



Learning Styles And Factors Affecting Learning: Perception Of 2013/2014 Final Year Post-Diploma Sandwich Students Of The Department Of Basic Education, University Of Education, Winneba (Uew), Ghana

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Abstract

It has been shown through recent studies that it is very necessary to study learning styles because a match between teaching and learning styles helps to motivate students' processes of learning, hence, the reason for lecturers to identify their own teaching styles and students' learning styles to obtain better results in the lecture rooms. This study therefore sought to investigate the learning styles of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, Winneba, Ghana, and the factors that affect their learning. The descriptive survey design was used for the study. The purposive sampling technique was used to sample all four hundred and seventy-two final year students who were given a questionnaire each to be filled. However, four hundred and forty-six students filled their questionnaire and returned them to the researchers. One of the findings was that the most preferred learning style of the students was a combination of auditory and visual learning styles. Another finding was that generally, the students agreed that their learning styles were affected by physical and teaching and learning factors. On the other hand, they generally disagreed that environmental and personal factors influenced their learning styles. It was also found out that physical factors greatly affected the learning styles of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, Winneba, Ghana. Generally, there was no significant difference in the learning style preference of the male and female students. Among the recommendations is that lecturers of the Department of Basic Education, Winneba, Ghana, should endeavour to identify the learning styles of their students in order to adopt teaching styles that will suit the learning needs of the students.

Key words: factors, final year, learning styles, perception, sandwich, students,

INTRODUCTION

Learning, as an indispensable behaviour is imperative to the development and achievement of individual's aspirations. According to Tanya (2011) many educators expend enormous amounts of effort to designing their learning to maximize the value of a product of interactions, including interactions with instructors and tutors, with content and or with other people.

Wirth and Perkins (2008) see learning as building mental models (schema) consisting of new and existing information, and the richer the links between new and existing information, the deeper the knowledge and the more readily it can be retrieved and applied in new situations. They further explain that building rich links involves an iterative process of building, testing, and refining schema that organizes knowledge into conceptual framework, and if existing knowledge serves as a foundation for new learning, then it is also essential that existing misconceptions, preconceptions, and naive conceptions are acknowledged and corrected during the learning process. Zull (2002) supporting this claim, posits that within the brain, knowledge is organized and structured in networks of related concepts. Accordingly, new knowledge must connect to, or be built upon a framework of existing knowledge.

Learning can also be seen as the process of gaining understanding that results in modification of attitudes and behaviours through acquisition of knowledge, skills and values, through study and experience. This causes a change of behaviour that is relatively permanent, measurable and specified or provides the opportunity for the individual to formulate new mental construct or revise a prior construct (Abante, Almendral, Manansala and Mañibo, 2014). They explain further that learning is a process that depends on experience and leads to long-term changes in behaviour potential, and also describes the possible behaviour of an individual in a given situation in order to achieve a goal. However, they emphasize the need for periodic reinforcement of individual learning without which learning becomes shallower and inevitably displaced. When an individual is placed in a learning situation, the expectation is a change in behaviour or a certain level of performance. Barnes-Holmes and Moors (2013) reiterate that learning is seen as ontogenetic adaptation. That is, changes in the behaviour of an organism as a result of regularities in the environment of the organism. They believe that this functional definition not only solves the problems of other definitions, but also has important advantages for cognitive learning research.

Barron & Darling-Hammond (2008) argue that designed activities also supports iterative activity as students create, assess, and redesign their own work. This calls for collaboration and specific roles for different students, providing them with the opportunity to become “experts” in a particular area. Fink (2003) asserts that self-knowledge enables student to recognize the personal and social implications of their knowledge and to function and interact more effectively with others. This paves way for self-awareness, self-regulation, motivation, empathy, and social skills (Wirth & Perkins, 2008). These include learning how to diagnose one’s own need for learning with and how to be a self-learner. Thus, individualistic features dictated by both personal choices and environmental adaptation factors make behaviour of individuals in learning situations very varied. This accounts for differences in learning outcomes among groups of learners. In a class of students, each has a way of absorbing what is taught. Consequently, what is taught and what is learnt are deduced from the output of the students. To Wirth & Perkins (2008) when a learning experience has a profound effect on students, it can result in a greater sense of caring for the subject, for themselves, others, or learning in general. Greater caring can also lead to new interest, energy for learning, or a change in values.

