

## STUDENTS' PERCEPTION ON EFFECTIVE LEARNING STRATEGIES UNDER THE NEW LEARNING SYSTEM: AN EXPLORATORY DESIGN

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### ABSTRACT

This study examined the effective learning strategies under the new learning system using exploratory mixed method design. The exploratory sequential mixed method design is characterized by an initial qualitative phase of data collection and analysis, followed by a phase of quantitative phase of data collection analysis, with a final phase of integration or linking of data from two separate strands of data. More specifically, it aimed to construct, develop and evaluate the effective learning strategies under the new learning system scale. In the qualitative phase, there were seven students who participated in the in-depth interview and ten students participated in the focus group discussion. There were three themes that emerged from the interview that put emphasis on time management strategy, note taking strategy, and knowledge sharing strategy. A 30-item new approaches of teaching scale was also constructed based from the results of the interview, which was subjected to the quantitative phase. In the quantitative phase, 200 questionnaire responses were analyze for exploratory factor analysis (EFA). Results showed three underlying effective learning strategies under the new learning system. A total of three themes on the effective learning strategies under the new learning system questionnaire was developed which are time management strategy with a total of twenty items, note taking strategy with a total of three items, and knowledge sharing strategy with a total of seven items. and the overall the scale has a total of 30-item questionnaire. This study recommended that This study recommended that to enhance students' learning strategy in the new normal, it is recommended to encourage them to create a structured and consistent study routine, and to actively engage with their online learning materials through note-taking, summarizing, and self-quizzing. Additionally, providing them with regular feedback and opportunities for collaboration can also help to improve their learning outcomes.

**Keywords:** *Learning Strategy, New Learning System, Exploratory Sequential Design, Factor Analysis, Municipality or President Roxas, Philippines*

### INTRODUCTION

Globally, data showed that that more than 1.5 billion learners are affected because of the school and university closures due worldwide lockdown because of this Covid-19 pandemic (UNICEF, 2020). With this the education system seems unprepared and may transpire unpredicted consequences during and beyond the crisis (Bozkurt &

Sharma, 2020). For example, a cross-sectional study conducted nationwide reported that thirty-two percent (32%) out of 3, 670 Filipino students surveyed have difficulties adjusting to new learning styles and twenty-two percent (22%) do not have reliable ways on how to study effectively in the new learning platform (Baticulon et al., 2020). With that, it is relevant to assess students learning strategies at this time of educational crisis, since if not been given an attention it could potentially influence their quality of their learning (Santos, 2020).

Konrad (2019) observed that in contemporary educational systems, learners are expected to demonstrate a heightened level of autonomy and proactive engagement in the learning process, which involves scrutinizing learning materials and comprehending their contents. The effective acquisition of knowledge both within and outside the school environment is contingent upon students possessing the skills to initiate, guide, and control their search for information, as well as process and store it. One effective strategy in distance learning, as supported by Pressley et al. (2020), is the implementation of cooperative learning. Cooperative learning entails students providing mutual support as they collaborate towards a shared objective, whether working in pairs or groups. This research demonstrates the positive impact of cooperative work on young children's learning outcomes, illustrating their capacity to learn and enhance their knowledge even in the absence of teachers. Moreover, motivation plays a pivotal role in successful learning. Schiefele and Streblow (2021) asserted that a student's level of motivation directly influences their actions, study duration, and intensity. Thus, the degree of learning motivation directly affects whether a student engages in learning at all, and if so, for how long.

This Covid-19 pandemic has brought a lot of challenges to students, especially in adjusting to this new and unfamiliar ways of learning. With this, it is timely relevant to re-assess on what are the best strategies that the students used in order to effectively learn in the current learning system. Despite that there are growing literatures on students' strategies and techniques in learning, however, this study is focused on students' strategies and techniques in learning under this modular and distance learning. This study will try to fill the gap about the lack of literatures on students' strategies and techniques in learning in this new context of educational environment. Aside from that this study will used an exploratory research design in which this study will focus on looking at the context of the problems using both qualitative and quantitative aspect of the problems. Making this study more substantial and relevant.

