

Attitudes towards Learning and Learning Styles of Nursing Students in Selected Nursing Schools: Basis for Instructional Strategic Plan

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ABSTRACT

Background and Objective: Exploration of the attitude towards learning and learning styles adopted by nursing students to support the improvement of nursing education today. Thus, the expected output of the assessment will be to enhance the instructional strategic plan in order to attain motivated, focused, organized and independent successful nurses in the future.

Methods: A descriptive comparative and correlational research design was undertaken to explore the implied and categorical extents of learning strategies as it evolved through encounters with nursing students. The research setting was held in different universities and colleges in the Philippines that offer Bachelor of Science in Nursing and comprised a sample of 326 nursing students from first year to fourth year. Data gathering includes survey through a standardized questionnaire.

Results: Most of the students' utilized surface approach in their attitude towards learning; they tend to learn by means of rote or simple memorization without conceptualizing the idea because they are preoccupied to numerous activities in the nursing course. On the other hand, students' learning styles vary from visual, auditory to tactile.

Conclusions: The study has the following measures that faculty may incorporate to improve the instructional strategies to students. Teachers should utilize varied teaching-learning strategies that cater to the different learning styles, interests, and intelligences of students to improve student engagement and learning. Thus, the study concludes that there is significant relationship between the attitudes towards learning in terms of surface approach and the auditory learning styles of the students. However, there is no significant relationship among students attitude towards learning and their learning style.

Keywords

Attitude, Learning Styles, Learners, Students.

Introduction

An imperative substance in nursing education is about creating an appropriate atmosphere for studying. Nurse education ought to heighten the learner's competencies that can update their knowledge in terms of theories and clinical practice therefore creating them for a life-long learning [1].

The development of a learner's attitude is based on their individual occurrences in life. They have accrued numerous distinctive attitudes on different experiences that can bring undesirable result

or constructive outcomes to survive [2].

Educators need to be attentive to their learners' individual distinctions in order to efficiently meet the students' scholastic needs. The acknowledgment of the learning styles will aid in the preparation of suitable approaches to students' education. The learning processes of the learners' are created using their personal differences in learning, which become an important factor to improve their academic performances [3,4,].

Learning styles denote to the learners' capability to understand and accept the information in the classroom. The educators' aptitude to recognize the students learning styles can enhance their scholastic

performance in their course; thus, the teachers can incorporate the learners' sensory perception such as visual, auditory and kinesthetic (VAK) in their classroom activities to develop their skills and become competent nurses in the future.

Learning style varies on a person's learning inclinations to apprehend, to consolidate, to process information and to acknowledge learning experiences thus, each learners' have different learning strategies as they have distinctive individual differences. Different approaches to learning have been proposed to determine the students' learning styles, Kolb's learning style for example is said to be one of the most prominent methods use by educators. Kolb define learning as a creation of knowledge through experiences [5].

In view of the important role of learning styles in learning and academic achievement, the present study aims to determine the attitudes and learning styles of nursing student's for the improvement of instructional strategies plan.

Theoretical Framework

Enriched scholastic attainment, improve attitude towards instruction and better discipline are being observed if the learners are being taught using their preferred learning styles. This is the focal argument of Dunn and Dunns' [6] visual, auditory and kinesthetic (VAK) learning style theory. Teaching and learning will become effective if the educators understand the learning styles of their students according to Guild and Garger. This theory recognized the learning styles of nursing students through visual, auditory and kinesthetic/ tactile. The students who utilize visual learning style understand best the information from what they see. On the other hand, auditory learners are proficient in listening and they learn best from what they hear. Further, the kinesthetic/ tactile learners relish their hands on experiences. The formulation of VAK learning style theory is being utilized to obtain knowledge through the learners' three sensory perceptions. Therefore, educators can integrate this method in their class activities to help the students become competent; likewise, this aids to increase their academic understanding. In learning and teaching theories, this concentrated on methods to learning that contemplates in the association between the learners approach to learning and their level of understanding. This study focuses on the three styles of learning among nursing students and how this nursing students make use of different available materials. In addition, Dr. John Biggs introduced the Deep and Surface approaches to learning theory. This theory determined the attitude of students towards learning. Deep learning approach is concomitant with excellent academic achievement, whilst a surface approach to learning is determined by lower scholastic performance among the learners. This attitude to learning is exceptionally advantageous for students' understanding to learning that can be link in the development of their learning styles that serves to be the basis for improving the instructional strategies for educators.

