

Student's Attitude Towards Participation During Class Time

By
SYLVELYN JO A.
ALMANZOR,
JUDITH MARIANNE S.
DAGUMAN, AND
PAULINE NICOLE T. TAN

*De La Salle University
Manila, Philippines*

The development of a new self-assessment tool, the measure of student participation scale which is created by the researchers, aims to aid in the self-assessment processes of students. Though it was created for Filipino-based classroom setting, the researchers deem it to be utilized by other settings to help in measuring their students' view on classroom participation as well as in making them realize their own attitude towards classroom participation. Originally, four (4) sub-scales or factors were extracted from student participation items which are based on the previous study of Howard, Short, and Clark (1996) and these are: Bank of knowledge, civil attention, interactive facilitative orientation, and knowledge transmission. A total of one hundred (100) items were created divided equally into twenty-five (25) items per factor and these were administered to three hundred (300) college students with no particular course or age range at target except that they should have taken at least one (1) major class already on the course of their stay in school. To further validate if there could still be a better model for scaling student participation, the researchers created another model and they tested it in the same way as to how they tested reliability and validity of the first scale. Results show that the first model of student participation, which is based on Howard, Short, and Clark's (1996) had a better fit, reliability, and validity.

Keywords: Self-assessment, Student Participation

Participation is the student's active engagement in the classroom to promote effective learning (Howard, Short, & Clark, 1996). The student's activities may include reciting in class, having conversations with the instructor or their classmates, doing written outputs, and sharing ideas with others (Howard, Short, & Clark, 1996; Howard & Henney, 1998). Based on these examples, clearly, a participative learner is one that is not passive. As Fraser (1982) defines it, it (participation) is the extent to which students are encouraged to participate rather than be passive

listeners. Both researchers defined participation then as students who *actively* engage in classroom discussions, rather than be passive learners who simply take in knowledge.

In a classroom-based learning, participation can be a positive feedback given by students to either the lesson or the teacher which can lead to possible ways in the development of an improved classroom learning experience. Because of this, the researchers purposely gave student participation in the classroom setting as their focus. With all the tedious discussions done in college classrooms, the researchers wanted to find a way to measure how much one student can actually have an interest in participating in class. Aside from this, they too want their fellow students to realize how much interest they have left for simple classroom discussions and/or lectures. Preferably, the researchers wished to target students who already have taken at least one major class in college.

The main purpose of the present study is to construct a scale that would be able to measure student participation during class time and to check if the factor structure of the model presented by Howard, Short, and Clark (1996) would fit the data. The current study also aims to address if the students in the university are participating during their class time. Since the university has adopted already a transformative learning pedagogy, the curriculum should be more student-centered and the students are engaging themselves in the learning process actively.

Howard, Short, and Clark (1996) broke down student participation into four factors: (1) bank of knowledge, (2) civil attention, (3) interactive facilitative orientation, and (4) knowledge transmission orientation.

Bank of Knowledge

The bank of knowledge typically refers to students who make minimal contributions during class discussions and get their information from the instructor alone (Howard, Short, & Clark, 1996). An example of this kind of participation is students who listen and take down notes during the lecturer's lesson and do not share their own insights or thoughts with the instructor or the class.

Civil Attention

This is similar when students appear to be paying attention in order to mask that they are actually not focused on what is being discussed (Howard, Short, & Clark, 1996). An example of this so-called "mask" is when instructors give lectures, student/s tend to look at the speaker without actually understanding what he/she is saying.

Knowledge Transmission Orientation

This factor is manifested when the students tend to memorize material solely for the sake of reproducing it on an examination (Howard, Short, & Clark, 1996). This is when students focus on the notes given by the instructor, use the information on the test, but do not remember it after it has been discussed and tested.

Interactive Facilitative Orientation

This refers to the “deep learning process” which focuses on the primary subject or topic through the use of materials and outputs (Howard, Short, & Clark, 1996). When an instructor gives alternative forms of assessment to the students in order for them to understand one topic which is being discussed, this can be considered as an example of this factor.