The aimed of this study is to produce ideas on what are the best strategies and techniques used by students in learning under this new learning system. The information that can be generated in this study could help other learners to cope and adjust in this new educational instruction. Also, the themes that can be formed from this exploratory study, can be a basis to further improve the teaching and support services being provided by the school and by other stakeholders that have concerns in helping the learners adjust and learn effectively despite of this pandemic situation.

## **FRAMEWORK**

Learning should be meaningful. In the sense teachers should be able to create learning experiences for students to learn the concepts in a more authentic ways. This

will help the learners adjust effectively no matter what the learning system they may encounter. When students are able to learn the concept deeply they can be more likely to excel in their academic endeavor since they know how to apply the idea into their reality.

As a pragmatist point of view, this study believes that the learning materials that are provided to students must connect to their daily lives. Making connections to students' lives can make the learning more meaningful to them. In return, students will more likely to engage and study the material by themselves since they will find the materials more interesting without the presence of teachers.

With that, this study on students learning strategies is grounded on situated learning theory by Lave and Wenger (1990). Situated learning essentially is a matter of creating meaning from the real activities of daily living where learning occurs relative to the teaching environment (Stein, 1998). Situated learning believes that no matter what the place of learning is, learners should see the value and importance of learning. According to the Oregon Technology in Education Council (2007), traditional learning predominantly stems from disconnected and theoretical encounters like lectures and textbooks. However, situated learning proposes that learning emerges from the interplay between individuals, as well as the integration of prior knowledge with genuine, informal, and frequently unplanned contextual learning. As students become increasingly engaged and involved in the social community, their role evolves from being novices to experts, with learning often occurring incidentally rather than intentionally.

Furthermore, situated learning theory posits that knowledge should be imparted within an authentic framework. Novice learners ought to engage in genuine, everyday scenarios where they can apply knowledge and utilize tools in a constructive yet low-risk manner. This theory exerted such a profound impact that it prompted certain scholars to argue that learning can only hold significance when it is integrated into social and physical contexts. Nevertheless, it was observed that students' activities, particularly in classroom environments, are typically detached from "the customary practices of society." Consequently, it is advisable to consider restructuring the course materials and content provided to students (Brown, Collins & Duguid, 2019).

## **METHODS**

### **Research Design**

This study employed an exploratory research design, which involves investigating research questions that have not been extensively studied before. Exploratory research can take a qualitative approach, although it can also be quantitative when conducted with a large sample. It is commonly known as interpretive research or a grounded theory approach, characterized by its adaptable and open-ended nature. Exploratory research aims to examine a problem that lacks a clear definition, with the objective of gaining a better understanding of the issue at hand. In this study, the researcher began with a general idea and utilized it as a means to identify relevant issues, forming the basis for the research. Specifically, individual interviews were conducted with the identified participants to gather data. The information obtained from these interviews was used to construct a comprehensive

depiction of students' perspectives on effective learning strategies within the new educational system.

Meanwhile, based on Creswell & Plano Clark (2018) exploratory sequential mixed methods is an approach to combining qualitative and quantitative data collection and analysis in a sequence of phases. The two authors pointed out that the first phase in this study is the researcher should collect qualitative data and then analyze the data, the results of which direct the next, quantitative phase, which could be a survey or some other form of quantitative data collection. That was, the qualitative analysis provided critical fodder for developing specific research questions for the quantitative phase, which involved a questionnaire, survey, or other form of quantitative data collection. The data collected was subjected for complex statistical analyses to validate the instrument or the ground theory being formulated (Creswell & Plano Clark, 2018).

### **Research Participants**

In this study, stratified random sampling was used in the identification of the respondents and participants in the study. That was proportion allocation was used to proportionally get the sample from each of the district in Municipality of President Roxas.

