

Understanding Personal Learning Environment Perspectives of Thai International Tourism and Hospitality Higher Education Students

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Abstract

This paper is part of a periodic research conducted in developing a personal learning environment for Thailand's higher education students with English as medium of instruction. The objective of the first phase in this research was to understand the personal learning environment perspectives of Thai International tourism and hospitality higher education students. A structured questionnaire of personal, learning and environment perspectives based on various literature reviews and practical applications was constructed and distributed to 111 Bachelor of Business administration students majoring tourism and hospitality management to measure their agreeableness towards elements of PLE. The results revealed that all the three stakeholders, i.e., the student, teacher and the college have control or ownership over the self-learning phases of the students. The students use social media and smart phones to search and find relevant information in various formats such as videos, audios, news, articles from internet and teach each other by giving feedbacks within themselves on completing their assignments during self-learning phases.

Keywords: personal learning environment; international tourism and hospitality students; self learning phases; higher education; Thailand.

1. Introduction

Personal learning / self learning is emphasized in Thailand's Higher education qualification framework by recommended time of double the credits hours. Especially when it comes to learning through a foreign language, i.e., through English, the students need to concentrate more on their self learning phases, use time and technology effectively to understand and learn better. Over the past decade, the growth of information and communication technology especially smart phones and 3/4 G technologies has changed the way how learners search to find right information from traditional libraries to various online resources. With the above mentioned scenario, the research on understanding the students' personal learning environment and developing suitable strategies in supporting their self learning phases is under process.

In the first phase we try to understand the personal learning environment perspectives of Thai International tourism and hospitality higher education students based on which further research on design and development of structured PLE for self learning phases will be developed. This research would be novel in its discipline to develop Personal Learning Environment of Non native English speaking International students and improve their self efficacy and also facilitate them to achieve their Academic goals.

2. Personal Learning Environment

Dabbagh and Kitsantas (2011) stated that PLEs can be perceived as both a technology and a pedagogical approach that is student-designed around each student's goals or a learning approach. PLE is a student designed approach that consists of different types of tools and content, which is "chosen by a student to match his or her personal learning style and pace" (Johnson, Adam and Haywood, 2011:8). A typical Personal learning environment, for example, might include facebook groups where students comment on what they are learning, and their posts may reflect information drawn their course related text books and also from across the web like YouTube, Wikipedia and news agencies. But it is also not limited to online environments. It is complete set of both online and offline resources that learners use to review their class room learning during their self learning phases for answering their homework and assignment questions. As used here, (Personal Learning Environments, Educause, 2009) referred the term is not to a specific service or application but rather to the concept of how students approach the task of learning in their self-learning phases.

3. Self-regulated learning

Self-regulated learning is the term coined by Zimmerman which means that Students' becoming masters of their own learning (Zimmerman and Schunk, 1989). Self-regulated learning is defined as a learners' ability to engage themselves in appropriate actions, thoughts, feelings, behaviors in order to attain their academic goals by self-monitoring and self reflecting throughout the goal completion process (Zimmerman, 2000).

4. Design/Methodology/Approach

Zhou H (2013) reviewed twenty relevant research articles and revealed that, unified elements of personal, learning and environment perspectives are ownership and control of students learning, teaching each other by collaborating, finding and sharing information and web-based various digital tools / resources respectively. A structured questionnaire was constructed based on the PLE components of both (Zhou, 2013; Dabbagh and Kitsantas, 2011). Likert 5-point scale was used to measure the agreeableness of students towards the Personal, learning and environment perspectives. The questionnaire was distributed to 111 Bachelor of Business administration students majoring tourism and hospitality management at St.Theresa International College, to measure their agreeableness towards elements of PLE.

