Sustainable Learning Environment of Effective Schools in the Twenty First Century from Thai Parents' Perspectives.

- In this study a sustainable learning environment will mean that whose form can be easily converted to another form without destroying its natural beauty or features from time to time as learning needs requires.

- This study is pivoted on the theory of Anne Taylor's (2000) that learning environments are a driving force behind building effective schools and Marzano's (2006) theory of What Works in Schools.

According to Marzano and Anne Taylor

Marzanos' 21st Century Effective Schools depend on the following factors.

- School Level Factors
- Student Level Factors
- Teacher Level Factors

Anne Taylor on her part outlined a couple of learning environments for building 21st century schools. (see next slide)

However, it should be noted that the Sustainable learning environments according to Taylor will only be effective depending on the availability of natural or created resources at the location in question.

CONCEPTUAL FRAMEWORK

Thai Parents Profile

1.Educational Attainment

- **High School Grad.**
- **College Grad.**

2.Economic Status

- **Income Earners**
- **Self Employed**

Sustainable Learning Environment

1. Natural learning Environment

2. Out of classroom settings

3. Professional Learning Environment

4. Community Learning Environment.

5. Classroom learning Environment

Overview

- Elsewhere in the world, mostly in the city centres as is the case with the city of Bangkok and other fast growing cities in Thailand, educational modernization and technological practices, and industrialization have consumed and destroyed natural environmental resources. The design of schools, hospitals, hotels and city buildings are often unsuitable for today's learning. In a sustainable learning environment, the environment teaches us to value and nurture that which sustains schools for better learning, in the context of sustainability; to focus on the values, rights and needs of the current and future generations.
- Creating and maintaining stimulating learning environments can be achieved through interactive and whole school displays and a climate of innovation. The future holds many challenges for young people, such as climate change and global poverty. It is clear that our current model of development and use of resources is placing an increasing burden on the environment, but 21st Century schools should be designed to sustain learning and learners minimizing the destruction of limited environmental resources.
- Schools have a special role to play in rebuilding and protecting the environment. As places of learning, they can help pupils understand our impact on the environment; and become places where sustainable living and working is demonstrated to young people and the community. This study seeks to influence school designers, administrators, teachers and investors to develop schools that favour natural or outdoor learning environments, as the traditional classroom is not sustainable enough.

Type 1: EFFECTIVE SCHOOLS

EFFECTIVE SCHOOLS

Type 2:

TYPES OF SCHOOLS

- Sustainable Learning Environment of type 1 School
- Sustainable Learning Environment of Type 2 School

OBJECTIVES

- To identify the aspects of the sustainable Learning Environment of Effective Schools in the Twenty First century from the respondents' perspectives.
- Compare and analyze the significant difference in the levels of the sustainable learning environment of effective schools in the Twenty First Century from the respondents' perspectives.

MATERIAL AND METHOD

1. **Research Design:** Descriptive survey

Typically seeks to ascertain respondents' perspectives or experiences on a specified subject in a predetermined structured manner.

2. **Research Respondents:** Purposive or Judgmental Sampling.

Chosen on the basis of their knowledge of the information desired. Slovin's equation used to determine the number of respondents.

$$n = N / (1 + (N*e^2))$$

n = Number of samples
N = Total population
e = Error tolerance

3. **Research Instruments:** Likert scale

The researcher constructed a questionnaire Which was in the form of a check list.

MATERIAL AND METHOD

4. Data Gathering Procedure :

- Seeking permission to conduct the study.
- Translation of questionnaire
- Distribution of the questionnaire
- Retrieval of the questionnaire
- Tabulation of the data

5. Validity and Reliability:

To determine the validity and reliability of the test, the researcher conducted a pre test to selected parents of grade 12 student who were not respondents of the study

STATISTICAL TREATMENT OF DATA

1. **Weighted Mean.** This was used to determine the aspects of the sustainable learning environment of effective schools in the twenty first century from the respondents' perspectives in answer to research question number one.

2. **t-test.** This was used to determine the significant difference in the levels of the respondents in the twenty first century when grouped by educational attainment and economic status in answer to research question number two.

