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LEARNING STYLES AND ACADEMIC PERFORMANCE OF THE IN-PERSON TEACHER-INTERNS

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Abstract - *This study identified the relationship between the learning styles and the academic performance of the in-person teacher-interns of Nueva Ecija University of Science and Technology, San Isidro Campus College of Education, during the 2nd semester of A.Y. 2022-2023. The learning styles of the respondents in terms of visual modality, auditory modality, and kinesthetic modality were identified. The academic performance in terms of their final grade in Course Audit was also identified. The results of the study showed that based on the frequency of use, the learning styles of the respondents were mostly under visual modality. Their academic performance in terms of final grades in Course Audit were satisfactory. However, the results also revealed that there was no significant relationship between the learning styles and the academic performance of the in-person teacher-interns of NEUST San Isidro Campus College of Education.*

Key Words: *academic performance, learning styles, auditory, visual, kinesthetic*

INTRODUCTION

According to an article published by Stafford Global in 2020, a Learning Style is an individual's preferred, most effective method of absorbing new information and learning new skills. In others words, learning styles refer to the view that different people learn information in different ways and individuals learn in different ways using several learning styles. There are basically three (3) types of learning styles: visual, auditory and kinesthetic. The visual learning style is considered to be a "process through which students gain knowledge and understanding through explicitly visual tools" (Lewis, 2012[1]). The kinesthetic learning style means that student learn best when they are permitted to touch and feel through physical activity. The auditory learner learns best when they are able to hear the instruction (Fleming, 2012[2]). While these styles are widely accepted, there continues to be much debate about Learning Styles in the field of education, specifically when it comes to academic performance of the students, now that the New Normal has been implemented.

On the other hand, a number of previous studies have investigated the relationship between college students' learning styles and academic performance, In fact, Moeinikia and Zahed-Babelan (2010)[3] and Williams, Brown and Etherington (2013)[4] confirm that there is a positive link between learning styles and academic performance in the university settings.

In the 2nd semester of A.Y. 2022-2023, The College of Education of Nueva Ecija University of Science and Technology San Isidro Campus allowed its teacher-interns to render their in-person Teaching Internship course, along with their Course Audit subject. These teacher-interns were deployed to different cooperating public and private schools in the nearby towns of San Isidro. This in-person teaching internship marked the beginning of continuous face-to-face teaching internship as schools geared towards the new normal. In other words, as schools return for full face-to-face classes, several changes made during and even after the pandemic including distance learning and remote learning have nearly come to an end. Conversely, the academic performance and the learning styles of the students who have become accustomed to online learning may change too.

It is in this context that this study was carried out. Its goal was to identify the relationship between the learning styles and academic performance of the in-person teacher-interns of the College of Education of NEUST San Isidro Campus, in the 2nd semester of A.Y. 2022-2023.

Statement of the Problem

This study aimed to identify the relationship between the learning styles and the academic performance of the in-person teacher-interns of the College of Education of NEUST San Isidro Campus, during the 2nd semester of A.Y. 2022-2023. Specifically, it sought to answer the following questions:

1. Identify the learning styles of the respondents in terms of:
    a. Visual modality;
    b. Auditory modality; and
    c. Kinesthetic/Tactile modality
2. Describe the academic performance of the in-person teacher-interns in terms of their final grade in their academic
3. subject.
4. Identify the relationship between the learning styles and the academic performance of the in-person teacher-interns

MATERIALS AND METHODS

Research Design

This research utilized the descriptive-correlation design to identify the relationship between the learning styles and the academic performance of the in-person teacher-interns of

the
College of Education of NEUST San Isidro Campus, during 2nd semester of A.Y. 2022-2023

Respondents of the Study

The respondents of the study were the 330 in-person teacher-interns of the College of Education of Nueva Ecija University of Science and Technology, San Isidro Campus, during the 2nd Semester of A.Y. 2022-2023. They were asked about their learning styles in terms of auditory, visual and kinesthetic modality and their academic performance in terms of their final grades in Course Audit.

Instrumentation

The researchers used a two-part questionnaire in gathering data. The first part deals with identifying the learning styles of the respondents in terms of visual, auditory, and kinesthetic modality. In order to identify the learning styles, the researcher made use of the scale as follows: 1.00 to 1.66 SE; 1.67 to 2.33 SO; and 2.34 to 3.00 OF, verbally interpreted as (3) Often (OF); (2) Sometimes (SO); (1) Seldom (SE). The second part deals with identifying the respondent's academic performance where the researcher made use of the scale as follows: 1.00 (97-100) Excellent; 1.25 (94-96) Very Satisfactory; 1.50 (91-93) Satisfactory; 1.75 (88-90) Good; 2.00 (85-87) Fair; 2.25 (82-84) Poor; 2.50 (79-82) Very poor; 2.75 (75-78) Needs Improvement; 3.00 (74 and below) Failed

Procedures

In order to gather data and information needed for the study, the researcher read previous studies, journals, and online sources until he located a standardized questionnaire in gathering the learning styles of the respondents and their academic performance. He gathered literature and studies pertinent to the study in order to find different parameters to be tested and to support the findings of the study after the data-gathering phase.