Based on Zimmerman's (2002) Self-Regulated Learning phases, the author enabled the student's self-regulated learning environment by encouraging them to use various tools such as micro-blogging, google docs, google forms, google spreadsheets, youtube, Wikipedia, online Thai – English – Thai dictionaries, group participations in social media through creating group chats for the first phase (Planning) during the beginning of the semester. During the second phase (learning), students were assigned to use social media and form informal learning groups and allowed to complete and submit back their homework and assignments surrounding their course topics thereby extending their Personal learning environment from a personal learning space to a social learning space. At the third phase (reflecting), the students will be allowed to synthesize and aggregate information from phase one and phase two in order to reflect on their overall learning experience. At the initial stage of the first phase, the authors researched the personal, learning and environment perspectives of Thai International tourism and hospitality higher education students and the results are discussed below.

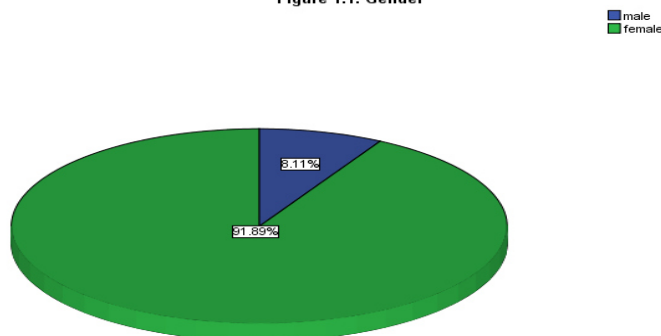
5. Results and Discussions

1. Descriptive Statistics

The results of the Personal Learning Environment Perspectives of Thai International Tourism and Hospitality Higher Education Students during the first phase are presented below.

A. Gender

Figure 1.1: Gender



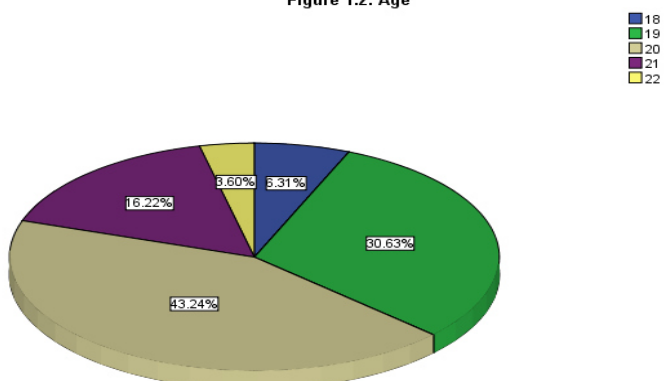
		Frequency	Percent
Valid	male	9	8.1
	female	102	91.9
	Total	111	100.0

From table 1 and figure 1.1 it is inferred that majority of the respondents i.e., 91.9 percent are female and the remaining 8.1 percent are male respondents.

B. Age

	Age	Frequency	Percent
Valid	18	7	6.3
	19	34	30.6
	20	48	43.2
	21	18	16.2
	22	4	3.6
	Total	111	100.0

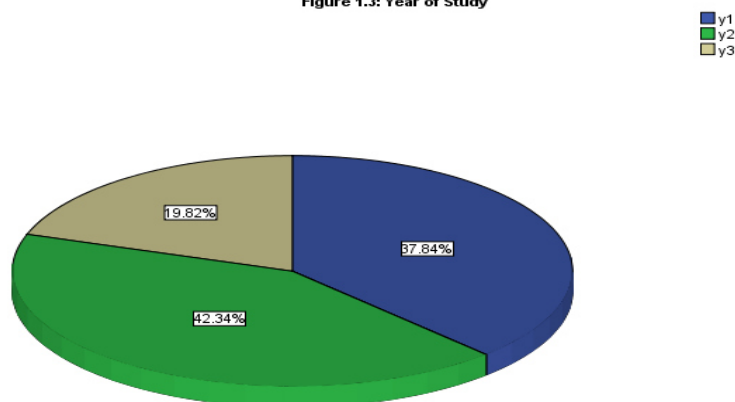
Figure 1.2: Age



From table 2 and figure 1.2 it is inferred that the age of all the respondents are between 18 to 22, 6.3 percent of the respondents at the age of 18, 30.6 percent at the age of 19, 43.2 percent at the age of 20, 16.2 percent at the age of 21 and 3.6 percent at the age of 22.

