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## Redefining Participation: Towards the Creation and Understanding of an Inclusive Definition

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Redefining Participation: Towards the Creation and Understanding of an  
Inclusive Definition

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### Abstract

Although a great deal of research has been conducted regarding class participation, researchers have systematically disregarded those students who participate best through means other than vocal contribution to class discussion. This exploratory study examined definitions of participation, as well as participation behaviors and beliefs, in the hope of gaining a better understanding of the culture of participation. Participants included 17 professors and 101 students. Cluster analysis was conducted and showed the existence of at least three distinct groups of participators. Independent samples *t*-tests showed only one significant difference between student and professor beliefs of how likely students would be to participate in selected situations. Implications of this study include the ability for professors to understand the different participation groups that exist within a group of students and allow them to better address the ways in which mandatory participation can increase the overall quantity and quality of learning.

## Redefining Participation: Towards the Creation and Understanding of an Inclusive Definition

Although a great deal of research has been conducted regarding classroom participation, researchers have systematically disregarded those students who participate best through means other than vocal contribution to class discussion. The American Heritage Dictionary defines participation as, “to take part in something,” or, “to share in something.” However, when this definition is applied to the classroom setting, it generally implies a student speaking during the class.

Motivating students to participate in the classroom is a challenge at any level of education. As Green and Rose (1996) contend, “Rarely do students greet our words with mouths agape and heads straining forward in a vain attempt to hear the next phrase, the next pearl of wisdom (p.687).”

Based on personal experiences in undergraduate courses, it seems professors are attempting to encourage participation by making it mandatory, or by including class participation as a factor in determining the students’ final grades. Presumably, the hope is to increase student learning. The inclusion of participation in the final grade does not seem to be merely a local concept. For example, Bean and Peterson (1998) stated that 93 percent of syllabi for core curriculum courses at Seattle University included participation as a portion of each student’s course grade. While past studies are sound in their rationales for making

participation mandatory (i.e., to increase quality and quantity of student learning) they do not give a substantial reason for why this participation must be in the form of contribution to class discussion.

Although some researchers and professors have attempted to allow for other methods of participation in grading systems, few have allowed for alternate forms of participation to be included within the usual definition. It is the purpose of this study to further examine student and professor perceptions of participation, both in its definition and its action. If students do have a variety of participation styles, it would be inconsistent for professors to use a definition of participation that applied to some students but not to all students in their classes. If the goal of mandatory participation is to further the knowledge and understanding of students, professors may be doing a disservice to their students by not allowing a full range of participation.

### *Defining Participation*

Definitions of classroom participation vary both within and between students and professors. Students who frequently contribute to class discussions tend to define participation as speaking in class without the comment being initiated by the professor (Howard & Henney, 1998). Those students who prefer to remain quiet in the classroom have a much broader definition of participation, including active listening and being properly prepared for the class (Fritschner, 2000). Students attempt to participate in numerous ways; whether or not the professor

regards these attempts as actual participation is up to his or her own judgment. While some students do prefer to ask or answer questions during a lecture, others employ active listening techniques, take detailed notes, engage in small-group discussions or study sessions, keep a journal of their experiences with the material, or try to contact the professor outside of class about any questions or comments.

Fritschner (2000) also reported that professors observed six levels of student participation, ranging from, “breathing and staying awake,” to, “oral presentations where the students themselves became the teachers.” Students tend to engage in lower levels of participation during introductory-level classes, with an increase in level of participation as the level of class increased. Although the range of possible participation is expansive, the definition of participation used in most grading formulas and research articles is narrow in scope. That is, it measures only how frequently students ask questions, raise their hands, or contribute to class discussion (Fassinger, 1995; Fassinger, 1996; Howard, Short & Clark, 1996; Lysakowski & Walberg, 1982).

A primary dilemma with current definitions of class participation is that they may exclude certain students. Over 25 years of research has shown that students prefer different methods of learning and score higher on tests when they are taught to their learning styles (Crowe, 2000; Miller, 2001; Taylor, 1997). Of course, it is difficult to be fair to all students when designing curriculum, but the expectations set by a

professor may be harder for some students to attain because of their specific learning styles. This would be especially true for professors who require participation and allow it to determine a portion of a student's semester grade if, indeed, students are found to have different participation styles.

Through their research, Bean and Peterson (1998) found that although the vast majority of professors now include participation as a factor when grading student performance, many use participation only as a 'fudge factor' in students' final grades. Jacobs and Chase (1992, as cited in Bean & Peterson, 1998) argue that including participation in semester grades taints the concept of grading as a way of measuring achievement within the classroom. Their reasons for not grading participation included professors not adequately informing students on how to increase their participation, the interpretation of participation being wholly subjective by nature, and that participation may be dependent upon each student's individual personality.

It is an assumption of this study that, just as they have their own distinct learning styles and personalities, students have their own preferred methods of participation. For example, some students may feel that their best form of participation is active listening, whereas other students may feel that their most productive form of participation is contribution to discussion. Some students may prefer to simply sit back and listen to the discussion, regardless of who happens to be leading it,

and will display their understanding of the material in their own unique way.