Three out of four of these factors show some negativity. Actually, these factors are increasing as to whether or not one student really is an active learner in the classroom setting. In Bank of Knowledge, there is not much classroom participation aside from the fact that the learner is physically present in class. In civil attention, the learner gives some attention to what is happening in class by giving time to glance at the lecturer. In knowledge transmission orientation, learning is happening only to a certain extent which is normally based on the effect of grades to the learner. A learner can only be said as a fully active class participant if he/she arrives at the level of Interactive Facilitative Orientation. With these subscales, the researchers can find out how affective transformative learning is in universities in terms of student participation in class time.

The next part of the review is divided into two main sections: (1) Student participation in the classroom; and (2) previously used scales.

Student Participation in the Classroom

Alpert (1991) found that students resist in the classroom for three reasons: (1) the components of adolescent culture, such in language and interests; (2) upper-middle class aspirations for success; and (3) the teaching approach used. Students resisted in four ways: (1) they were either silent (not answering) or mumbling their answers; (2) they argued with their teacher over a topic; (3) they conformed to the rules of the teacher, although they were silent; and (4) resisted the rules which were considered a danger to their grades (Alpert, 1991). The findings show that students' behaviors of resistance are common among other classes because the students feel it is a legitimate medium of expression and reaction in the classroom (Alpert, 1991). It is recommended to not keep the students productive for the entire class time because it will lead to behaviors such as socializing with their classmates, walking around the room, daydreaming, etc.

In addition to the factors which affect student resistance, there are factors which affect the actual participation in the classroom. Four factors affect student participation: (1) class size; (2) gender balance; (3) discipline of the course; (4) instructor behavior; and (5) instructor behavior (Crombie, 2003). Students said that in

larger classes, they are more reluctant to participate; in courses which are concerned with arts and social sciences, there is higher student participation than in courses with math and sciences (Crombie, 2003).

Lastly, Howard and Henney (1998) reported that there were three kinds of verbal contributions of students during class: (1) student initiated interactions; (2) instructor initiated interactions; and (3) directed questions. Student initiated interactions were the instances where the students interrupted the instructor's discussion to ask a question or make a comment without the invitation to do so (Howard & Henney, 1998). Instructor initiated interactions were the instances where the instructor invites students' comments and questions towards one student and he or she answered, it was considered a direct question. Students also enumerated reasons why they would participate in class. The most common answer of the students was that they participated in class was that they were "seeking information or clarification" (Howard & Henney, 1998). The other reasons why they participated were that they learned by participating, they have something to contribute to the class, and they enjoy participating. In addition to that, students gave their reasons for non-participation in their class. The reasons are as follows: (1) they felt that their reasons were not well formulated enough; (2) they felt they knew little about the subject matter; (3) they did not do the reading assignment; and (4) the class size was large (Howard & Henney, 1998).

Previously Used Scales

Crombie (2003) used the 24-Item Classroom Experience Questionnaire for his study. This scale measured the students' perceptions of their own behavior, of other students' behavior, and of their instructor's behavior (Crombie, 2003). The scale was broken down into three parts: (1) the activity level, which measured students' perceptions of their general level in class; (2) students' perceptions of their own behavior, which measured the frequently used method of raising one's hand in class and interrupting; and (3) students' perceptions of their instructor's behavior, which measured the instructor's "positiveness", personalizing, and probing for elaboration (Crombie, 2003). The last factor measured more of the instructor's reaction to the students' participation; such how much he encouraged the student for elaboration, and how often the use of the student's name was used.