C. Year of Study

Figure 1.3: Year of Study



	Year	Frequency	Percent
Valid	y1	42	37.8
	y2	47	42.3
	y3	22	19.8
	Total	111	100.0

From table 3 and figure 1.3 it is inferred that the majority of the respondents i.e., 42.3 percent are from year 2 followed by 37.8 percent from year 1 and 19.8 percent from year 3 of tourism and hospitality major.

2. Reliability Statistics

A. Personal Perspectives

Table 4: Reliability Statistics of Personal Perspectives

Cronbach's Alpha	N of Items
.606	3

Personal Perspectives	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Personal 1: I have control over my self-learning phases.	6.5946	1.916	.396	.533
Personal 2: My teachers have control over my self-learning phases.	6.6216	1.892	.519	.359
Personal 3: My College has control over my self-learning phases.	6.9459	2.088	.339	.613

The cronbach 's alpha was used to estimate the reliability of the research constructs. The Table no. 4 and 5 indicate the reliability statistics and item total statistics for Personal Perspectives of self learning phases. The scores of cronbach's alpha if the items deleted are moderate, so the item analysis indicates the individual item have secured moderate score. The cronbach's alpha score for all the 3 items of Personal Perspectives of self learning phases is .606, which has moderate reliability. Whereas the second item - My teachers have control over my self-learning phases hold low reliability if the deleted. In overall reliability value is acceptable, which is .606.

B. Learning Perspectives

Table 6: Reliability Statistics of Learning Perspectives

Cronbach's Alpha	N of Items
.898	10

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Learning 1 (Actions): I will plan and organize my self-learning phases effectively	31.7207	33.585	.716	.883
Learning 2 (Actions): I will search and find relevant information in various formats (Videos, News, Articles, online books, etc)	31.6216	34.965	.620	.890
Learning 3 (Actions): I will communicate and collaborate with others during my self-learning phases.	31.7117	35.116	.688	.886
Learning 4 (Actions): As class peers, we teach each other and give feedbacks within ourselves on the assignments during our self-learning phases	31.6757	34.367	.692	.885
Learning 5 (Actions): My self-learning phases include editing and creating new contents.	31.8198	35.531	.699	.885
Learning 6 (People to learn from and with): I develop contents and learn by myself (I have self direction towards my learning) in completing assignments during my self-learning phases.	31.5946	35.480	.605	.891
Learning 7 (People to learn from and with): I develop contents with my friends, discuss with them in completing assignments during my self-learning phases.	31.7027	34.593	.659	.887
Learning 8 (People to learn from and with): I develop contents with my friends, discuss with them and also ask doubts, later clear from my teacher in completing assignments during my self-learning phases.	31.7477	36.027	.662	.888
Learning 9 (Goals of Learning): I use my self- learning phases to pursue towards achieving my short term goals (Ex: Getting A Grade in the subject, achieving 3.4 CGPA, etc)	31.8108	35.864	.557	.894

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Learning 10 (Goals of Learning): I use my self- learning phases to pursue towards achieving my long term goals (Ex: To become a General Manager in my field of expertise, To start my own company, etc)	31.8649	34.845	.592	.892

The Table 6 and 7 indicate the reliability statistics and item total statistics for Learning Perspectives of self learning phases. The scores of cronbach's alpha if the items deleted are high, so the item analysis indicates the all individual items have secured high score. The cronbach's alpha score for all the 10 items of learning Perspectives of self learning phases is .898, which has high reliability.