According to the Association of American Colleges and Universities (AACU) (2002) students’ learning needs for the 21st century include preparing them for emerging challenges in the work place, in a diverse democracy, and in all interconnected world. Hence, colleges and universities should place new emphasis on educating students to be “intentional learners” who are purposeful and self-directed, empowered through intellectual and practical skills, informed

by knowledge and ways of knowing, and responsible for personal actions and civic values (Wirth & Perkins, 2008). Thus, learning, performance and change are interrelated with one leading to the other, and when the desired expectations are not met, it becomes essential to isolate the challenge (s) in the learning process. Many educationists examine a number of ways students have not learned well in second cycle schools which is now reflecting in the tertiary institutions despite availability of numerous study materials. Laguador (2013) posits that students do not know how to think and study properly and effectively due to their inability to accumulate as well as assimilate information. This is because most students may have limited knowledge of learning styles or they find it difficult to adapt to a particular learning style that best suits their learning competence. The ripple effect might be their inability to perform according to the standard expected of them. As a result, people are like to raise questions as to the willingness of learners to learn, the state of the learner at the time of learning, the value learners place on learning, learners' approach to learning, and the knowledge learners have about their learning styles. Answers to these and other questions will help improve learners' performance as far as learning is concerned. Issues about students' performance, therefore, has made it necessary for academia to take a fresh look at the learning styles employed by students in various tertiary institutions.

The general call is for an emphatic hub on improving undergraduate education with the focal point being the quality of students' learning styles, since achievement of higher performance in education is greatly influenced by the student's ability to learn and the choice of appropriate learning styles. This makes the present study an important one to help identify the learning styles of 2013/2014 final year post diploma sandwich students of the Department of Basic Education, UEW, Ghana, and investigate the factors that affect their learning. The findings of the study may be relevant to further research in this and other areas related to learners, learning and learning styles. Secondly, it will serve as a wake-up call to learners who have no idea about their learning styles and their impact on their performance. The findings may help educators assess their students and help improve their learning abilities which in the long-run will improve their performance. Finally, it will guide educators identify and modify their teaching techniques and styles in order to adapt activities that will suit their students learning styles.

Research Questions

The study sought to answer the following research questions:

1. What is the learning style preference of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana?
2. What factors affect the learning style preference of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana?
3. Which factors greatly affect learning style the preference of 2013/2014 final year post diploma sandwich students of the department of Basic Education, UEW, Ghana?

Hypothesis

H₀: There is no significant difference in the learning style preference of 2013/2014 male and female final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana.

LITERATURE REVIEW

Learning Styles as a Tool in Learning

Learning styles as a psychological tool in education has often been down-played in the achievement of academic goals. According to Clark (2004), a learning style is a way of

responding to and using stimuli in the context of learning. To support this, Reid (2005), reiterates that learning is a science and yet aspects relating to how learners learn, and how learning can be used in school, beyond school and in adulthood are often relegated to a less important role in education today. MacGilchrist, Myers and Reed (2004) affirm the fact that effective learning will provide the learner with skills to resolve problems in new and future learning based on their previous learning experiences. Lucas and Corpuz (2007) posit that learning or thinking styles refer to the preferred way that individual processes information and also describes a person's typical mode of thinking, remembering or problem solving. This implies that learning styles are the preferences students have in processing new information or strategies that are consistently adopted by them to learn. Thus, students make deliberate attempt to choose how they intend to process whatever they are taught.

