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**RESEARCH ARTICLE**

**ASSESSMENT OF STUDENTS' LEARNING ENVIRONMENT AND ITS RELATIONSHIP ON THE  
 TEACHING LEARNING PROCESS.**

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**Abstract**

It is significant to assess the learning environment of students either social or physical. The result of assessment is important in providing quality education to students learning institution as well. The primary objective of the study is to assess the learning environment of the student-respondents and its relationship to the teaching-learning process they experienced in school. Descriptive research method is used in the study with the aid of the questionnaire-checklist. The statistical methods used were some Descriptive Statistics and Kruskal-Wallis test. The study revealed that teaching processes established a sound relationship among the students and teachers applied various teaching methodologies which enhanced development. The results revealed as well that knowledge was meaningfully gained and values were strengthened because of the interactive and experiential activities which the respondents oftentimes experienced in school. On the assessment of student-respondents' on their learning environment in terms of the five components namely: 1.) Infrastructure 2.) Technology 3.) Benefits 4.) Research Experience 5.) External Exposure, infrastructure and technology were seldom observed or insufficiently provided by the school involved in the study while benefits, research experience and external exposure were oftentimes experienced by the respondents. The study showed that there was a significant difference between the learning and the teaching process in the aspects of psycho-social climate and teaching methodologies as perceived by the respondents. This implied that the various teaching methodologies and the sound relationship expressed by the teacher to their students contribute to a successful learning process. Highly significant relationship existed between the respondents' learning environment and the teaching-learning process that they experienced.

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**Introduction:-**

There are many factors that can affect students' learning. Education institutions and their faculty always attempt to create learning environment that are essential for learning. Cognitive psychology and constructivism are utilized to develop learning environment. However, most of the time the students do not take part in the planning process and implementation of their learning environments either because there is a lack of opportunity to express their suggestions and comments or they are simply ignored. The way people behave to their environment in accordance

with perceptions is being affected by conceptions. Students' perception of the characteristics of the learning environment affects students' approaches in quality of learning environment and outcomes (Konings, et al. 2005).

An approach that considers both the efficiency and effectiveness of social and physical environment together with the information technology embedded in it is called responsive commissioning. It may involve construction of new facilities or development of existing systems but it all begins in gathering and understanding information about the current facility. This can be done by soliciting feedbacks from various stakeholders and conducting post-occupancy assessment from the students themselves in order to have a clear picture of the advantages and disadvantages of their learning environment. The teaching and learning process are crafted concomitantly by physical, social and organizational climate as well as the designed learning environment in which are affected by the processes that take place within them. Both are significant in measuring continuously adjustment in order to improve the quality of education (Bernard, 2012).

This study intends to gather the assessment of students on their learning environment and its relationship to the teaching-learning process they experienced in school. The results of this research can be used to create recommendations that will help align teaching and learning styles with the use of learning environment effectively. Since academic institutions should always keep up with the fast changing technology and needs of the students, stakeholders should consider and give feedbacks about their learning experiences inside and outside their classrooms to ensure a more responsive management of schools to realize their objectives.

Elen and Lowyck (1998, 1999) have shown that there is a gap between the students' perceptions and experience of a learning environment and the designers' or administrators' intention. Clearly, there is a need to bridge this gap by establishing reciprocal relationships among administrators, teachers and students. The exchange of information about perceptions on learning environments can help adjust the plan for school designs (administrators), teaching methodologies (teachers) and learners' expectations and motivation (students).

In order to create this relationship and reach a common understanding, research must be conducted on how both physical and social aspects of a learning environment affect the learning process. According to Bernard (2012), in a publication entitled *A Place to Learn: Lessons from Research on Learning Environments*, "to understand this relationship, the following questions must be answered: How does one define 'a place to learn'? Why is it that children learn more effectively when there is a clear connection between the place of learning and the world in which they live? How can the different elements of learning environments be assessed in relation to local, national and international definitions of quality?"

The effectiveness of projects and programs aimed at increasing the quality of education can only be sustained through constant cycle of assessment, reflection and incremental improvement. This inspired the researcher to conduct this study, to assess the learning environment being offered at the university in students' perspective and hopefully to inspire and motivate administrators and teachers to make an optimal learning environment a reality. Several literatures were cited in the study to strengthen the importance why there is a need to conduct the present undertaking.

As cited by Sessoms (2008) teachers are responsible from planning stage up to facilitation of learning driven with technology. Students on the other hand, are responsible for developing and demonstrating their competencies. In the planning phase, it is teachers' responsibility to reflect on what treatment will enhance cognitive development for students.