In the qualitative phase, we conducted in-depth interviews with ten students from the Municipality of President Roxas, and a focus group discussion was held with seven public school students. The insights gathered from these interviews were utilized to identify emerging themes and develop a questionnaire.

In the quantitative measurement, a total of 200 public students answered the generated quantitative survey for exploratory factor analysis and confirmatory analysis. After the conduct of 200 questionnaires, another 30 participants were requested for reliability test.

Meanwhile, these 17 participants for the qualitative and these 200 respondents for the quantitative were selected based on their position. That was, only students who were 18 years old and above were included in this study. On the other hand, students that were not in the inclusion criteria were excluded in the study.

### **Research Instrument**

This research formulated an interview guide questions based on the objectives of the study. These interview guide questions were asked to the participants in the interview and during the focus group discussions. This interview provided views about the students' perception on effective learning strategies in the new learning system.

Meanwhile, professionals were requested to evaluate the content validity of the interview inquiries and assess the durability of the elements that represented the fundamental aspects of students' perspectives on successful learning methods within the new educational system. The objective was to guarantee the questionnaire's clarity and ease of understanding.

### **Data Analysis**

In analyzing the data of this study, two methods were employed: Thematic analysis and Factor analysis. Below were the detailed explanations of how these methods were done.

In the qualitative aspect, the data obtained from in-depth interview were analyzed using thematic analysis. Based on Kiger and Varpio (2020), thematic analysis was a method for analyzing qualitative data that entails searching across a data set to identify, analyze, and report repeated patterns. It is a method for describing data, but it also involves interpretation in the processes of selecting codes and constructing themes. Moreover, thematic analysis involves a six-step process: familiarizing yourself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Kiger & Varpio, 2020).

In the qualitative aspect, the data obtained from in-depth interview were analyzed using thematic analysis. Based on Kiger and Varpio (2020), thematic analysis was a method for analyzing qualitative data that entails searching across a data set to identify, analyze, and report repeated patterns. It is a method for describing data, but it also involves interpretation in the processes of selecting codes and constructing themes. Moreover, thematic analysis involves a six-step process: familiarizing yourself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Kiger & Varpio, 2020).

The study employed Factor analysis to simplify a set of complex variables or items and explore the underlying dimensions that explain the relationships between the variables. According to Tavakol and Wetzel (2020), this statistical method simplifies a matrix of correlations, allowing researchers to better understand the relationship between items in a scale and the underlying factors that the items may have in common. The main purpose of using Factor analysis in this study was to develop and refine assessment instruments for evaluating effective online teaching, which was validated through the construct validity of the measure (Tavakol & Wetzel, 2020).

Before conducting Factor Analysis, the data underwent the Kaiser-Meyer-Okin (KMO) measure of sampling adequacy. This test was used to determine if the data was appropriate for Factor Analysis. Each variable in the model was assessed, as well as the complete model, to determine the sampling adequacy. The KMO statistic indicated the amount of shared variance among variables. If the proportion was low, it indicated that the data was well-suited for Factor Analysis. (Reddy & Kulshrestha, 2019).

After passing the KMO test, the next step was to extract unrotated factors from the data using principal axis factoring in Exploratory Factor Analysis (EFA). To ensure that only variables with a communality value of .40 or higher were included, the first half of the data was used. The factors were then rotated using Promax rotation to simplify the factor structure. The Kaiser rule was used to determine the number of dimensions or factors, with only factors whose eigenvalues were greater than or equal to 1 retained. Additionally, Cattell's scree plot criterion was utilized to graph the eigenvalue of each dimension or factor.

The number of dimensions or factors extracted and retained were further validated by the scree plot. The factor loadings were determined by eigenvalues and represented the correlation coefficients between the items or variables in rows and the factors or dimensions in columns, which were identified as the Factor Rotation Matrix (Carpenter, 2006). This step addressed the latent dimensions in the teachers' disciplining strategy in an online learning: scale, and the factors obtained were labeled based on the shared theme of the item cluster.