According to Reid (2005), a student could be a sensory or perceptual learner, cognitive learner and affective/temperament learner. Gilakjani (2012) claims that students who learn from an approach compatible with their preferred learning style experience greater academic achievement and have a more positive attitude towards learning. In this case, if a student is naturally inclined towards a particular learning style and does not make a conscious effort to adapt to others, that student's academic performance will be affected. In view of this, Reid (2005) purports that learning styles should be points along a continuum. This means that learning style should not be a straight jacket but a choice, which is mostly influenced by the task at hand or the learner's environment. Since learners have varied backgrounds and experiences as far as learning is concerned, it will be very ideal to expect all of them to use the same style of learning.

Awareness of Learning Styles

Provident, Leibold, Dolhi and Jeffcoat (2009) and Rogers (2009) make clear that the value of developing awareness of learning styles can help students to recognize their strength, acknowledge weak areas, work more efficiently when self-directed and develop effective collaborative relationships with others. In view of this, experts have been of the same opinion that, three basic learning styles are critical to students learning outputs. However, it has been largely accepted that students learn in different ways. Reid (2005) supports this claim that three major categories of learning styles are widely recognized and relevant to learning; sensory or perceptual learning styles, cognitive learning styles and affective/temperament learning styles. Lucas and Corpuz (2007) posit that two of these learning styles are the sensory preferences and the global analytic continuum; sensory preferences states that individuals tend to gravitate toward one or two types of sensory input and maintain dominance in one of the following types namely, auditory learners, visual learners, and tactile or kinesthetic learners. For some experts, auditory learners tend to absorb information in a more efficient manner through sound, music, discussion, teachings etc. These learners appreciate books on tape and may find that reading aloud will help them to retain information rather than written reports.

Kinesthetic or tactile learners learn best through moving, doing, acting out and touching. These learners are interested in projects that are hands-on oriented. Visual learners will always prefer to be in the front row to obtain the best view for proper absorption of information while affective/ temperament learners take emotions, values and feelings into consideration. Theorists like Fleming and Baume (2006) also consider reader or writer learning style, auditory learning style, kinesthetic and visual learning styles to be only a part of what might be included in an exploration of learning styles. They stress that these four aspects of learning

preferences can be readily identified by students, and are relatively stable. This means that the onus is on the learner's motivational skills and level of engagement of the information which he or she attaches to learning opportunities. It can be observed that each individual may possess a single style or could possess a combination of different learning styles. Thus, to develop knowledge of the impact of learning styles, it is necessary to look at factors impacting on learning and learning styles.

Factors Affecting Learning Styles

Learning styles, as a driving force to the success in learning process, has several dynamics associated with it. Abucay (2009) reiterates that students' difficulty in learning may be due to different factors. Such factors include; intellectual factors. This elucidates special intellectual disabilities found among learners. It may include such disabilities as low intelligent quotient (IQ), dislike for particular subjects, immaturity, among others. Another is learning factors which refer to the learner's inability to master what has been taught and the teacher's lack of mastery over the subject matter. It may also be a problem of the teacher's use of faulty method or techniques of teaching or student's limited background knowledge of the topic. Physical factors which deal with such issues as health, nutrition, visual and physical defects and physical development are contributing variables to students' difficulty in learning. In support of this assertion, Harris (2011) states that due to rise in poverty levels, many learners turn up in school hungry, poorly dressed and unfit to study. This is directly linked to social and emotional factors. Causative agents include interpersonal relationships in the school environment, the physical characteristics of the classroom and the nature of competition and cooperation among learners and teachers. Textbooks, instructional materials, school supplied materials and other equipment used in the teaching learning process are environmental factors that play a major role in learning difficulty among learners.