Conceptual Framework

The research paradigm presents the idea where the study was

created. It signifies the correlation of attitudes and learning styles among nursing students. The study dealt with the classification of the respondents according to their profile by ages from 18 years old and above whether male or female from first year to fourth year level. The respondents' attitude towards learning is being assessed with regard to the following:

Surface approach, which classify the aptitude of the learner to depend on rote learning. The students usually focus into outwards signs and the formula needed to solve a problem, in which they receive the information passively. This gives the learner not to distinguish principles from examples. They tend to acknowledge parts of modules and programs as separate. The learners usually do not recognize new material as building on previous work. They oftentimes see course content simply as material to be learnt for the exam. On the other hand, deep approach attitude towards learning has the ability of the student to search for meaning. The learner generally focuses on the concepts needed to solve the problem. There is an active interaction, which distinguish argument and evidence. Thus, this makes a connection between different modules that relates new and previous knowledge, which enables the learners to link course content to real life. In addition, the learning styles of the students are measured through assessment of how they retain the information when it is presented in pictures diagrams and charts for example which defines as visual learners. Likewise, a student can be evaluated if they actively respond best to voices in a lecture or group discussion, which is common to auditory learners. Further, some learners understand the lesson best through physical encounters. They prefer hands on approach and responds well when they touch and feel the object. This concept is common to kinesthetic/tactile learners.

Method

Study Design

To better understand the attitude and learning styles of nursing students in selected nursing colleges, this study is a combination of qualitative and quantitative research that used a descriptive comparative and descriptive-correlation research designs to explain the essence of a situation that exists at the time of the study and seeks the course of specific phenomenon. Moreover, the study seeks to assess the significant differences of the respondent's learning styles and attitudes towards learning when group according to their demographic profile. As an inductive approach that integrates description and prediction of variables, it was believed a correctional study could surface the result without any attempt by the researcher to alter the outcome or assign causation between them. Furthermore, the correctional data collection strategies afforded the opportunity to examine the relationship between two or more variables that can be used to predict one variable from the other. Thus, this approach was well suited to the research aims of exploring the attitude towards learning and the learning styles utilized by the nursing students in studying.

In addition this study will also take the form of an applied type of research; a distinctive aspect of this scholastic work is that it accommodated the investigator's familiarity within the area

of interest. The authors have a professional background in nursing education as well as extensive knowledge in educational management. Therefore, application of the result will draw an exceptional opportunity to the authors to improve the intended learning outcome of the nursing students.

Ethical Procedures

The Research Development and Innovative Center Ethical Review Board of the authors' university affiliations in the Philippines approved the study. Ethical issues were considered in undertaking this study in which articles were properly cited and used. Authors are properly quoted. Approval from the concerned individuals was secured before data collection. The gathered data were handled with utmost respect and confidentiality. As such, the researchers intensify consent letter to the selected Nursing Colleges Deans in order to guarantee the safety of the nursing students under their university. The participants were made to understand the purposes of the research, the expected duration, their right to decline to participate and to withdraw from the research; the foreseeable consequences of declining or withdrawing and the potential risk. It was also explain the limits of confidentiality; the incentive for participation; and whom to contact with regards to question about the research and their rights. In order to maintain and ensure the anonymity of the respondents, no identifiable information was used. More so, voluntary participation was ensured.

Participants and Sampling Scheme

The participants chosen for this study were nursing students who were enrolled during the second semester of the academic year 2017-2018, this includes students from first level to fourth level in selected three different universities in the Philippines that caters Bachelor of Science in Nursing. The respondents serves as the key players in providing the initial data, which become the foundation in the assessment of the nursing students' current status in their attitude towards learning and their learning style for the instructional strategic improvement. In this study, the authors used purposive sampling, a technique used to decide on a population to participate in the research. This is a non-probability sampling method that transpires during selection of sample in accordance to the researcher's judgment. In this regard, the selected nursing colleges were used purposively as an apparent response of allocating the reliability and validity of the respondents. The study also applies the simple stratified random sampling, in which the population is partitioned into relatively homogenous groups called strata and a simple random sample is selected from each stratum. The results from the strata are then aggregated to make inferences about the population. A side benefit of this method is that inferences about the subpopulation represented by each stratum can also be made.

Research Instrument

The data collection instrument included a socio demographic profile and a scale in the form of a validated standardized questionnaire. The study utilized a questionnaire checklist that consists of three parts. Part 1 aim to gather information on the profile of the respondents in terms of age, gender and year

level. Part 2 dealt with the assessment of the nursing students' attitude towards learning in terms of deep approach and surface approach adopted from the author J. Hipona [7], who modified the standardized questionnaire of Dr. John Biggs from Biggs' Revised Study Process Questionnaire (RSPQ-2F). There are two domains namely surface approach and deep approach. Part 3 consist of determining the learning style of the students in terms of visual, auditory and tactile preference adopted from the learning style inventory of University of California which is available in open domain that was also adopted from university of Texas Learning Center. There are three domains namely visual preference (items 2, 3, 7, 10, 14, 16, 19, 22); auditory preference (items 1, 5, 8, 11, 13, 18, 21, 24) and tactile preference (items 4, 6, 9, 12, 15, 17, 20, 23).

