

**Action Research Study
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Title of the Study: What Effect Does Classroom Learning Environment Have on Students' Attitudes and Achievement?
Location or Institution (optional) Umm Al Qura Model Boys School
Abstract <p>The main purpose of this research was to identify if there is a relationship between classroom learning environment and students' engagement with their learning. In order to achieve the main purpose, my colleague and I conducted an action research study. We like this approach because it is a good way to find out a practical solution to the research question. We collected information from our students in grade 4/b by asking them to complete a brief questionnaire and having them improve their classroom environment for a couple of months. We also interviewed the homeroom teacher and got her reflection on the changes in students behaviours and outcomes. All data were analyzed descriptively and the results of the analysis were reported in the form of tables and discussed in accord with the research question.</p> <p>The results of our research indicates that well-arranged classroom environment could prevent some behaviour problems and establishes a safe, comfortable and enjoyable sense for learning. The findings also show that making a few changes in students' classroom environment can make a great difference in their academic outcomes.</p>
Grade Level: primary
Data Collection Methods: <ul style="list-style-type: none">• Questionnaires• Interviews
Subject/Topic: Science

What Effect Does Classroom Learning Environment Have on Students' Attitudes and Achievement?

By

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1. Introduction

I am science coordinator in an independent model school. The most important role of my job is to improve students' learning. It seems to me that improving students' learning can be done by support, influence, encouragement and inspiration of teachers and that can be done by a variety of methods. One technique is by assisting teachers to develop the knowledge and skills that are necessary to make changes in their practice which consequently led to improve students' learning. Another process is to increase students' motivation and attitude towards learning. However, throughout my work, I was shocked by the classroom environment. I recognized that most of the classrooms were messy, untidy and most of the displays on the wall were too old and not related to the topics. Students' bags were spread everywhere and there was no space for traffics. All classes had the same sitting arrangement which was sitting in groups; however students did their work individually and without talking to each other.

In my meeting with teachers, we discussed the classroom environment and its relation with students' outcome, I pointed out that Supreme Education Council (SEC) released the Professional Standards for Teachers which encompass the broad range of skills that includes a teacher needs to create a productive learning environment in which it influences learning and promotes positive behavior for all students. However, teachers and I were speaking two languages; teachers started to reflect on

how they were learning. They were looking at the classroom from a different point of view, some teachers said: Parents and SEC concern about the final results of students' assessment and they do not ask or try to know how student got his marks. Others teachers said that they are evaluated based on the results of the students not on how the classroom was or how students were seating in the classroom. I realized that most of teachers in my school lacked an understanding of the relationship between the classroom learning environment and students' outcomes. In other words, how the classroom environment could be used as a tool for facilitating teaching and learning interactions.

In short, I recognized that most of the teachers do not know or neglected the relationship between classroom learning environment and student's motivation with their learning. I also realized that most of teachers were taught in traditional classrooms in which teaching and learning was only teacher-dominated.

Thus classroom learning environment became a challenge or identified as an issue that needs investigation. It seems to me that I have to convince teachers to accept that the classroom environment should be used as a one way to improve student learning in my school. My colleague and I decided to form an action research study which helps to address the issue and seeks to obtain solutions to the problem (Creswell, 2008).

My colleague and I searched the library and the internet for studies and articles that related to classroom learning environment; we found many studies that examined many aspects of the classroom learning environment; Elizabeth et al (1998) pointed out that elementary students, who do not move from classroom to classroom, can spend between 900 and 1,200 hours in the same room each year; therefore, students have a right to study in an environment that is safe and meet their

needs. We also read studies that provided strong support for students' perceptions of classrooms and how these relate to the learning outcomes. Other studies suggested that purposeful attention to the learning environment can improve both teacher and student performance, attitude, and motivation. Moos (1979) studied the relationship between classroom environment and student satisfaction with the teacher. The Fraser and Fisher (1982) studies of differences between students' and teachers' perceptions of classroom environment; their studies showed that creating a pleasing classroom encourage feeling of community. So, a sense of community, along with appropriate instruction can help students succeed. Daniels (1989), also pointed out that 'Display' has a potential significant role for both representing and influencing learning, but it calls for investigation of the way it is actually perceived by the students. Savage (1999) studies considered the arrangement of the physical environment of the classroom as a way to improve the learning environment and to prevent problem behaviors before they occur. Savage also pointed out that the classroom environment acts as a symbol to students and others regarding what teachers value in behavior and learning. Croll,& Hastings (1996) pointed out that the physical arrangement can affect the behavior of both students and teachers, and that a well-structured classroom tends to improve student academic and behavioral outcomes.

2. Research question

My colleague and I started with the research question:

- Is there a relationship between the classroom learning environment and student's engagement with their learning?