Sisante (2008) affirms that lack of interest among learners indicate a weakness on the part of the school system to make education interesting for the students. In most cases, the teacher's personality plays a very crucial role in learners' learning disabilities. It is believed that the teacher's vital task should have the power to lead and to inspire learners through the influence of his personality. The discussions above affirm that students have varied learning styles to choose from depending on their academic disposition. Conversely, their choice could be impinged on by variables that are imperative to their success in scholastic exploits.

METHODOLOGY

The descriptive survey design was used for the study and it was quantitative in nature. The design was used because according to Fraenkel and Wallen (2009) it produces a good number of responses from numerous people at a time, provides a meaningful picture of events and seeks to explain people's perception and behaviour on the basis of information obtained at a point in time. Similarly, Johnson and Christenson (2012) are of the view that descriptive survey design describes the existing variables in a given situation and, sometimes, the relationship that exists among those variables, and could be used with greater confidence with regards to particular questions which are of special interest and value to researchers (Esia-Donkoh, 2014).

The researchers purposively sampled all 2013/2014 final year post-diploma sandwich students for the study. The reason was that as at the time of the data collection, they had spent one academic year in the University and as such, their experiences might have enabled them to put into use their preferred learning styles for some time. Again, the Level 300 sandwich

students had spent about one month and may not have had enough experiences in the University to settle on a particular learning style, hence, a decision by the researchers not to use Level 300 sandwich students. The study made use of a four-point Likert-scale (strongly agree to strongly disagree) type questionnaire as the instrument for data collection. This was adapted from Abante, Almendral, Manansala and Mañibo (2014) who conducted a similar research. The validation of the adapted questionnaire was done by some professors and senior lecturers in at the Winneba Campus of UEW, Ghana. Their observations and comments helped in improving the items in the questionnaire. The questionnaire was used because it is a self-report-data collection instrument filled out by each research participant for a research study to obtain information about thought, feelings, attitudes, beliefs, values, perceptions, personality and behavioural limitation of research participants (Johnson & Christenson, 2012). It also ensured confidentiality of responses, saved time, in that it helped reach many respondents at a time and was free from bias of the interviewer if interview had been used. This is because answers from respondents were not influenced by the researchers. The pre-testing of the questionnaire was done using 2013/2014 final year post-diploma sandwich students of the Department of Early Childhood Care and Development, UEW, Ghana.

These students share similar characteristics with their counterparts in the Department of Basic Education, especially in terms of location and duration used for academic work in a semester. An analysis of the pre-test recorded a reliability co-efficient of 0.89 (standardized item alpha) which falls within the accepted range of 0.5000 and 1.000 (Johnson and Christensen, 2012). For the actual study, the questionnaire was administered to all 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, after a lecture on Friday, July 18, 2014. Out of the 472 questionnaires distributed, 446 correctly filled and returned, indicating a return rate of 94.5%. Thus, 446 questionnaires from the respondents were used for the analysis.

DATA ANALYSIS, FINDINGS AND DISCUSSION

The IBM Version 20 of the Statistical Package for Social Sciences (SPSS) was used in coding the questionnaire and analysing the responses obtained. The analysis, presentation and discussion of the findings were done in line with the research questions. Cross-tabulation made up of frequency and simple percentages were used in analyzing Research Question 1. For the analysis of Research Questions 2 and 3, means and standard deviation were used. The t-test was also used to analyse the hypothesis.

Research Question 1: What is the learning style preference of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana?

It is widely known that students adopt different learning styles in the classroom in their efforts to understand what is taught and what they learn. This research question therefore aimed at investigating the preferred type of learning style (s) of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana. The data in Table 1 helped in answering Research Question 1.