Research has shown that a variety of factors influence class participation and nonparticipation. Students with low self-esteem are less likely to participate than students with normal or high self-esteem (Fassinger, 1996). Multiple studies have shown that women participate at lower levels than men (Fassinger, 1995; Jaasma, 1997; Sadker & Sadker, 1992; Wildman, 1988). Nontraditional students (students who do not fall into the typical age range for an undergraduate) participate more than traditional students (Howard & Henney, 1998).

While it has been suggested that participation by individual students increases as college experience increases and the semester progresses (Howard, Short & Clark, 1996; Howard & Henney, 1998; Fritschner, 2000), observational research has shown that a small percentage of students make up a large percentage of the participation within college classrooms (Karp & Yoels, 1976; Fritschner, 2000). Specifically, three to five students typically account for 50 to 75 percent of all classroom interaction (Karp & Yoels, 1976; Howard, Short, & Clark, 1996; Howard & Henney, 1998).

Student interviews conducted by Fritschner (2000) reveal that participation patterns are evident to students as early as the third meeting of the class. At this point, the students began to rely on the “talkers” to ask and answer questions during the class. However, the



“talkers” made other students feel frustrated because of their constant participation and the thought that their participation was raising the professor’s expectations of how often *all* students should participate. Students also reported that they avoided participating in classes because they feared that their fellow classmates would view them negatively for participating.

Fritschner (2000) also found that, even if professors actively verbalized their desire for communication within the classroom, some students felt that participation was not desired because of both verbal and non-verbal cues from professors. Examples of such cues were using ‘gruff’ tones and criticizing students for incorrect answers, seeming bored or disinterested with what the student had to say, and the amount of time professors allowed for students to ask and answer questions. However, the study also identified that professor self-disclosure (i.e., using personal examples or analogies in order to explain a concept or further a point) can lead to an increase the amount of student participation.

### *Theories for increasing participation among all students*

The following is a brief background of current theories on how to increase student participation. Not all theories will be analyzed by the current study, though a solid knowledge base of the current theories of and factors affecting participation is necessary for full understanding of the concept. Some theories require only an awareness of a potential

issue, whereas others invoke specific actions on the part of both the professor and the student. Each theory addresses a different factor affecting student participation, and thus each may be more successfully employed in a different context than another.

*Classroom structure and teaching styles.* Bean and Peterson (1998) identified three main structures for increasing classroom participation. The first and most common structure is open or whole-class discussion, where a question by the professor is aimed at initiating conversation from all students. The second structure involves the cold-calling technique, where the professor randomly calls on a student to answer a specific question (discussed in more detail later). The third style, collaborative learning, involves little to no lecture but rather small-group discussions about questions with a representative from each group relaying that group's answer to the whole class.

*Discussion/study questions.* Discussion questions are commonly used to reassure professors that students are reviewing the assigned material before class. The theory behind discussion questions is that they will force students to think about the material prior to a lecture, thus increasing the chance that the students will ask questions during the class period (Green & Rose, 1996). A benefit of discussion questions is that they allow students to spend a great deal of time outlining the question or answer, rather than being put "on the spot" during class.

*Cold-calling.* Cold-calling is a technique in which the professor calls on a specific student to answer a question (Bean & Peterson, 1998). This method may cause some students to feel uncomfortable or embarrassed regardless of whether or not they know the answer to the question. However, it does make the question and answer portion of a lecture more efficient because the professor does not have to wait for a student to volunteer an answer to the question. Also, cold-calling can help eliminate the gender bias by allowing the professor to call on men and women equally. Some students may prefer this method because it allows them to respond without becoming a “teacher’s pet” who answers all the questions.

*Self-disclosure from professors.* Some researchers have found that students are most likely to share their own thoughts and feelings when the professor uses an example from his or her own life to help explain the material (Goldstein & Benassi, 1997). This disclosure may help students feel more comfortable in the classroom by letting them know that the professor cares about personal experiences. Students may follow the professor’s lead in sharing such examples. However, too much self-disclosure can have an adverse affect on student participation. Students may feel overwhelmed by the quantity or sensitivity of the information shared by the professor. The disclosure may actually decrease the students’ feeling of comfort within the classroom environment and thus decrease likelihood of participation.

*Teaching to learning styles.* Research has provided various classifications of students based on learning styles (also referred to as *cognitive styles* or *theories of multiple intelligence*). Dunn and Dunn (1992, as cited in Dunn & Griggs, 1995) define learning style as, “the way in which individuals begin to concentrate on, process, internalize, and retain new and difficult academic information.(p.353)” Research with this model has shown that although students are able to learn through teaching methods that are not complementary to their learning styles, students learn more – and have better attitudes toward that learning - when teaching styles complement their learning styles (Dunn & Griggs 1995; Miller, 2001).