Howard and Henney (1998) then used three scales in their study. The first scale was the Individualized Classroom Environment Questionnaire (ICEQ). It is five ten-item scales which measures the perceptions of classroom environment (Howard & Henney, 1998). It answered using a 5-point scale with responses Almost, Never, Seldom, Sometimes, Often, and Very Often. The five scales are personalization, participation, independence, investigation, and differentiation (Howard & Henney, 1998). An example of a participation item is, "There is a class discussion" (Howard & Henney, 1998). The second scale is the Classroom Environment Scale (CES). This questionnaire is composed of ninety items of true or false questions which are divided into nine subscales. These subscales are involvement, affiliation, teacher support, task orientation, competition, order and organization, rule clarity, teacher control, and innovation (Howard & Henney, 1998). An example of an involvement question is,

“Most students in this class really pay attention to what the teacher is saying” (Howard & Henney, 1998). The last scale used is the My Classroom Inventory (MCI). This scale was the simplest, as it was made for 8-12 year old students to answer and it was composed of only thirty-eight yes or no items (Howard & Henney, 1998). MCI had five subscales: satisfaction, friction, competitiveness, difficulty, and cohesiveness (Howard & Henney, 1998). An example of the satisfaction item is, “This class is fun” (Howard & Henney, 1998).

Method

Test Design

Originally, the scale developed by the researchers was composed of one hundred (100) items which they administered to three hundred (300) college students who have already taken at least one major class during the course of their stay in the university. Both genders were included as well as the variety of nationalities. These students came from different year levels and different colleges (Business and Economics, Liberal Arts, Computer Studies, Education, Engineering, and Science). The scale was equally divided into four (4) sections having twenty-five (25) items per subscale. The scale used a 5-point Likert scale that measures frequency of how often they follow the said behavioral description. These five points are as follows: (1) Very Seldom; (2) Seldom; (3) Sometimes; (4) Occasionally; and (5) Often.

Search for Content Domain

This factors used in the present study were student participation, its factors namely bank of knowledge, civil attention, interactive facilitative orientation, and knowledge transmission orientation, in the classroom setting. These subscales can be used by universities who wish to employ the transformative learning pedagogy for their students, as transformative learning is more student-centered rather than teacher-directed. This scale can also provide local researchers more information to how private school students in the Philippines behave in the classroom environment. It can also be a stepping stone for other developing nations who wish to study classroom participation of their students in their own countries' classrooms.

Item Writing and Review

The items used in this scale were reviewed by a faculty of English and applied linguistics and educational leadership. A checklist was provided to both faculties where they could judge which items to remove, retain, and/or revise. After having received the updated checklist, the researchers revised the necessary items deemed to be redundant.

Data Analysis

Preliminary Model and Revised Model. Originally, the researchers based their model on the Student Participation Factors model of Howard, Short, and Clark (1996).

The researchers decided to revise the previous model to make it more uniform and because of the insignificant value for its Cronbach's alpha. The researchers decided to remove the only positive factor, Interactive Facilitative Orientation. They equally divided the items of these factors and omitted one so that all three factors will be added 8 additional items. The score/value of the transferred items were switched to its negative coefficient since the other three factors were switched to its opposite in the Likert scale as well. The revised scale is now composed of ninety-nine items with 33 items per factor. All these items are negatively stated and the answers are thus inverted in the scoring of the scale.

Cronbach's Alpha. The researchers used several types of reliability measures. One of the statistical methods used by the researchers is the Cronbach's alpha reliability. The researchers particularly utilized this reliability test because of one of its key features which is that it gives assessment a multi-dimensional purpose. It views student participation not just as a whole but it emphasizes the different parts that make up assessment which in the researchers' case were the factors provided by Howard, Short, and Clark (1996). Preliminary to all other statistical methods used in the scale, the researchers decided to get the value of the Cronbach's alpha first to check the original scale's reliability. After conducting this to the original scale, the researchers also got the value for Cronbach's alpha in the second model.

Confirmatory Factor Analysis. Confirmatory Factor Analysis (CFA) was conducted for the scale in order to check how many factors can be rationally extracted from the model. This also tests the reliability of the scales/models.

Goodness of Fit Indices. The goodness of fit was used to check if the respondents and their results were of good fit to the scale. Noncentrality fit indices and single sample fit indices were the ones utilized by the researchers to check the goodness of fit of both scales.