## RESULTS AND DISCUSSION

### Emerging Themes of Effective learning strategies under the new learning system

There are three themes that emerge from in-depth interview and focus group discussion with selected public students in the Municipality of President Roxas that put emphasis on time management strategy, note taking strategy, and knowledge sharing strategy.

**Time management strategy.** Many of the participants stated that using reminder notes can improve time management by increasing task awareness and reducing procrastination. Reminder notes act as visual cues that prompt individuals to take action, which can help to avoid forgetting important tasks or deadlines. Additionally, creating a plan or schedule can also improve time management by increasing focus and productivity. Planning ahead can help to prioritize tasks, set achievable goals, and reduce decision fatigue, which can lead to improved academic performance. These are evident in the following quotes from the participants:

*"I write my plans for my upcoming academic in my diaries." (IDI, P8)*

*"It is always important for me to write a reminder notes every day to remind me of what are the things I need to finish in school." (FGD, P2)*

*"It is my hobby to make a list of the things I need to be done every day for me to be well guided about my tasks." (IDI, P5)*

Meanwhile, most participants claimed that when students are able to complete class requirements ahead of time, they have more control over their schedules, which can lead to greater productivity and better work-life balance. Additionally, finishing assignments ahead of time can provide students with opportunities to review and revise their work, leading to higher quality submissions. These ideas are present in the narratives of the participants stated below:

*"To simultaneously finish all my tasks, I adopt short cut ways to finish the tasks." (FGD, P6)*

*"It is my nature to submit my home works, assignments etc. well in advance." (IDI, P8)*

*"I make sure that I am able to meet deadlines so that I will not rush at the last minute." (IDI, P4)*

The result on the importance of time management strategy is supported by many authors. Research has shown that effective time management skills are positively related to academic achievement (Klassen & Klassen, 2018). Students who effectively manage their time are more likely to engage in active learning strategies and complete

assignments on time, which can lead to improved grades and overall academic success. Developing effective time management skills is especially important in online learning environments, where self-directed learning and independent study are often required (Papacharissi & Mendelson, 2020). Overall, using reminder notes and plans as a form of time management can be a powerful tool for academic success, and should be incorporated into student learning strategies.

**Note taking strategy.** Many of the participants stated that when students are given opportunities to write and reflect in class, they are better able to process and synthesize information, make connections between ideas, and think critically about the material. In addition, writing can help students clarify their own thinking, develop a deeper understanding of the material, and communicate their ideas more effectively. These are evident in the following quotes from the participants:

*“By writing what my teacher is talking improves my cognitive ability.” (FGD, P7)*

*“Note taking is very helpful for me in thinking and learning.” (IDI, P10)*

*“When I write my lesson, I understand clearly the meaning of it.” (IDI, P3)*

*“Writing down my notes is an important way for me to effectively review my lessons.” (IDI, P1)*

Meanwhile, most participants claimed that note-taking can also promote active engagement with the material, help students identify key concepts, and organize information in a way that is meaningful to them. Furthermore, notes can serve as a valuable resource for later review and study, enabling students to reinforce their learning and retain information over time. These ideas are present in the narratives of the participants stated below:

*“The notes I have written help me to recall and review some important points of our lessons.” (IDI, P9)*

*“Through writing I can record the lesson easily.” (IDI, P7)*

*“I can comprehend easily the lesson when I am writing what are being discussed in the class.” (FGD, P2)*

The result on the importance of note taking strategy is supported by many authors. Note-taking is a fundamental learning strategy that can improve comprehension, retention, and application of information. Research has shown that actively engaging with information through note-taking can enhance learning outcomes across various domains, such as language learning, mathematics, and science (Kiewra, Benton, Kim, Risch, & Christensen, 2018). Note-taking can also foster metacognitive skills, such as self-regulation and monitoring, which are crucial for effective learning (Rosário, Núñez, Vallejo, Cunha, Nunes, Mourão, & González-Pienda, 2019).