From the data in Table 1 below, it is seen that the total number of respondents was 446, and this included 241 male and 205 female students. It is realized that out of the six learning style preferences, 42 (9.4%) students made up of 21 (4.7%) male and 21 (4.7%) female students preferred auditory learning style. Another 81 (18.2%) students comprising 50 (11.2%) male and 31 (7.0%) female students opted for visual learning style. Again, 39 (8.7%) students made up of 22 (4.9%) male and 17 (3.8%) female students liked kinesthetic learning style. It is also

observed from the data in Table 1 that 125 (28.0%) students made up of 69 (15.4%) males and 56 (12.6%) females opted for a combination of auditory and visual learning styles. Also, 53 (11.9%) students preferred a combination of auditory and kinesthetic learning styles. This included 33 (7.4%) males and 20 (4.5%) females. It can be noted that out of the 106 (23.8%) students who liked a combination of visual and kinesthetic learning styles, 46 (10.3%) were males while 60 (13.5%) were females.

Table 1: Learning Styles of Students by Gender/Sex

Gender/Sex Learning Style	Male		Female		Total	
	No.	%	No.	%	No.	%
Auditory	21	4.7	21	4.7	42	9.4
Visual	50	11.2	31	7.0	81	18.2
Kinesthetic	22	4.9	17	3.8	39	8.7
Auditory and Visual	69	15.4	56	12.6	125	28.0
Auditory and Kinesthetic	33	7.4	20	4.5	53	11.9
Visual and Kinesthetic	46	10.3	60	13.5	106	23.8
Total	241	54.0	205	46.0	446	100.0

Source: Field Data (July, 2014)

The inference one can make from the data in Table 1 is that, the most preferred learning style of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, was a combination of auditory and visual learning styles, followed by a combination of visual and kinesthetic learning styles, and visual learning style. The least preferred style however was kinesthetic learning style. This means that generally, the students tend to absorb information through a combination of hearing what is said in class and what they see. Thus, they perform better at lectures where lecturers use charts, demonstrations, role plays, field trips, videos and other visual resources, as well as discussions. It could also be inferred that the most preferred learning style among the male students was a combination of auditory and visual learning styles, followed by visual learning style, and a combination of visual and kinesthetic learning styles. The least preferred learning style among the male students was auditory. On the other hand, the most preferred learning style among the female students was a combination of visual and kinesthetic learning styles. This was followed by a combination of auditory and visual learning styles, and visual style.

The observation from this finding is that whereas the male students preferred their lecturers to mostly use lecture, discussion, demonstration techniques, and the use of videos to enhance their understanding, the females preferred teaching techniques such as discussion, lectures, demonstration, field trips, games, the use of videos and charts, as well as projects, experiments, dramatization/role play, and other hands-on teaching techniques and strategies. From the observations made from the data in Table 1, it could be deduced that there is a difference in the most preferred learning style of 2013/2014 male and female final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, even though they all prefer to combine visual learning style with either auditory or kinesthetic learning styles.

The findings seem to reflect the opinion of most experts that an individual may possess a single learning style or prefer a combination of different styles (Ldpride.net, 2008), implying that learning styles are the preferred way individuals process information, and describes a person's typical way of thinking, remembering, or problem solving (Lucas and Corpuz, 2007). The findings also show that 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, could be described as having sensory preference

learning style/perspective since they opted for one or two types of sensory input and maintained dominance in one of visual, auditory, or kinesthetic learning styles (Lucas and Corpuz, 2007; Abante, Almendral, Manansala and Mañibo, 2014).

It must be noted that knowing the learning style preference of the students is very important because students' success in the classroom depends not only on the intellectual abilities, skills and talents of the student, but also on the student's learning style (Ramayah, Nasrijal, Leong, Sivanandan and Letchumanan, 2011). It has been found that students who understand their learning styles can improve their learning effectiveness in and outside of the classroom (Dembo and Howard, 2007). Robotham (2003) posits that each individual has a learning style and, if instruction is adapted to accommodate that style, it is expected that improved learning will be achieved. As a result, lecturers must necessarily vary their teaching methods, techniques and strategies to enable students with differing learning styles to learn in an environment that is more conducive to the learning style preference (Suskie, 2003; Ramayah, Nasrijal, Leong, Sivanandan and Letchumanan, 2011).