Statistical Treatment of Data

The data obtained was inserted into a Statistical Package for Social Sciences (SPSS) file. A frequency distribution was used to describe the respondents' demographic profile. Percentage distribution has been made to evaluate the respondents' demographic profile. Further, weighted mean was utilized to determine the attitude toward learning in terms of surface and deep approach of the nursing students, this was also used to determine the learning styles in terms of visual, auditory and kinesthetic/ tactile of respondents. Moreover, the study utilized a likert scale to further investigate the attitudes of the respondents toward learning and their learning style. To quantify the amount of variation or dispersion of a set of data values, a standard deviation was used. The analysis of variance and T-test determine the existence of a significant difference in the attitude toward learning and learning style of students when group according to their demographic profile. Pearson R, on the other hand determines the significant relationship between the attitude toward learning and learning style of nursing students.

Results

This study is mostly composed of female participants (232 individuals), who make up 71.20% of the respondents. Regarding age, majority of the participants belong to age group of 18-23 years old (70.6%). As for year level, data shows that most part of the participants (35.6%) is in the 4th level of their nursing course (Tables 1,2 and 3).

Gender	Frequency	Percentage
Male	94	28.8
Female	232	71.2
Total	326	100

Table 1: Frequency and Percentage Distribution of Participants when grouped according to Gender.

Age	Frequency	Percentage
18-23	230	70.6
24-29	65	19.9
30 and above	31	9.5
Total	326	100

Table 2: Frequency and Percentage Distribution of Participants when grouped according to Age.

Year Level	Frequency	Percentage
First Year	55	16.9
Second Year	67	20.6
Third Year	88	27
Fourth Year	116	35.6
Total	326	100

Table 3: Frequency and Percentage Distribution of Participants when grouped according to Year Level.

Criteria	WM	sd	Interpretation
1. My aim is to pass the course while doing as little work as possible.	3.99	0.89	UTM
2. I only study seriously what's given out in class or in the course outline.	4.18	0.82	UTM
3. I don't find my course very interesting so I keep my work to the minimum.	3.39	1.22	STM
4. I learn some things by rote, going over and over them until I know them by heart even if I don't understand them.	3.62	0.99	UTM
5. I find I can get by in most assessment by memorizing key sections rather than trying to understand them.	4.05	0.93	UTM
6. I generally restrict my study to what is specifically set as I think is unnecessary to do anything extra.	4.02	0.84	UTM
7. I find it's not helpful to study topics in depth.			
It confuses and wastes time, when all you need is a passing acquaintance with topics.	2.39	1.31	UNTM
8. I believe that lecturers shouldn't expect students to spend significant amount of time studying material everyone knows won't be examined.	3.41	1.16	STM
9. I see no point in learning material, which is not likely to be in the examination.	3.81	0.95	UTM
10. I find the best way to pass examinations is to try to remember answers to likely questions.	3.89	1.03	UTM
Overall Mean	3.67		UTM

Table 4: Attitude towards Learning of Nursing students in terms of Surface Approach.

Criteria	WM	sd	Interpretation
1. I find that at times studying gives me a feeling of deep personal satisfaction.		3.20	1.11
2. To be satisfied, I should study hard to make a conclusion of my work.	3.12	1.09	STM
3. I feel that virtually any topic can be highly interesting once I get into it.	3.92	0.91	UTM
4. I find most topics interesting and often spend extra time trying to obtain more information about them.	3.53	0.99	UTM
5. I find that studying academic topics can at times be as exciting as a good novel or movie.	2.90	1.17	STM
6. I test myself on important topics until I understand them completely.	4.02	0.84	UTM
7. I work hard at my studies because I find the material interesting.	3.59	1.04	UTM
8. I spend a lot of my free time finding out more about interesting topics, which has been discussed in different classes.	3.70	0.98	UTM
9. I come to most classes with questions in mind that I want answering.	2.62	1.27	STM
10. I make a point of looking at most of the suggested reading that go with the lectures.	3.31	1.31	STM
Overall Mean	3.26		STM

Table 5: Attitude towards Learning of Nursing students in terms of Deep Approach.