Meanwhile, students do not always experience the conduciveness of learning environment as it is intended to be. Students' perceptions on the other hand, decide how much they will learn and how learning environment will be effective. Conceptions of learning have shown remarkable influence on the interpretation a learning environment. Discrepancies between teachers' and students' interpretation of a learning environment will usually result to substandard use of learning environment (Elen&Lowyck, (1999), Konings et al. (2005)).

As claimed by Lippman, P.C. (2010) a responsive design approach leads designers propose a more encouraging and maintainable learning setting. Such an approach agrees that the environment makes the learner, and that learners impact their environment. Innovative learning environments stated that they are neither original nor new, and

generally sustainable learning environments focus on “green building” technologies and setting aside other indicators of sustainability such as social progression.

QuilangAdduru (2006) mentioned that different factors that contribute to the achievement level of students, the home that is considered as the foundation of the child, poverty and child labor, lack of learning materials, school physical facilities, intervening factors in class schedules, calamities, administrator’s support to curriculum.

According to Ornstein (1997) there is a relationship between effective teachers and effective school. Teachers to be effective need a supportive and positive atmosphere. This includes: a reasonable class size, available and enough instructional materials, over expectations on staff for student achievement, a conducive school climate, system for monitoring scheme for student’s progress, a solid school administrator and a spirit or identity driven classroom.

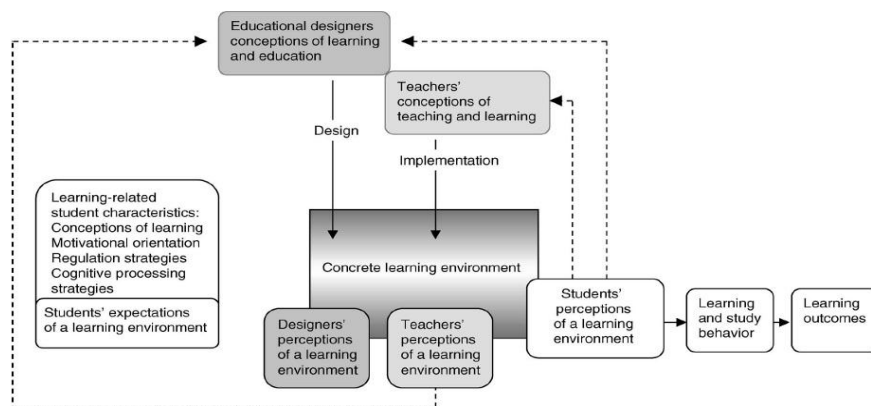
The literatures cited in the study supports the claim of the researcher on the relationship of the learning environment to the teaching and learning process in the school.

### Theoretical Framework

This study is anchored on Social Cognitive Theory that subscribes to a model of emergent interactive agency. In this theory, individuals are neither self-directed agents nor mechanical conveyers of animating environmental influencers (Bandura 1989). It explains psychosocial functioning by examining how different factors interact with one another. Albert Bandura explained the reciprocal causality as many personal factors that influence one another bi-directionally such as cognitive, affective, behavioural patterns and environmental events. Also, the theory view the environmental structure with three types: imposed environment, selected environment and constructed environment. In the imposed environment, people were given the physical and socio-structural environment. The people do not have a choice on what environment they will receive but they have the capability on how they will interpret it and react to it. For this reason, the environment only has potential in it and its meritocratic reality can only be activated selectively by the appropriate actions of the people. The people have their free will to choose who they want to be with and what activities they will do. The rewards and punishment they can get based on their choices will determine the selected environment. Constructed environment are social and institutional environments created by the people through their thought propagation efforts. These environments affect the nature of the relationships between personal, behavioural and environmental factors.

Today, many models are created depicting how to create or improve learning environments. One of these models is the Cooperation-of-Perspective Model (COOP) with its foundation of ideas similar to the social cognitive theory. In this model, the educational designers or administrations create the plan on how learning environments should be implemented. The teachers will implement the designs creating the learning environments for the students. Also, students participate in creating this learning environment with their behaviors and expectations.

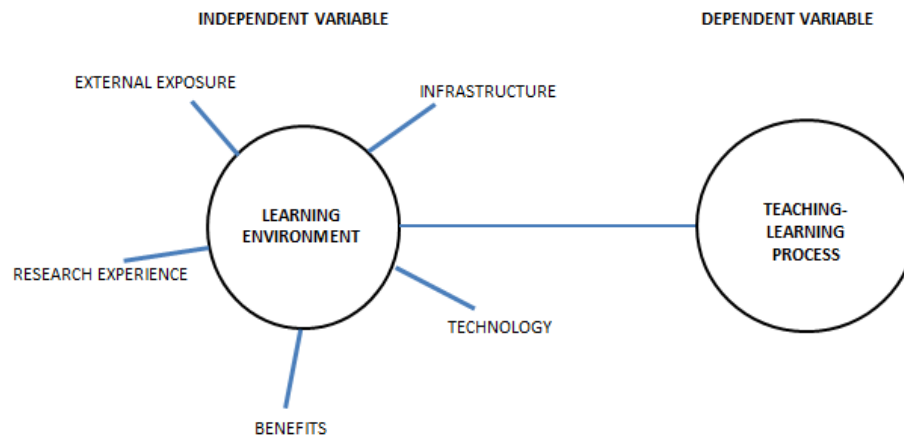
The COOP model lies in the feedback hoops, depicted as dotted rays in Figure 1. These hoops help involvement of students and teachers in the design and progress of a learning environment (The Design-based Research Collective, 2003).