Research Question 2: What factors affect the learning style preference of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana?

Various factors influence students' learning, and knowing these factors greatly help in the identification and elimination or reduction of learning challenges. Research Question 2 was therefore to identify the factors that 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, perceived to influence their learning style preference. The data in Table 2 depicts that for the physical factor, the respondents agreed that when they are hungry they find it difficult concentrating during lectures (mean = 3.32; standard deviation = 0.73). They also agreed that they exercise at least once a week to keep them in shape for lectures (mean = 3.00; standard deviation = 0.77). This means that generally, the 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, agreed that physical factor influence their learning style preference (mean of means = 3.16; overall standard deviation = 0.75).

The admission by the students that they cannot concentrate during lectures as a result of hunger is somehow worrying. Physical factors such as health, nutrition and physical development have been identified as affecting learning process (Abucay, 2009). By the nature of the sandwich programme, students have little time to eat since they attend lectures almost throughout the day with very little breaks, making it very difficult for them to eat well and attend lectures. This situation, as indicated by Harris (2011) makes the students tired and stressed, thus altering their ability to concentrate and learn during lectures (Abante, Almendral, Manansala and Mañibo, 2014). It is gratifying however to note that the students ensure they exercise at least once a week to keep them in shape for lectures because exercise has been shown to be a highly effective form of stress management since it provides an outlet for the fight or flight responses and has an advantage of removing the individual from the stress provoking situation (Esia-Donkoh, 2014).

In the case of environmental factor, respondents agreed that the university provides facilities that are conducive for learning (mean = 3.13; standard deviation = 0.73), and obtain significant information from various books and references provided at the library (mean = 3.06; standard deviation = 0.68). The respondents, however disagreed that the Department provides proper

and adequate equipment to help students in their learning (mean = 2.65; standard deviation = 0.77).

Table 2: Factors Affecting Learning Style Preference

Factors	Response							
	SA	A	D	SD	WM	St. D.	I	
<i>Physical</i>								
I cannot concentrate during lectures when I am hungry	207	183	49	7	3.32	0.73	A	
I make sure I exercise at least once a week to keep me in shape for lectures	113	240	74	19	3.00	0.77	A	
Mean of Means = 3.16; St. D. = 0.75; I = A								
<i>Environmental</i>								
The university provides facilities that are conducive for learning	138	246	46	16	3.13	0.73	A	
There are various books and references at the library that provide me with significant information	105	273	56	12	3.06	0.68	A	
My department provides proper and adequate equipment to help us in our learning	46	235	129	36	2.65	0.77	D	
Mean of Means = 2.95; St. D. = 0.73; I = D								
<i>Personal</i>								
I do not experience victimization and intimidation in my university	171	192	60	23	3.15	0.84	A	
I am not disgraced or insulted for having poor grades in the courses I offer	183	159	56	48	3.07	0.98	A	
I am patient when it comes to understanding my lessons	181	249	11	5	3.36	0.59	A	
I have a high self-esteem	221	188	30	7	3.40	0.69	A	
I do not have any family problems and issues	38	65	161	182	1.91	0.94	SD	
Mean of Means = 2.98; St. D. = 0.81; I = D								
<i>Teacher and Learning</i>								
My lecturers' method of teaching fits my way of learning	69	298	63	16	2.94	0.66	D	
My lecturers inspire me by using different motivation strategies to improve my academic performance	124	260	53	9	3.12	0.68	A	
My lecturers are sympathetic, loving, enthusiastic and cheerful	202	206	32	6	3.35	0.67	A	
I have a wide range of knowledge about the courses I offer in my university	80	243	102	21	2.86	0.76	D	
I practice effective study habits	146	264	30	6	3.23	0.63	A	
Mean of Means = 3.10; St. D. = 0.68; I = A								

Notes: SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree; WM = Weighted mean; St. D. = Standard deviation; I = Interpretations; 4.0 = Strongly Agree; 3.0-3.9 = Agree; 2.0-2.9 = Disagree; 1.0-1.9 = Strongly Disagree. Source: Field Data (July, 2014).