Criteria	WM	sd	Interpretation
1. I prefer to see information written on the board and supplemented by visual aids and assigned readings.	4.13	1.16	Often
2. I like to write things down or take notes for visual review.	4.28	1.09	Often
3. I am skillful with and enjoy developing making graphs and charts.	3.13	1.42	Sometimes
4. I can easily understand and follow directions on a map.	3.59	1.25	Sometimes
5. I can understand a news article better by reading about it in the newspaper or online rather than by listening to a report about it on the radio or internet.	3.34	1.34	Sometimes
6. I think the best way to remember something is to picture it in my mind.	3.98	1.23	Often
7. I am going at working and solving jigsaw puzzles and mazes.	3.14	1.30	Sometimes
8. I prefer obtaining information about an interesting subject by reading about it.	3.74	1.29	Often
Overall Mean	3.67		Often

Table 6: Learning Styles of Nursing students in terms of Visual Learner.

Criteria	WM	sd	Interpretation
1. I can remember best by listening to a lecture that includes information, explanations and discussions.	4.17	1.15	Often
2. I require explanations of diagrams, graphs, or visual directions.	3.85	1.29	Often
3. I can tell if sounds match when presented with pairs of sounds.	3.58	1.25	Often
4. I do best in academic subjects by listening to lectures and tapes.	3.45	1.36	Sometimes
5. I learn to spell better by repeating words out loud than by writing the words on paper.	3.22	1.47	Sometimes
6. I would rather listen to a good lecture or speech than read about the same material.	3.62	1.27	Often
7. I prefer listening to the news on the radio or online rather than reading about it in a newspaper or on the internet.	3.36	1.32	Sometimes
8. I follow oral directions better than written ones.	3.39	1.32	Sometimes
Overall Mean	3.58		Often

Table 7: Learning Styles of Nursing students in terms of Auditory Learner.

Criteria	WM	sd	Interpretation
1. I prefer to use posters, models, or actual practice and other activities in class.	3.96	1.23	Often
2. I enjoy working with my hands or making things.	3.94	1.24	Often
3. I can remember best by writing things down several times.	4.12	1.27	Often
4. I play with coins or keys in my pocket.	2.67	1.54	Sometimes
5. I chew gum, smoke or snack while studying.	2.75	1.60	Sometimes
6. I learn the spelling of words by "finger spelling them.	2.90	1.53	Sometimes
7. I grip objects in my hands during learning periods.	2.97	1.42	Sometimes
8. I feel very comfortable touching others hugging, handshaking, etc.	3.22	1.49	Sometimes
Overall Mean	3.32		Sometimes

Table 8: Learning Styles of Nursing students in terms of Tactile Learner.

Regarding attitude towards learning of Nursing Students in terms of surface approach, the overall mean was 3.69 with an interpretation of usually true of me. On the other hand, the overall mean in terms of deep approach was 3.26 with an interpretation of somewhat true of me (Tables 4 and 5). The learning style of nursing students in terms of visual learner, partakes an overall mean of 3.67 with an interpretation of often. Further, the auditory learning style of the respondents contains an overall mean of 3.58 with an interpretation of often. The learning style of the participants in relation to tactile learning encompasses an overall mean of 3.32 with an interpretation of sometimes (Tables 6,7, and 8).

Significant difference in the attitude towards learning of nursing students when grouped according to their demographic profile.

Demographic Profile	F- Value	p-Value	Interpretation	Decision
Age	1.765	0.175	Not Significant	Accept Ho
Gender	0.891	0.346	Not Significant	Accept Ho
Year Level	7.434	0	Significant	Reject Ho

Table 9: Significant Difference in the attitude towards learning of nursing students in terms of Surface Approach when grouped according to demographic profile.

The study reveals that there is no significant difference in the attitude towards learning in terms of surface approach of nursing students when grouped according to age. This is supported by the probability value of 0.175, which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. This implies that regardless of students' age, they have comparable

attitude toward learning in terms of utilizing surface approach. Understudies who embrace a surface way to deal with learning remember certainties however don't endeavor to fit them into a bigger setting and they take after routine arrangement methods without attempting to comprehend their causes and confinements [8]. Those students normally display an extraneous inspiration to learn and an unquestioning the acknowledgment of everything in the course reading and in class discussion [9]. Moreover, there is no significant difference in the attitude towards learning in terms of surface approach of nursing students when grouped according to gender. This is supported by the probability value of 0.346, which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. This suggests that regardless of students' gender, they have similar state of mind toward learning as far as using surface approach. As indicated by Biggs et al. [10] a surface approach to deal with learning is incongruous as students depend on repetitive learning and memorization, maintain a strategic distance from individual comprehension, and are unreflective about their learning involvement. In addition, there is a significant difference in the attitude towards learning in terms of surface approach of nursing students when grouped according to year level. This is supported by the probability value of 0.000, which is less than 0.05 level of significance. Thus, the null hypothesis is rejected. This suggests that the students' disposition toward learning is in contrasts starting with one-year level then onto the next year level. As gathered from the table, the second year college nursing students have fundamentally higher weighted mean than the fourth year college-nursing students. As per Entwistle and Ramsden [8], surface learning approaches center around the components of an errand as opposed to the entirety; have a tendency to characterize

it as a memory undertaking, and see the topic as outer to one's self (Table 9).

