



Learning Modalities in Literature of Intermediate Pupils at Bernardo Lirio Memorial Central School, Philippines

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Authors' contributions

This work was carried out in collaboration among all authors. Authors KKDC, COA and RMNM administered the collection of primary data, performed the statistical analysis and managed the literature searches. Author JGM designed the study, wrote the protocol and wrote the first draft of the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

This study identified the learning modalities in studying literature of intermediate pupils of Bernardo Lirio Memorial Central School in Tanauan City, Batangas, Philippines. Specifically, it sought to determine the profile of the respondents in terms of sex, age, grade level and monthly family income; the respondents' learning modalities in studying literature in terms of visual, auditory, and kinesthetic; significant relationship between the respondents' profile and their learning modalities literature; and suggested activities to enhance teaching literature among the intermediate pupils. With the descriptive-correlational method as the research design, the researchers made use of questionnaire as the means of obtaining the data from 292 respondents (101 for grade 4, 100 for grade 5 and 91 for grade 6). The data obtained were tallied, tabulated, analyzed and interpreted with frequency, weighted mean and chi-square. Results revealed that majority of the respondents were female (53%), aged 9 – 11 years old (72%), grade 4 (35%), middle income (42%); and has kinesthetic learning modality with composite mean of 2.74. It was also found out that sex, age,

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grade level, and monthly income, and learning modality have significant relationship. To enhance teaching literature among intermediate pupils, comics and cartoons may be used for visual modality, choral speaking for auditory and dramatization for kinesthetic.

Keywords: Learning modality; visual; auditory; kinesthetic; Bernardo Lirio Memorial Central School.

1. INTRODUCTION

Learning is generally defined as relatively permanent change in observable behavior that result from experience. It is facilitated when students participate completely in the learning process [1]. Learning is also defined as the obtainment of behavior pattern. It is the modification and coordination of the responses of organism [2]. In addition Aquino [3] states that a learning style is an individual reference for the conditions of learning process that can affect one's learning, including where, when and how learning process occurs and with that materials he or she learns best. For Keefe [4], learning styles referred to cognitive, affective, and physiological traits that aid how learners perceive, interact with, and respond to learning environment. Moreover, Corpus & Salandanan [5] cited four different learning styles which are mastery or sensing-thinking that pertains to physical actions; understanding (intuitive-thinking) that pertains to lectures; self-expressive or intuitive-feeling and intrapersonal or the sensing-feeling. Yet, each individual has a preferred learning style, as postulated by educational researchers [6], affected by individual traits such as personality, cognitive styles, temperaments, sensory processes and age [7,8]. As Andreasen [9] stated, "differentiations allows all students to access the same classroom curriculum by providing entry points, learning tasks, and outcomes that are tailored to students' needs."

On the other hand, Dalhouse & Risko [10] defined literature as a powerful vehicle for helping children understand their homes, communities and the world. Literature should be both a mirror in which children can reflect themselves, and also a window through which children can explore the world around them. In fact, Dalhouse [11] stated that children's literature has socio-political implications that have an impact on students' understanding of the world and teachers' interpretations of its value as an instructional resource. Moreover, for Fadiman [12] children's literature is a body of written works that include a wide range of works,

such as acknowledged classics of world literature, fairy tales, lullabies, fables, folk songs, and other primarily orally transmitted materials.

For the advancement of teaching and learning literature, many studies have delved on different learning modalities. The study of Jhaish [13] about the relationship among learning styles, language learning strategies, and the academic achievement among the English majors at Al-Aqsa University revealed that most of the respondents prefer kinesthetic and tactile learning. Albert, Shahzadi & Khan [14] show that predominant profile of respondents preferred learning styles: active, reflective, sensory and intuitive. Yusop & Sumari [15] reported that pre-service teachers' learning styles and preference towards instructional technology activities and collaborative works tended to be reflective in processing information, sensitive in perceiving information, visual in receiving information, and sequential in understanding information. Furthermore, Dunn, Beaudry & Klavas [16] in four of five studies, when students' sociological preferences were identified and the youngsters then were taught in multiple treatments both responsive and unresponsive to their diagnosed learning styles, they achieved significantly higher test scores in matched conditions and significantly lower test scores when mismatched. Moreover, Abidin, et al. [17] revealed that students selected seven learning styles beginning with auditory, followed by visual, reflective, analytic, global, kinesthetic, and group learning styles. Husain, et al. [18] showed majority of the respondents from Universiti Kebangsaan Malaysia are strongly visual learners with 75% preference. In addition, Kumar [19] found out that 38% of the students preferred accessing information from printed words, followed by 35% kinesthetic learners who prefer concrete, multisensory experiences in their learning. Lastly, Brown [20] stated that there is no statistically significant benefits found between learning styles and adaptive hypermedia. Another study [21] found out that there is no significant relationship between students' learning style preferences and academic

achievement of 200 students from three schools in different northwestern South Carolina districts.

