Perceived Satisfaction on Learning Environment of Science-based and Non- Science based ESL Learners of Peripheral Universities of Sri Lanka

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Abstract- The emphasis placed for Learning Environment and Resources in ELT study programmes has not been duly recognized although they are so immense for the improvement of ESL proficiency of university students. This study was a survey research in nature and was a part of the PhD study conducted in selected peripheral universities in Sri Lanka. In the study, five areas namely; convenience of lecture room facilities, availability of technology and other resources, availability of language laboratory facilities, convenience of library facilities, and convenience of time tabling and allocation of periods were tested with special reference to Science-based and Non science- based faculties. Descriptive analysis of data using SPSS software was performed in the study. Based on the results, students of Science-based faculties have shown almost equally high and moderate satisfaction for most of the areas. In contrast, Non science-based faculties needed further improvements in selected cases as the students' satisfaction was low and moderate in majority of the cases in addition to few values of high satisfaction in limited cases.

Index Terms- Learning environment, students' perspectives, ESL classrooms, e-resources

I. Introduction

The importance of Learning Environment and Resources for ESL classrooms has a significant impact on the level of language proficiency of second language learners. Studies of second language learning have not paid prominent attention to classroom environment and its impact on language acquisition for some time, however experts in the field of education have begun to realize and engage in research to examine the impact of learning environment on acquisition and pedagogy (Softa, 2011, p. 127). Learning Environment and Resources which are conducive for educational programmes in general and second language learning in particular are pivotal in the context of university education. Literature on Learning Environment can be categorized into three broad segments; academic environment, physical environment and psychological environment and all these affect the overall academic success in acquiring second language (Lizzio et al., 2002).

The development of communicative Language Teaching (CLT) in the 1960s placed a major emphasis on communicative competence of learners. Since CLT evolved as a prominent teaching approach, the then existing methods such as Grammar Translation, Audio-lingual and Direct method became less predominant (Richards & Rodgers, 2001). One of the important characteristics of CLT is the learner-centeredness which curtails the dominance of the role played by the teacher in the class. The concepts of communicative competence and learner -centered teaching of the CLT posit for more attention on learning environments and resources as they deemed necessary to facilitate group work and pair work and activities in the classroom environment. Moreover, CLT approach requires a conducive learning environment that allows free movement of students to engage in language learning activities to facilitate interaction among students.

The physical environment of a classroom should be approached correctly that it does not stifle creativity and positive learning environment. Further, such an environment enhances the emotional environment of both students and teachers leading to yield positive outcomes of learning. This study is a part of a doctoral thesis on learner perspectives of English Language Teaching (ELT) in the Sri Lankan university system and the paper concentrates only on Learning Environment and Resources. The main objective of the study is to ascertain learner perspectives on the existing learner environment and resources of selected four peripheral national universities in Sri Lanka.

II. LITERATURE REVIEW

A comprehensive definition of the terms learning environment and resources in the educational context refers to the physical environment in the classroom setting possibly filled with sunlight/light and ventilation, having provisions for flexible movement of desks/chairs for grouping in specific ways, availability of audio visual and digital technologies, accessibility to relevant learning material and convenience of time scheduling for academic activities. Basque & Dare (1998) point out that learning and teaching environment ought to encompass functions such as; informing, communicating, collaborating, producing, scaffolding and managing. Further, they add that learning environment refers to the whole range of components and activities within which learning happens (Basque & Dare, 1998). As per Study.com (2018), learning environment encompasses learning resources and technology.

Bunting (2004) and Stevenson (2007) propose that the traditional classroom concept be changed with holistic labs and explanatory centres for learning languages as they are vital for learning. In the case of English Language Teaching, the concept of holistic study labs filled with resources for self-learning and e-learning have been replacing the traditional classrooms in the Sri Lankan university system, though the capacity to serve total student population is still problematic.