*Being aware of the gender bias.* Sadker and Sadker (1992) found that one of the best ways to correct for the gender bias is to be aware that it exists. By understanding what might happen, professors can be careful to avoid falling into the bias trap. However, professors should not over-correct for the bias, as this is not exterminating the bias, but rather endorsing it in the opposite direction. For example, if a professor is aware that the gender bias exists and then calls on only female students to answer questions, he or she is not correcting the gender bias but reversing it.

#### *A Proposed Model of Participation Groups*

I argue professors have three levels of understanding about their students in terms of class participation. At the first, most superficial

level, professors see two distinct groups of students, *talkers* and *nontalkers*. As the names imply, students who talk during class fall into the *talkers* category, whereas students who are essentially quiet during class are considered to be *nontalkers*. I contend that professors consider the *talkers* to be prepared for class and the *nontalkers* to be unprepared.

The second level of understanding breaks the *talkers* into two subcategories, *academic talkers* and *social talkers*. Professors acknowledge that not everyone who speaks in class is prepared. The *academic talkers* know the material and have no problems asking or answering relevant questions. On the other hand, the *social talkers* speak in class only because it is required as part of the grade. Their contributions generally include jokes and irrelevant comments. Although the *social talkers* might receive points for “participating,” they are not contributing to the overall learning of the class.

The third level of understanding continues with the two subcategories of *talkers*, but additionally breaks the *nontalkers* into two subcategories. The first *nontalker* subcategory is that of the *unmotivated nontalkers*. These students are unprepared for class, do not care for the material, or are generally disinterested in any portion of the course. They refrain from speaking in class because they have nothing to say or, in extreme cases, might even be sleeping. The second *nontalker* subcategory is that of the *creative nontalkers*. This group of students is

generally as prepared for class as the *academic talkers* are, but do not show that preparedness in the form of vocal expression in the classroom.

I argue that these students, the *creative nontalkers*, are not simply shy and afraid to speak in class, though some may be. Other factors likely affect their voice within the classroom. Some may feel they maintain a better grasp on the material if they listen attentively to the professor or other students discuss it. Certain students may actually inhibit their own learning when they think of questions to ask. For example, a student may spend time thinking of an original question to pose to the professor just to have another student ask the question first. The original student fails to earn any participation points because he or she did not actually talk in class, even though he or she was prepared to do so. Additionally, the student may have missed out on what the professor or another student was saying because he or she was so busy trying to formulate a new question.

To the extent that these different groups of students exist, the definition of participation could conceivably be all-encompassing, allowing equal opportunities for each of the four categories of students. Students who are not prepared for class may never be prepared for class, regardless of the ways in which they are allowed to participate. However, even if the students are unprepared, certain forms of participation may allow them to become immersed in discussion about a topic in which they were previously disinterested. Students who are prepared for class

could be able to display this preparation in multiple ways. Allowing them to do so may increase the quantity and quality of learning from the course, the theoretical goal of mandatory participation.

Of course, the current study cannot evaluate all aspects of this proposed model, but it is clearly necessary to conduct exploratory research before a full evaluation of the model can be examined.

### *The Current Study*

This research will differ from past endeavors in that it calls into question the definitions of participation and its related perceptions and behaviors. *Perceptions* of participation are the main focus. The study proposes three hypotheses: (1) different groups of participators exist within the student sample; (2) professors will be more likely than students to have “vocal” definitions of participation; and (3) students and professors will have different perceptions of student participation in selected hypothetical situations in which students have the opportunity to participate.

## Method

### *Participants*

Participants for this study included 101 students enrolled in General Psychology courses at a small liberal-arts university in the Midwest and professors from various departments at the same university. Students from additional psychology courses at the university were allowed extra credit in their respective course for their

completion of the questionnaire battery. Students from each year in school (first-year, sophomore, junior, seniors, fifth-year) were included, with most participants in their first two years of college. The student sample was overwhelmingly female (78.2%) and most students (79.3%) had a GPA of 3.0 or above. Two professors from each of 16 academic departments were initially contacted and asked to participate in the study, with an additional 18 professors contacted after some of the initial professors either did not desire to take part in the study, did not meet the criteria for professors, or did not respond to the request. Of the 17 professors who completed questionnaire packets, 57% were male and 43% were female, similar to the overall population of professors at the university. The mean number of semesters taught was 22.60, or approximately 11 years. No professor in this sample had taught at the university for fewer than 6 semesters or more than 60 semesters.

### *Measures*

Student questionnaires included a demographics form, the *Student Attitudes Questionnaire* (SAQ; Wade, 1994), the *Participation Checklist* (Howard & Henney, 1998), and the *Participation Perception and Behavior Questionnaire* (created for this study). All questionnaires are included in Appendix A. No validity information was available for these measures. The SAQ is a three-part instrument which measures student perceptions and behaviors within the classroom. The first part surveys students' thoughts about and experiences with discussion, the second part



examines factors affecting students' participation, and the final part includes items pertaining to students' beliefs about discussion. The *Participation Checklist* identifies students' reasons for participation and nonparticipation, students' perceptions of other students and the instructor, and instructor perceptions of students. The *Participation Perception and Behavior Questionnaire* asks students and professors to rate how likely they believe students would be to participate in selected scenarios. This measure also includes a section which allows students and professors to explain their own definitions of "participation" and give other qualitative responses. Faculty questionnaires included only a demographics form and the *Participation Perception and Behavior Questionnaire*.

