

## RELATIONSHIP BETWEEN CLASSROOM ENVIRONMENT AND SECONDARY SCHOOL STUDENTS' PERFORMANCE IN AGRICULTURAL SCIENCE IN BAUCHI METROPOLIS

**ABDULHAMID, Auwal**

Vocational & Technology Education Programme, School of Technology Education,  
Abubakar Tafawa Balewa University, P. M. B. 0248, Bauchi  
abdulhamidauwal@yahoo.com

### ABSTRACT

*The study was carried out to assess the classroom environment in relation to students' performance in Agricultural science in Bauchi metropolis. Four research questions were formulated and answered. The population was all secondary schools in Bauchi metropolis, and simple random sampling was used to select six (6) secondary schools, which represents the entire population. Data were collected using check list and previous results of NECO. Simple percentage and mean ratings were used to analyzed the data and it was found that there were unavailability and inadequacy of classroom facilities in most secondary schools. The performance of student in Agricultural science NECO examination for three years was below average and these may depend on shortage or non availability and adequacy of classroom facilities in the secondary schools. It is there by recommended that both federal, state, local government, and schools should provide and maintain a standard classroom facilities so as to reduce mass failure in examination.*

### INTRODUCTION

The importance of science in general and Agricultural Science in particular, is increasing every day. This is because the whole universe depends on foods. The concept of environment of a classroom, as applied to educational settings, refers to the atmosphere; ambience tone or climate that pervades the particular setting (Boy, 2003). Research on classroom environments has focused historically on its psychosocial dimensions with those aspects of the environment that focused on human behavior in origin or outcome (Prince, 2008).

Classroom environment is the mood or atmosphere created by a teacher in his or her classroom, the way the physical environment is set out (Dorman, 2002). The classroom environment influences the students' achievement, their self-esteem and participation in the lesson (Goh, Khine and Young, 2002). The most important aspect of classroom environment is the relationship between teacher and students. There must be elements of caring trust, and respect in the interpersonal relationship between teacher and students. An affective classroom-environment is one in which the teachers' authority to organize and managed the learning activities is accepted by the students, there is mutual respect and good rapport and atmosphere is one of purposefulness and confidence in learning (Ames, 2002). A key consideration is the extent to which the teacher is able to foster favorable perceptions towards, learning among students, by establishing in students' self-esteem and self-respect regarding themselves as learners (Fraser 2001).

Studies have reflected the strong tradition of investigating associations between classroom environments and student learning outcomes (Termon, 2005). The broad psychological concept of self-efficacy has been the subject of much theorizing and research over the past two decades (Bandura, 2007) within this field, one particular strong area of interest is that of academic efficacy which refers to personal judgment of one's capabilities to organize and execute courses of action to attain designated types of educational performance (Zimmer 2002). Consistent with self-efficacy theory, academic efficacy involves judgment on capabilities to perform task in specific academic domains. Accordingly, within a classroom learning environment measures of academic efficacy must assess students' perceptions of their competence to do specific activities. It is therefore, not surprising to find out that much academic efficacy research has focused on specific areas of the formal school curriculum (Pajares 2006). Teachers' has a profound effect on learning environments in their classroom, giving importance to the teaching of Agricultural Science and inculcating of positive attitudes to Agricultural Science in students. Successful implementation of teaching strategies to teach sciences is likely to result in the establishing and

maintaining of students positive attitudes to Agricultural Science and consequently achievement. Previous research has shown that the student perceptions of classroom environment are related to attitudes and science (Fisher and Waldrup, 2009).

The physical environment of classroom is one way to improve the learning environment and to prevent problem behaviors before they occur and affect the behavior of both the students and teachers. A well structured classroom tends to improve students and others, regarding what teachers' value in behavior and learning (Weinstein 2002). If a classroom is not properly organized to support the type of schedules and activities a teacher has planned, it can impede the functioning of the day as well as limit what and how students learn. However, a well-arranged classroom environment is one way to more effectively manage instruction because it triggers fewer behavior problems and establishes a climate conducive to learning.