Demographic Profile	F- Value	p-Value	Interpretation	Decision
Age	1.171	0.311	Not Significant	Accept Ho
Gender	2.094	0.149	Not Significant	Accept Ho
Year Level	2.784	0.041	Significant	Reject Ho

Table 10: Significant difference in the attitude towards learning of Nursing Students in terms of deep approach when grouped according to demographic profile.

The investigation reveals that there is no significant difference in the attitude towards learning in terms of deep approach of nursing students when grouped according to age. This is supported by the probability value of 0.311 which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. This implies that regardless of students' age, they have comparable attitude toward learning in terms of utilizing deep approach. Students who take a profound approach don't essentially depend on memorization of the course materials. They embrace an intrinsic inspiration to memorize with a mental interest instead of seeking out for outside rewards. Once the data to be learned makes sense, they attempt to fit it into the accessible coherent body of information [9].

Moreover, there is no significant difference in the attitude towards learning in terms of deep approach of nursing students when grouped according to gender. This is supported by the probability value of 0.149 which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. This infers that notwithstanding of students' sex, they have comparable state of mind toward learning in terms of utilizing deep approach. According to Tiwari et al., [11]. A center on the approaches to learning is legitimized for a few reasons. To begin with, it is broadly known that students' approaches to learning can influence their scholarly execution. Further, there is a significant difference in the attitude towards learning in terms of deep approach of nursing students when grouped according to year level. This is supported by the probability value of 0.041 which is less than 0.05 level of significance. Thus, the null hypothesis is rejected. This infers that the students' attitude toward learning varies from one year level to another year level. As gathered from the table, the primary year college nursing students have essentially higher weighted mean than the fourth year college nursing students. According to Gijbels, Dochy, Van sanctum Bossche, and Segers, [12] it is for the most part accepted that the practice of a deep learning approach is related with higher quality learning results. In addition, it is acknowledged that a deep approach will provide optimistically to learning results. Hence, it is considered critical that students be empowered to implement a deep approach. Concurring to Felder and Brent [9] the objective of instruction ought to be to stimulate students to embrace a deep approach to the subjects that are vital for their proficient or individual advancement (Table 10).

Significant difference in the Learning Style of nursing students when group according to their demographic profile

Demographic Profile	F- Value	p-Value	Interpretation	Decision
Age	0.050	0.951	Not Significant	Accept Ho
Gender	1.001	0.318	Not Significant	Accept Ho
Year Level	2.630	0.050	Significant	Reject Ho

Table 11: Significant Difference in the Learning Styles in terms of Visual learner of Nursing Students when grouped according to demographic profile.

The analysis reveals that there is no significant difference in the learning style in terms of visual learner of nursing students when grouped according to age. This is supported by the probability value of 0.951 which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. This implies that regardless of students' age, they have comparable level of utilizing visual learning. Corresponding to Clarke [13] around 40% of college understudies are visual learners, inclining toward to be instructed through pictures, charts, stream charts, timelines, movies, and exhibits. However promoting instruction remains intensely dependent on showing substance essentially through verbal signals such as composed or talked words. Without visual instruction, a few students may be under performing due to the irregularity between teachers' educating styles and students' learning styles. Since it has been recommended that several college students understand better from visual jolts, an enriched equilibrium between verbal and visual procedures might offer substantial learning. Additionally, there is no significant difference in the learning style in terms of visual learner of nursing students when grouped according to gender. This is supported by the probability value of 0.318 which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. This suggests that nonetheless of students' sex, they have comparable level of utilizing visual learning. As indicated by Nuzhat et al. [14] visual mode was the normal decision of female students. Rosati better clarifies the presumable reason of this finding by featuring that female understudies have a tendency to be more careful about perusing guidelines before giving things a shot. In contrary, there is a significant difference in the learning style of nursing students in terms of visual learner when grouped according to year level. This is supported by the probability value of 0.050 which is equal to 0.05 level of significance. Thus, the null hypothesis is rejected. This implies that students' preference of utilizing visual learning style differs per year level. As gleaned from the table, the third year college nursing students have significantly higher weighted mean than the first year college nursing students. Higgins [15] said that numerous individuals, the way to memory lies in giving a visual delineation of the material. Since visual students learn best through sight, pictorial portrayals of the materials end up key to memory. The mind's memory control essentially works with key ideas that are correlated, or associated, in certain way. Buzan refined the way toward creating visual explanations to mirror the memory capacity of the human personality. She upheld that graphs ought to be produced and later concentrated in a shape that intently takes after the cerebrum's memory procedure. Therefore, visual graphs are produced in a shape that relates the subtopic's focal subject—much like the mind itself diagrams data into its memory (Table 11).

