’

Since a typical class would be made up of students with different abilities, and the Business School’s primary intention in making class participation mandatory was to

make all students more confident in speaking, it might be good for the professor to plan questions ahead, to cater to both groups of students.

6. *Perceived Value of Class Participation (Factor 13)*

With regard to the 'Perceived Value of Class Participation', some students commented that there were students who were talking for the sake of talking. That rendered the whole process meaningless and discouraged others from participating. While there is some reference to such matters in the literature (Green, 2008), in this context where participation is graded, it appears to have gained more prominence.

Once again, it is clear that the professor has an important role to play in managing student perceptions. As previously alluded to, the professor should define what amounts to good participation right at the beginning and observe it throughout the course. Continuously stressing that students need to participate in class to earn marks is likely to affect the perceived value of class participation and hence the professor should avoid this. In addition, while the professor may want to encourage weaker students, the consequences of not controlling the quality of discussions should be borne in mind. Ultimately, a balance has to be struck.

7. *Emphasis on Class Participation (Factor 20)*

'Emphasis on Class Participation', is not a factor that has been featured at all in the literature. In this category, two main trends emerged. The first was that there were a few professors who did not emphasise participation much as a matter of practice. The second and more common trend was of professors continually emphasizing the need for class participation. The reason for such emphasis was however not always clearly communicated. Hence, there were students who commented that, 'Teachers who use marks as the only motivation' discouraged participation.

With respect to this, instead of advocating class participation merely for marks, the true benefits of participation (as elaborated on at the beginning of this article) should be highlighted to the students during the very first lesson. Feedback to students who are not participating should also emphasise this aspect instead of marks.

8. *Class Management (Factor 16)*

While some comments, such as the professor failing to control dominant students, have been alluded to in the literature (Wade, 1994), this survey also revealed new concerns such as the professor not 'moderating responses' (in relation to irrelevant com-

ments) or the professor not noticing hands or allowing students to talk without raising their hands. Again, given that class participation was graded and constituted a large percentage of the final grade, such issues could have become particularly important.

Having a teaching assistant in class may be helpful in this regard. Changing the seating arrangement of students rather than having students sit in the same location throughout the whole module may also be helpful if the professor has a tendency to face just one side of the class.

9. *Ability to React Fast (Factor 23)*

Compared to the occasional reference to this in the literature (e.g. Wade, 1994), the students' differing 'Abilit[ies] to React Fast', had a noticeable presence in this study. They appeared concerned that it was mostly students with faster reaction times who were called on to answer questions.

With regard to this, the professor may be able to control the situation for instance, by not always calling the first person who puts up his or her hand. The professor should also give adequate wait time or allow the students to discuss in groups first, before inviting responses.

10. *Assessment (Factor 18)*

In the literature, 'assessment', especially in the form of monitoring of class participation, is not something that has been featured much. In the context where class participation is graded and comprises a large percentage of the final grade, students may have become more anxious as well as shrewd with regard to participation in class. If students notice that there is no monitoring, they may not bother to participate. For instance, one student commented, 'Not knowing if the professor takes down the participation' discouraged participation.

To address this, the professor may want to have teaching assistants in class to record participation. Remembering names and then giving specific and regular feedback would also bring home the message that the professor is indeed monitoring each student's participation in class.

C.Limitations of Current Study

While this study has revealed some interesting new perspectives on factors affecting class participation, there are several limitations, one being the qualitative nature of the

data obtained. It might not be accurate to determine the relative importance of each of the factors simply based on frequency of mention. Quantitative data would have better achieved that aim.

In addition, qualitative comments may be open to interpretation. For instance, if a student stated that marks encouraged or discouraged participation, that was placed under 'Marks'. However, if a student commented that the professor kept insisting that students participate merely for the sake of marks, that was placed under "Emphasis on Class Participation". Nonetheless, both comments touched on the influence of marks on class participation patterns.

However, the strength of this study lies in the fact that the qualitative comments collected provided many nuances for further exploration. For instance, it was possible to identify different themes within a single factor, leading to a finer understanding of how certain factors affect class participation in this context. Moreover, qualitative comments helped in identifying some factors which might otherwise have been overlooked.

CONCLUSION

While previous studies have not focused on situations where class participation was mandated by the school and accorded a large weightage, the factors that influence participation appear similar. However, some factors (such as 'creating equal opportunities' and the 'perceived value of class participation') have gained more prominence in this context. A few new factors (such as how the importance of class participation is emphasized and monitored as a matter of practice) have also come into play.

The student comments also suggest that the implementation of a mandatory class participation scheme may have a few problems, foremost being professors who may not be well-equipped to handle class participation, not being fully attuned to the nuances of class participation management. In this regard, professor-related factors had a strong presence in this study. Similarly, the majority of the literature also suggests that professors have the biggest influence when it comes to participation (Rocca, 2010). For instance, Wade (1996) states, 'As in stories of negative discussions, the teacher's role was central to the students' anecdotes of positive experience'. In a situation where class participation is mandated, this is only to be expected. Some suggestions were raised as to how professors could make the class more conducive for participation. However that aside, any school which intends to implement such a scheme should also provide adequate training, support (for instance in the form of having teaching assistants in class or assigning smaller student groups) and recognition.