STATISTICAL TREATMENT OF DATA

Scale:

Numerical Rating	Descriptive Equivalent	Description
4.3-5.0	Strongly Agree	The learning environment is far very Effective
3.5-4.2	Agree	The learning Environment is very Effective
2.7-3.4	Moderate	The learning Environment is Effective
1.9-2.6	Disagree	The learning Environment is below the expected level
1.0-1.8	Strongly Disagree	The learning Environment is far below the expected level
4.3-5.0	Strongly Agree	SA
3.5-4.2	Agree	A
2.7-3.4	Moderate	M
1.9-2.6	Disagree	D

FINDINGS AND DISCUSSIONS

- **Sustainable Learning Environment.**

The sustainable learning environment in this study was measured according to its indicators which included; Natural learning Environment, Out of Classroom Settings, Professional Learning Environment, Community Learning Environment and Classroom learning Environment.

Table 1: Distribution of Respondents

Respondents when Grouped by 1.Educational Attainment	Number of Respondents	Percentage of Distribution
High School	44	32
College	96	68
Total	140	100
Respondents when Grouped by 1. Economic Status		
Income Earners	92	65
Self employed	48	35
Total	140	100

FINDINGS AND DISCUSSIONS

- Natural Learning Environment:

Table 2

Indicators of Natural Learning Environment	Mean	Descriptive Equivalent
This Environment		
1.Supports students to become independent active learners.	3.51	Agree
2.Increases the spirit of creativity amongst the students	3.51	Agree
3.Is self-correcting in nature and students do not depend on teachers to point out where they are wrong.	3.80	Agree
3.Allow students to harness their natural strengths and learn about what interests them	3.51	Agree
5.Facilitates learning and encourages learners to take ownership of their own learning and control of the environment	3.74	Agree
6.Students develop positive learning habitats that lead to continuous learning and become confident competent individuals by asking more questions and finding answers	3.55	Agree
Overall Mean	3.60	Agree

FINDINGS AND DISCUSSIONS

Out of Classroom Settings.

Table 3

Indicators of Out of Classroom Settings This Environment	Mean	Descriptive Equivalent
1. Students have the opportunity to extend and transfer their knowledge beyond the classroom and learn in a fun, engaging and more stimulating context.	3.56	Agree
2. Assist students in connecting their new knowledge with what is taught in the class.	3.64	Agree
3. Enable students to work in small groups, which help them learn and develop skills such as effective oral communication between peers, co-operation, working together, taking responsibility and reporting skills.	3.86	Agree
4.Students develop positive learning habitats that lead to continuous learning and become confident competent individuals by asking more questions and finding answers	3.66	Agree
5. Facilitates learning and encourages learners to take ownership of their own learning and control of the environment.	3.83	Agree
Over all mean	3.71	Agree

FINDINGS AND DISCUSSIONS

Community Learning Environment:

Table 4

Indicators of Community Learning Environment This Environment	Mean	Descriptive Equivalent
1. I value the participation of students in community work.	3.91	Agree
2. I enjoy working with students during community activities.	4.02	Agree
3. I offer important responsibilities to students in the community.	3.81	Agree
4. I spent most of my time working with students in the community.	3.51	Agree
4. I have learnt a lot of skills by working with students in the community.	3.88	Agree
5. I would like to create more community activities and invite students to attend.	3.94	Agree
6. It is too costly creating community learning activities for students.	2.89	Neutral
7. I have made new friends as a result of participating in community learning.	3.75	Agree
8. There is always a positive change when students participate in community activities.	3.74	Agree
Over all mean	3.72	Agree

FINDINGS AND DISCUSSIONS

Professional Learning Environment:

Table 5

Indicators of Professional Learning Environment This Environment	Mean	Descriptive Equivalent
1. Group work with professionals results in the feeling of belonging and enjoyment for the students	3.70	Agree
2. A positive professional learning environment results in more participation in lessons.	3.83	Agree
3. Brings about high-quality group work and a high level of understanding and achievement	3.80	Agree
4. When a professional shows personal interest in the students, he/she creates a pleasant learning climate and a desire to learn.	3.58	Agree
5. Group work is easier for students, because it helps to bring about a more positive learning environment	3.85	Agree
6. This learning environment helps learners to learn better and faster	4.08	Agree
Over all mean	3.80	Agree