Statistical Treatment

The gathered data from the questionnaire were tallied, tabulated, and interpreted using the following statistical tools. Weighted mean was used to analyze and interpret the learning styles and frequency count was used in identifying academic performance of the respondents. To determine the relationship between the learning styles and the academic performance of the respondents, Pearson R correlation was used.

RESULTS

This section presents the analysis and interpretation of the data gathered from the respondents of the study.

1. ON THE LEARNING STYLES OF THE RESPONDENTS

Table 1. Visual Modality of the Respondents

INDICATORS	***WM***	***VI***
1. I remember information better if I write it down.	2.71	OF
2. Looking at the person helps keep me focused.	2.17	SO
3. I need a quiet place to get my work done.	2.65	OF
4. When I take a test, I can see the textbook page in my head.	2.12	SO
5. I need to write down directions, not just take them verbally.	2.13	SO
6. Music or background noise distracts my attention from the task at hand.	2.23	SO
7. I don't always get the meaning of a joke.	1.80	SO
8. I doodle and draw pictures on the margins of my notebook pages.	1.60	SE
9. I have trouble following lectures.	1.68	SO
10. I react very strongly to colors.	1.89	SO
Grand Mean	**2.10**	**SO**

Legend: 2.34-3.00 Often (OF); 1.67-2.33 Sometimes (SO); 1.00 to 1.66 Seldom (SE)

Table 2. Auditory Modality of the Respondents

INDICATORS	***WM***	***VI***
1. My papers and notebooks always seem messy.	1.69	SO
2. When I read, I need to use my index finger to track my place on the line.	1.70	SO
3. I do not follow written directions well.	1.31	SE
4. If I hear something, I will remember it.	2.35	OF
5. Writing has always been difficult for me.	1.71	SO
6. I often misread words from the text - i.e. "them" for "then"	1.72	SO
7. I would rather listen and learn than read and learn.	2.15	SO
8. I'm not very good at interpreting an individual's body language.	1.92	SO
9. Pages with small print or poor-quality copies are difficult for me to read.	2.25	SO
10. My eyes tire quickly, even though my vision checkup is always fine.	2.05	SO
Grand Mean	**1.88**	**SO**

Legend: 2.34-3.00 Often (OF); 1.67-2.33 Sometimes (SO); 1.00 to 1.66 Seldom (SE)

Table 3. Kinesthetic/Tactile Modality of the Respondents

INDICATOR	***WM***	***VI***
1. I start a project before reading the directions.	1.52	SE
2. I hate to sit at a desk for a long period of time.	2.02	SO
3. I prefer to see something done then do it myself.	2.10	SO
4. I use the trial-and-error approach to problem solving.	2.22	SO
5. I like to read my textbook while riding an exercise bike.	1.32	SE

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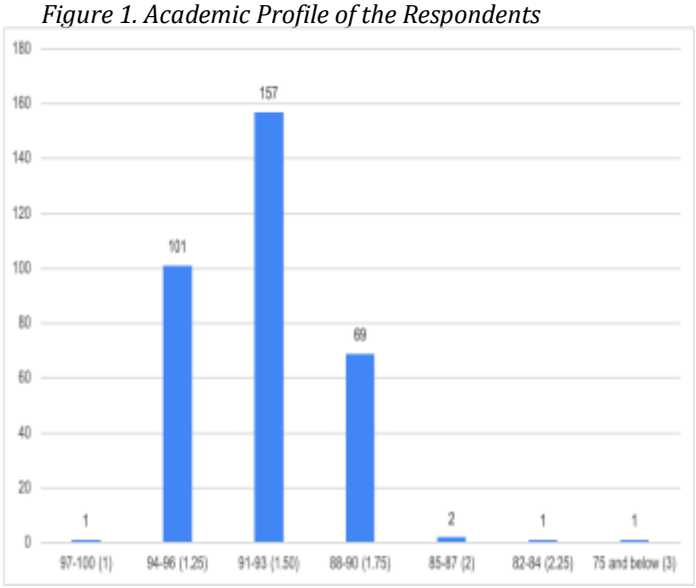
6. I take frequent study breaks.	2.09	SO
7. I have a difficult time giving step-by-step instructions.	1.77	SO
8. I enjoy sports and do well at several types of sports.	1.96	SO
9. I use my hands when describing things.	2.36	OF
10. I have to rewrite or type my class notes to reinforce my learning.	2.11	SO
Grand Mean	**1.95**	**SO**

Legend: 2.34-3.00 Often (OF); 1.67-2.33 Sometimes (SO); 1.00 to 1.66 Seldom (SE)

2. ON THE ACADEMIC PROFILE OF THE RESPONDENTS

Figure 1 presents the academic profile of the respondents in terms of their final grades in Course Audit.