All this may indeed be a worthwhile effort. 73% of the students who participated in the survey stated they were more prepared for classes as a result of the high class

participation weightage (a finding which was corroborated by a survey done with their professors). 69% of the students who participated also stated that they were more confident about speaking in class now as compared to when they first entered University. In addition, a related study showed a significant correlation between the class participation marks and the raw final exam marks of students taking the module *BSP1004*, which is consistent with the literature (Handlesman et al, 2005) suggesting that students who participated more, did indeed learn better.

REFERENCES

- Allred, C. R., & Swenson, M. J. (2006). Using technology to increase student preparation for and participation in marketing courses: The random selector model. *Marketing Education Review*, 16(1), 15.
- Auster, C. J., & MacRone, M. (1994). The classroom as a negotiated social setting: An empirical study of the effects of faculty members' behavior on students' participation. *Teaching Sociology*, 22(4), 289-300.
- Banas J, Dunbar N, Rodriguez & Liu (2011). A review of humor in educational settings: four decades of research. *Communication Education*, 60(1), 115-144.
- Berdine, R. (1986). Why some students fail to participate in class. *Marketing News*, 20(15), 23-24.
- Cohen, M. (1991). Making class participation a reality. *PS: Political Science & Politics*, 24(04), 699-703.
- Daggett, L. M. (1997). Teaching tools: Quantifying class participation. *Nurse Educator*, 22(2), 13-14. (IT)
- Dancer, D., & Kamvounias, P. (2005). Student involvement in assessment: a project designed to assess class participation fairly and reliably. *Assessment & Evaluation in Higher Education*, 30(4), 445-454.
- Fassinger, P. A. (1995). Understanding classroom interaction: Students' and professors' contributions to students' silence. *Journal of Higher Education*, 66(1), 82-96.
- Fassinger, P. A. (1996). Professors' and students' perceptions of why students participate in class. *Teaching Sociology*, 24(1), 25-33.
- Fritschner, L. M. (2000). Inside the undergraduate college classroom: Faculty and students differ on the meaning of student participation. *Journal of Higher Education*, 342-362.
- Garside, C (1996). Look who's talking: A comparison of lecture and group discussion teaching strategies in developing critical thinking skills. *Communication Education*, 45(3), 212-227.
- Gleason, M. (1986). Better communication in large courses. *College Teaching*, 34(1), 20-24.
- Green, D. (2008). Class participation in a teacher training college: What is it and what factors influence it. *English Language Teacher Education and Development*, 11, 15-26.
- Gravett, D. J. (1985). Asking the Right Questions, A Key to Good Class Discussions. *Teaching English in the Two-Year College*, 12(4), 300-2.
- Handelsman, M. M., Briggs, W. L., Sullivan, N., & Towler, A. (2005). A measure of college student course engagement. *The Journal of Educational Research*, 98(3), 184-192.
- Howard, J. R., & Henney, A. L. (1998). Student participation and instructor gender in the mixed-age college classroom. *The Journal of Higher Education*, 69(4), 384-405.
- Howard, J. R., Short, L. B., & Clark, S. M. (1996). Students' participation in the mixed-age college classroom. *Teaching Sociology*, 8-24.
- Hyde, C. A., & Ruth, B. J. (2002). Multicultural content and class participation: Do students self-censor? *Journal of Social Work Education*, 241-256.
- Junn, E. (1994). "Pearls of wisdom": Enhancing student class participation with an innovative exercise. *Journal of Instructional Psychology*, 21, 385-387

- Lyons, P. R. (1989). Assessing classroom participation. *College Teaching*, 37(1), 36-38.
- Neer, M. R. (1987). The development of an instrument to measure classroom apprehension. *Communication Education*, 36(2), 154-166.
- Neer, M. R., & Kircher, W. F. (1989). Apprehensives' perception of classroom factors influencing their class participation. *Communication Research Reports*, 6(1), 70-77.
- Nunn, C. E. (1996). Discussion in the college classroom: Triangulating observational and survey results. *The Journal of Higher Education*, 243-266.
- Rocca, K. A. (2010). Student participation in the college classroom: An extended multidisciplinary literature review. *Communication Education*, 59(2), 185-213.
- Smith, D. H. (1992). Encouraging students' participation in large classes: A modest proposal. *Teaching Sociology*, 337-339.
- Smith, D. H., (1996). Developing a more interactive classroom: A continuing odyssey. *Teaching Sociology*, 64-75.
- Wade, R. C. (1994). Teacher education students' views on class discussion: Implications for fostering critical reflection. *Teaching and Teacher Education*, 10(2), 231-243.
- Weaver, R. R., & Qi, J. (2005). Classroom organization and participation: College students' perceptions. *The Journal of Higher Education*, 76(5), 570-601.