Apart from the educational institutes, family environment exerts immense impact on learning. Family environment can be considered the primary social system in which child learns the basic concepts of culture, values, recognition and motivation for learning. Studies have found that academic achievement is associated with family environment (Rollins & Thomas, 1979; Bahr, Hawks & Wang, 1993; Cassidy & Lynn, 1991) and both the learning environment in the educational institutes and the family environment place a considerable influence on learning.

Research on learning environment dates back to latter part of 1930s with the work of Murray (1938) and Lewin (1936). However, the area has gained acceptance and credibility during the past two decades or so (Waxman, 1991). Studies done on the effect of learning environment over academic success have proved optimistic results. Brooks (2010) carried out a research on the effect of "Space Issues: the effect of formal learning environment in acquisition" in the year 2008 with a participation of 1131 students. The study proved that students who attend classes in enhanced learning environment in terms of technology had better results than their peers who followed same course of study in more traditional classrooms. The study done on the influence of classroom environments on English language writing instructions and learning (Nancy & Samuel, 2019) portrayed that there were different teaching and learning environments but the success of writing instructions depended on how teachers modified the classroom environment to suit the different topics they were teaching. In a survey conducted by Lodhi et al. (2019) to investigate the factors which affect learning environment of English language learners at school using a questionnaire reveled that suitable school environment provide significant contribution to ESL learners.

Learning environment is essential for in ESL teaching mostly due to changes in the teaching methodology. To the latter part of the 20th century, changes in methodology in the ESL classrooms took place. Communicative approach emerged over ELT methodologies such as grammar translation and audio-lingual. As Krashen (1982) points out, focus on grammar or other formal properties of language would be labeled as preoccupation with teaching of language in an isolated decontextualized manner and they did not contribute to second language development. Hence, grammar and other properties of language were relegated and replaced by activities such as Group Work and Pair Work which facilitated to promote meaning communication. In order to facilitate interaction in the classroom, the contribution of Group Work and Pair Work was of immense factor.

Alwright (1984, p.156) shows that interaction in a classroom is not just an aspect of modern language teaching methods, but as the fundamental fact of classroom pedagogy. He claims that interaction entails three elements namely; teacher, learner and material. Also, interaction produces opportunities for students to learn (Allwright, 1981; Hutchinson &Torres, 1994). The physical environment of the classroom is vital for enhancing interaction in the classroom. Since learning environment encompasses many factors, proper identification and use of them is vital for second language improvement.

Learning environment and resources are diverse in the context and some of them can be identified as seating arrangement, classroom with digital technology, frequency of lecture schedule, lighting and ventilation, and classroom space.

Seating arrangements

Seating arrangements of the second language learning classroom is important for academic success of the programme. Unlike teaching a major subject, ESL classrooms need to facilitate students for pair and group work where interaction of students is facilitated. The

provision of access for movement of desks and chairs would facilitate avenues for student interaction and communication with pair work, group work and teacher –talk. The light weight and movement friendly shaped desks and light weight chairs are essential for

quick and easy arrangement of different types of seating arrangements as shown in Figure 1 to facilitate different modes of classroom seating arrangements such as lecture, pair-work, group work and U –shaped seating.