Demographic Profile	F- Value	p-Value	Interpretation	Decision
Age	0.611	0.544	Not Significant	Accept Ho
Gender	3.366	0.067	Not Significant	Accept Ho
Year Level	1.426	0.235	Not Significant	Accept Ho

Table 12: Significant Difference in the Learning Styles in terms of Auditory learner of Nursing Students when grouped according to demographic profile.

The study reveals that there is no significant difference in the learning style in terms of auditory learner of nursing students when grouped according to age. This is supported by the probability value of 0.544 which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. An inert learning methodology presentation, for example, addresses for the most part takes into account the auditory learners. In their investigation, the level of the auditory learners was considerably less when contrasted with those of the sensation and the visual students. Their discoveries were practically identical to the aftereffects of the examination, which was led, by Baykan and Nacar [16] on first year medical students from Turkey. Subsequently, there is no significant difference in the learning style in terms of auditory learner of nursing students when grouped according to gender. This is supported by the probability value of 0.067, which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. Agreeing to Antepohl and Herzig [17] it was perceived that the second most preferred instructing technique of the female students was class discussions, which may be clarified by the proof that higher numbers of female students had an inclination for sound-related and visual modalities.

This demonstrated that the choice of the instructing techniques was influenced to a certain degree by the learning preference of the students. As per Felder, Brent [9] and Minotti that unparalleled learning styles and educating—learning systems may antagonistically influence the learning with respect to the students and in this manner, fitting guideline strategies to the students' learning style inclinations is upheld. In addition, there is no significant difference in the learning style in terms of auditory learner of nursing students when grouped according to year level. This is supported by the probability value of 0.235, which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. Agreeing to Khanal L, et al., a conventional class discussion could be a normal illustration of auditory mode of learning which bolsters detached learning and energizes repetitive memorization. A study conducted in Malaysian schools stated that auditory learning was the main inclination of the students and a noteworthy association was found between generally scholarly accomplishments and learning style (Table 12).

Demographic Profile	F- Value	p-Value	Interpretation	Decision
Age	0.868	0.421	Not Significant	Accept Ho
Gender	0.006	0.939	Not Significant	Accept Ho
Year Level	0.494	0.687	Not Significant	Accept Ho

Table 13: Significant Difference in the Learning Styles in terms of tactile learner of Nursing Students when grouped according to demographic profile.

The analysis of the findings reveals that there is no significant difference in the learning style in terms of tactile learner of nursing students when grouped according to age. This is supported by the probability value of 0.421 which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. As indicated by Tatarintseva that paying little heed to students' age, they have equivalent level of using tactile learning. Learning styles change with life advance. Students' learning styles contrast amongst elementary and middle and high school, and the styles of more seasoned grown-ups in the 65-multi year-old range vary from numerous points of view from those of more youthful individuals. Nonetheless, people change in one of a kind ways. A few people scarcely change their learning style yet others encounter fast and different changes. Antepohl and Herzig [17] expressed that there is no single best instructing learning technique that can work for each student, regardless of how great that approach is. Some past examinations uncovered that practical were the most preferred teaching approach of both male and female students.

This reality can be related with the finding that the most favored learning style of the students' populace of the present examination was the kinesthetic one. The kinesthetic learners favor the hands on way to deal with learning and consequently, the students with this learning style want to see data best through pragmatic sessions. There is no significant difference in the learning style in terms of tactile learner of nursing students when grouped according to gender. This is supported by the probability value of 0.939 which is greater than 0.05 level of significance. Thus, the null hypothesis is accepted. Tatarintseva specified that learning styles vary between boys and girls. Males tend to be more kinesthetic, and visual, and require more versatility in a more casual environment than females. Boys tend to memorize less by tuning in. Girls more than boys tend to be auditory learners, sit at classroom work areas and chairs. Females moreover tend to be calmer whereas educating. Erica A. et al. decided that there are diverse sorts of learning styles within the educating space which the gender is efficient cause in selecting learning styles. There is no significant difference within the learning styles in terms of tactile learner of nursing students when gathered corresponding to year level. Usually bolstered by the likelihood esteem of 0.687, which is more noteworthy than 0.05 level of centrality. Hence, the invalid speculation is accepted. This infers that notwithstanding of students' year level, they have comparable level of utilizing material learning. In comparing with the analysis of Terri which conducted on to begin with year nursing students in Australia, the larger part of them favor kinesthetic modes of information demonstration, Kinesthetic learners lean toward the hands on approach to learning, or learn by doing. Aqel and Mahmoud directed an examination about learning style for College students. The outcomes demonstrated that there were noteworthy contrasts in the learning styles as per scholarly level. This suggests every scholastic level has its own particular properties and learning inclinations, which the teacher ought to consider while instructing. Keeping in mind the end goal to embrace distinctive learning styles in the classroom, instructors must to mull over for instance that sound-related understudies incline toward all the more tuning in to the addresses and courses,

and taking an interest in exchanges. These students jump at the chance to tune in to the tape recordings of material and have an opportunity to make inquiries about what they have learned or do not comprehend (Table 13).