FINDINGS AND DISCUSSION

Classroom learning Environment:

Table 6

Indicators of Classroom Learning Environment This Environment	Mean	Descriptive Equivalent
1.Students' participation in lessons increases in this learning environment	3.84	Agree
2. learning material is very organized in this learning environment	3.48	Agree
3. When the teacher acts as a leader in the classroom, it facilitates learning.	3.72	Agree
4. Facilitates learning and encourages learners to take ownership of their own learning and control of the environment	3.72	Agree
5.Teachers always teach at a level suitable to the students	3.46	Agree
6. The physical size of the classroom influences students' learning	3.51	Agree
7. The number of students in the classroom is suitable for effective learning	3.78	Agree
8. The seating arrangement in the classroom promotes learning.	3.94	Agree
Overall mean	3.68	Agree

FINDINGS AND DISCUSSIONS

Summary of Dependent Variable:

Table 7

Dependent Variable	Mean N=140	Std. Deviation	Descriptive Equivalent
Natural learning Environment	3.60	.51	Agree
Out of Classroom Learning Environment	3.71	.53	Agree
Community Learning Environment	3.72	.46	Agree
Professional Learning Environment	3.80	.51	Agree
Classroom Learning Environment	3.68	.67	Agree
Dependent	3.70	.40	Agree

FINDINGS AND DISCUSSIONS

- Educational Attainment:

Table 8

Indicators	Educational Attainment		Mean Difference	Computed t-value	P-value	Decision on Ho
	High School N=44	College N=96				
Natural learning Environment.	44	96	.16282	1.769	.079	Failed to Reject
Out of classroom settings.	44	96	.14451	1.515	.132	Failed to Reject
Professional Learning Environment.	44	96	.14754	1.775	.072	Failed to Reject
Community Learning Environments.	44	96	.17708	1.940	.064	Accepted
Classroom learning Environment.	44	96	.20424	1.678	.095	Accepted
Overall	**44**	**96**	**.16630**	**2.339**	**.021**	**Rejected**

FINDINGS AND DISCUSSIONS

Economic Status:

Table 9

Indicators	Economic Status		Mean Difference	Computed t-value	P-value	Decision on Ho
	Income Earner N=92	Self Employed N=48				
Natural learning Environment	92	48	-.18970	-2.118	.036	Rejected
Out of classroom settings	92	48	-.18768	-2.025	.045	Rejected
Professional Learning Environment	92	48	-.21896	-2.297	.023	Rejected
Community Learning Environments.	92	48	-.20225	-2.437	.007	Rejected
Classroom learning Environment	92	48	-.08124	-677	.499	Accepted
Overall	**92**	**48**	-.20007	-2.768	**.006**	Rejected

CONCLUSION

Table 10

Indicator	Mean of Educational Attainment		Mean of Economic Status		Accumulated Mean
	High school	College	Income Earner	Self Employed	
Natural Learning Environment	3.72	3.55	3.53	3.72	14.52
Out of Classroom Settings	3.81	3.66	3.64	3.83	14.94
Professional Learning Environment	3.93	3.75	3.73	3.93	15.35
Community Learning Environment	3.82	3.67	3.64	3.86	14.99
Classroom Learning Environment	3.82	3.62	3.65	3.73	14.82

CONCLUSION

Based on the findings, the following conclusions were drawn.

The level of the Natural Learning Environment was Agree, the level of the Out of Classroom Settings was Agree, the level of the Professional Learning Environment was Agree, the level of the Community Learning Environment was Agree and the level of the Classroom Learning Environment was Agree.

CONCLUSION

- As for the indicators, they were classified according to the respondents' choices.
- The most preferred Sustainable Learning Environment was the Professional learning environment with an accumulated mean of 15.35, the second position went to the Community Learning Environment with a score of 14.99, the third position to the Out of Classroom Settings scoring 14.94, at the forth position was the Classroom learning Environment with 14.52 and at the fifth position was the Natural learning Environment with a score of 14.35.

RECOMMENDATION

As this study deals with the perceptions of Thai parents with children currently attending high school, it is important for researchers to alternate the independent variable with Thai students' perceptions to know the outcome since the hypothesis were rejected in this study.

AMEN