Figure 1. Academic Profile of the Respondents



Legend: 1.00 (97-100) Excellent; 1.25 (94-96) Very Satisfactory; 1.50 (91-93) Satisfactory; 1.75 (88-90) Good;2.00 (85-87) Fair; 2.25 (82-84) Poor; 2.50 (79-82) Very poor; 2.75 (75-78) Needs Improvement; 3.00 (74 and below) Failed

3. ON THE RELATIONSHIP BETWEEN THE LEARNING STYLES AND THE ACADEMIC PERFORMANCE OF THE RESPONDENTS

Table 4. Correlation of the Learning Styles and Academic Performance of the Respondents

LEARNING STYLES OF THE IN-PERSON TEACHER-INTERNS		*ACADEMIC PERFORMANCE*
Visual Modality	*Pearson Correlation*	*-.074*
	Sig. (2-tailed)	*.180*
	N	*332*
Auditory Modality	*Pearson Correlation*	*.041*
	Sig. (2-tailed)	*.459*
	N	*332*
Kinesthetic Modality	*Pearson Correlation*	*.046*
	Sig. (2-tailed)	*.399*
	N	*332*

**Correlation is significant at the 0.05 level (2-tailed).*

DISCUSSION

This study involved 330 in-person teacher-interns from the College of Education of Nueva Ecija University of Science and Technology, San Isidro Campus, during the 2nd Semester of A.Y. 2022-2023. Among the three learning styles, in-person teacher-interns would "sometimes" use Visual learning styles with a grand mean of 2.10. They would "sometimes" also use Kinesthetic learning styles as evident in the grand mean of 1.95. Lastly, they would also "sometimes" consider using the Auditory learning styles with a grand mean of 1.88. It is worth noting that in-person teacher-interns were almost using all the three learning styles. This is probably because of the needs of the subject and the teacher's teaching style. Kasim 2019[5] stated that individuals learn in different ways using several learning styles, but teachers may not always share material and learning experiences that match students' learning preferences.

On the in-person teacher-interns' visual learning styles, it came out that they would "often" remember information better if they write it down (WM = 2.71) and they would "often" need a quiet place to get their works done (2.65). Meanwhile, the results showed that these in-person teacher-interns would "sometimes" get distracted from a music or background noise (2.23). It also came out that they would "sometimes" need to write down directions, not just take them verbally (2.13). Among the three learning styles, in-person teacher-interns would "sometimes" use Visual learning styles with a grand mean of 2.10. Visual learners need to 'see' what is being taught instead of being 'talked at'. Often reticent, they shy away from active participation, preferring to observe group discussions or projects. Most commonly associated with the concept known as 'photographic memory', they are adept at memorizing diagrams, charts and images, tending to 'visualize' even abstract concepts in order to understand it (Stafford Global, 2020)[6]. Fatt (2000)[7] says that visual learners would prefer reading, observing, and the display of data and visual aids. Visual students would rather learn by watching movies, film strips, pictures, and graphs which help integrate the subject (Fatt, 2000)[8]. When taking a test, a visual learner would do better on the test if the test had visual diagrams (Fatt, 2000)[9]. Students who show a preference for a visual

learni ng style and are given instruction with visual aids will perform better when given the appropriate materials (Cegielski et al., n.d.). [10]

On the in-person teacher-interns' auditory learning styles, it came out that they would "often" remember something if they hear it (WM = 2.35) They "sometimes" find pages with small print or poor-quality copies difficult to read (2.25) and they would "sometimes" rather listen and learn than read and learn (2.15). Among the three learning styles, in-person teacher-interns would "sometimes" consider using the Auditory learning styles with a grand mean of 1.88. Auditory learning is through the act of listening. Often outgoing, these learners revel in conversation and dislike prolonged silences. Easily distracted, it is difficult to hold their attention if they aren't actively participating in the lecture or discussion. Auditory learners prefer to work or study while listening to music. These learners require some form of background noise and while this may be intrusive to others, it helps them focus and concentrate (Stafford Global, 2020)[11]. Persons with an auditory learning preference prefer sound and make better decisions on what they have heard or read (Fatt, 2000)[12]. Fatt (2000)[13] says that auditory learners would prefer lectures, seminars, discussions, and tapes. By letting auditory learners to listen to tape recordings of material, they are more likely to ask questions about what they have learned and may not have understood (Fatt, 2000)[14]. When taking a test, an auditory learner would do their best by being given an oral examination (Fatt, 2000)[15].