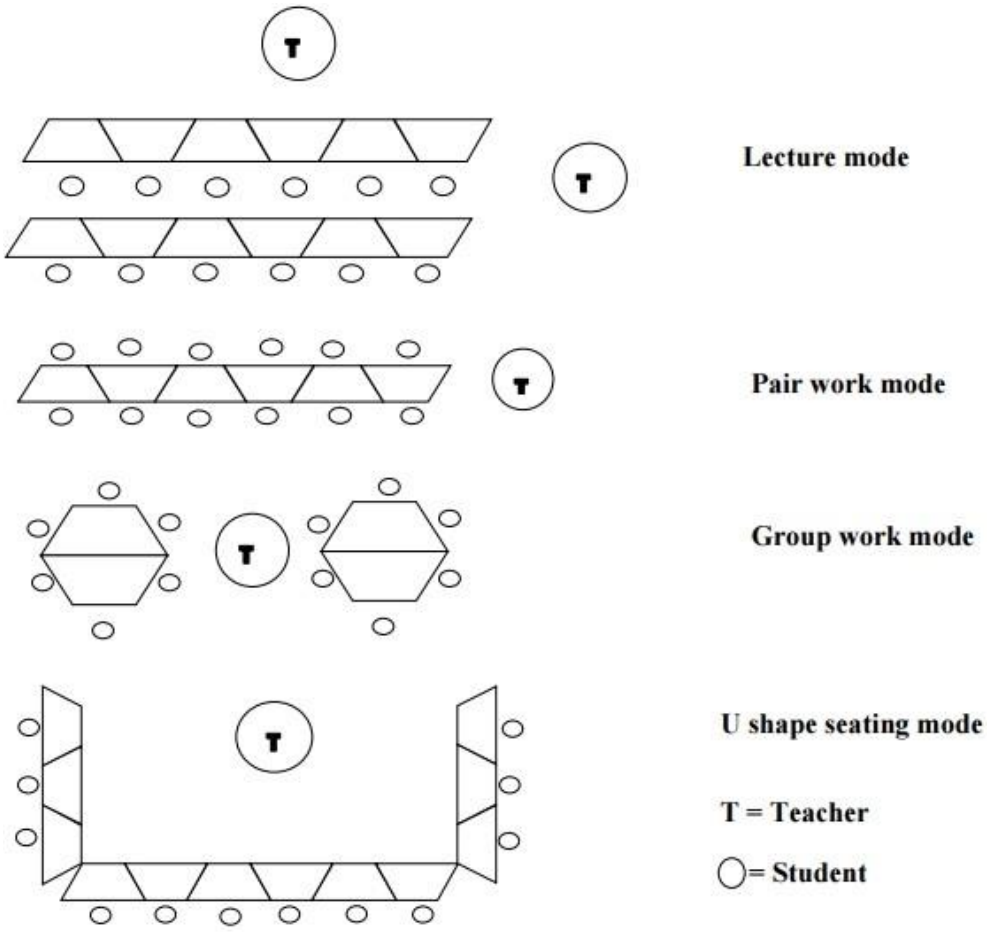

Figure 1: Different types of seating arrangements in classrooms

Classroom with digital technology

Classroom activities can be carried out with ease as technology in the 21st century has facilitated remarkable avenues for language learning. Availability of computers, multimedia projectors, audio systems, digital smart boards and tools and software assisted with internet has made learning process possible for activity-based learning, self-learning, and e-learning. Raja & Nagasubramani (2018. p.34) view that technology contributes to four areas in the field of education. They are; as a part of curriculum, as an instructional delivery system, as a means of aiding instructions and as a tool to enhance the entire learning process.

Frequency of lecture schedule

Studies on frequency of lecture schedule indicate that there is an effect of learning with the intensity of frequency of lectures per week or month. Literature on studies (Koprowski, 2005; Ellis, 2002) prove that increased frequency of lecture input has an effect on increased level of language acquisition.

Classroom space

Congested classroom is an alien factor in the learning environment. Second language classroom ought to provide access for free movement for the teacher and the students. In communicative language classrooms, formation of groups and pairs is vital for learner-

centred learning where free movement of students is allowed to facilitate interaction. In addition to that, classroom space encourage teacher to move freely to fringe areas where teacher's direct attention is less.

Lighting and ventilation

The classroom space and physical environment should provide an optimal condition for learning behavior of students. Studies have proved that high level of Co_2 levels influence negative attention level of students (Coley et al., 2007). In most of the university situations, the temperature of the classrooms is high that students are demotivated for learning. With regard to the lighting in classroom environments over progress of learning, there isn't much of the literature on studies carried out to prove it.