**Figure 1:-The Combination-of-Perspectives (COOP) model.**

### Conceptual Framework

Illustrated in Figure 1 is the interplay of the student-respondents learning environment in terms of their experiences on the learning and teaching process on the aspects of psycho-social climate and teaching methodologies and the learning environment provided by the school which composed of five components infrastructure, technology, benefits, research experience and external exposure.



**Figure 2:-**The Conceptual Model Showing the Relationship between Independent and Dependent Variables of the Study

### Research Questions

The main objective of this study is to assess the learning environment of the student-respondents and its relationship on the teaching-learning process.

Specifically, the study aims to answer the following questions:

What is the assessment of the student-respondents in terms of teaching on the aspects of:

1. psycho-social climate
2. teaching methodologies and
3. learning process?

What is the assessment of the student-respondents' on their learning environment in terms of:

1. infrastructure;
2. technology;
3. benefits;
4. research experience; and
5. external exposure?

Is there a significant difference between the student-respondents' assessment in terms of teaching on the aspects of psycho-social climate and teaching methodologies and learning process?

Is there a significant relationship between the student-respondents' assessment in terms of teaching and learning process and their learning environment in terms of infrastructure, technology, benefits, research experience and external exposure?

### Research Hypotheses

In line with the problem statements, the following null hypotheses will be considered in the study and test at 0.05 level of significance: 1) there is no significant difference between the student-respondents' assessment in terms of teaching on the aspects of psycho-social climate and teaching methodologies and learning process; and there is no significant relationship between the student-respondents' assessment in terms of teaching and learning process and their learning environment in terms of infrastructure, technology, benefits, research experience and external exposure?

### Design and Methodology:-

This study is a descriptive research. Quantitative information was collected using a researcher self-made questionnaire to determine students' assessment on their learning environment and its relation to the teaching-learning process. The questionnaire was validated by group of experts from the university under study. The respondents were students from the College of Teacher Education, Laguna State Polytechnic University Siniloan, Laguna enrolled in the Second Semester of the A.Y. 2015-2016. The total number of respondents was 234 gathered using the Slovin's Formula at 5% margin of error. All year levels were represented in the study. Five students were taken from First year, 8 from second year, 55 from Third year, and 166 from fourth year. The researcher used stratified sampling technique to gather the information and responses of the students. In addition, this research used proportional allocation in which all respondents came from different programs of the College of Teacher Education considering their proportion in the population.

The researcher used a questionnaire-checklist in gathering data. The Questionnaire was used to determine the teaching-learning process and the student-respondents' learning environment in terms of five (5) components such as infrastructure, technology, benefits, research experience and external exposure. The questionnaire was subjected to content validation of research experts in the university.

After incorporating all necessary revisions, the researcher administered the questionnaire to the respondents. After the validation of the research instrument, a communication letter was sent to the office of the President of the University through channel asking permission for the conduct of the approved research proposal. Upon permission, the researcher secured the list of the students in the College of Teacher Education in the Office of the Campus Registrar. Then, computation for the actual sample was taken using Slovin's formula and stratified random sampling proportional allocation technique. After identifying the actual respondents, the researcher floated the questionnaire. Finally, after the result of the study was done, the researcher presented the output/result of the study in an in-house review which was participated by the faculty and students of the College where the study was conducted. Several comments were given by the panellists and after incorporating the necessary revisions, the final paper was submitted to the Dean of the College of Teacher Education.

### Statistical Treatment of Data

Varied Statistical tools were used to analyze the data gathered.