Furthermore, note-taking have become increasingly popular and offer additional benefits, such as organization and accessibility (Park, Lee, & Hwang, 2021). In summary, note-taking is a valuable learning strategy that can enhance learning outcomes and promote metacognitive skills.

**Knowledge sharing strategy.** Many of the participants stated that explaining concepts to others requires deeper processing and integration of the information, which can enhance retention and retrieval of the information in the long-term memory. Sharing knowledge also encourages active participation and engagement, which can improve motivation and enjoyment of the learning experience. These are evident in the following quotes from the participants:

*“When I give comments to my classmates, my learning becomes good. (IDI 2)*

*“Participating and giving information in my class leads me to remember all my learning (IDI 5)*

*“Sharing opinion in the class helps someone retain longer what has been learned in the class. (FGD 3)*

Meanwhile, most participants claimed that sharing knowledge in class is a vital component of collaborative learning that can help students better understand concepts. By sharing their knowledge and ideas, students can benefit from multiple perspectives and diverse viewpoints that can enrich their understanding of a given topic. These ideas are present in the narratives of the participants stated below:

*“By sharing valuable ideas within the class, I make sense of my learning.” (IDI, P10)*

*“I learn a lot when I frequently share reports, papers and notes that I prepared with other students.” (IDI, P7)*

*“I create an effective learning environment when I share my answers and related to current work projects ideas in class.” (IDI, P2)*

The result on the importance of knowledge sharing strategy is supported by many authors. Sharing knowledge is a key component of collaborative learning, which has been shown to be an effective learning strategy. Collaborative learning promotes active engagement, critical thinking, and knowledge construction through interaction and discussion among students (Panadero & Alonso-Tapia, 2019). Sharing knowledge among peers can also enhance metacognitive skills, such as self-regulation and monitoring, which are crucial for effective learning (Rosário, Núñez, Vallejo, Cunha, Nunes, Mourão, & González-Pienda, 2019).

In addition, sharing knowledge can provide opportunities for students to receive feedback and refine their understanding, which can lead to deeper learning and



improved recall (Slavin, 2019). Furthermore, sharing knowledge can promote social interaction and foster a sense of community and belonging, which can enhance motivation and enjoyment of the learning experience (e.g., Saeed, Zyngier, & Campbell, 2018). In summary, sharing knowledge is a crucial component of collaborative learning that can promote active engagement, critical thinking, metacognitive skills, social interaction, and deeper learning.

### Construction of Effective learning strategies under the new learning system Scale

In accordance with the participants' narratives, Table 1 illustrates the scale items for Effective learning strategies under the new learning system. These items were chosen based on their frequency in the qualitative interviews. To streamline the data, the 30-item questionnaire underwent exploratory factor analysis (EFA), resulting in the identification of three factors. These factors were determined through qualitative analysis beforehand.

**Table 1**  
**Effective learning strategies under the new learning system Scale**

ITEMS
1 I use diary for planning my activities.
2 I write reminder notes every day.
3 I make a list of things to be done every day.
4 I keep record of completed tasks.
5 I always prepare for daily time scheduling.
6 I plan for tasks a week in advance.
7 I submit my home works, assignments etc. well in advance
8 I am able to meet deadlines without rushing at the last minute.
9 I consider time has high value in life.
10 I adopt short cut ways to finish the tasks.
11 I write because it improves my cognitive ability
12 I take notes because it helps me think and learn
13 I write my lesson because it helps me understand its meaning
14 I write down my notes because it is important for reviewing
15 I remember the lesson when I write
16 I write because it helps me organize my thoughts
17 I become active towards my learning when I take note
18 I can review some important points when I write
19 I record the lesson through writing
20 I can comprehend easily the lesson when I write
21 I often provide comments to my classmates
22 I post my information often in my class
23 I share my opinion often with my classmates
24 I usually share valuable ideas within the class
25 I frequently share reports, papers and notes that I prepared with other students
26 I frequently share knowledge and research techniques based on my experience with other students
27 I share my answers and related to current work projects ideas in class
28 I contribute ideas and thoughts to group discussion
29 I keep others updated with important information about our class.
30 I often provide comments to my classmates