The environmental factor obtained a mean of means score of 2.95 and an overall standard deviation of 0.73, implying that generally, the 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana respondents disagreed that environmental factor affect their learning style preference. According to Abucay (2009) the type and quality of instructional materials, equipment, and facilities among others, play a crucial role in the effectiveness and efficiency of the instructional activities of a school. Sisante (2008) also argues that lack of interest among students show how weak a school system is in making education interesting for the students. This, according to him, may be as a result of inadequate facilities and supplies, and poor infrastructure (Abante, Almendral, Manansala and Mañibo, 2014). It is refreshing to note that the students agreed that the university provides facilities for learning, as well as the appropriate and adequate books for reference at the

library, even though at the departmental level these facilities and supplies are not conducive for learning.

Concerning personal factor as an influence on their learning style preference, respondents agreed that they do not experience victimization and intimidation in the university (mean = 3.15; standard deviation = 0.84), they are not disgraced or insulted for having poor grades in the courses they offer (mean = 3.07; standard deviation = 0.98), they are patient when it comes to understanding what is taught at lectures (mean = 3.36; standard deviation = 0.59), and they have a high self-esteem (mean = 3.40; standard deviation = 0.69). However, the respondents strongly disagreed that they do not have any family problems and issues (mean = 1.91; standard deviation = 0.94). With a mean of means score of 2.98 and an overall standard deviation of 0.81 it could be argued that generally, the 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, disagreed that their learning style preference is affected by personal factors which include intellectual, mental, emotional and social factors. For the students to strongly disagree that they do not have any family problems and issues underscores the extent to which family challenges and issues greatly affect their learning style. This situation stresses the students and as such they are unable to concentrate during lectures.

With the factor that relates to teaching and learning, the respondents agreed that their lecturers inspire them by using different motivation strategies to improve their academic performance (mean = 3.12; standard deviation = 0.68). They agreed that their lecturers are sympathetic, loving, enthusiastic, and cheerful (mean = 3.35; standard deviation = 0.67), and they also practice effective study habits (mean = 3.23; standard deviation = 0.63). The respondents however disagreed that their lecturers' method of teaching fits their way of learning (mean = 2.94; standard deviation = 0.66). They also disagreed that they have a wide range of knowledge about the courses they offer in the university (mean = 2.86; standard deviation = 0.76). Generally, the 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, agreed that their learning style preference is affected by the teaching and learning factor (mean of means = 3.10; overall standard deviation = 0.68). It is observed from the analysis that the students disagreed that their lecturers' methods of teaching fit their way of learning. The impression is that lecturers used teaching methods, techniques or strategies that do not favour the learning styles of the students. The personality of a lecturer is an essential element in the teaching and learning process or in the failure or success of the learners (students). It is expected that the lecturer should have the ability to lead and to inspire students through the influence of his or her personality (Abante, Almendral, Manansala and Mañibo, 2014). Again, for the students to disagree that they have a wide range of knowledge about the courses they offer in the university implies that most of the students do not know what is entailed in the description of the courses they offer. This seems that the Department is not doing much to enable their sandwich students gain a clear knowledge and understanding of the programme and courses they offer.

Research Question 3: Which factor greatly affects the learning style preference of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana?

The data in Table 3 below reveals that physical factors (mean of means score = 3.16; overall standard deviation = 0.75) greatly affected the learning style preference of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana. This

was followed by teaching and learning factors (mean of means score = 3.09; overall standard deviation = 0.74), personal factors (mean of means score = 2.98; overall standard deviation = 0.81), and environmental factors (mean of means score = 2.95; overall standard deviation = 0.73). This means that whereas physical factors are considered the most influential factor affecting their learning styles, the environmental factors are considered least influential by the students. This finding differs from that of Abante, Almendral, Manansala and Mañibo (2014) who found out that environmental factor greatly affected the learning style of their respondents as compared to physical factors. From their study, personal factor was considered the least factor that affected the learning style preference of their respondents.