C. Environment Perspectives

Table 8: Reliability Statistics of Environment Perspectives

Cronbach's Alpha	N of Items
.878	8

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Environment 1 (Platform and Tools): I use internet as a major platform during my self-learning phases.	25.5135	22.961	.573	.869
Environment 2 (Platform and Tools): I often use smart phone / mobile rather than personal computer / laptop during my self-learning phases.	25.4144	21.681	.659	.861
Environment 3 (Platform and Tools): I use social media tools (Ex: facebook Group chat, micro-blogging, etc) for effective personal learning.	25.3694	21.853	.728	.853
Environment 4 (Community): My peers support me and help me through collaborative learning (Asking help from friends for vocabulary, meaning of sentences, how to do assignments, homework, etc)	25.4685	22.924	.611	.865
Environment 5 (Community): I seek support from other groups / class during my self-learning phases.	25.6126	22.330	.638	.863
Environment 6 (resources): I use various online applications, services and learning resources (Thai – English – Thai Dictionary) during my self-learning phases.	25.4144	22.590	.603	.866
Environment 7 (resources): I use mobile internet as a major resource during my self-learning phases.	25.5676	21.975	.696	.857
Environment 8 (resources): My completed and shared assignment also becomes an additional resource for my group members.	25.5856	23.336	.611	.866

The Table 8 and 9 indicate the reliability statistics and item total statistics for Environment Perspectives of self learning phases. The scores of cronbach's alpha if the items deleted are high, so the item analysis indicates the individual item have secured high score. The cronbach's alpha score for all the 8 items of environment Perspectives of self learning phases is .878, which has high reliability.

D. Overall Reliability Score for all the three Perspectives (Personal, Learning and Environment)

Table 10: Reliability Statistics of all three perspectives

Cronbach's Alpha	N of Items
.936	21

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Personal 1: I have control over my self-learning phases.	70.9820	142.072	.655	.932
Personal 2: My teachers have control over my self-learning phases.	71.0090	145.300	.559	.934
Personal 3: My College has control over my self-learning phases.	71.3333	148.988	.334	.937
Learning 1 (Actions): I will plan and organize my self-learning phases effectively	70.9369	138.696	.736	.930
Learning 2 (Actions): I will search and find relevant information in various formats (Videos, News, Articles, online books, etc)	70.8378	142.555	.594	.933
Learning 3 (Actions): I will communicate and collaborate with others during my self-learning phases.	70.9279	141.922	.699	.931
Learning 4 (Actions): As class peers, we teach each other and give feedbacks within ourselves on the assignments during our self-learning phases	70.8919	140.679	.692	.931
Learning 5 (Actions): My self-learning phases include editing and creating new contents.	71.0360	142.944	.698	.931
Learning 6 (People to learn from and with): I develop contents and learn by myself (I have self direction towards my learning) in completing assignments during my self-learning phases.	70.8108	142.664	.621	.933

Learning 7 (People to learn from and with): I develop contents with my friends, discuss with them in completing assignments during my self-learning phases.	70.9189	140.712	.681	.931
Learning 8 (People to learn from and with): I develop contents with my friends, discuss with them and also ask doubts, later clear from my teacher in completing assignments during my self-learning phases.	70.9640	144.253	.644	.932
Learning 9 (Goals of Learning): I use my self- learning phases to pursue towards achieving my short term goals (Ex: Getting A Grade in the subject, achieving 3.4 CGPA, etc)	71.0270	144.172	.540	.934
Learning 10 (Goals of Learning): I use my self- learning phases to pursue towards achieving my long term goals (Ex: To become a General Manager in my field of expertise, To start my own company, etc)	71.0811	142.366	.569	.934
Environment 1 (Platform and Tools): I use internet as a major platform during my self-learning phases.	70.8468	142.404	.622	.933
Environment 2 (Platform and Tools): I often use smart phone / mobile rather than personal computer / laptop during my self-learning phases.	70.7477	143.463	.515	.935
Environment 3 (Platform and Tools): I use social media tools (Ex: facebook Group chat, micro-blogging, etc) for effective personal learning.	70.7027	141.556	.671	.932
Environment 4 (Community): My peers support me and help me through collaborative learning (Asking help from friends for vocabulary, meaning of sentences, how to do assignments, homework, etc)	70.8018	143.415	.601	.933
Environment 5 (Community): I seek support from other groups / class during my self-learning phases.	70.9459	141.579	.647	.932
Environment 6 (resources): I use various online applications, services and learning resources (Thai – English – Thai Dictionary) during my self-learning phases.	70.7477	142.118	.619	.933
Environment 7 (resources): I use mobile internet as a major resource during my self-learning phases.	70.9009	142.181	.628	.932
Environment 8 (resources): My completed and shared assignment also becomes an additional resource for my group members.	70.9189	142.530	.698	.931