Warm, well-run classroom environment begins with the classroom's physical lay-out, the arrangement of the desks and working space, the attractiveness and appeal of bulletin board, the storage of materials and supplies (Berliner, 2001). The physical layout reflects your teaching style if you want students to collaborate in small group, for example organize them around tables or clusters of desks for frequent while group discussions, try a circle or u-shaped desk configuration, if you plan on an individualized, self-paced curriculum, you might set up learning stations. The physical layout should also reflect you the teacher. Do not hesitate to give the classroom your personal touch with plants, art, tugs, posters, and may be some cozy pillow for the reading corner (Brown and Lent 2001).

Kauchak and Eggen, (2008) "creating a caring, student centered environments takes lots of thought and planning" basic bulletin boards are not enough, believe in a very colourful classroom with posters, functional bulletin boards, and other "interesting" items to enhance the environments such as a small refrigerator, television and stereo system with a CD player. Bear, (2008) held that physical environment of a classroom to be is "another teacher" in the sense that it can motivate students, enhance learning and reduce behavioral problems." Environment really is an extra teacher.

Brophy and Good, (2001) pointed out that personal teaching style and specific educational needs should largely determine how you design your classroom space. Teachers to forget about a way things have been always done and visit libraries, other schools and colleagues' classroom to identify ways of organizing learning space.

Many teachers prefer to create different areas within the classroom for example a classroom might feature a quiet reading corner, a discussion/conversation center, a large table for co-operative projects, spaces for wet or messy projects, learning centers or stations and individual working areas. Easily accessible materials and supplies can eliminate delays, disruptions and confusion as students prepare for activities. In a poorly arranged classroom students spend a lot of time waiting, waiting line, waiting for help, waiting to begin. To eliminate these waiting, frequently used items such as scissors to cut and paste several pictures and notices in several different areas.

Arrange the classroom so that you can make eye contact with every student and reach each student with ease (Hayman, 2003). However, no matter how you arrange desks, do not be afraid to make changes. "Set your classroom and make changes" (Bear 2008). Move the student desk on a regular basis so that all students learn to cooperate with each other. The spatial structure of classroom refers to how students are seated where the students' and teachers are in relation to one another, how classroom members move around the classroom and the overall sense of atmosphere and order (Wolfgang, 2006). Research findings suggest that classroom environment should be organized to accommodate a variety of activities throughout the day and to meet the teacher's instructional goals (Weinstein, 2002).

In addition, classroom environment should be arranged to set the stage for the teacher to address the academic, social and emotional needs of students (MacAulay, 2001). The standard for determining what spatial layout is most appropriate way to fulfill these functions include ways to maximize the teacher's ability to see and be seen by all his or her students; facilitates movements throughout the classroom; minimize distractions so that students are best able to actively engage in academics, provide each student and teacher with his or her own personal space and ensuring that each students can see presentation and materials pasted in the classroom. Most researchers agree that well-arranged classroom settings reflect the following attributes:

- a. Clearly defined space within the classroom that are used for different purposes and that ensure students know how to behave in each of these area (Quinn, Osher, Warger, Hanley, Bader and Hoffman, 2006).
- b. For instance, classroom will contain a high traffic area around commonly shared resources and spaces for teacher-led instruction or independent work, such as rows of desk.
- c. A classroom for students with learning behavior problems may have separate quiet spaces where a student can cool down or work independently (Quinn, 2000).
- d. Personal spaces that each student can call his/her own (Quinn, 2000 and Rainhart 2001) and area for large and small group activities that set the stage for specific kinds of interactions between student and teacher.
- e. There may be also space to store items, computer or audio visual equipment.
- f. Sitting students will facilitate on task behavior and academic learning whereas more open arrangement such as cluster facilitate social exchange amongst students (MacAulay, 2001).
- g. It is useful to strategically arrange the classroom per student in high traffic area, such as the space surrounding the waste basket and instructional areas and to set easily distracted students for away from highly traffic area (Bethehausen, 2008 and Quinn, 2000).
- h. All students should have a clear view of the teacher and vice-versa at all times. In addition the traffic pattern in the classroom allows the teacher to be in a close physical proximity in high maintenance students (Wolfgang, 2006). They hold that it should be done not only on personal behavior but in self minded situations.

The poor performance of students in Agricultural Science has been a great concern, therefore, managing the learning environment is both a major responsibility and an ongoing concern for every teacher even those with years of experience (Good and Brophy, 2002).