### *Procedure*

Student participants were collected through the General Psychology subject pool and assorted other psychology courses at the university. General Psychology students signed up for one-hour time slots to take the questionnaire battery. Up to 20 participants from this pool met with a research assistant in a classroom in the building where the psychology department is located at the pre-determined time. Students were asked to read over and sign an informed consent form in order to a) assure their participation in this study was voluntary and b) keep track of which students from the pool needed to receive credit for helping with this project. Students from the other psychology courses

were emailed with information about the project and the ability to earn extra credit for their help. All courses allowed students to be involved in a number of research opportunities, each with the benefit of earning extra credit. Students interested in helping with the current study were then emailed copies of the informed consent forms, questionnaires, and the debriefing sheet per request by the professors. Each participant was given a packet with his or her unique ID number (randomly selected for this study in order to track all of the questionnaires in the experiment) and asked to fill out all questionnaires. General psychology students returned their questionnaires to the research assistant at the end of the hour. Other subjects, again, per request of the professors, were instructed to return their completed questionnaires and their signed informed consent forms to the professors so that the professor could collect the questionnaires for the researcher and keep track of which students were to earn extra credit for their participation in the project.

Faculty participants were selected at random from a list of all faculty members within each department. Once a name was selected from the list, that professor was contacted by e-mail and asked to participate in the study. Participation was completely voluntary. The only requirement for faculty participants was that they must have taught at the university for at least two years. It was hoped that this restriction would ensure that reflections of student behavior would be based on the

same population as the student sample and not on students from a different university.

## Results

Frequencies for eighteen variables from the second section of the SAQ were conducted in order to understand first if an overall pattern existed for the factors thought to influence frequency of participation. Results are presented in Table 1. Each factor was found to affect a majority of participants in one direction. For example, 86 students indicated that, “Time to think before speaking,” item 33, would cause them to speak more, whereas 2 students indicted the factor would cause them to speak less and 12 students thought the factor would have no effect on their frequency of speaking in the class.

### *Evaluating the Hypotheses*

The study proposes three hypotheses: (1) students will be shown to have a variety of specific participation styles; (2) professors will be more likely than students to have “vocal” definition of participation; and (3) students and professors will have different perceptions of student participation in selected situations.

*Hypothesis 1.* The first hypothesis was tested by conducting a cluster analysis on the entire set of quantitative variables. Cluster analysis takes each point of data, or each participant’s response to each variable, and combines them into “clusters” of similar participants based on how the participants answered each item. Any participant who fails

to respond to a single variable included in the analysis will be removed from any cluster membership.

It was hypothesized that students would respond differently to questionnaire items and thus be shown to have a variety of specific preferred participation styles. After initial exploratory analysis, it was determined that at least three clusters existed within the sample of students. Extensive cluster analysis was conducted, with alterations in the number of variables used, each showing the existence of multiple distinct clusters of students. The broadest cluster analysis conducted, using all 87 quantitative variables, indicated the existence of three clusters of students. Chi-square tests were conducted between cluster membership and other quantitative variables. Significant differences between groups were found for 42 of the quantitative variables. Responses by cluster can be analyzed for these variables to profile the clusters and, thus, their members, giving the researcher more information as to what groups of students exist and how those groups think and feel about participation. Three examples of how student responses differ by cluster membership are presented in Table 2. These items are examples of the significant differences found between clusters. Many more significant differences exist between the clusters, but not all differences could be fully analyzed at this time.

*Hypothesis 2.* Qualitative definitions of participation were examined for both students and professors and coded as either “other” or

“vocal” definitions. Due to the exploratory nature of this study, the only coder for these items was the researcher herself. The researcher coded a response as “vocal” if it referenced only vocal contribution in the classroom and “other” if it included any other possible type of participation. For example, responses such as, “Attendance is a small part. Join in class discussion, ask questions – act interested” was coded as “other” whereas, “My definition of participation is simply talking in class” was a “vocal” definition.

It was hypothesized that professors would be more likely than students to have “vocal” definitions of participation. Though not statistically significant, chi-square analysis showed that, contrary to predictions, professors were less likely than students to have “vocal” definitions of participation,  $\chi^2(1, 116) = 1.945, p = .163$ . Specifically, 50 percent of students had a “vocal” definition of participation, whereas 32 percent of professors had a “vocal” definition.