Overall reliability was estimated for all the 21 items to find out the internal consistency, and from table 10 and 11 it is inferred that the Cronbach's Alpha is very high .936. Under the “Cronbach’s Alpha if Item deleted” all the items have high reliability, which is greater than 0.93, so it is not necessary to delete any of the items to improve the reliability score of this scale.

3. Students’ opinion towards personal, learning and environment perspectives of their self learning phases

1. Personal Perspective

Table 12: Personal Perspective and Students Opinion (n=111)

Personal Perspective	Mean	S.D.	Level
Personal 1: I have control over my self-learning phases.	3.4865	.89305	Moderate
Personal 2: My teachers have control over my self-learning phases.	3.4595	.80661	Moderate
Personal 3: My College has control over my self-learning phases.	3.1351	.86850	Moderate

When it comes to control over the self learning phases, the mean remains moderate for all the three components. Whereas the personal perspective 1, i.e., “I have control over my self-learning phases” has a highest score with a mean of 3.48 followed by “my teacher have control over my self-learning phases” with a mean score of 3.45 and the colleges’ control scored lowest with a mean score of 3.13. In overall it is inferred that all the three stakeholders the student, the teacher and college have a certain degree of control over the personal perspective of students’ self learning phases.

2. Learning Perspective

Table 13: Learning Perspective and Students Agreeableness (n=111)

Learning Perspective	Mean	S.D.	Level
Learning 1 (Actions): I will plan and organize my self-learning phases effectively	3.5315	.98921	High
Learning 2 (Actions): I will search and find relevant information in various formats (Videos, News, Articles, online books, etc)	3.6306	.94319	High

Learning 3 (Actions): I will communicate and collaborate with others during my self-learning phases.	3.5405	.85049	High
Learning 4 (Actions): As class peers, we teach each other and give feedbacks within ourselves on the assignments during our self-learning phases	3.5766	.92980	High
Learning 5 (Actions): My self-learning phases include editing and creating new contents.	3.4324	.79340	Moderate
Learning 6 (People to learn from and with): I develop contents and learn by myself (I have self direction towards my learning) in completing assignments during my self-learning phases.	3.6577	.89945	High
Learning 7 (People to learn from and with): I develop contents with my friends, discuss with them in completing assignments during my self-learning phases.	3.5495	.94136	High
Learning 8 (People to learn from and with): I develop contents with my friends, discuss with them and also ask doubts, later clear from my teacher in completing assignments during my self-learning phases.	3.5045	.77311	High
Learning 9 (Goals of Learning): I use my self- learning phases to pursue towards achieving my short term goals (Ex: Getting A Grade in the subject, achieving 3.4 CGPA, etc)	3.4414	.91139	Moderate
Learning 10 (Goals of Learning): I use my self- learning phases to pursue towards achieving my long term goals (Ex: To become a General Manager in my field of expertise, To start my own company, etc)	3.3874	.99244	Moderate

In the action aspect of learning perspective the research results reveal that searching and finding relevant information in various formats such as videos, audios, news, articles from internet has highest mean with a score of 3.63 whereas, editing and creating new contents with the information scored moderate with a mean of 3.43. And all the three aspects of people to learn from and with have high mean scores. Though “I develop contents and learn by myself in completing assignments has the highest mean”, interaction with friends and teachers during their self learning phases are also highly agreed by students of which interaction with teacher has lowest standard deviation of .773. Finally, achieving both short term and long term goals scored moderate i.e., 3.44 and 3.38 respectively.