### Dimensions of Effective learning strategies under the new learning system Scale

**Testing a 30-item Effective learning strategies under the new learning system scale.** In order to assess the suitability of the construct for factor analysis, we conducted the Kaiser Meyer-Olkin Measure (KMO) of Sampling Adequacy and Bartlett's test of sphericity. The results presented in Table 2 indicate that the KMO value is .898, surpassing the recommended threshold of .5. This suggests that the sample is highly commendable and appropriate for factor analysis. According to Kaiser (1974), values above .5 are deemed acceptable, while values ranging from .5 to .7 are considered average, values between .7 and .8 are considered good, and values between .8 and .9 are regarded as excellent.

**Table 2**  
**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.869
Approx. Chi-Square	5497.571
Bartlett's Test of Sphericity	Df 435
Sig.	.000

Based on the initial analysis, it can be inferred that the 30-item Effective learning strategies under the new learning system are appropriate and sufficient for factor extraction, indicating their readiness for factor analysis.

**Derivation of the Number of Factor Structure.** The identification of factor structure was established by analyzing qualitative data in advance, revealing three dimensions of Effective learning strategies within the new learning system. Consequently, the three-factor model demonstrates clear patterns, as indicated in Table 3.

The factor loading below .4 are reduce from the model and based on the results all the 30 items where accepted and passed the criteria then subjected for rotation and analysis.

After which, all the 30 – item construct is then subjected for rotation. The promax rotation was used since the factors seem to be correlated with a coefficient above .50 which reflects that the data is not assumed as orthogonal.

The results presented in Table 3 display the pattern matrix obtained through Principal Axis factoring, utilizing the Promax rotation method combined with Kaiser Normalization. The findings reveal that the loading of items onto the four factors surpasses the recommended threshold of .4, as advised by Filed (2005) for obtaining the desired factors. Moreover, the absence of item cross-loading or non-loading indicates that the items accurately represent their respective factors. It is important to highlight that higher loadings signify a stronger association between the variable and the factor, indicating that the variable effectively represents the factor (Hair et al., 1998).

**Table 3**  
**Pattern Matrix Three Factor Model**

		Factor		
		1	2	3
1	I use diary for planning my activities.	.761		
2	I write reminder notes every day.	.796		

3	I make a list of things to be done every day.	.800	
4	I keep record of completed tasks.	.756	
5	I always prepare for daily time scheduling.	.703	
6	I plan for tasks a week in advance.	.831	
7	I submit my home works, assignments etc. well in advance	.825	
8	I am able to meet deadlines without rushing at the last minute.	.755	
9	I consider time has high value in life.	.800	
1	I adopt short cut ways to finish the tasks.	.800	
0			
1	I write because it improves my cognitive ability	.823	
1			
1	I take notes because it helps me think and learn	.858	
2			
1	I write my lesson because it helps me understand its meaning	.774	
3			
1	I write down my notes because it is important for reviewing	.812	
4			
1	I remember the lesson when I write	.807	
5			
1	I write because it helps me organize my thoughts	.880	
6			
1	I become active towards my learning when I take note	.741	
7			
1	I can review some important points when I write	.658	
8			
1	I record the lesson through writing	.850	
9			
2	I can comprehend easily the lesson when I write	.809	
0			
2	I often provide comments to my classmates		.822
1			
2	I post my information often in my class		.927
2			
2	I share my opinion often with my classmates		.751
3			
2	I usually share valuable ideas within the class	.675	
4			
2	I frequently share reports, papers and notes that I prepared with other students	.646	
5			
2	I frequently share knowledge and research techniques based on my experience with other students	.830	
6			
2	I share my answers and related to current work projects ideas in class	.685	
7			
2	I contribute ideas and thoughts to group discussion	.641	
8			
2	I keep others updated with important information about our class.	.816	
9			
3	I often provide comments to my classmates	.756	
0			