On the in-person teacher-interns' kinesthetic learning styles, it came out that they would "often" use their hands when describing things (WM = 2.36). They "sometimes" use the trial-and-error approach to problem solving (2.22) and they would "sometimes" have to rewrite or type their class notes to reinforce their learning (2.11). During class discussion, they would "sometimes" hate sitting at a desk for a long period of time (2.02) but would "sometimes" enjoy sports and do well at several types of sports (1.96). Among the three learning styles, in-person teacher-interns would "sometimes" consider using Kinesthetic learning styles as evident in the grand mean of 1.95. Kinesthetic is learning through movement or by tactile (touch) memory. Individuals who gravitate towards this thinking style often appear restless or fidgety due to their constant need for movement. An example of this is someone who taps their foot when thinking or frequently gestures when talking. Kinesthetic learn best by 'doing'. For this reason, they can struggle with memorizing lists or have difficulty spelling (Stafford Global, 2020)[16]. The individuals with a kinesthetic lear ning preference communicate with the environment by feelings or feeling (Fatt, 2000)[17]. Students who are considered to be kinesthetic learners prefer to learn by doing (Fatt, 2000)[18]. Kinesthetic learners "prefer a trial-and-error method of learning" (Fatt, 2000, p. 36).[19] This type of learner would rather not learn by explanations, visual presentations, and discussions (Fatt, 2000)[20]. A kinesthetic learner would rather be learning with hands-on experience which helps them create and develop what they have learned (Fatt, 2000)[21]. By giving a test with task-oriented questions a kinesthetic learner would have better results (Fatt, 2000)[22].

In general, and based on the results of study, in-person teacher-interns of NEUST San Isidro Campus, based on how frequent they used each of the learning styles presented to them and their indicators, could be categorized as a group of visual learners.

On the academic profile of these in-person teacher-interns in terms of their final grades in Course Audit were as follows: 157 out of 330 teacher-interns got a grade of 1.50 with a remark of "satisfactory"; 100 teacher-interns got a grade of 1.25 with a remark of "very satisfactory" and only 69 teacher-interns got a grade of 1.75 with a remark of "good". A total of 4 teacher-interns got a grade of 2.00 and below, with a remark of "fair".

Conversely, these figures showed an average academic performance of these in-person teacher-interns and this average performance may be due to several factors including parents' education levels and income, teachers' knowledge of the subject, mode of teaching, academic engagement and many more (Bew, 2018)[22]. In fact, according to the article published by Pressreader.com, now that classes have gone full face-to-face again, getting used to the academic engagement that comes with in-person instruction is another difficulty that students encounter. The reason being, students have been secluded from their peers during the outbreak and have not interacted with them much. As a result, some students could find it difficult to interact with others and take part in group activities, both of which are crucial for face-to-face learning, thus, probably affecting their academic performance in general. In other words, these in-person teacher-interns' ability to perform highly despite the adverse circumstances of the new normal has been affected, as manifested on their average academic performance in their subject.

Table 4 states that there is no significant relationship between the learning styles of the in-person teacher-

intern
s (Visual Modality, Auditory Modality, Kinesthetic Modality) and their academic performance. Learning styles are a popular concept in education and psychology and refer to the idea that individuals have preferred or optimal methods of absorbing, processing, and retaining new information. The Visual, Auditory, and Kinesthetic modalities are often referred to as VAK and are the three most commonly identified learning styles. Visual learners are thought to learn best when information is presented in a visual format, such as diagrams, charts, and pictures. Auditory learners are thought to learn best when information is presented audibly, such as through lectures or discussions. Kinesthetic learners are thought to learn best when they can use a hands-on approach, and physically engage with the material

CONCLUSION

The findings suggest that there is no significant correlation between these learning styles and academic performance of the in-person teacher-interns of NEUST San Isidro Campus. This means that whether a teacher-interns identify as a visual, auditory, or kinesthetic learners doesn't impact their academic performance measurably. It's important to remember that these results may not be generalizable to all populations and contexts. The correlation (or lack thereof) found in this study is specific to the teacher-interns at NEUST San Isidro Campus, and different results might be found with different populations or in different educational contexts.

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