*Hypothesis 3.* The third hypothesis of this study was that students and professors would have significantly different perceptions of the average student’s participation in selected situations. This hypothesis was analyzed using independent samples *t*-tests on the second section of the PPBQ. This portion of the questionnaire asked students and faculty to rate how likely they thought the average IWU student in the average IWU professor’s class would be to participate in each of the independent situations listed. On all but one of the ten items, students had higher

means than professors, although the means were only significantly different for item 4, “A professor asks a question and, after no student volunteers an answer, calls on a specific student to answer the question,” ( $t=2.921$ ,  $p<.005$ ). Students had a mean of 4.46 ( $SD=.819$ ) whereas professors had a mean of 3.81 ( $SD=.834$ ). This shows that, at least on item 4, students thought the average IWU student would be more likely to participate than professors thought the average IWU student would be to participate.

### Discussion

While it is not possible at this time to specifically define the characteristics of the clusters of students that exist within this data set (due to the overwhelming nature of the inclusion of all 87 quantitative variables), it is important to note that this study suggests that different groups *do* exist. Because the only items included in the cluster analysis pertained to class participation, it is clear from this data that these groups differ in their participation style or behavior. It should be noted that the possible participation groups proposed earlier in the paper were examples of what the cluster analysis might show through further examination of the data. The existence of different participation groups may help professors as they attempt to help each student receive the highest quality of education possible. By attending to the different participation groups, professors may be able to reach more students on an intellectual level, allowing students to show their understanding of

the material in new and helpful ways. If professors are making participation mandatory in order to increase the quantity and quality of learning for all students, then this study has made important steps towards helping professors better understand how students think mandatory participation affects them.

A surprising finding separate from the existence of the different groups of participators is the lack of significant difference between professor and student definitions of participation. The difference in percentage of students who have an “other” definition of participation (50%) and the percentage of professors with an “other” definition (68%) is interesting, although not statistically significant. One reason for the “vocal” definitions by students could be that they have been subjected to a “vocal” definition of participation for so long that, regardless of what they think participation *should* consist of, they only consider participation in this sense. The high percentage of professors with “other” definitions may be due to selection bias. That is, because professor participants were part of a convenience sample, some factor may have influenced who chose to take part in the project as well as who already held “other” definitions of participation. For example, when contacted about the study, some professors declined to take part in the project stating, “I define participation as talking in class and nothing else. I’m not taking a survey about it.” Given that some professors excluded themselves from the study due to their pre-existing beliefs on

the topic, the sample may not be fully representative of the random population of professors at the university.

The hypothesis that students would think the average IWU student would be more likely to participate in given situations than professors would was only somewhat supported. While this difference was only significant for one item, it does show that students – who should have a more accurate understanding of hypothetical student behavior – support the idea of students participating in a variety of situations not normally found in the college classroom. The one significant item, “A professor asks a question and, after no student volunteers an answer, calls on a specific student to answer the question,” seems to be a particularly good example of the possible bias of students and professors on their perceptions of participation. Students thought that the average IWU student would be likely to participate in this situation, possibly because they felt the student called upon would have no choice as to whether or not to participate. The professors, on the other hand, may know that the student would be able to be called on without actually answering the question or contributing a thought. It is impossible for professors to physically make a student speak, and, thus, the student may not participate verbally regardless of how much direct pressure is placed upon him or her.



*Limitations and Suggestions for Future Research*

One limitation of this study was that it was conducted on the campus of a small liberal-arts university in the Midwest. Findings cannot be generalized to alternate populations without further research. Another major limitation to this study was the small sample of professors. Although a total of 50 professors were contacted about helping with this study, only 26 agreed to participate. Of this group, only 17 returned questionnaires. Future studies should obtain a larger sample of professors in order to assure more accurate representation. Also, additional measures should be taken to ensure reliable coding of qualitative information.

While the use of cluster analysis was appropriate for the type of understanding desired from this data (in accordance with the first hypothesis of this study), the subjectivity of the procedure provides inherent limitations. Full profiles of each cluster based were not possible to create given the breadth of variables included in the analysis. It may be that too many variables were included in the analysis given the number of students within the sample. Therefore, it would be beneficial for future researchers familiar with complex cluster analysis to examine the data in order to accurately profile the clusters and better explain the differences between the groups. This study, however, is a starting point for understanding what participation groups may exist. If professors are making participation mandatory in the hopes of increasing the quantity

and quality of learning among all students, this study could help them understand that different approaches to mandatory participation and the definition of participation in general may be necessary in order to allow each student equal opportunity in the classroom.

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Table 1

*Student Attitudes Questionnaire Frequencies for All Student Participants*

	N/A	Speak more	Speak less	No effect
22. Classmates who are overly talkative.	0	7	<b>79</b>	14
23. More than 20 people in class.	0	4	<b>71</b>	25
24. Having a lot of knowledge about the discussion topic.	0	<b>97</b>	1	1
25. Criticism from classmates.	5	7	<b>73</b>	15
26. Lack of interest in topic.	0	0	<b>95</b>	5
27. Feeling that the teacher cares about me as a person.	2	<b>81</b>	0	17
28. Male teacher.	1	3	10	<b>86</b>
29. Feeling tired.	0	2	<b>95</b>	3
30. Interpersonal conflict with a classmate.	16	4	37	42
31. Interest in the discussion topic.	0	<b>98</b>	0	2
32. Preparing a statement or question for homework before the discussion.	3	<b>71</b>	3	22
33. Time to think before speaking.	0	<b>86</b>	2	12
34. Feeling that my ideas won't be valued or appreciated.	7	2	<b>85</b>	6
35. Lack of knowledge about the topic.	0	1	<b>97</b>	2
36. Talking with a partner or in a small group first.	0	<b>65</b>	7	28
37. Recognition or encouragement from classmates.	1	<b>89</b>	3	7
38. Female teacher.	1	11	1	<b>87</b>
39. Judgmental or critical teacher.	1	2	<b>91</b>	6