At broadest, society wide level management challenges the teachers because public schooling is not dependent on students' presence in the classroom. It is therefore not a sign that they wish to learn. Students presence is for instead just a sign that an opportunity exists for him to learn, on this case, many student of course do enjoy being in school. However, not all the student that wishes so does enjoy schooling, but primarily because teachers have worked to make classroom environment pleasant and interesting. They become motivated because you have positively created a conducive learning environment and have sustained it through skillful management (Jones, 2006). A well conducive classroom environment will also attract the students to be interested in learning by given them a sense of belonging in the classroom, for example if a teacher allows students to make some drawing on the wall of classroom (McGrath, 2003).

Finally, it is advantageous to keep the classroom orderly. The physical arrangement of the classroom conserves as a powerful sitting event for providing student effective instruction, facilitates or inhibit positive teaching and learning interaction as with other aspects of instruction. The physical arrangement should be reflective of the diverse cultural, linguistic and existence of student and be consistent with specific learning needs (Hoffman, 2000).

## **STATEMENT OF PROBLEM**

Across the country, increased accountability for public education has emerged over the last decade as a central theme in both the educational and political areas. Calls for higher standard of learning and more regions testing of the country's children (Daniel, 1999). As same time political leaders and public bodies have also focused on our nations' crumbling infrastructure particularly the worry state of many nations' schools (Bello, 2002). The effect of poor performance in Agricultural Science on the individual and the society makes it necessary to identify and remedy the factors of poor performance in Agricultural Science. Classroom environment is one of the factors that can lead to poor performance in Agricultural Science if it is not properly managed and handled (Orr and Klein, 1999). The classroom environment embraces the school, teachers and peers. A "positive" classroom environment is the climate where students' learning is maximized. A positive classroom environment must be provided by the school, teachers and peers to improve the performance of students in agricultural science. In a positive classroom environment, the students feel safe, nurtured and intellectually stimulated. This will definitely improve the learning of

Agricultural Science (Crotty, 2002). Whereas, in a negative classroom climate, the students feel uncomfortable, whether physically, emotionally or academically, this leads to poor performance in Agricultural Science (Hawley, Walberg and Heartel 2001). Therefore, the teacher, schools and peers must maintain a positive classroom environment for effective teaching and learning of Agricultural Science. Thus, the major problem in this study is to assess classroom environment in relation to students' performance in Agricultural Science.

### **PURPOSE OF THE STUDY**

The purpose of this study is to assess the classroom environment in relation to performance of students in Agricultural Science. Specifically, the study will

1. Determine the availability of classroom facilities in relationship with students' performance in Agricultural Science.
2. Determine the adequacy of classroom facilities in relationship with students' performance in Agricultural Science.
3. Determine students' performance in Agricultural Science (from previous NECO Exams).
4. Determine the effect of classroom environment on students' performance in Agricultural Science.

### **RESEARCH QUESTION**

1. Does availability of classroom facilities influence students' performance in Agricultural Science?
2. How adequate are the classroom facilities in relation to students' performance in Agricultural Science.
3. What was students' performance in Agricultural Science (from previous NECO Exams)?
4. Does classroom environment affect the students' performance in Agricultural Science?

### **METHODOLOGY**

#### **Design of the Study**

The design that was adopted in this research is a descriptive research and expo-factor design; it is concerned with conditions or relationships that exist between the variables by the use of check list, NECO results and opinions that are evident or trends that are developing (Ahman, 1999).

#### **Population of the Study**

The study was carried out in Bauchi metropolis. The population of this study is all the eleven (11) public and twenty one (21) private secondary schools in Bauchi metropolis.

#### **Sample and Sampling Technique**

The sampling technique was stratified random sampling, where secondary schools were selected to represent the entire population. The sample was six secondary schools, three public and three private. The rationale for the school sampling was to give each school equal chance in each stratum. All the students in the sampled schools that offer Agricultural Science in the years under consideration were used. There was no sampling for the students.