3. Environment Perspective

Table 14: Environment Perspective and Students Agreeableness (n=111)

Environment Perspective	Mean	S.D.	Level
Environment 1 (Platform and Tools): I use internet as a major platform during my self-learning phases.	3.67	.907	High
Environment 2 (Platform and Tools): I often use smart phone / mobile rather than personal computer / laptop during my self-learning phases.	3.77	.998	High
Environment 3 (Platform and Tools): I use social media tools (Ex: facebook Group chat, micro-blogging, etc) for effective personal learning.	3.80	.936	High
Environment 4 (Community): My peers support me and help me through collaborative learning (Asking help from friends for vocabulary, meaning of sentences, how to do assignments, homework, etc)	3.67	.898	High
Environment 5 (Community): I seek support from other groups / class during my self-learning phases.	3.55	.931	High
Environment 6 (resources): I use various online applications, services and learning resources (Thai – English – Thai Dictionary) during my self-learning phases.	3.75	.960	High
Environment 7 (resources): I use mobile internet as a major resource during my self-learning phases.	3.60	.945	High
Environment 8 (resources): My completed and shared assignment also becomes an additional resource for my group members.	3.55	.826	High

All environment aspects scored with high mean, however social media tools and smart phone scored highest with 3.80 and 3.77 respectively followed by use of applications such as Thai – English – Thai Dictionary is found with a high mean score of 3.75

4. ANOVA: Personal Perspectives

Hypothesis: There is no significant difference among students towards personal perspectives.

Table 15: ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Personal 1: I have control over my self-learning phases.	Between Groups	.158	2	.079	.098	.907
	Within Groups	87.572	108	.811		
	Total	87.730	110			
Personal 2: My teachers have control over my self-learning phases.	Between Groups	.071	2	.036	.054	.948
	Within Groups	71.496	108	.662		
	Total	71.568	110			
Personal 3: My College has control over my self-learning phases.	Between Groups	8.255	2	4.127	5.966	.003
	Within Groups	74.718	108	.692		
	Total	82.973	110			

Table 16: Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Personal 1: I have control over my self-learning phases.	1.013	2	108	.367
Personal 2: My teachers have control over my self-learning phases.	.565	2	108	.570
Personal 3: My College has control over my self-learning phases.	1.811	2	108	.168

The One-Way Anova and test of homogeneity of variances results from table 15 and 16 revealed that there is a significant difference between the groups on “My College has control over my self-learning phases” for which the $p < 0.05$, in order to further find out which specific groups differ among themselves, post hoc test was conducted and the results were displayed in Table 17, 18 and 19 respectively.

Table 17: Personal1

Tukey B

Major year & Section	N	Subset for alpha = 0.05
		1
y2	47	3.4468
y1	42	3.5000
y3	22	3.5455

Means for groups in homogeneous subsets are displayed.

Table 18: Personal2

Tukey B

Major year & Section	N	Subset for alpha = 0.05
		1
y3	22	3.4091
y2	47	3.4681
y1	42	3.4762

Means for groups in homogeneous subsets are displayed.

Table 19: Personal3

Tukey B

Major year & Section	N	Subset for alpha = 0.05	
		1	2
y3	22	2.6818	
y2	47	3.0851	3.0851
y1	42		3.4286

Means for groups in homogeneous subsets are displayed.

The results revealed that the students' perception differs from 1st, 2nd and 3rd year students. The third year students have very low agreeableness towards their College's control over their self-learning phases whereas year 1 and year 2 students generally agree that their college control their self-learning phases. Hence hypothesis is rejected.

ANOVA: Learning Perspectives

Hypothesis: There is no significant difference among students towards learning perspectives.