Variable	Statistical Tools
1. Assessment of the student-respondents' in terms of: teaching on the aspects of psycho-social climate and teaching methodologies; and learning process.	Weighted Mean
2. What is the assessment of the student-respondents' on their learning environment in terms of: infrastructure; technology; benefits; research experience; and external exposure.	Weighted Mean
3. Difference between the student-respondents' assessment in terms of teaching on the aspects of psycho-social climate and teaching methodologies and learning process	Kruskal Wallis H-Test
4. Relationship between the student-respondents' assessment in terms of teaching and learning process and their learning environment in terms of infrastructure, technology, benefits, research experience and external exposure?	Pearson's Correlation

### Results and Discussions:-

Table 1 presents the assessment of the student-respondents' in terms of teaching process on the aspects of psychosocial climate and teaching methodologies. Several interesting points were revealed after the analysis of data. As revealed by the data presented, respondents oftentimes observed that their teachers show respect for their students having the highest weighted mean of 4.17. Also, it can be seen that the respondents perceived their teachers, who show trust and confidence on the students' ability of doing tasks, caring, and models of positive attitude towards learning with the weighted mean of 4.06, 4.03 and 4.01 respectively. Generally, the data showed that the respondents oftentimes observed that their teachers established a sound social and emotional relationship in the classroom.

**Table 1:-**Assessment of the student-respondents' in terms of teaching process in the aspects of psycho-social climate and teaching methodologies

PSYCHO-SOCIAL CLIMATE	Weighted Mean					Verbal Interpretation				
	1st	2nd	3rd	4th	All	1st	2nd	3rd	4th	All
1. show respect for all students.	4.12	4.20	4.34	3.95	4.17	OO	OO	AO	OO	OO
2. accept and tolerate student's diversity.	3.79	3.98	4.18	3.70	3.92	OO	OO	OO	OO	OO
3. show trust and confidence in the student's ability in doing tasks.	4.02	4.12	4.12	3.93	4.06	OO	OO	OO	OO	OO
4. are sensitive to the needs of every learner.	3.93	4.01	3.88	3.56	3.88	OO	OO	OO	OO	OO
5. serve as the motivating force for learning.	4.07	3.98	3.96	3.74	3.95	OO	OO	OO	OO	OO
6. show caring attitude to students.	4.14	3.99	4.18	3.77	4.03	OO	OO	OO	OO	OO
7. boost student's self-confidence.	3.93	3.95	4.02	3.81	3.94	OO	OO	OO	OO	OO
8. are models of positive attitude towards learning.	4.11	3.93	4.26	3.77	4.01	OO	OO	AO	OO	OO
9. give encouraging praises for active class participation and performance.	4.00	4.02	4.04	3.93	4.00	OO	OO	OO	OO	OO
10. treat students' misbehavior fairly.	3.93	3.81	3.88	3.74	3.84	OO	OO	OO	OO	OO
<b>AWM</b>	<b>4.00</b>	<b>4.00</b>	<b>4.09</b>	<b>3.79</b>	<b>3.98</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>
TEACHING METHODOLOGIES	Weighted Mean					Verbal Interpretation				
	1st	2nd	3rd	4th	All	1st	2nd	3rd	4th	All
1. use strategies which facilitate critical thinking and creativity.	4.04	3.90	3.90	3.84	3.92	OO	OO	OO	OO	OO
2. provide activities for application of theories.	3.67	3.86	3.84	3.65	3.77	OO	OO	OO	OO	OO
3. adjust to different learning styles and multiple intelligences of the students.	3.89	3.95	3.86	3.74	3.88	OO	OO	OO	OO	OO
4. integrate values on lesson discussion.	3.88	3.87	4.12	3.88	3.93	OO	OO	OO	OO	OO
5. use assessment tool for cognitive, affective and psychomotor development.	3.86	3.94	4.16	3.70	3.92	OO	OO	OO	OO	OO
6. utilize instructional materials effectively.	3.70	3.86	3.80	3.67	3.77	OO	OO	OO	OO	OO
7. utilize various teaching methodologies.	3.80	3.80	3.88	3.69	3.80	OO	OO	OO	OO	OO
8. provide meaningful learning experiences from the community.	3.82	3.87	3.82	3.67	3.81	OO	OO	OO	OO	OO
9. return scored test papers and inform rating for performance-based activities immediately.	3.93	3.67	4.02	3.67	3.81	OO	OO	OO	OO	OO
<b>AWM</b>	<b>3.84</b>	<b>3.86</b>	<b>3.93</b>	<b>3.73</b>	<b>3.85</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>

School climate and academic school improvement is necessarily a community-wide effort of students, parents, and school personnel (Cohen et al., 2009). In addition, the perceptions of teachers on students' motivation and behavior had the most powerful impact were both of these variables importantly provides implication to sense of stress, teaching efficacy, and job satisfaction among the participants. Among the endogenous variables, stress related to the behaviour of students was negatively related with teaching efficacy. In addition, stress related to workload and teaching efficacy directly related to sense of job satisfaction (Collie, et al., 2012). The findings of the study revealed that the students' responses can be associated to the manifestation of the school climate established by their teachers.