3. Key Vocabulary: classroom learning environment

In this study the classroom learning environment refers to how students are seated, where the students and teacher are in relation to one another, and how classroom members move around the room; in addition how students respect each other and follow the rules in the classroom. The research on classroom environments suggests that classrooms should be organized to hold a range of activities throughout the day and to meet students' needs and the goals for teaching (Savage, 1999; Weinstein, 1992). Researches in classrooms indicated that the standards for determining what the effective classroom' layout is: the teacher's ability to see and be seen by all her students; facilitate ease of movement throughout the classroom; minimize distractions so that students are best able to actively engage in meaningful learning.

4. Methodology

My colleague and I believed that the classroom teachers must be willing to create a warm and an emotionally safe and supportive learning environment.

With the research question in mind, we decided to examine and enhance the classroom environment and its effects on student's learning and behaviour

4.1 Setting

The study was conducted in a Grade 4/b classroom from January to March 2008.

The collection of data was completed to coincide with the end of the first report of second semester. Twenty-five males students in the classroom, four of them on special needs. The students were of mixed ability. All students in the class received the same instruction. All students completed the questionnaire. Because no names

were placed on the survey the results reported include all students who actually responded of which there were 20 students).

The study depended on changing classroom environment. Student's perception pre- and post improving their classroom environment. The researchers follow up students' progress and improvement and interview some of classroom teachers.

4.2. Instrument

1- Questionnaire is a common method of data collection which provides an insight and often reveals themes that can be further examined (Ryan, 2006). The instrument chosen for this study was a questionnaire of students' perceptions of classrooms' environment. This questionnaire was developed in order to address the research question. The questionnaire was drawn from different sources: The Fraser and Fisher (1982), Dorman (1999) and (Tanner, 1987). The final draft is consisted of ten statements that are easily read so that students can complete the questionnaire without much trouble.

Statements included:

1. Does your class seem organized?
2. Is your classroom a happy place ?
3. Is the room a quiet place to work?
4. Do you feel proud when you share a project with the class?
5. Do you get to make choices about the display on the wall?
6. Do you understand the classroom rules?
7. Do you follow the classroom rules?
8. There is a consistent routine in the classroom that is understood by the student
9. Can you see the white board from where you are sitting?
10. Do students in this class help each other?

2- An interview with some of classroom teachers (Arabic, English, Mathematics, Science)

After obtaining the approval from the principal to apply the action research plan, my colleague and I handed the questionnaire out to grade 4/B students. They filled it up and we collected the results on the same day. Then we analyzed the results as in Table 1. based on the data analyses, my colleague and I emphasized that there are a number of factors in the management of classroom environment that are under teachers' control and these factors are related to each other as well as to students' outcomes and behaviours . After that we met with grade 4/B class home teacher for discussing the effect of classroom environment on students outcomes and behaviours.

Classroom teachers of grade 4lb started to change classroom environment according to our discussion. After five weeks, my colleague and I repeated the same questionnaire. We noticed that students appeared more confident in themselves and they were proud of their classroom.

After that my colleague and I interviewed grade 4/B homeroom teacher .

We did the interview during school time. Interview questions were:

1. To what extent are students' motivation and skills increased as a result of the change in their classroom
2. How much concern or interest does students show about classroom rules;
3. To what degree is the students' behaviour improved
4. To what extent teachers believe that classroom learning

environment can improve students behavior and learning outcomes.

5. Results of the Research

This section presents the results of the survey data used to determine students' perceptions of their classroom pre and post the improvement/ changes of grade 4/b classroom environment.

Twenty students were surveyed. A summary of the results of the analysis appears in Tables 1 to 3. All results reported are for the percentage of the students choosing to the "Always" with the statements.

Students' perceptions of classroom learning environment

Table 1: Students' perceptions of the classroom before improve its environment

Items no.	Items in words	Always		Sometimes		Seldom	
		# students	%	#students	%	#students	%
1	Does your class seem organized?	2	10%	-		18	90%
2	Is your classroom a happy place ?	1	5%	2	10%	17	85%
3	Is the room a quiet place to work?	1	5%	5	25%	14	70%
4	Do you feel proud when you share a project with the class?	18	90%	1	5%	1	5%
5	Do you get to make choices about the display on the wall?	7	35%	3	15%	10	50%
6	Do you understand the classroom rules?	5	25%	-		15	75%
7	Do you follow the classroom rules?	4	20%	3	15%	13	65%
8	There is a consistent routine in the classroom that is understood by the student	5	25%	1	5%	14	70%
9	Can you see the white board from where you are sitting?	5	25%	1	5%	14	70%
10	Do students in this class help each other?	6	30%	2	10%	12	60%

- The results in Table 1 reveal generally that only 10% of the students in grade 4/b, always think their classroom to be always an organize place and no more than 5% of the students consider the classroom as happy and quiet place (Items 1,2,3).
- Only five students (25%) of grade 4/b understand the rules of the classroom and believe there is consistent routine that is understood (Items 6,7,8).
- In statement 5, it is clear that 35% or seven students were asked about their opinions about the display on the wall in their classroom.