*Note: One student had missing information for this portion of the questionnaire and was therefore could not be included in this chart.*

Table 2

*Level of agreement with specific statements by cluster membership*

<u>Item</u>	<u>Cluster</u>		
	Cluster 1	Cluster 2	Cluster 3
PC1C "When I choose to participate in class discussion, I do so because I learn by participating."			
Disagree	32.4	8.7	92.7
Agree	64.6	91.3	7.3
PC1D "When I choose to participate in class discussion, I do so because I enjoy participating."			
Disagree	20.6	4.3	95.1
Agree	79.4	95.7	4.9
SAQ #42 "Participating in class discussions is a matter of personal choice. It is not essential that everyone contributes in this way."			
Disagree	35.3	73.9	17.1
Agree	64.7	26.1	82.9

*Note:* all chi-squares significant at the  $p < .001$  level.



Table 3

*Definition of participation by cluster membership*

Definition	<u>Cluster</u>		
	Cluster 1	Cluster 2	Cluster 3
Vocal	38.2	78.3	46.3
Other	61.8	21.7	53.7

*Note:  $p < .01$*

## Appendix A – Questionnaires

### Student Attitudes Questionnaire

**Directions:** Please circle the number of the answer that most accurately describes how frequently the following situations reflect your own feelings.

	Always	Often	Sometimes	Never
1. I enjoy sharing my ideas.	1	2	3	4
2. I am hesitant to talk in a discussion.	1	2	3	4
3. I speak in class discussions.	1	2	3	4
4. I have so much to say that I have difficulty letting others have a chance.	1	2	3	4
5. I am afraid that the teacher will criticize or judge me based on my comments in discussions.	1	2	3	4
6. I only speak up when I have something I really want to say.	1	2	3	4
7. I would rather sit back and hear what others have to say.	1	2	3	4
8. I enjoy a class more when I participate in the discussion.	1	2	3	4
9. I have difficulty expressing my ideas clearly.	1	2	3	4
10. I am distracted from participating by thinking about other things.	1	2	3	4
11. By the time I have decided what I want to say, the rest of the group has moved on to something else.	1	2	3	4
12. I stop listening because I am busy thinking about what I want to say next.	1	2	3	4
13. I think my ideas make important contributions.	1	2	3	4
14. I can hardly get a word in edgewise so I keep quiet.	1	2	3	4
15. What I speak it is brief and to the point.	1	2	3	4
16. I am afraid that my classmates will think my ideas are unworthy of consideration.	1	2	3	4
17. Most class discussions seem like a waste of time.	1	2	3	4
18. I enjoy class discussions.	1	2	3	4
19. I listen well to others.	1	2	3	4
20. I think that participating in discussions help me to learn more.	1	2	3	4
21. I like to have some time to think about an issue before discussing it.	1	2	3	4

**Directions:** Please circle the number of the answer that most accurately describes the effect each situation has on how much you speak in class.

NOTES: 1) "N/A" means that that situation is not applicable to you. 2) If you have or think you would react differently to a given situation depending on the context, please answer as to which effect the situation would have on you most frequently.

	N/A	Speak more	Speak less	No effect
22. Classmates who are overly talkative.	1	2	3	4
23. More than 20 people in class.	1	2	3	4
24. Having a lot of knowledge about the discussion topic.	1	2	3	4
25. Criticism from classmates.	1	2	3	4
26. Lack of interest in topic.	1	2	3	4
27. Feeling that the teacher cares about me as a person.	1	2	3	4
28. Male teacher.	1	2	3	4
29. Feeling tired.	1	2	3	4
30. Interpersonal conflict with a classmate.	1	2	3	4
31. Interest in the discussion topic.	1	2	3	4
32. Preparing a statement or question for homework before the discussion.	1	2	3	4
33. Time to think before speaking.	1	2	3	4
34. Feeling that my ideas won't be valued or appreciated.	1	2	3	4
35. Lack of knowledge about the topic.	1	2	3	4
36. Talking with a partner or in a small group first.	1	2	3	4
37. Recognition or encouragement from classmates.	1	2	3	4
38. Female teacher.	1	2	3	4
39. Judgmental or critical teacher.	1	2	3	4

**Directions:** Please circle the number of the answer that most accurately reflects your opinion for each of the following three statements.