#### **Instruments**

The instrument used by the researcher in this study for data collection was check list and previous results. The classroom facility check list was designed by the researcher which was made up of an introductory letter to the school and the facility check list consisting of all the facilities in a standard classroom with two columns of available, not available and adequate, not adequate. Previous NECO result (2007-2009) was also used. The instrument was validated by three experts in school of Vocational and Technology Education Programme of Abubakar Tafawa Balewa University, Bauchi.

#### **Method of Data Collection and Analysis**

The data for this study was collected by the researcher from the sampled schools using check list. The data collected was subjected to simple statistical analysis. Percentage was calculated for each classroom facility.

The cut off bench mark was fifty (50) percent and above for availability, then less than fifty percent (50%) indicate non availability. The same was used for adequacy.

## RESULT

The results for this study is hereby presented and discussed based on the research questions.

### RESEARCH QUESTION 1:

Does the availability of classroom facilities influence students' performance in Agricultural Science?

Table 1: Availability of classroom facilities in the secondary schools in Bauchi metropolis

S/No	Items	% Available	% Not Available	Remark
1.	Designed for 40-45 Student	16.67	83.33	not available
2.	Flat floor	100	-	Available
3.	Moveable tables and chairs	100	-	Available
4.	25 sq ft space per students	16.67	83.33	not available
5.	Reference book shelves	-	100	not available
6.	Storage cabinet	-	100	not available
7.	Filling cases	-	100	not available
8.	A bulletin board at eye level	-	100	not available
9.	A black board	100	-	available
10.	Painted wall with tasteful Decoration	50	50	available
11.	Two doors opening outside	66.67	33.33	available
12.	6 windows (3 pairs)	66.67	33.33	available
13.	4 fluorescents electricity bulb	16.67	83.33	not available
14.	4 ceiling fans	16.67	83.33	not available
15.	Wall clock	-	100	not available
16.	Electric Power supply	16.67	83.33	not available
17.	Generator supply	16.67	83.33	not available

Table 1 above shows percentage of availability and non availability of classroom facilities in which item number 2,3,10,11,12,13, where found to be available facilities in the classroom while item number 1,4,5,6,7,8,9,14,15,16,17,18 were not available in the secondary schools in Bauchi metropolis. The number of items that are not available outweighs those that are available which means that classroom facilities are not available in most secondary schools in Bauchi metropolis.

### RESEARCH QUESTION 2:

How adequate are the classroom facilities in relation to students' performance in Agricultural Science.

Table 2: Adequacy of classroom facilities in the secondary schools in Bauchi metropolis.

S/N	Items	% Adequate	%Not Adequate	Remark
1.	Designed for 40-45 Student	16.67	83.33	not adequate
2.	Flat floor	66.67	33.33	adequate
3.	Moveable tables and chairs	83.33	16.67	adequate
4.	25 sq ft space per students	16.67	83.33	not adequate
5.	Reference book shelves	-	100	not adequate
6.	Storage cabinet	-	100	not adequate
7.	Filling cases	-	100	not adequate
8.	A bulletin board at eye level	-	100	not adequate
9.	A black board	100	-	adequate
10.	Painted wall with tasteful Decoration	16.67	83.33	not adequate

11.	Two doors opening outside	16.67	83.33	not adequate
12.	6 windows (3 pairs)	66.7	33.33	adequate
13.	4 fluorescents electricity bulb	16.67	83.33	not adequate
14.	4 ceiling fans	16.67	83.33	not adequate
15.	Wall clock	-	100	not adequate
16.	Electric Power supply	16.67	83.33	not adequate
17.	Generator supply	16.67	83.33	not adequate

Table 2 above presents the percentage of adequacy and non adequacy of classroom facilities in secondary schools in Bauchi metropolis. It shows that item number 2, 3, 13 are adequate while item number 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18 were not adequate in classrooms which means that the number of item that is not adequate exceed adequate items which indicate that most secondary schools in Bauchi metropolis do not have adequate classroom facilities.

### RESEARCH QUESTION 3:

What was student's performance in Agricultural Science (in pervious NECO Exams)?

Table 3: Grade distribution of student's performance in Agricultural Science from 2007-2009 in Bauchi metropolis.