Table 2 presents the assessment of the student-respondents' in terms of their learning process. It can be seen on the table that the respondents learned meaningfully in school through various activities and exposure to different learning environment provided by their teachers. They were motivated to participate in classroom discussions through thought provoking questions and through collaborative activities. Their philosophical beliefs were formed and values were strengthened through self-reflective undertakings. Assessment of the respondents learning process got an average weighted mean of 3.88 which verbally interpreted in all items on the table as oftentimes observed by the respondents. Parallel to the present study, Darling-Hammond, L. (2000) found that both the qualitative and quantitative analyses suggest policy investments in the standard of teachers could be connected to improvements in student performance.

**Table 2:-**Assessment of the student-respondents' in terms of their learning process

LEARNING PROCESS	Weighted Mean					Verbal Interpretation				
	1st	2nd	3 <sup>rd</sup>	4 <sup>th</sup>	All	1st	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	All
1. I learn facts, theories and principles and their applications.	3.84	3.77	4.02	3.58	3.81	OO	OO	OO	OO	OO
2. Through experiential activities, my learning becomes meaningful.	3.79	4.07	4.26	3.86	4.00	OO	OO	AO	OO	OO
3. Mastery of the subject matter is in-depth because of the various activities provided by the Instructors.	3.81	3.77	3.92	3.72	3.80	OO	OO	OO	OO	OO
4. I enjoy learning because of the positive atmosphere in the class.	3.81	4.01	3.98	3.53	3.87	OO	OO	OO	OO	OO
5. My values become firm through self-reflective activities provided by the Instructor.	3.88	3.94	4.02	3.77	3.91	OO	OO	OO	OO	OO
6. I am motivated to participate in classroom activities.	3.82	3.82	4.00	3.67	3.83	OO	OO	OO	OO	OO
7. I enhance my critical thinking skills and creativity through the thought-provoking questions of the Instructors.	3.86	3.96	3.98	3.67	3.89	OO	OO	OO	OO	OO
8. Through exposure to collaborative learning, I learn to deal effectively with other people.	3.79	3.95	4.06	3.74	3.90	OO	OO	OO	OO	OO
9. My philosophical beliefs in life are formed and strengthened by the multifarious experiences in the university.	3.79	3.88	3.94	3.65	3.83	OO	OO	OO	OO	OO
10. My skills in professional education are develop through exposure to different learning environment.	3.89	3.98	4.08	3.93	3.97	OO	OO	OO	OO	OO
<b>AWM</b>	<b>3.83</b>	<b>3.92</b>	<b>4.03</b>	<b>3.71</b>	<b>3.88</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>

Table 3 presents the assessment of the respondents' learning environment in terms of infrastructure and technology. As reflected in the table, the respondents oftentimes observed that there are sufficient resources in the library, that the security system of the keeps everyone safe, there are comfortable study areas aside from the library and the campus environment is conducive for learning with the weighted mean of 3.61, 3.53, 3.50 and 3.49 respectively. On

the other hand, the respondents sometimes observed beautiful gardens and greeneries in the campus, sufficient classrooms, classrooms which are clean, organized, well ventilated and lighted, sanitation and cleanliness of the canteen, clean comfort rooms with adequate water. Under Infrastructure got an average weighted mean of 3.30 with verbal interpretation of “Sometimes Observed”. As shown in the data, item 2, there are enough computer units in the computer laboratories, item no. 3 the computers are functional with updated softwares and programs, item no. 4 the instructors used technology-based activities to supplement from lectures and books got a verbal interpretation of “Seldom Observed”. Whereas item no. 1, the computer laboratories are properly maintained and item no. 2 forms, enrolment and other University processes make use of information and communication technology for more efficient services got a verbal interpretation as “Oftentimes Observed”.

**Table 3:-**Assessment of the student-respondents on their learning environment in terms of infrastructure and technology