Correlations and Covariances. Correlation matrices of both scales were by the researchers to show the relationship of each factor towards each other. Covariance matrices were also done to show how dispersed the values of each factors are.

Results

Cronbach's Alpha

With the original scale, the problem is that the Cronbach's alpha value is low. Its original value was 0.0898. Because of this, the researchers decided on creating or modifying the model into a new model for the scale. In the revised scale, the Cronbach's alpha was smaller as compared to the first scale which was solely based on the premise that student participation is composed of three negative factors and one positive factor. The value of the second scale's Cronbach's alpha is -.11348.

Table 1
Cronbach's Alpha of Original Scale

	M if Deleted	Var. if Deleted	SD if deleted	Item-Total Corralation	Alpha if deleted
IFO	149.12	54.52	7.38	.06	.03
BK	199.41	56.81	7.54	.02	.10
CA	198.82	53.23	7.30	.05	.05
KT	199.12	58.13	7.62	.03	.09

Note. Mean=248.82, SD=8.73, N=300, Cronbach's alpha=.089, IFO=Interactive Facilitative Knowledge, BK=Bank of Knowledge, CA=Civil Attention, KT=Knowledge Transmission Orientation

Table 2
Cronbach's Alpha of Revised Scale

	M if Deleted	Var. if Deleted	SD if deleted	Item-Total Corralation	Alpha if deleted
BK	264.02	48.33	6.95	-.08	.02
CA	264.91	43.36	6.58	.00	.00
KT	264.10	50.14	7.08	-.07	.00

Note. Mean=396.52, SD=8.28, N=300, Cronbach's alpha=.089, IFO=Interactive Facilitative Knowledge, BK=Bank of Knowledge, CA=Civil Attention, KT=Knowledge Transmission Orientation

Confirmatory Factor Analysis

In the Conformity Factor Analysis, the researchers utilized the Statistica program to evaluation the facet-to-domain analysis of data. The researchers' model shows the significance of each factor to student participation as a whole. Though the original had a better fit.

Figure 1
CFA Model of the Original Scale

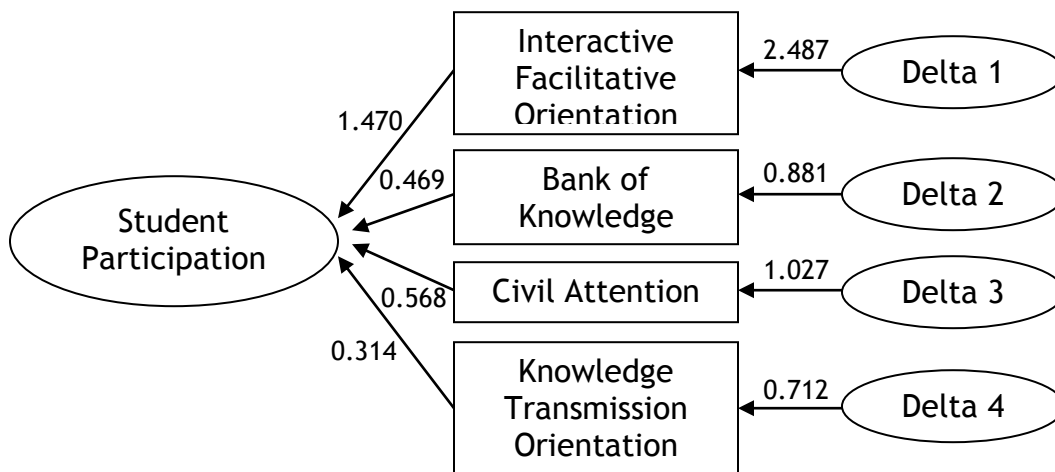
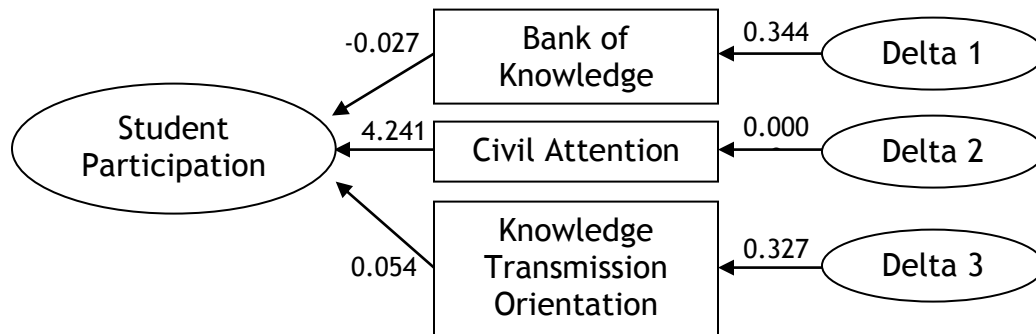