	Visual	Auditory	Tactile
Surface Approach	r = 0.099	r = 0.137	r = 0.090
	p = 0.075	p = 0.013*	p = 0.105
Deep Approach	r = 0.093	r = 0.098	r = 0.047
	p = 0.092	p = 0.079	p = 0.394

Table 14: Significant Relationship between the attitude towards learning and the learning style among nursing students.

*Correlation is significant at 0.05 level.

This study reveals that there is a significant relationship between the attitude towards learning in terms of surface approach and the learning style in terms of auditory. This is supported by the probability value of 0.013, which is less than 0.05 level of significance. This implies that nursing students who are auditory tend to utilize surface approach. However, the computed $r = 0.137$ implies that there is very low positive correlation between the two variables. For other pairs, there is no significant relationship. As indicated by Rassool and Rawaf [18] it is outstanding that learning styles impacts student learning, and a huge affiliation was found among learning inclinations including identity, sexual orientation, clinical training, scholastic accomplishment, and student retention. In this way, learning inclination ends up one of the essential components to enhance student learning and increment their abilities, fitness, and competency in nursing education. In addition, information about the learning inclinations of students can reinforce learning for the people who are poor performers in their scholarly studies. The students who are at jeopardy to fail in class may be upheld with singular lectures where uniquely crafted extra learning system can be produced and presented. Brady [19] defined that most students learn best when the style of introduction is adjusted with their favored learning style. It is essential for instructors to understand the students' learning styles, additionally for students to comprehend to their possess learning styles. By understanding distinctive learning styles, instructors may pick up experiences into ways of making scholastic data more open to differing bunches of learners and an expanded mindfulness of person learning styles can offer assistance to teachers to confer unused data in an important method. Moreover, in case students are mindful of their favored learning styles they will be able to identify their qualities and shortcomings, by doing this; they can at that point create techniques for successful learning.

Discussion

The results analysis indicates that the attitudes toward learning have been influence students' learning outcomes. However, there is a lack of knowledge about the ways in which the interaction between attitude towards learning and the learning situation. The deep approach/attitude to learning is considered as an appropriate approach as students learn for understanding, derive enjoyment from the learning task, and apply the acquired knowledge to the

real world. On the other hand, a surface approach to learning is inappropriate as students rely on rote learning and memorization; they avoid personal understanding, and are unreflective about their learning experiences. Learning style interacts and responds to the learning environment. It described how humans assimilate knowledge about the environment through four sensory modalities: Visual (observing pictures, symbols or diagrams), auditory (listening, discussing), visual/iconic (reading and writing), and kinesthetic (using tactile sensory abilities such as smell and touch).

Nursing students attitude towards learning are involved usually in the surface approach, however, sometimes there are moderately involvement of nursing students in the deep approach attitude towards learning. Nursing students have varied learning styles such as visual, auditory and tactile. This implies that the nursing students learning style in terms of visual learning happens sometimes during the course of their studying. Occasionally the students used visual learning style if it requires them to, however, this gives a good impact on their understanding of the course, thus, making it retain longer in their memory. This suggests that the nursing students learning style in terms of auditory learning occur sometimes during studying. Seldom the students used auditory learning style if it demands them, however, this provides a good influence on their ability to keep information integrated in their memory. Moreover, the nursing students learning style in terms of tactile learner transpire sometimes during absorbing of knowledge. Rarely the students used tactile learning style if it necessitate them, however, this stipulates an admirable effect on their capacity to sustain retention of information.

Nursing students utilize both surface and deep approach to learning. It is therefore necessary for teachers to utilize teaching-learning activities that apply these approaches to improve student engagement and learning. Schools should design a learning environment that supports and complements surface and deep learning objectives. With regard to students' learning styles, the nursing students vary from visual, auditory to tactile. Knowledge of students' learning styles is important for teachers to formulate appropriate teaching-learning strategies for enhancing students' learning. Hence, teachers need to present the material using the three styles to allow all learners equal opportunity to become involved.