- it is clear that most of students (90%) feel proud when they have a chance to share or make a project with the class.
- Approximately 70% of the students in grade 4/b do not see the whiteboard from their seats in the classroom. (Item 9).
- Only 6 or (30%) of grade 4/b students always collaborate and help each other.

Students' perceptions of classroom learning environment

Table 2: Students' perception of classroom after improve its environment

Items no.	Items in words	Always		Sometimes		Seldom	
		# students	%	#students	%	#students	%
1	Does your class seem organized?	9	45%	6	30%	5	25%
2	Is your classroom a happy place ?	14	70%	2	10%	4	20%
3	Is the room a quiet place to work?	11	55%	5	25%	4	20%
4	Do you feel proud when you share a project with the class?	19	95%	1	5%	-	-
5	Do you get to make choices about the display on the wall?	14	70%	4	20%	2	10%
6	Do you understand the classroom rules?	16	80%	4	20%	-	-
7	Do you follow the classroom rules?	13	65%	6	30%	1	5
8	There is a consistent routine in the classroom that is understood by the student	12	60%	1	5%	7	35%
9	Can you see the white board from where you are sitting?	17	85%	1	5%	2	10%
10	Do students in this class help each other?	11	55%	2	10%	7	35%

- Results in Table 2 indicate that more than 45% of the students believe their classroom is organized, happy and quiet place to work and study compared with 10% of the students before improve the environment of the classroom (Items 1,2,3).
- Around all the students tend to be pleased and proud of their classroom when they have got the opportunity to do display or project and hang it to the wall.

Comparisons between students' perceptions of classroom environment pre and post-improve its environment.

Table 3

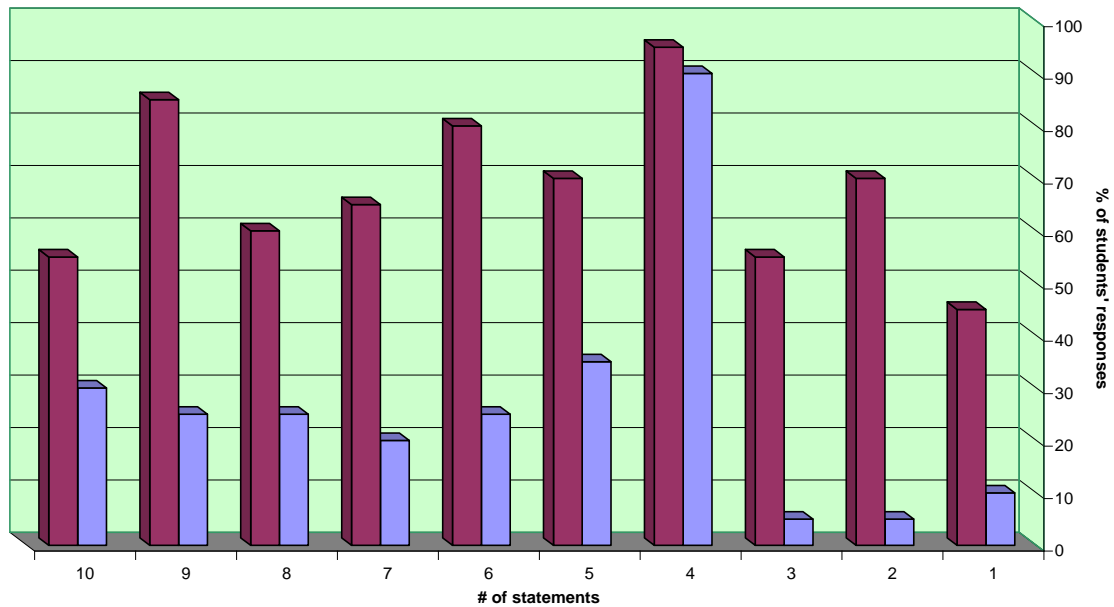
Items no.	Items in words	Students' perceptions	
		After improvement	before improvement
		Students%	Students%
1	Does your class seem organized?	45%	10%
2	Is your classroom a happy place ?	70%	5%
3	Is the room a quiet place to work?	55%	5%
4	Do you feel proud when you share a project with the class?	95%	90%
5	Do you get to make choices about the display on the wall?	70%	35%
6	Do you understand the classroom rules?	80%	25%
7	Do you follow the classroom rules?	65%	20%
8	There is a consistent routine in the classroom that is understood by the student	60%	25%
9	Can you see the white board from where you are sitting?	85%	25%
10	Do students in this class help each other?	55%	30%

- The wide range (65%) , (50%) between the impressions of students pre-renewed and post- renewed classroom environment in Statements 2 and 3 reveals that students' feeling towards their classroom environment is changed; they became more happy and enjoyable in their learning environment

- The wide range (55%) between the responses in statements 9 exposes that the physical layout also plays role seeing the board.