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The factor-item loadings demonstrate satisfactory correlations between factors and variables, implying that they can be deemed as integral components of the factor. Employing exploratory factor analysis (EFA), a three-factor model was constructed for Effective learning strategies within the updated learning system. The model comprised

30 items, namely time management strategy, note taking strategy, and knowledge sharing strategy, as presented in Table 4.

**Final Version of Effective learning strategies under the new learning system.** The final iteration of the instrument, which serves as the outcome of this study, is presented in the format provided in Table 4. Out of the initial 30 items, the analysis reveals certain concerns regarding face validity based on the factor loadings of these items. Items with coefficients lower than .40 are eliminated in accordance with Hair et al.'s (2010) recommendation, which suggests removing items that lack meaning and fail to reflect the underlying factor. Moreover, researchers may opt to establish a loading coefficient threshold to include only those items that best represent the factor, excluding those with low coefficients from the factor structure.

A developed questionnaire for the new learning system called Effective Learning Strategies (ELS) using Exploratory Factor Analysis (EFA). The ELS questionnaire comprises 30 items categorized into three themes derived from qualitative findings. These themes include time management strategy (20 items), note taking strategy (3 items), and knowledge sharing strategy (7 items). The questionnaire implements a 5-point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree).

**Table 4**  
**Effective learning strategies under the new learning system Questionnaire**

ITEMS	
<b>Time management strategy</b>	
1	I use diary for planning my activities.
2	I write reminder notes every day.
3	I make a list of things to be done every day.
4	I keep record of completed tasks.
5	I always prepare for daily time scheduling.
6	I plan for tasks a week in advance.
7	I submit my home works, assignments etc. well in advance
8	I am able to meet deadlines without rushing at the last minute.
9	I consider time has high value in life.
10	I adopt short cut ways to finish the tasks.
11	I write because it improves my cognitive ability
12	I take notes because it helps me think and learn
13	I write my lesson because it helps me understand its meaning
14	I write down my notes because it is important for reviewing
15	I remember the lesson when I write
16	I write because it helps me organize my thoughts
17	I become active towards my learning when I take note
18	I can review some important points when I write
19	I record the lesson through writing
20	I can comprehend easily the lesson when I write
<b>Note taking strategy</b>	
21	I often provide comments to my classmates
22	I post my information often in my class
23	I share my opinion often with my classmates
<b>Knowledge sharing strategy</b>	
24	I usually share valuable ideas within the class
25	I frequently share reports, papers and notes that I prepared with other students

- 26 I frequently share knowledge and research techniques based on my experience with other students  
27 I share my answers and related to current work projects ideas in class  
28 I contribute ideas and thoughts to group discussion  
29 I keep others updated with important information about our class.  
30 I often provide comments to my classmates

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**Legend:**

- 5 – Strongly Agree  
4 – Agree  
3 – Moderately Agree  
2 – Disagree  
1 – Strongly Disagree

## CONCLUSIONS

In the light of the study, the following conclusions were drawn:

1. The emerging themes highlight the effective learning strategies under the new learning system which put emphasis on time management strategy, note taking strategy, and knowledge sharing strategy.
2. The result derived from factor analysis indicates that the effective learning strategies under the new learning system of teaching has three factors that includes time management strategy, note taking strategy, and knowledge sharing strategy.
3. The effective learning strategies under the new learning system with 30 items was develop to measure the effective learning strategies under the new learning system.

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