Many studies confirm the positive role of educational intervention. Zeegers [20] expressed that borne out by the way that scholastically effective students will probably use a profound way to deal with learning than the individuals who are less successful. As indicated by Prosser surface ways to deal with learning are for the most part connected with the discernments that the workload is too high and that evaluation is trying conceptive learning, while deep approaches to deal with learning are related with the observations that instruction is great and objectives and methods are clear. As specified by Lizzio et al., the impression of overwhelming workload and unseemly appraisal push students to receive surface approaches to deal with studying, yet the view of workload has no precise relationship to students' utilization of deep approaches to

deal with learning. The view of a decent training condition impacts understudies towards the selection of profound ways to suitable teaching atmosphere, and alternately, students' impression of an awful instructing condition prompt surface approaches to deal with learning. The most grounded indicators a deep approach to deal with learning are students' view of the nature of the teaching and the suitability of the evaluation.

Understanding students' approaches to learning and learning style preferences is helpful in formulating teaching-learning strategies for improving the learning experience of each student. Student learning and knowledge acquisition preferences influence pedagogy choices by instructors. Reading, writing papers, and watching demonstrations and videos are an important part of student learning. However, a greater proportion of the nursing programme should focus on hands-on lab and clinical experiences, if the students are found to enjoy learning by doing. Simulation experiences are also important, including the debriefing sessions, which appeal to both kinaesthetic and aural-preference learners. Once nursing faculty learns the predominant learning style preferences of their students, they too can reconsider their educational delivery to tailor the learning experience to their students' inclinations. An area for future study may be to assess any relationships between learning style preference and academic performance.

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References

1. Falk K, Falk H, Jakobsson UE. When practice precedes theory a mixed methods evaluation of students learning experiences in an undergraduate study in nursing program. *Nurse Educ. Pract.* 2016; 16: 14-19.
2. Jeanne San Pascual. *Why Attitude Is The Most Important Thing In Success.* 2015.
3. Samarakoon L, Fernando T, Rodrigo C. Learning styles and approaches to learning among medical undergraduates and postgraduates. *BMC Med. Educ.* 2013; 25: 42.
4. Nuzhat A, Salem RO, Al Hamdan N, et al. Gender differences in learning styles and academic performance of medical students in Saudi Arabia. *Med. Teach.* 2013; 35: S78-S82.
5. Kolb A, Kolb D. The learning way Meta-cognitive aspects of experiential learning. *Simulation Gaming.* 2009; 40: 297-327.
6. Dunn, Griggs S. *Learning Styles Quiet Revolution in American Schools National Association of Secondary School Principals,* Reston Va. 1988.
7. Hipona J, Vertucio H. *Formulation of Learning Strategies Using Biggs RSPQ-2F Thru Attitudinal Studies of Selected Nursing Students in Higher Education Institution in Metro Manila.* 2017.
8. Entwistle NJ, Ramsden P. *Understanding student learning.* London Croon-Helm. 1983.
9. Felder RM, Brent R. Understveing student differences. *Journal of Engineering Education.* 2005; 94: 57-72.
10. Biggs JB, Kember D, Leung DYP. Th e revised two factor study process questionnaire R-SPQ-2F. *British Journal of Educational Psychology.* 2001; 71: 133-149.
11. Tiwari A, Chan S, Wong E, et al. The effect of problem-based learning on students approaches to learning in the context of clinical nursing education. *Nurse Education Today.* 2006; 26: 430-438.
12. Gijbels D, Dochy F, Van den Bossche P, et al. Effects of problem based learning A meta-analysis from the angle of assessment. *Review of Educational Research.* 2005; 75: 27-61.
13. Clarke I, Flaherty T, Yankey M. Teaching the visual learner the use of visual summaries in marketing education. *Sage journals.* 2006.
14. Nuzhat RO, Salem MA, Quadri, et al. Learning style preferences of medical students a single-institute experience from Saudi Arabia. *International Journal of Medical Education.* 2011; 2: 70-73.
15. Higgins JM, Hill J, Woodland W. *Creating creativity. Training & Development. An evaluation of foreign fieldwork in promoting deep learning A preliminary invstigation. Assessment and Evaluation in Higher Education.* 1994. 27: 539-555.
16. Baykan Z, Nacar M. Learning styles of first year medical students attending Erciyes University in Kayscri Turkey. *Adv Physiol Educ.* 2007; 31: 158-160.
17. Antepohl W, Herzig S. Problem based learning versus lecture-based learning in a course of basic pharmacology a controlled randomized study. *Med Educ.* 1999; 33: 106-113.
18. Rassool, Rawaf S. Learning style preferences of undergraduate nursing students. *Nursing Standard.* 2007; 21: 35-41.
19. Brady CL. Understanding learning styles Providing the optimal learning experience. *International Journal of Childbirth Education.* 2013; 28: 16-19.
20. Zeegers P. Approaches to learning in science A longitudinal study. *British Journal of Educational Psychology.* 2001; 71: 115-132.