	Agree	Disagree
40. Every student in a class has the responsibility to contribute to class discussions occasionally.	1	2
41. Being able to speak up in a group of one's peers is an essential skill for a student to have.	1	2
42. Participating in class discussions is a matter of personal choice. It is not essential that everyone contributes in this way.	1	2

**Participation Checklist**

**Directions:** Check all statements that accurately complete the following bolded sentences:

**1) *When I choose to participate in class discussion, I do so because:***

- ☐ I am seeking information or clarification.
- ☐ I have something to contribute to the class.
- ☐ I learn by participating.
- ☐ I enjoy participating.
- ☐ Participation is part of my grade.
- ☐ I disagree with something the instructor said.
- ☐ I am trying to make the class more interesting.
- ☐ I feel obligated to do so when other students don't participate.
- ☐ Other (please specify) \_\_\_\_\_

**2) *When I choose NOT to participate in class discussion, I do so because:***

- ☐ Of the feeling that my ideas are not well enough formulated.
- ☐ Of the feeling that I don't know enough about the subject matter.
- ☐ Of the chance that I would appear unintelligent in the eyes of other students.
- ☐ I had not done the assigned reading.
- ☐ Of the chance that I would appear unintelligent in the eyes of the instructor.
- ☐ Of the large size of the class.
- ☐ Of the possibility that other students in the class would not respect my point of view.
- ☐ The course simply isn't meaningful to me.
- ☐ Of the possibility that the teacher would not respect my point of view.
- ☐ Of the possibility that my comments might negatively affect my grade.
- ☐ Other (please specify) \_\_\_\_\_

**Participation Perception and Behavior Questionnaire – Student Form**

**Directions:** Please circle the number which most accurately corresponds to how likely you think you would be to participate in the following situations:

**NOTE:** In each situation, assume that A) participation is included as part of the student's final overall grade for the course B) no situation is the only one in which students may earn participation points C) each situation is independent of all other situations listed D) students are always adequately prepared for class

	Very unlikely	Somewhat unlikely	Unsure	Somewhat likely	Very likely
A professor poses a question to the entire class and waits for someone to volunteer a response.	1	2	3	4	5
A professor asks students to read the material for the next class period and then provide 3 thoughtful questions about the material.	1	2	3	4	5
A student asks a question and the professor asks other students to comment on the question.	1	2	3	4	5
A professor asks a question and, after no student volunteers an answer, calls on you specifically to answer the question.	1	2	3	4	5
A professor lectures and asks if anyone has a question before the professor moves on in the material.	1	2	3	4	5
During class, a professor places students in small groups and asks them to discuss a topic among themselves.	1	2	3	4	5
A professor gives a brief introduction of the topic to be discussed next time and allows students to write response papers on the topic.	1	2	3	4	5
A professor encourages students to meet in small groups outside of class in order to discuss the material and share ideas.	1	2	3	4	5
A professor asks students to join small groups and then to present their ideas on a topic in front of the class.	1	2	3	4	5
A professor assigns readings and then asks students to post responses on the class website for other students to view and comment on.	1	2	3	4	5

### Participation Perception and Behavior Questionnaire – Student Form, cont.

**Directions:** Please circle the number which most accurately corresponds to how likely you think an average IWU student would be to participate in the following situations:

**NOTE:** In each situation, assume that A) participation is included as part of the student's final overall grade for the course B) no situation is the only one in which students may earn participation points C) each situation is independent of all other situations listed D) students are always adequately prepared for class

	Very unlikely	Somewhat unlikely	Unsure	Somewhat likely	Very likely
A professor poses a question to the entire class and waits for someone to volunteer a response.	1	2	3	4	5
A professor asks students to read the material for the next class period and then provide 3 thoughtful questions about the material.	1	2	3	4	5
A student asks a question and the professor asks other students to comment on the question.	1	2	3	4	5
A professor asks a question and, after no student volunteers an answer, calls on a specific student to answer the question.	1	2	3	4	5
A professor lectures and asks if anyone has a question before the professor moves on in the material.	1	2	3	4	5
During class, a professor places students in small groups and asks them to discuss a topic among themselves.	1	2	3	4	5
A professor gives a brief introduction of the topic to be discussed next time and allows students to write response papers on the topic.	1	2	3	4	5
A professor encourages students to meet in small groups outside of class in order to discuss the material and share ideas.	1	2	3	4	5
A professor asks students to join small groups and then to present their ideas on a topic in front of the class.	1	2	3	4	5
A professor assigns readings and then asks students to post responses on the class website for other students to view and comment on.	1	2	3	4	5

**Please answer the following questions to the best of your ability. If you have alternate answers for different courses, please include all relevant answers along with the course level (i.e. 100, 200, 300, 400).**

Is participation included as a factor when your final grades are computed? If participation is included, what percent of the final grade is decided by participation?

Why do you think professors do or do not include participation in the grade?

What is your definition of "participation," and what do think should count as participation?