Literature on learning environment and resources has proved that there is a positive impact on learning in general and English language in particular involving basic facilities in the classroom to technology aided facilities. Hence, evaluation of learner satisfaction on such facilities and resources are vital for effective ESL programmes.

III. METHODOLGY

The objective of the study was to ascertain the perspectives of university ESL students. This paper focused on the availability and effectiveness of the Learning Environment and Resources of the English Language Teaching programmes of Science-based faculties vs Non science- based faculties of the peripheral[1] universities of Sri Lanka.

The study is a survey in nature and was conducted using quantitative approach. Survey research can be defined as the collection of information from a sample of individuals through their responses (Check & Schutt, 2012, p.160). Pinsonneault and Kraemer (1993) define a survey as a "means for gathering information about the characteristics, actions, or opinions of a large group of people" (p. 77). The strength of the surveys is that the capability to obtain information from a large samples of study population. The researcher believes it justifiable to select survey design as the population of the study is rather extensive. Many researchers (McIntyre,1999; Ponto, 2015), have highlighted the benefits of survey to a large population as an accessible approach.

The methodology of data collection was done through the strategic approach using a questionnaire as a tool. The data were collected through online mode using a Google Form distributed among the target respondents. The sample of the study included four peripheral universities namely; Rajarata University of Sri Lanka, Wayamba University of Sri Lanka, Sabaragamuwa University of Sri Lanka, and the Eastern University of Sri Lanka with samples as indicated in Table 3.1.

University	Science-based	Non-Science based	Total
1. Rajarata	51	66	117
2. Wayamba	49	62	111
3. Sabaragamuwa	54	61	115
4. Eastern	52	66	118
Total	206	255	**461**

Table 3.1: Population of the study

[1]The Researcher has distinguished the population of the sample as peripheral to mean the universities located away from the main cities which were established years after the well-established universities in the country. Further, peripheral universities are the developing universities with lesser experience and facilities of both physical and manpower.

In the sample, there were a total of 461 respondents altogether. From Rajarata university, there were 51 respondents from Science-based faculties and 66 respondents from Non science-based faculties. Wayamba university represented 49 and 62 respectively from Science-based and Non science-based faculties. In the study, there were 54 respondents from Science-based faculty and 61 from Non science-based faculties of Sabaragamuwa university. From the Eastern university, the study included 52 and 66 respondents from Science-based and Non science-based faculties respectively.

The analysis of data was done using Statistical Package for Social Sciences (SPSS, IBM Version 21) software and data were analysed using descriptive statistics. The study used five-point Likert scale to measure variables ranging from Strongly Disagree to Strongly Agree; Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly agree (5). For the purpose of interpretation of data, 5 point mean values were condensed and assigned vales with three scales. The mean values from 1 -2.33 were interpreted as "Low", values from 2.33 -3.67 were considered "Moderate", and mean values from 3.67 -5 were taken as "High".

IV. ANALYSIS AND DISCUSSION

The analysis of data gathered through the questionnaire administered online contain five areas connected to Learning Environment and Resources with special reference to Science-based and Non science-based faculties. The total respondents in Science-based faculties were 206 while in Non science-based faculties it was 255. The data show that the standard deviations of all the tables are less than 1, indicate that the values are homogeneously distributed and the reliability of all the mean values in the subsequent tables are maintained.

The Table 4.1 shows the scores of convenience of lecture room facilities having three sub-variables. With reference to variable 1; sufficient space for lecture rooms, both the students of Science-based (Mean-3.325) and Non science-based (3.647) faculties have indicated moderate satisfaction. However, in Science-based faculties, the perceived satisfaction is lesser than in Non science-based faculties. The second sub-variable on seating arrangements for activities with a mean value of 3.282 and 3.529 in Science-based and Non science-based faculties respectively show a moderate satisfaction. The perceived satisfaction on light and ventilation, mean value of 3.524 in Science-based faculties indicate moderate satisfaction while in Non science-based faculties, the satisfaction is high with a mean value of 3.769.