A. INFRASTRUCTURE	Weighted Mean					Verbal Interpretation				
	1st	2nd	3rd	4th	All	1st	2nd	3rd	4th	All
1. The classrooms are clean and organized.	3.44	3.30	3.18	3.02	3.26	OO	SoO	SoO	SoO	SoO
2. There are enough classrooms for all classes.	3.46	3.07	2.92	2.98	3.12	OO	SoO	SoO	SoO	SoO
3. The classrooms are well ventilated and lighted.	3.19	3.15	3.02	2.91	3.09	SoO	SoO	SoO	SoO	SoO
4. Sanitation and cleanliness are well observed in the University canteen.	3.32	3.27	3.32	3.16	3.27	SoO	SoO	SoO	SoO	SoO
5. The comfort rooms inside the campus are clean and with adequate water.	2.95	2.89	2.82	2.53	2.82	SoO	SoO	SoO	SoO	SoO
6. The campus has beautiful gardens and greeneries.	3.61	3.29	3.24	3.23	3.35	OO	SoO	SoO	SoO	SoO
7. There are sufficient resources in the library.	3.89	3.42	3.66	3.53	3.61	OO	OO	OO	OO	OO
8. The campus environment is conducive for learning.	3.68	3.42	3.56	3.30	3.49	OO	OO	OO	SoO	OO
9. The security system is enough to keep everyone safe.	3.58	3.51	3.62	3.42	3.53	OO	OO	OO	OO	OO
10. The study areas other than University library are comfortable for studying.	3.77	3.44	3.50	3.26	3.50	OO	OO	OO	SoO	OO
<b>AWM</b>	<b>3.49</b>	<b>3.28</b>	<b>3.28</b>	<b>3.13</b>	<b>3.30</b>	<b>OO</b>	<b>SoO</b>	<b>SoO</b>	<b>SoO</b>	<b>SoO</b>
B. TECHNOLOGY	Weighted Mean					Verbal Interpretation				
	1st	2nd	3rd	4th	All	1st	2nd	3rd	4th	All
1. The Computer Laboratories are properly maintained.	3.67	3.22	3.57	3.43	3.44	OO	SoO	OO	OO	OO
2. There are enough computer units in the Computer Laboratories.	3.42	3.07	3.14	3.08	3.18	OO	SoO	SoO	SoO	SoO
3. The computers are functional with updated softwares and programs.	3.56	3.29	3.35	3.28	3.37	OO	SoO	SoO	SoO	SoO
4. The Instructors used technology-based activities to supplement learning from lectures and books.	3.58	3.30	3.29	3.23	3.35	OO	SoO	SoO	SoO	SoO
5. Forms, enrolment and other university processes make use of information and communication technology for more efficient services.	3.79	3.37	3.29	3.18	3.42	OO	SoO	SoO	SoO	OO
<b>AWM</b>	<b>3.60</b>	<b>3.25</b>	<b>3.33</b>	<b>3.24</b>	<b>3.35</b>	<b>OO</b>	<b>SoO</b>	<b>SoO</b>	<b>SoO</b>	<b>SoO</b>

The findings of the study was found related to Klem, A. M., & Connell, J. P. (2004), which found that the relationship between university students' perceptions of their academic surroundings, their approaches to learning, and academic outcomes was investigated at both university and faculty levels. The perception of students of their present learning environment was found as a stronger predictor of learning outcomes at university as compared to achievement at school.

As shown in Table 4 Assessment of the student-respondents in their learning environment in terms of benefits and research experience, the average weighted mean for “benefits” was 3.61 and 3.60 for research experience. The two components were verbally interpreted as “Oftentimes Observed”. This implies that in terms of benefits the school under study provided the students the scholarship, trainings and seminars, hires studentassistants and allotted budget for students’ development. Although in some aspects like provision for dorms with minimal payment and loans for student’s financial assistance and projects got a verbal interpretation of “Seldom Observed”.

**Table 4:-**Assessment of the student-respondents on their learning environment in terms of benefits and research experience.

C. BENEFITS	Weighted Mean					Verbal Interpretation				
	1st	2nd	3rd	4th	All	1st	2nd	3rd	4th	All
1. There are scholarships available in the university.	4.16	4.02	4.29	4.05	4.12	OO	OO	AO	OO	OO
3. The university hires student assistants.	4.19	3.96	4.39	4.05	4.13	OO	OO	AO	OO	OO
4. The university offers free trainings, seminars and forums to improve the students' knowledge and skills.	3.81	3.69	3.90	3.75	3.77	OO	OO	OO	OO	OO
5. The university allotted enough budget for activities which promote students' development.	3.65	3.58	3.94	3.45	3.65	OO	OO	OO	OO	OO
6. The university has dorms for men and women with minimal payment.	3.05	3.15	2.69	2.73	2.95	SoO	SoO	SoO	SoO	SoO
7. The university offers loan for student's financial assistance and projects.	3.44	3.01	2.98	2.73	3.06	OO	SoO	SoO	SoO	SoO
<b>AWM</b>	<b>3.72</b>	<b>3.57</b>	<b>3.70</b>	<b>3.46</b>	<b>3.61</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>
D. RESEARCH EXPERIENCE	Weighted Mean					Verbal Interpretation				
	1st	2nd	3rd	4th	All	1st	2nd	3rd	4th	All
1. The students are given special problems, mini-research or library research paper in most of the subjects aside from the actual thesis subject.	3.93	3.54	4.00	3.80	3.78	OO	OO	OO	OO	OO
2. The students present researches on the division/ regional/national/international research presentation /competition.	3.53	3.57	3.78	3.63	3.61	OO	OO	OO	OO	OO
3. The knowledge gained on the subjects on statistical tools, referencing formats and mainstream topics are significant in the conduct of researches.	3.70	3.64	3.82	3.80	3.72	OO	OO	OO	OO	OO
4. The students conduct collaborative researches with other colleges/universities.	3.65	3.54	3.67	3.23	3.54	OO	OO	OO	SoO	OO
5. There are trainings that provide guidance on research presentation. (e.g. How to create better research presentation, speech training, organization of research, etc.)	3.82	3.60	3.80	3.68	3.71	OO	OO	OO	OO	OO
6. The university provides funds for student's researches.	3.44	3.33	3.18	3.18	3.30	OO	SoO	SoO	SoO	SoO
7. Students' researches are published in reputable journals.	3.73	3.46	3.47	3.30	3.50	OO	OO	OO	SoO	OO
<b>AWM</b>	<b>3.69</b>	<b>3.53</b>	<b>3.67</b>	<b>3.52</b>	<b>3.60</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>	<b>OO</b>