**Please describe how you think you would feel in each of the following situations:**

- 1) A professor poses a question to the entire class and waits for someone to volunteer a response.
- 2) A professor asks students to read the material for the next class period and then provide 3 thoughtful questions about the material.
- 3) A student asks a question and the professor asks other students to comment on the question.
- 4) A professor asks a question and, after no student volunteers an answer, calls on a specific student to answer the question.
- 5) A professor lectures and asks if anyone has a question before the professor moves on in the material.
- 6) During class, a professor places students in small groups and asks them to discuss a topic among themselves.
- 7) A professor gives a brief introduction of the topic to be discussed next time and allows students to write response papers on the topic.
- 8) A professor encourages students to meet in small groups outside of class in order to discuss the material and share ideas.
- 9) A professor asks students to join small groups and then to present their ideas on a topic in front of the class.
- 10) A professor assigns readings and then asks students to post responses on the class website for other students to view and comment on.



### Participation Perception and Behavior Questionnaire – Professor Form

**Directions:** Please circle the number which most accurately corresponds to how likely you think an average IWU student in your class would be to participate in the following situations:

**NOTE:** In each situation, assume that A) participation is included as part of the student's final overall grade for the course B) no situation is the only one in which students may earn participation points C) each situation is independent of all other situations listed D) students are always adequately prepared for class

	Very unlikely	Somewhat unlikely	Unsure	Somewhat likely	Very likely
A professor poses a question to the entire class and waits for someone to volunteer a response.	1	2	3	4	5
A professor asks students to read the material for the next class period and then provide 3 thoughtful questions about the material.	1	2	3	4	5
A student asks a question and the professor asks other students to comment on the question.	1	2	3	4	5
A professor asks a question and, after no student volunteers an answer, calls on a specific student to answer the question.	1	2	3	4	5
A professor lectures and asks if anyone has a question before the professor moves on in the material.	1	2	3	4	5
During class, a professor places students in small groups and asks them to discuss a topic among themselves.	1	2	3	4	5
A professor gives a brief introduction of the topic to be discussed next time and allows students to write response papers on the topic.	1	2	3	4	5
A professor encourages students to meet in small groups outside of class in order to discuss the material and share ideas.	1	2	3	4	5
A professor asks students to join small groups and then to present their ideas on a topic in front of the class.	1	2	3	4	5
A professor assigns readings and then asks students to post responses on the class website for other students to view and comment on.	1	2	3	4	5

### Participation Perception and Behavior Questionnaire – Professor Form, cont.

**Directions:** Please circle the number which most accurately corresponds to how likely you think an average IWU student in an average IWU professor's class would be to participate in the following situations:

**NOTE:** In each situation, assume that A) participation is included as part of the student's final overall grade for the course B) no situation is the only one in which students may earn participation points C) each situation is independent of all other situations listed D) students are always adequately prepared for class

	Very unlikely	Somewhat unlikely	Unsure	Somewhat likely	Very likely
A professor poses a question to the entire class and waits for someone to volunteer a response.	1	2	3	4	5
A professor asks students to read the material for the next class period and then provide 3 thoughtful questions about the material.	1	2	3	4	5
A student asks a question and the professor asks other students to comment on the question.	1	2	3	4	5
A professor asks a question and, after no student volunteers an answer, calls on a specific student to answer the question.	1	2	3	4	5
A professor lectures and asks if anyone has a question before the professor moves on in the material.	1	2	3	4	5
During class, a professor places students in small groups and asks them to discuss a topic among themselves.	1	2	3	4	5
A professor gives a brief introduction of the topic to be discussed next time and allows students to write response papers on the topic.	1	2	3	4	5
A professor encourages students to meet in small groups outside of class in order to discuss the material and share ideas.	1	2	3	4	5
A professor asks students to join small groups and then to present their ideas on a topic in front of the class.	1	2	3	4	5
A professor assigns readings and then asks students to post responses on the class website for other students to view and comment on.	1	2	3	4	5

**Please answer the following questions to the best of your ability. If you have alternate answers for different courses, please include all relevant answers along with the course level (i.e. 100, 200, 300, 400).**

Is participation included as a factor when you compute final grades for your students? If participation is included, what percent of the final grade is decided by participation?

Why do you include or not include participation in the grade?

What is your definition of "participation," and what do think should count as participation?

**Please describe how you think an average IWU student would feel in the following situations:**

- 1) A professor poses a question to the entire class and waits for someone to volunteer a response.
- 2) A professor asks students to read the material for the next class period and then provide 3 thoughtful questions about the material.
- 3) A student asks a question and the professor asks other students to comment on the question.
- 4) A professor asks a question and, after no student volunteers an answer, calls on a specific student to answer the question.
- 5) A professor lectures and asks if anyone has a question before the professor moves on in the material.
- 6) During class, a professor places students in small groups and asks them to discuss a topic among themselves.
- 7) A professor gives a brief introduction of the topic to be discussed next time and allows students to write response papers on the topic.
- 8) A professor encourages students to meet in small groups outside of class in order to discuss the material and share ideas.
- 9) A professor asks students to join small groups and then to present their ideas on a topic in front of the class.
- 10) A professor assigns readings and then asks students to post responses on the class website for other students to view and comment on.