Figure 2
CFA Model of the Modified Scale



Single Sample and Noncentrality Fit Indices

The single sample fit indices of both scales were estimated and compared. Based on these measurement of goodness of fit, the modified model was not a better scale such that the values did not increase in its goodness of fit which means that the respondents who took this scale wasn't fit for it or vice versa. This goes the same to the results of the noncentrality fit indices.

Table 3
Single Sample Fit Indices of the Original and Modified Scale

	Model 1 Original Scale	Model 2 Modified Scale
Joreskog GFI	0.999	0.992
Joreskog AGFI	0.995	0.951
Akaike Information Criterion	0.055	0.046
Schwarz's Bayesian Criterion	0.155	0.108
Browne-Cudeck Cross Validation Index	0.056	0.046
Independence Model Chi-Square	1.946	3.746
Independence Model df	6.000	3.000
Bentler-Bonett Normed Fit Index	0.708	0.009
Bentler-Bonett Non-Normed Fir Index	0.72	0.782
Bentler Comparative Fit Index	0.72	0.638
James-Mulaik-Brett Parsimonious Fit Index	0.236	0.003
Bollen's Rho	0.124	-1.974
Bollen's Delta	-28.933	0.012

Table 4
Noncentrality Fit Indices for the Original and Modified Scale

	Lower 90% Conf. Bound	Point Estimate	Upper 90% Conf. Bound
Original Scale			
Population Noncentrality Parameter	0.000	0.000	0.012
Steiger-Lind RMSEA Index	0.000	0.000	0.079
McDonald Noncentrality Index	0.994	1.000	1.000
Population Gamma Index	0.994	1.000	1.000
Adjusted Population Gamma Index	0.969	1.000	1.000
Modified Scale			
Population Noncentrality Parameter	0.000	0.009	0.043
Steiger-Lind RMSEA Index	0.000	0.095	0.206
McDonald Noncentrality Index	0.979	0.996	1.000
Population Gamma Index	0.972	0.994	1.000
Adjusted Population Gamma Index	0.835	0.964	1.000

Correlation Matrices

In Tables 5 and 6, the correlation matrices of both scales are shown. It shows that there are more dispersed variable relationships in the second scale as compared to the first. This could mean that the factors in the original scale are more related with each other.

Table 5
Correlation Matrix of the Original Scale

	IFO	BK	CA	KT
IFO	1.00	--	--	--
BK	0.04*	1.00	--	--
CA	0.04*	0.01*	1.00	--
KT	0.02*	-0.02*	0.04*	1.00

Note. IFO = Interactive Facilitative Orientation; BK = Bank of Knowledge; CA = Civil Attention; KT = Knowledge Transmission Orientation

* $p < .05$

Table 6
Correlation Matrix of the Modified Scale

	BK	CA	KT
BK	1.00	--	--
CA	-0.04*	1.00	--
KT	-0.11*	0.01*	1.00

Note. BK = Bank of Knowledge; CA = Civil Attention; KT = Knowledge Transmission Orientation

* $p < .05$.