Table 20: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Learning1	Between Groups	.033	2	.016	.016	.984
	Within Groups	107.607	108	.996		
	Total	107.640	110			
Learning2	Between Groups	2.308	2	1.154	1.304	.276
	Within Groups	95.548	108	.885		
	Total	97.856	110			
Learning3	Between Groups	.513	2	.257	.351	.705
	Within Groups	79.054	108	.732		
	Total	79.568	110			
Learning4	Between Groups	.133	2	.067	.076	.927
	Within Groups	94.966	108	.879		
	Total	95.099	110			
Learning5	Between Groups	2.353	2	1.176	1.900	.155
	Within Groups	66.890	108	.619		
	Total	69.243	110			
Learning6	Between Groups	1.313	2	.657	.809	.448
	Within Groups	87.678	108	.812		
	Total	88.991	110			
Learning7	Between Groups	.551	2	.275	.307	.736
	Within Groups	96.927	108	.897		
	Total	97.477	110			
Learning8	Between Groups	.027	2	.013	.022	.978
	Within Groups	65.721	108	.609		
	Total	65.748	110			
Learning9	Between Groups	3.384	2	1.692	2.077	.130
	Within Groups	87.985	108	.815		
	Total	91.369	110			
Learning10	Between Groups	1.274	2	.637	.643	.528
	Within Groups	107.068	108	.991		
	Total	108.342	110			

From table 20 the one-way ANOVA results revealed that there is no statistically significant difference among the students on learning and environment perspectives, for which the p-value is ($P > 0.05$). Hence the hypothesis is accepted.

ANOVA: Environmental Perspectives

Hypothesis: There is no significant difference among students towards environment perspectives.

Table 21: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Environment1	Between Groups	1.426	2	.713	.849	.431
	Within Groups	90.682	108	.840		
	Total	92.108	110			
Environment2	Between Groups	3.294	2	1.647	1.662	.195
	Within Groups	107.048	108	.991		
	Total	110.342	110			
Environment3	Between Groups	.574	2	.287	.347	.708
	Within Groups	89.336	108	.827		
	Total	89.910	110			
Environment4	Between Groups	1.958	2	.979	1.278	.283
	Within Groups	82.709	108	.766		
	Total	84.667	110			
Environment5	Between Groups	.503	2	.252	.285	.752
	Within Groups	95.191	108	.881		
	Total	95.694	110			
Environment6	Between Groups	1.561	2	.780	.889	.414
	Within Groups	94.782	108	.878		
	Total	96.342	110			
Environment7	Between Groups	.164	2	.082	.095	.909
	Within Groups	93.079	108	.862		
	Total	93.243	110			
Environment8	Between Groups	.554	2	.277	.411	.664
	Within Groups	72.923	108	.675		
	Total	73.477	110			

From table 21 the results of One-way ANOVA revealed that there is no statistically significant difference among the students on learning and environment perspectives, for which the p-value is ($P > 0.05$). Hence the hypothesis is accepted.

6. Discussion

The results of the study confirmed that,

1. In personal perspective, all the three stakeholders, i.e., the student, teacher and the college have control or ownership over the self-learning phases of the students. And it also revealed that the level of control of college over the students self-learning phases reduces and students take more ownership as they rise to senior levels from year one to year three.
2. In learning perspective, searching and finding relevant information in various formats such as videos, audios, news, articles from internet and teaching each other by giving feedbacks within themselves on their assignments during our self-learning phases are the highly agreed activities.
3. In environment perspective, social media and smart phones play a key role during students self-learning phases.

7. Conclusion

Though double the time of credit hours is recommended by most of the curriculum for self learning in Thailand, there was no research conducted in improving the Personal Learning Environment through self-regulated learning phases from the context of Thailand. The study would be restricted only to Bachelor level English medium Tourism and Hospitality students of St. International College in Thailand. In future, the study could be conducted with teachers and students from various majors and level of years to compare and yield better results.

8. Recommendations on future research

Further research on mapping the Personal learning environment of Thai International Tourism and Hospitality Higher Education Students, understanding their past (during high school / previous year), present use of technology in self-learning phases and their future perceptions of using PLE for lifelong learning and their overall satisfaction towards their present PLE would reveal more results on the effectiveness of structured PLE in their self-learning phases.

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