	Science-based faculty			***Non science-based faculty***			***Total***		
	Mean	**N**	**SD**	**Mean**	**N**	**SD**	**Mean**	**N**	**SD**
1. The lecture rooms have sufficient space and have the convenience for students to move and work.	3.325	206	.6488	3.647	255	.7193	3.512	461	.6713
2.The lecture rooms have convenient seating arrangements suitable for activity-based learning	3.282	206	.5858	3.529	255	.9010	3.419	461	.7755
3. The lecture rooms have sufficient light and ventilation.	3.524	206	.7202	3.769	255	.8626	3.659	461	.9951

Table 4.1: Convenience of lecture room facilities

As it can be noted from Table 4.2 which represents availability of technology and other resources, the first sub-variable multimedia and sound systems, the respondents of Science-based faculties have a high satisfaction (Mean=3.942) whereas in Non science-based faculties, the respondents indicate a moderate satisfaction (Mean= 3.623). The data of the second area representing facilities of digital smart boards indicate that the students of Science-based faculties have a high satisfaction with a mean value of 3.820 while in Non science-based faculties the satisfaction is low with a mean value of 2.208. For the third sub-area of internet facilities, respondents of

Science-based faculties have a high satisfaction (Mean= 4.097) compared to a moderate satisfaction (Mean= 3.663) in Non science-based faculties.

	Science-based faculty			*Non science-based faculty*			*Total*		
	Mean	**N**	**SD**	**Mean**	**N**	**SD**	**Mean**	**N**	**SD**
1.Classrooms have multimedia and sound systems.	3.942	206	.8925	3.623	255	.7964	3.898	461	.9512
2.Digital Smart boards are very useful for us and the classrooms have them.	3.820	206	.5033	2.208	255	.8931	3.592	461	.8725
3.Internet is a useful facility for language classrooms and we have the facility.	4.097	206	.8891	3.663	255	.7652	3.897	461	.9786

Table 4.2: Availability of technology and other resources

The availability of language laboratory facilities (as depicted in Table 4.3) is the next area of study under learning Environment and Resources. The students' perspectives on the satisfaction of e-learning software indicate a high value for Science-based faculty with a mean of 4.044. However, in Non science-based faculties, the indication is moderate with a mean value of 3.522. The data in Table 4.3 indicate a higher mean value for the second area, that is, allocation of periods for e-learning in Science-based faculties (Mean=3.981). In the case of Non science-based faculties, student satisfaction is low with a mean value of 2.320. The results for the third area of question (facilities to practice speech) indicate almost similar mean values of 3.816 (high) and 3.808 (high) for Science-based and Non science-based faculties respectively. For the fourth area of e-resources to practice tests and exercises, students of the Science-based faculties have indicated a high value (Mean=3.723) while in Non science-based faculties, it is moderate (Mean= 3.288) in satisfaction. The fifth area of this section focused on the facilities to practice different English accents. The data indicate a moderate satisfaction for both the faculty types; Science-based (Mean=3.592) and Non science-based (Mean= 3.557).

	Science-based faculty			*Non science-based faculty*			*Total*		
	Mean	**N**	**SD**	**Mean**	**N**	**SD**	**Mean**	**N**	**SD**
1.E-learning software resources are useful resources for students and they are available for students.	4.044	206	.8399	3.522	255	.8717	3.755	461	.9905
2.We have some periods allocated for e-learning in a place like Language Laboratory.	3.981	206	.7323	2.320	255	.7987	3.170	461	.9734
3.Availability of podium and facilities to practice speech is very important.	3.816	206	.9602	3.808	255	.8997	3.811	461	.9262
4.E-resources to practice tests and language exercises are available for us.	3.723	206	.6006	3.288	255	.7610	3.538	461	.8611
5.Availability of facilities and software to learn different English accents is important and available '.	3.592	206	.6211	3.557	255	.6818	3.573	461	.8895