Year	A	B	C	D	E	F	Cancelled	Total
2007	0	0.08	53.96	22.54	7.29	15.04	1.09	100
2008	0	0.16	62.87	6.22	15.28	11.25	4.17	100
2009	0.02	0.18	9.07	14.82	18.99	51.89	5.03	100
Mean	0.01	0.14	41.97	14.53	13.85	26.15	3.43	100

Table 3 above presents the percentage and mean of previous results in NECO for three years 2007-2009 in secondary schools in Bauchi metropolis. It indicates that mean score for A is 0.01, B is 0.14, C is 41.97, D is 14.53, E is 13.85, F is 26.15 and cancelled is 3.43. This indicates that students with credit pass and above had a total mean of 42.12% which is not up to fifty percent of pass in the examination.

### RESEARCH QUESTION 4

Does classroom environment affect the student's performance in Agricultural Science?

Table 4: Classroom environment effect on student's performance in Agricultural Science

S/No	Items	Availability	Adequacy	% performance
1.	Designed for 40-45 Students	not available	not adequate	42.16% have credit pass and above
2.	Flat floor	available	adequate	
3.	Moveable tables and chairs	available	adequate	
4.	25 sq ft space per students	not available	not adequate	
5.	Reference book shelves	not available	not adequate	
6.	Storage cabinet	not available	not adequate	
7.	Filling cases	not available	not adequate	
8.	A bulletin board at eye level	not available	not adequate	
9.	A black board	available	adequate	
10.	Painted wall with tasteful Decoration	available	not adequate	
11.	Two doors opening outside	available	not adequate	
12.	6 windows (3 pairs)	available	not adequate	
13.	4 fluorescents electricity bulb	not available	not adequate	
14.	4 ceiling fans	not available	not adequate	
15.	Wall clock	not available	not adequate	
16.	Electric Power supply	not available	not adequate	

- |                      |               |              |
|----------------------|---------------|--------------|
| 17. Generator supply | not available | not adequate |
|----------------------|---------------|--------------|

Table 4 above shows that out of 17 items about 11 items are not available and 14, items are not adequate. Therefore only 6 items are available and only 3 items are adequate while only 42.16% of the students have credit pass in three years from 2007-2009.

### **SUMMARY OF THE FINDINGS**

Based on the results of the study the following are the major findings:

1. Majority of the classroom facilities in secondary schools of Bauchi metropolis are not available
2. The available classroom facilities in Bauchi metropolis secondary schools are not adequate.
3. Fifty seven percent (57.84%) of students in Bauchi metropolis secondary schools were unable to get credit pass in Agricultural science NECO examination for three years (2007-2009).

### **DISCUSSION OF RESULTS**

The results of the study revealed that most of the secondary schools in Bauchi metropolis do not have enough classroom facilities that will promote teaching and learning of Agricultural science. Weinstein (2002) emphasized that the physical aspect such as temperature, noise, time of the day affect the ability of students to concentrate and maintain attention. The results also revealed that, majority of the secondary schools lack adequate classroom facilities necessary to promote high performance in Agricultural science examination which agrees with other finding that a well-arranged classroom environment is one way to ensure effective management of instruction because it triggers fewer behavioural problems and establishes a climate conducive to learning for effective performance (Weinstein, 2002).

Furthermore, the study shows that most of the students could not perform up to average. This result agrees with previous findings of Wolfgang (2006) who reported that students achieve better where there is agreement between the perceived classroom environment and actual classroom environment. In this study classroom and school environment was found to be strong predictors for both performance and attitude even when comprehensive set of other factors in the productivity model was held constant.

Lastly, the results of the study also revealed that percentage of failure exceeded pass with 57.84% which is a marked difference between percentage of pass with 42.16%, which indicate that classroom environment could have impact on students performance in Agricultural science, which agrees with previous research, Kathleen, (2001) positive classroom environment is characterized by high expectation, teacher warmth and encouragement, pleasant physical surrounding that eventually leads to better performance of students.

### **CONCLUSION**

The performance of Agric science students as discovered by this study falls below acceptable level (standard). This could be due to a number of factors among which is the inadequate classroom facilities. To achieve the required level of student's performance in Agric science and also to provide for a conducive teaching and learning environment, it is important that classroom facilities and teaching aid be adequately provided.