Covariance Matrix

The covariance matrices of both scales were also examined. These matrices show that the original scale only had one negative relationship between factors which is bank of knowledge with knowledge transmission orientation. The rest of the factors have a direct relationship which means that if someone gets a high score in one of the factors such as Bank of Transmission, he/she is most likely to have a high score for civil attention given that they have a positive covariance. As for the second scale which is found in Figure 16, it has two factors that are in an indirect relationship. These factors are civil attention and knowledge transmission orientation both with bank of knowledge.

Table 7
Covariance of Original Scale

	IFO	BK	CA	KT
IFO	17.52	0.82	0.75	0.42
BK	0.82	17.87	0.16	-0.32
CA	0.75	0.16	19.48	0.74
KT	0.42	-0.32	0.74	16.18

Note. IFO = Interactive Facilitative Orientation; BK = Bank of Knowledge; CA = Civil Attention; KT = Knowledge Transmission Orientation

Table 8
Covariance of Modified Scale

	BK	CA	KT
BK	25.71	-0.10	-2.72
CA	-0.10	24.81	0.23
KT	-2.72	0.23	23.23

Note. BK = Bank of Knowledge; CA = Civil Attention; KT = Knowledge Transmission Orientation

Discussion

The original scale was a better scale in terms of goodness of fit as to the modified scale but it still showed poor Cronbach's alpha as well as the values of its parameter estimates and standard error values.

Revised Model Validity and Reliability

The revised and modified model actually shows smaller standard error values but then its parameter estimates are more dispersed as compared to the original scale. The researchers decided to get the reliability and validity of this new model through Confirmatory Factor Analysis, Cronbach's Alpha, and the other Indices (both single sample and noncentrality fit) to measure the goodness of fit of this new model.

The original scale's discrepancy function which is 0.002 shows that it is a good fit because it should really be less than 5. Next, the Maximum Likelihood (ML) Chi-Square (χ^2) is equivalent to 0.568 which should not be significant therefore it is a good fit. Then, the Root Mean Square (RMS) Standardized Residual is equivalent to 0.014 which is less than 0.06 and thus, it is a good fit.

The scales' Steiger-Lind RMSEA Index is equivalent to 0.00 which is also a good fit because it should be less than 0.05. Its McDonald Noncentrality Index is also 0.994 and is again a good fit since it should be greater than 0.95. The Population Gamma Index is 0.969 which is greater than 0.95 and is a good fit.

The scales' Joreskog GFI is equivalent to 0.999 which is not a good fit since it should be greater than 0.95. Its Joreskog AGFI is equivalent to 0.995 which is greater than 0.90 is a good fit. Its Akaike Information Criterion (AIC) which is 0.055 is less than 1.0 and thus a good fit. However, the Bentler-Bonett Normed Fit Index is 0.708 is not a good fit since it should have been greater than 0.90.

All in all, 9 out of 10 criterions showed that the original scale is a good fit so we can say that it is the more acceptable model.

Arriving at this conclusion brings us back to the original purpose of this scale. We aimed to create a scale and we also aimed at checking the factor structure of the model. In Howard, Short, and Clark's (1996) framework on student participation, based on the results that we have gathered, these factors are indeed factors that compose student participation. Though some may be negative, they help in measuring student participation as well. Because of this, the researchers have concluded that student participation really is better with the four factors complete as compared to that of the three negative factors alone. They have proven that student participation is a two-faceted figure that has both a positive and negative side that need not have an equal ratio with each other. Visibly, it is rarely seen that there are more ways to measure if a student does not participate in class as compared to measuring a student that really participates. This statement is backed up by the existence of the three negative factors of student participation and its ratio to the only positive factor which is interactive facilitative orientation. In contrast to the modified three-factor model, though it was more uniform in structure, the results showed that student participation cannot best be measured only in one area or that measuring the absence of participation will not suffice.