The respondents were given opportunities to develop in terms of research which can be gleaned from the table the average weighted mean 3.60 which verbally interpreted as “oftentimes observed”. The respondents were given trainings, seminars for research writing, and opportunities to present researches on local and international fora and publish them in reputable journals, conduct researches collaboratively with other students and agencies. In terms of external exposure, the data in table 5 show that the respondents were given opportunities to join field trips and community services. The respondents were given significant preparation in field study courses before the actual pre-service teaching. Also, the respondents were given opportunities to attend lectures, conferences spearheaded by the school concerned in the study with speakers invited from other universities and agencies.

**Table 5:-**Assessment of the student-respondents on their learning environment in terms of external exposure

E. EXTERNAL EXPOSURE	Weighted Mean					Verbal Interpretation				
	1st	2nd	3rd	4th	All	1st	2nd	3rd	4th	All
1. The professors conduct field trips and community services to enhance teaching and learning process.	3.39	3.30	3.02	3.65	3.32	SoO	SoO	SoO	OO	SoO
2. The field study courses are significant preparation before the practice teaching.	3.42	3.42	3.48	3.77	3.49	OO	OO	OO	OO	OO
3. The students are given opportunities as exchange students in other countries for their practicum.	3.45	3.42	3.27	3.65	3.43	OO	OO	SoO	OO	OO
4. The students are allowed to attend lectures, symposiums and forums sponsored by institutions other than our university	3.54	3.31	3.35	3.53	3.41	OO	SoO	SoO	OO	OO
5. The university invites professors from other universities or agencies to give lectures during conferences/seminars.	3.60	3.41	3.49	3.65	3.52	OO	SoO	OO	OO	OO
<b>AWM</b>	<b>3.48</b>	<b>3.37</b>	<b>3.32</b>	<b>3.65</b>	<b>3.44</b>	<b>OO</b>	<b>SoO</b>	<b>SoO</b>	<b>OO</b>	<b>OO</b>

### Test of Difference

From the data in table 6, it was shown that there were significant difference between the teaching process in terms of psycho-social climate and teaching methodologies and the respondents' learning process using the *p value* of 0.001 for psycho-social climate and teaching methodologies using the *p value* of 0.015. This analysis implies how the respondents gained learnings from school was directly related to the psycho-social climate and teaching methodologies their teachers established during instruction. The significant differences among the student-respondents on the teaching learning process revealed that fourth year teacher education students have significant positive assessments on the psycho-social climate, learning process, teaching methodologies, benefits, and research experience while first year teacher education students assessed infrastructure, technology, and external exposure among others.

**Table 6:-**Significant difference between the student-respondents’ assessment on teaching and learning process.

<b>Psycho-Social Climate</b>						
Student	Median	Ave.Rank	H	df	p-value	Difference
First	4.009	22.9	16.18	3	0.001	Significant
Second	3.767	8.2				
Third	3.982	22.7				
Fourth	4.081	28.2				
<b>Learning Process</b>						
Student	Median	Ave.Rank	H	df	p-value	Difference
First	3.814	16.3	25.78	3	0	Significant
Second	3.698	8.1				
Third	3.946	24.3				
Fourth	4.01	33.4				
<b>Infrastructure</b>						
Student	Median	Ave.Rank	H	df	p-value	Difference
First	3.518	28.4	7.48	3	0.058	Not Significant
Second	3.198	14.4				
Third	3.292	18.9				
Fourth	3.28	20.3				
<b>Teaching Methodologies</b>						
Student	Median	Ave.Rank	H	df	p-value	Difference
First	3.857	19.3	10.49	3	0.015	Significant
Second	3.69	9.2				
Third	3.867	20.9				
Fourth	3.88	24.6				
<b>Technology</b>						
Student	Median	Ave.Rank	H	df	p-value	Difference
First	3.579	17.4	9.72	3	0.021	Significant
Second	3.225	6.8				
Third	3.289	8				
Fourth	3.286	9.8				
<b>Benefits</b>						
Student	Median	Ave.Rank	H	df	p-value	Difference
First	3.728	13.7	0.77	3	0.857	Not Significant
Second	3.6	11				
Third	3.633	11.5				
Fourth	3.918	13.8				
<b>Research Experience</b>						
Student	Median	Ave.Rank	H	df	p-value	Difference
First	3.072	17.6	4.11	3	0.25	Not Significant
Second	3.625	12.4				
Third	3.542	10.4				
Fourth	3.776	17.6				
<b>External Exposure</b>						
Student	Median	Ave.Rank	H	df	p-value	Difference
First	3.446	11.2	11.62	3	0.009	Significant
Second	3.65	17.6				
Third	3.41	6.6				
Fourth	3.347	6.6				