### **RECOMMENDATION**

Based on the findings from this research work, the following recommendations are made:

1. Government at both federal, state local government and schools should make available classroom facilities ready for use in the classroom for both students and teachers.
2. The three tiers of government and the schools should also make arrangement for regular maintenance and repairs of the Agricultural and other facilities.
3. If the national policy says that learners should study Agricultural science at secondary school, then it is worthwhile to provide sufficient number of classroom facilities that will enhance comfort of students in the classroom thereby encouraging better performance. If a student sees his classroom as a comfortable place to be he/she will be motivated to pay attention to the lesson and learn more.

4. The Federal, State, Local Government, and schools authority should take absolute care of the classroom facilities supplied, so to avoid misappropriate use of fund. Also, the facilities should be protected from predator that steal and sell school properties.
5. The school should improvise some classroom facilities to help the teachers and the students to perform better.
6. The teachers should also be creative and improvise relevant low cost facilities to help the students while waiting for the school authority to respond to their request.

## References

- Ames, C. (2002). Classroom Goals Structure and Student Motivation *Journals of Educational Psychology*. 84(6) 261-271.
- Ahman, M. (2008). An Analysis of Arithmetic's Problem Posing by Middle School Students. *Journal for Research in Mathematics Education*. 11(2) 67-73.
- Bethenhansen, S. (2008). Make Practice Modification to Your Classroom Literature in School and Clinics. In Classroom-Management and the Learning. *Environment Contemporary Educational Psychology*. Retrieved on 31/03/2010 from <http://en.wikibks.org/wiki/contemporary-educational-psychology/chapter>.
- Brown.J. P. and Lent, C. (2001). The JEA Study of Science 111. Changes in Science Education and Achievement: 1070 to 1984. Oxford: Pergamon press. Retrieved on 31/03/2011 from <http://en.wikibks.org/wiki/contemporary-educational-psychology/chapter> 7.
- Bear, G.G. (2008). Best Practices in Environment. In Thomas, A. and Grimes J. (Eds). Best Practices in School Psychology (1403-1420) Bethesda. MD: National Association of School Psychologists.
- Boy M. (2003). Perceptions of Science Classroom Environments of Lower Secondary Pupils: Gender Differences and Relationship with Science Achievement. Paper presented at the seventh Conference of the Education Research Association. Singapore.
- Bandura, A. (2007). Self-Efficacy : the Exercise of Control New York: Freeman. Retrieved on 13/3/2010. From <http://wik.ed.uiuc.edu/index.php/classroomenvironment>.
- Bello C. T. (2002). A study of Student Areas of Difficulties in Chemistry. *Nigerian Journals of Curriculum Studies*. 2 (20) 84-96.
- Berliner, D. C (2001). Effective Classroom Environment and Instruction; A Knowledge Base for Consultation, in J.L. Garden, J.E. Zins, and M.J. Curtis (Eds) Alternative Educational Delivery Systems: Enhancing Instructional Options for all Students (PP. 309-325).
- Brophy J. E. and Good, T. L. (2001). Teacher Behaviour and Student Achievement. In M.C Wittrock (Ed) Handbook of Research on Teaching (3<sup>rd</sup>.ed. pp. 328-375) New York: Macmillan.
- Crotty, J. (2002): Seizing the Days Engaging all Learners. Retrieved 13/3/2010 from <http://wik.ed.uiuc.edu/index.php/classroomenvironment>.
- Dorman, J.P. (2002). Classroom Environment Research Progress and Possibilities. *Queens Land Journal of Education Research* 18, 112-140.
- Daniel G.L. (1999). Learning Environments. In H.J. Walberg (ed). Evaluating Educational Performance: A Source Look of Methods. Instruments and Examples (Pp 81-98). Berkeley, CA, Mc Cutchan.
- Frisher, D. L. and Waldrip, B. G. (2009). Cultural Factors of Science Classroom Learning Environment, Teacher Student Interactions and Students Outcome, *Journal of Science Education and Technology* 33 (7) 20-21.
- Fraser, B. J. (2001) Science Learning Environments: Assessments Validity and Application.ink Retrieved on 31/03/2010 from <http://wik.ed.uiuc.edu/index.php/classroomenvironment>.
- Good, C. and Brophy; C.S. (2002). Designing the Instructual Environment Focus on Seating. Retrieved on 31/05/2011 from <http://en.wikibks.org/wiki/contemporary-educational-psychology/chapter> 7-
- Goh, S. C. Khine, D. J. and Young G. J. (2002) Psychosocial Climate and Student Outcome in Elementary Mathematical Classroom. A Multilevel Analysis. *Journal of Experimental Education* 64, 29-40.
- Hawley, G. D., Walberg, H. J and Heartel, E. H. (2001). Socio-psychological Environments and learning: A quantitative Synthesis. *British Educational Research*. 7, 27-36.
- Hayman, J.H (2003) The Classroom as a Unique Social System. In N.b. Henry (ed). The Dynamic of Instructional Groups Socio Psychological Aspects of Teaching and Learning (Fifty-ninth Year Book