- The wide range (55%) between the responses in statements 6 shows that most of students became aware of classroom rules and its consequences.

Students' perceptions of classroom environment



■ Students' perceptions after improving classroom environment

■ Students' perceptions before improving classroom environment

6- Results of the interview with grade 4/B classroom home teacher

When my colleague and I interviewed a home teacher (H. T) of grade 4/B, she told us that she was dissatisfied with students behavior in the classroom and she was frustrated with their academic levels at the first semester. (H. T) pointed out that most of the students used to leave the room without asking permission while the teacher was helping another student, hit each other when they lined up to go to the library, laboratory, or Gym. However, most of their bad behavior have changed after they spent time arranging their class, make a variety of displays, keep the rules in the class, their seats were changed from time to time. The home teacher also told us that students have progressed in most of the subjects.

By the end of the meeting the home teacher was agreed that there must be a consistent rules in the classroom that must be understood by the students; however, it is important to listen to students' views about their classroom environment and teachers must invite and ask students to participate in any discussion about their classroom organization. Teachers also must discuss with the students the ways of putting displays on the classroom walls which will improved the students' behaviours and progress

7- Summary and conclusion

The main purpose of this research was to identify if there is a relationship between classroom learning environment and students' engagement with their learning. In order to achieve the main purpose, my colleague and I conducted an action research study. We like this approach because it is a good way to find out a practical solution to the research question. We collected information from our students in grade 4/b by asking them to complete a brief questionnaire and having them improve their classroom environment for a couple of months. We also held interview with homeroom teacher and got her reflection on the changes in students behaviours and outcomes.

All data was analyzed descriptively and the results of the analysis were reported in the form of tables and discussed in accord with the research question.

Conclusion

The results of the survey and the interview with homeroom teacher support previous researches indicating relationships between classroom learning environment and students' engagement with their learning (Daniels, 1989; Fraser & Fisher, 1982;

Moos, 1979). The results of our research indicates that well-arranged classroom environment could prevent some behavior problems and establishes a safe, comfortable and enjoyable sense for learning. The findings also show that making a few changes in students' classroom environment can make a great difference in their academic outcomes.

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Students' Questionnaire

Please check

the appropriate box هذا ليس اختبار عبر عن رأيك بحرية



Your thoughts about our classrooms	Always	Most of the time	Never
1. Does your class seem organized? هل يبدو صفك منظم؟			
2. Is your classroom a happy place to be? هل أنت سعيد لوجودك في هذا الصف؟			
3. Is the room a quiet place to work? هل الصف مكان هادئ للعمل؟			
4. Do you feel proud when you share a project with the class? هل تشعر بالفخر عند المشاركة في مشاريع الصف؟			
5. Do you get to make choices about the display in the wall? هل شاركت في إعداد اللوحات والوسائل في الصف؟			
6. Do you understand the classroom rules? هل تفهم قوانين التعامل في الصف؟			
8. There is a consistent routine in the classroom that is understood by the student هل يفهم الطلاب أن هناك قوانين للتعامل داخل الصف؟			
7. Do you follow the classroom rules? هل تتبع قوانين الصف وتنفذها؟			
9. Can you see the white board from where you are sitting? هل ترى اللوح من مقعدك؟			
10. Do students in this class help each other? هل يساعد التلاميذ بعضهم البعض داخل الصف؟			

Letter of information to the principal

January 15th , 2008

Dear Principal of umm al qura school:

I am science coordinator in Umm al qura independent model school. I would like to conduct a research about the influence of classroom learning environment into students' achievement. I want to examine (1) students perception about classroom environment (2) how the positive learning environment has an effect on students' results.

I would like to invite your school to participate in this research entitled "Classroom Learning environment; it impacts to students' attitude and achievement".

The information collected will be used for research purposes only, I will use pseudonyms for the students and a fictitious name for your school. All data will be kept in the school office.

If you have any questions about this research, or any comments to make now or later date, pleas contact me, Alia Hassan, at aliaouda@yahoo.com. Thank you for considering my request.

Sincerely,

Alia ouda and Nessreen Saleh

Letter of Consent for the Principal

Classroom Learning environment and its impact to students' attitude and achievement

I have read the Letter of Information relating to the above-titled action research. I understand the proposed research and am satisfied that any further questions have been answered to my satisfaction.

I understand that the information collected is for research purposes only.

I consent to participate in this action research.

Name (please print)

(Signature)