Table 7 presents the significant relationship between the student-respondents assessment on learning environment and teaching-learning process. As seen on the table the computed values for teaching process in terms of psycho-social climate and teaching methodologies are less than the threshold value 0.05, thus rejecting the null hypothesis and interpreting the result as highly significant. The learning environment in terms of infrastructure, technology, benefits, research experience and external exposure intensifies the teaching process considering the fact that the identified measures of learning environment manifest holistic growth and development that may foster good teacher and student relations. Among the identified measures of learning environment the psycho-social climate is greatly affected by benefits received by the student respondents. Based on the quantitative analysis conducted by the researcher, the respondents were actively engage in learning because of the significance they are acquiring from it.

The relationship found in the table signifies that gaining high coefficient of determination, technology is positively associated to the teaching methodologies of the teacher. Also, by 15.13% of determination, it can be said that the teaching methodology of the teacher is affected by the kind of technology she uses. Likewise, external exposure of the students as is attributed to the teaching methodologies of by 19.98%.

The result conforms to what Lizzio et al. 2002, and Shamaki, (2015) concluded that there are other determinants of academic achievement of students aside from intelligence. Hence, the statement proves the belief that academic achievement of students is associated with so many components of the learning environment. Thus, learning environment is an important key factor in understanding academic achievement of students.

**Table 7:-**Significant relationship between the student-respondents assessment on learning environment and the teaching-learning process.

Learning Environment	Teaching and Learning Process	r-value	r-squared	p-value	Relationship
infrastructure	Psycho-Social Climate	0.249	6.20%	0.000	Highly Significant
technology		0.224	5.02%	0.001	Highly Significant
benefits		0.268	7.18%	0.000	Highly Significant
research experience		0.261	6.81%	0.000	Highly Significant
external exposure		0.256	6.55%	0.000	Highly Significant
infrastructure	Teaching Methodologies	0.341	11.63%	0.000	Highly Significant
technology		0.389	15.13%	0.000	Highly Significant
benefits		0.336	11.29%	0.000	Highly Significant
research experience		0.37	13.69%	0.000	Highly Significant
external exposure		0.447	19.98%	0.000	Highly Significant
infrastructure	Learning Process	0.344	11.83%	0.000	Highly Significant
technology		0.322	10.37%	0.000	Highly Significant
benefits		0.335	11.22%	0.000	Highly Significant
research experience		0.321	10.30%	0.000	Highly Significant
external exposure		0.303	9.18%	0.000	Highly Significant

### Conclusions:-

There was significant difference existed between the student-respondents' assessment on teaching process on the aspects of psycho-social climate and teaching methodologies and the learning process. This means that there were differences in the assessment of the respondents on their learning environment. However, in the aspects infrastructure, benefits and research experience no significant differences were found. It implies that the respondents have same perceptions regarding the three aspects mentioned. It was concluded also that there is a significant difference between the assessments given by first year and fourth year students. First year students gave higher assessments on the physical aspects such as technology and infrastructure while fourth year college students assessed teaching and learning related aspects compare to other indicators. Finally, highly significant relationship existed between the student-respondents' assessment on their learning environment and the teaching- learning process implying that the respondents' learning process was greatly affected by their learning environment.

### Recommendations

Based on the presented findings and conclusions of the study, the research recommends that a strong learning environment be established and maintained in academic institutions for it greatly affects the performance of teachers in performing their functions and students in learning their course. In specific sense, during learning process, teachers may expose students to different outdoor based activities such as culminating for it gives them actual and meaningful learning. Students may likewise be exposed to different modes of technology to attain higher academic achievement since it was found that it affects positively their performance through proper guidance. Research exposure from first year to fourth year is also encouraged so that students would be ready for their research based activities in their work.

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