- of the National Society for Study of Education, Part. Press 2, PP 53-83. Chicago: University of Chicago.
- Hoffman P.D. (2000) Teaching and Working with Children who have Emotional and Behavioural Challenges, Longmont Co: Sopris West. Retrieved 13/4/2010 from [http://en.wikibks.org/wiki/contemporary\\_educ.psy.chapter](http://en.wikibks.org/wiki/contemporary_educ.psy.chapter)
- Jones, F. P. (2006). Solving Discipline Problem, in H. Wolfgang and D. Carl and D. Glickman 1989 (Allyn & Bacon) Classroom – Management and the Learning Environment Contemporary Educational Psychology. Retrieved 19/5/2010 from <http://en.wikibks.org/wiki/contemporary-educ-psychology>
- Kathleen, C. (2001) School Improvement Research Series(SIRS). Retrieved 19/3/2010 from <http://wik.ed.uiuc.edu//index.php/classroomenvironment>.
- Kanchak, D. And Eggen, P. (2008) Introduction to Teaching becoming a Professional (3<sup>rd</sup>.ed) Upper Saddle River, N.J: Pearson Education.inc.
- Mac Aulay, D.J. W. (2003). Classroom Environment. A Literature Review. Educational Psychology. Retrieved 4/06/2010 from <http://www.articlesbasedcom/authors/>.
- MC Grath S. (2003). High School Science Classroom Learning Environment in Korea. Paper presented at the Annual Meeting of the National Association for Research in science Teaching. New York.
- Orr, S. B and Klein, M. F. (1999). Instruction in Critic Thinking as a form of Character Education, *Journal of curriculum and supervision*. 18 (1) 98-102.
- Pajaras, T. A. (2006). Gender Ethnicity Science Achievement and Attitudes. *Journal of Research in Science Teaching*, 33 (2) 901-933.
- Prince, J.W. (2008). The Classroom as a Unique Social System. In N.B. Henry (ed). The Dynamics of Instructional Groups Sociopsychological Aspects of Teaching and Learning (fifty-ninth Yearbook of the national Society for the study of Education, Part 2, PP. 53-82). Chicago: University of Chicago Press.
- Quinn, M. M. Osher. D. Warger, C. L. Hanley. T. Y. Badar, B. D and Hoffman C. C (2006). Teaching and Working with Children who have Emotional and Behavioural Challenges, Longmont, CO: sporis west.
- Quinn, M.M. (2000). Setting the Stage for Success. Assessing the Instructional Environments Preventing School Failure. Retrieved 3/4/2010 from <http://en.wikibks.org/wiki/contemporary-educational-psychology>.
- Rainhart, J. ( 2001). Handbook of Research in Geographical and Environmental Education 4 (1) 3.18.
- Termon.R. (2005). Success and Persistence in science, the influence of Classroom Climate. Yin Cheong Cheng. *Journal of Experimental Education*. 62:2004.
- Wolfgang, C.H (2006). The three faces of discipline for the Elementary School Teacher: Empowering the Teacher and Students: Boston: Bacon.
- Weinstein, C.S (2002). Designing the Instructional Environments Focus on Seating. Yin Cheng: *Journal of Experimental Education*. 62(1) 20-44.
- Zimmer, S.H. (2002). Using Classroom Environment Dimensions in the Evaluation of Adult Computer Courses. Paper Presented in Science Teaching, San Diego, C.A.