The four factors namely bank of knowledge, civil attention, knowledge transmission orientation, and interactive facilitative orientation are of significant importance in the measure of student participation. To fully support this statement, the researchers have broken down into simpler explanations how each factor is truly important to the latent variable that is student participation. It is *evident* in a regular classroom setting that these four factors exist. For the first factor which is bank of knowledge, there are truly students who only rely on the instructor's knowledge for their own learning. Some students do not wish to participate and they simply comply with what the instructor is stating. The instructor then becomes *their* bank of knowledge (Howard, Short, & Clark, 1996).

The second factor, civil attention, can also truly be proof enough of the lack of student participation and this is usually *felt* by the instructor. It may not be physically

seen but it can be tested that there will be students who don't participate and who only *pretend* to be listening (Howard, Short, & Clark, 1996).

The third factor, knowledge transmission orientation, exists in its context as "surface learning" which all learners undergo. It is when students learn simply because they find it necessary for extrinsic motivational desires such as simply the skill of memorizing for the sole reason of passing an examination. This happens, if not all, then to the most of the student population (Howard, Short, & Clark, 1996).

Finally, there exists the last factor which was proven important by the researchers which is the interactive facilitative orientation. The researchers tried to create the scale without measuring this factor simply to create a uniform scale that measures a more specific variable which was the absence of student participation. The problem, however, is that the researchers found out that there was no way of possibly creating a good scale without measuring the whole aspect of student participation. In short, they couldn't create a good scale that would ignore either the negative side or the positive side of student participation. In order for student participation to exist, both sides should be taken into consideration. The fourth factor, interactive facilitative orientation, is the stage where learning has fully developed. In the words of Howard, Short, and Clark (1996), it is the stage of "deep learning which focuses on the underlying meanings of projects and reading". The researchers reiterate that without this factor, there wouldn't be a good scale that would fully measure student participation as it serves important and is proven by this study that student participation *is* a two-faceted variable that needs both its negative side (absence factors) and its positive side (presence factor).

Originally, the scale was answered by students at a University in Manila in the Philippines but because of the variety of nationalities that the school has, the researchers deem it to be adapted by different cultures who wish to pursue further studies on student participation, its two facets, and its factors. Though this study only proved that the four factors previously studied by Howard, Clark, and Short (1996) truly affect student participation, there is still a great possibility that there are more factors under student participation and that student participation need not only happen during class time.

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Appendix A Items per Factor

Bank of Knowledge - instructor has all the information and the students get their information from the instructor, while making minimal contributions

1. Whenever the teacher discusses, I listen to the teacher's lecture.
2. Whenever the teacher discusses, I take down notes.
3. Whenever the teacher discusses, I raise my hand.
4. Whenever the teacher discusses, I ask questions.
5. Whenever the teacher discusses, I contribute my knowledge by reciting.
6. Whenever the teacher discuss, even if he/she doesn't call my attention, I make side comments.
7. My teacher calls on me when I raise my hand.
8. My teacher always leads class discussions.
9. I participate in class discussions despite the size of the class.
10. I participate in class discussions despite the gender-biased topics or issues.
11. I participate in class discussions despite unclear concept of the topic in class.
12. I answer the teacher's questions during class discussions.
13. I answer the teacher's questions during class discussion in a clear, modulated voice.
14. I answer the teacher's questions during class discussions in complete thoughts.
15. I disrupt the class discussion to ask a question.
16. I disrupt the class discussion to make a comment.
17. I ask questions during a lull in the general discussion or conversation.
18. I make comments during a lull in the general discussion or conversation.
19. I read the text selections during class whether or not it was assigned on that day or not.
20. I ask questions during class discussions when the teacher invites the class to do so.
21. I make comments during class discussions only when the teacher invites the class to do so.
22. I answer the question when the teacher directs it towards me.
23. I answer the question, even though the question was directed to someone else.
24. I make comments when the teacher directs a question towards me.
25. I make comments aloud, even though the question was directed to someone else.