Table 4.3: Availability of language laboratory facilities

Table 4.4 represents the next area that is convenience of library facilities which has three sub-areas; learning materials of English language, availability of e-resources, and English-specific library sections. For the first area, the results show that the students of Science-based faculties have shown a moderate value of 3.539 (Mean) but a low value of 2.216 (mean) by the Non science-based faculties. For the second area, both the faculty types have indicated moderate mean values; 3.364 and 3.278 respectively by the Science-based and

Non science-based faculties. For the third area, the mean value of Science-based faculties is 3.529 which is a moderate value while in Non science-based faculties, it is a low value of 2.325.

	Science-based faculty			*Non science-based faculty*			*Total*		
	Mean	**N**	**SD**	**Mean**	**N**	**SD**	**Mean**	**N**	**SD**
1.There are enough learning materials of English language for us to use.	3.539	206	.7340	2.216	255	.8936	2.971	461	.7555
2.Students have adequate e-resources to use.	3.364	206	.8670	3.278	255	.9945	3.317	461	.9822
3.Students have access to English-specific library sections for learning.	3.529	206	.7711	2.325	255	.8765	2.927	461	.6352

Table 4.4: Convenience of library facilities

The final area of the study is the convenience of time tabling and allocation of periods, as indicated in the Table 4.5. The area refers to allocation of extra periods in the English language study programmes. Though, both the faculty types indicate their satisfaction with moderate mean values of 3.233 (Science-based) and 3.459 (Non science-based), respondents of Non science-based faculties are more satisfied than the others. With reference to studying English in the morning hours, both the groups have indicated high values; Science-based (Mean=3.796) and Non science-based (4.067) though the latter group has a higher mean value. The third area of study in this section is the teaching by different lectures in the ELT programmes. The respondents of the Science-based faculties as well as Non science-based faculties indicate high mean values of 3.791 and 3.929 respectively.

	Science-based faculty			*Non science-based faculty*			*Total*		
	Mean	**N**	**SD**	**Mean**	**N**	**SD**	**Mean**	**N**	**SD**
1.Students have extra allocation of periods (more learning hours) than specified credit norms.	3.233	206	.9546	3.459	255	.9078	3.158	461	.9348
2.Students like to learn English in the morning hours.	3.796	206	.9091	4.067	255	.8462	3.946	461	.8842
3.Language skills should be taught by different lecturers and not by the same teacher.	3.791	206	.9214	3.929	255	.8845	3.768	461	.9028

Table 4.5: Convenience of time tabling and allocation of periods

	Low	*Moderate*	*High*
Science-based	0%	47%	52%
Non science-based	23%	52%	25%

Table 4.6 : Overall interpreted values (based on number of items)

Table 4.6 shows the percentages of perceived satisfaction of the 17 questions based on the sub-areas of Learning Environment and Resources. Science-based faculty students' percentage count for low is zero while 47% for moderate and 52% for high. In the case of Non science-based faculties, the count value percentage for low is 23%, 52% for moderate and 25% for high satisfaction.

V. CONCLUSION

This study has identified learner perspectives in respect of Learning Environment and Resources of ESL university students studying in peripheral universities of Sri Lanka. The results indicate that in Science-based faculties, students have shown high and moderate values of their satisfaction. However, in Non science-based faculties, the student perspectives were not so satisfactory compared to Science-based faculties as low values, moderate values and some fewer high values have been indicated in the results. Facilities such as digital smart boards, allocation of periods in language laboratories for studies, availability of learning materials of English, and English specific library resources are areas that need special attention in the prospective development of ELT programmes in universities as low values were reported for Non science-based faculties.

One of the main limitations of the study was the limited sample population as the study was confined to four peripheral universities in Sri Lanka. However, the results could be used to generalize the impact of Learning Environment and Resources of other universities of similar discipline.

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