Table 3: Factor (s) that Greatly Affect Learning Style Preference

Factor	Mean of Means Score	Standard Deviation
Physical	3.16	0.75
Teaching and Learning	3.09	0.74
Personal	2.98	0.81
Environmental	2.95	0.73

Source: Field Data (July, 2014)

Hypothesis

H₀: There is no significant difference in the learning style preference of 2013/2014 male and female final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana.

An independent-sample t-test analysis was conducted to compare the learning style preference scores for male and female respondents (students). The result was that there was no significant difference in the learning style preference for males (Mean = 3.75, Standard Deviation = 1.60) and females (Mean = 3.99, Standard Deviation = 1.70); $t(444) = -1.53$, $p = 0.13$ (two-tailed). Thus, we failed to reject the null hypothesis.

CONCLUSION

It could be concluded from the findings of the study that generally, the learning style preference of 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, was a combination of auditory and visual learning style. However, there was a difference in the learning style preference for the male and female students. Whereas the male students preferred a combination of auditory and visual learning style, the female students preferred a combination of visual and kinesthetic learning style. Another conclusion from the findings is that generally, the 2013/2014 final year post-diploma sandwich students of the Department of Basic Education, UEW, Ghana, agreed that physical as well as teaching and learning factors affected their learning style preference. They however disagreed that environmental and personal factors were responsible for their learning style preference. Again, the students were of the view that physical factors greatly affected their learning style preference while environmental factors were considered the least to affect their learning style preference. Last but not least, there was no significant statistical difference in the views of male and female students on their learning style preference.

RECOMMENDATIONS

1. Learning style of students play a key role in the teaching and learning processes. In view of this, lecturers of the Department of Basic Education, UEW, Ghana, should always make every effort to identify the preferred learning styles of their sandwich students to help in adopting

the teaching methods, techniques and strategies that will fit the learning styles of the students to ensure effective teaching and learning.

2. The Department of Basic Education, UEW, Ghana, should provide relevant, current and adequate textbooks and other reading materials at the Departmental Library to facilitate effective teaching and learning.
3. One of the causes of stress among students is family problems and issues. For about 76.9% of the respondents to indicate their disagreement that they do not have any family problems indicates that most of the 2013/2014 final year post-diploma sandwich students stressed and this negatively affected their concentration at lectures and eventually, their understanding of what was taught. The Department of Basic Education, UEW, Ghana, should therefore liaise with the Counselling Unit of the University to frequently organize seminars on coping with stress to enable the sandwich students cope with their family issues and the learning environment that confront them. The Department's academic counselling activities should also be improved to make the students feel comfortable and free to express their feelings.
4. The Department of Basic Education, UEW, Ghana, should organize seminars for its sandwich students on the programme or courses they offer and the relevance therein. This will provide a wide range of knowledge and understanding about the programme they offer. The Department should also liaise with Division of Academic Affairs and attach course descriptions and outlines to the admission letters for admitted sandwich students. This will help the students have a fair knowledge and understanding of the programme or courses they will be offering.
5. About 79.2% of the 2013/2014 final year post-diploma sandwich students used for the study agreed that they exercise at least once a week in order to be in shape for lectures. This indicates the awareness among the students of the importance of exercises to their academic pursuit. As a result, the Department of Basic Education, UEW, Ghana, should liaise with the Sports Directorate of the University to put in place programmes that will regularly cater for the physical exercise and sporting needs of the sandwich students. This will help the students manage the stressful situations they go through and remove them from stress provoking situations. In so doing, the sandwich students will be physically and psychologically fit for their studies.

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