Civil attention - students appear to be paying attention to mask that they are not focused on what is being discussed

1. I make efforts in attending class.
2. I make sure to bring my homework.
3. I keep quiet during lecture time.
4. I usually nod my head in class whenever someone is discussing.
5. I take down notes or draw in my notebook/paper while the discussion is going on.
6. There are extra things in my notes that are not necessarily relevant to the discussion.
7. I am thinking of other things that are not necessarily related to the lesson.
8. I activate my imagination in class.
9. I keep my mind busy during discussions such that I don't necessarily think of what the lecturer is saying.
10. I read other things that are not necessarily inclined to the lesson during class time.
11. I catch up with friends/acquaintances during class time.

12. I prefer to do homework during discussions (whether or not if it's in that class).
13. I find ways to keep myself awake during discussion.
14. I listen to other people's conversations in class.
15. I make side comments which I keep to myself.
16. I tend to tell my seatmates what's on my mind (side comments, ideas, etc.) in class.
17. I read other texts in class.
18. I write down my thoughts during class discussion.
19. I text during class time.
20. I use any other technical devices such as iPods/MP3 players while class is going on.
21. I listen to what's going on outside the classroom.
22. I speak up my mind whenever something distracts me in class.
23. I skim through whatever is on my desk (notebook, books, etc.) while class in on-going.
24. I try to maintain eye contact with the teacher during discussion.
25. I wait for the teacher to call me before I recite.

Interactive facilitative orientation - process of "deep learning" which focuses on the primary subject/topic through the uses of materials and outputs

1. I review my notes before I go to class.
2. I review my notes after I go to class.
3. I read my handouts whenever they are given.
4. I read the texts assigned in class.
5. I take down notes while the lecture is going on.
6. I take down notes to sum up what I have learned in class.
7. I listen clearly in discussions.
8. I voluntarily raise my hand for class recitations.
9. I focus my attention to what is happening in class during class time.
10. I finish my homework.
11. I make sure that whatever I submit is something that is worth submitting.
12. I review for my quizzes.
13. I list down important details whenever I review my notes.
14. I re-write my notes to check its accuracy.
15. I re-write my notes for organizational purposes.
16. I do additional library researches to back-up my understanding in class.
17. I do additional online researches to back-up my understanding in class.
18. I talk to other about what I understand in class.
19. I ask my teacher/s whenever I don't understand something in class.
20. I ask others about their insights of the lessons in class.
21. I listen attentively when other people are reporting in class.
22. I have my own learning log for my classes.
23. I make sure I fully understand every lesson discussed in class by discussing it to my classmates.
24. I ask the teacher questions during class discussion to further validate my understanding.
25. I listen to the different views that other people have about a lesson in class.

Knowledge transmission - students only memorize given material for the examinations

1. I review my notes before examinations.
2. I take down notes that can serve as guide for my examinations.

3. I write my own reviewer for examinations.
4. I listen attentively in class as a form of self-review.
5. I make sure I have a copy of the text that will be used for the examination.
6. I review the text for the examination.
7. I memorize the text for the examination.
8. I write down important terminologies that I need to memorize.
9. I ask someone to check if I have clearly memorized the keywords that might appear before an examination.
10. I listen during discussion and list down keywords that I think might appear in an exam.
11. I listen whenever my classmates review important keywords in class.
12. I suggest other possible keywords to my classmates to help them review.
13. I correct others' mistaken definitions of key terms.
14. I tell others if their concept is incorrect.
15. I only read to memorize.
16. I listen and repeat whatever is said by the teacher.
17. I talk while memorizing.
18. I verbalize what I'm reading to make memorizing easier.
19. I apply different reading strategies to help me memorize what I'm reading for an exam.
20. I memorize for an examination and focus only on what my teacher's exact words are.
21. I write down what I have memorized.
22. I create a checklist of the things that I need to memorize.
23. I listen well and mentally repeat what the teacher says in class.
24. I do a verbatim type of note-taking to make memorizing accurate.
25. I intend to be accurate whenever I define a concept/terminology thus avoiding a personal definition of it.