As revealed by Wilson [22] that children's sensitivity to sensory cues in their perception of school environmental features varied significantly between the three sensory learning modalities: visual, auditory and kinesthetic. Thus, the researchers used these three main learning modalities: visual, auditory and kinesthetic. In visual learning modality, learners absorb information by seeing so they often enjoy reading. Visual learners prefer utilizing diagrams and symbolic devices such as graphs, flow charts, hierarchies, models, and arrows that represent printed information [6]. Learners with auditory learning modality retains information through hearing and speaking because they understand and remember things that they have heard. They enjoy discussions, lectures, and tutorials when acquiring new information [6]. Lastly, learners with kinesthetic learning modality tend to learn best by doing. They prefer trying new skills involving body movements and physical activities. They prefer simulations of real practices and experiences, field trips, exhibits, samples, photographs, case studies, "real-life examples," role-plays, and applications to help them understand principles and advanced concepts [6]. Therefore, teachers must be aware of individual students' learning styles as well as their own actions and methods to enhance the academic achievement of culturally diverse students [23].

1.1 Statement of the Problem

This research aimed to identify the learning modalities in literature of intermediate pupils at Bernardo Lirio Memorial Central School. Specifically, it sought to determine the profile of the respondents in terms of sex, age, grade level, and monthly family income; the respondents' learning styles in studying children's literature in terms of visual, auditory, and kinesthetic; the significant relationship between the respondents' profile and learning styles in studying children's literature, and its implication to the teaching of children's literature?

1.2 Hypothesis

This study tested the hypothesis in its null form that there is no significant relationship between the respondent's profile and their learning styles in studying children's literature.

1.3 Scope and Delimitation

This study focused on the learning modalities in literature of intermediate pupils at Bernardo Lirio Memorial Central School for 2015-2016. This study used 292 respondents out of the 1079 total populations of the intermediate level enrolled in the said school. The learning modalities of the respondents were determined through the questionnaire given by the researchers. The selected variables were categorized as pupil's related factors. This included age, sex, grade level and monthly income of the family. The learning modalities would be also grouped according to these variables.

2. METHODOLOGY

2.1 Research Design

This study employed the descriptive-correlational method of research to determine the current status of the respondents under research and to measure the relationship between the variables. According to Ariola [24] descriptive-correlation method best describes data and characteristics about the population or the phenomenon being studied. Statements on learning styles were given and correlated to the respondents' profile to draw any significant relationship. Mean and percentage is used for descriptive analysis and chi-square for the correlational analysis of data.

2.2 Subject of the Study

The subject is consisted of 292 respondents out of 1079 intermediate pupils at Bernardo Lirio Memorial Central School, enrolled in the school year 2015-2016.

There were 1079 intermediate pupils at Bernardo Lirio Memorial Central School and the sample population was determined using the Slovin's Formula with five percent (5%) margin of error to come up with 292 respondents. The selection of the respondents was done through simple random sampling. The respondents were grouped according to their section or grade level.

2.3 Research Instrument

The main instrument used in the study was the self-constructed questionnaire divided into two parts: profile of the respondents (sex, age, grade level and monthly family income). Monthly family

income is based on the National Statistics Office 2014 bracketing. It is divided as to high income (P37, 001.00 and above), middle income (P10, 000.00-P37, 000.00) and low income (P9, 999.00 and below). The second part is about the learning modalities (visual, auditory and kinesthetic) employed by the respondents in literature. The reliability and validity of the instrument were tested before administering the questionnaire to the respondents.

For the purpose of interpreting the awareness of the respondents, the mean scores were grouped and given the following interpretation:

Scale	Mean ranges	Verbal interpretation
4	3.25 - 4.00	Strongly Agree/ Extremely strong
3	2.50 - 3.24	Agree/strong
2	1.75 - 2.49	Slightly Agree/ moderate
1	1.00 – 1.74	Disagree/weak

2.4 Data Gathering Procedure

After the approval of the research title, the researchers prepared a letter asking permission from the school principal of Bernardo Lirio Memorial Central School to conduct survey. Then, the researchers personally distributed the questionnaire to the respondents. Respondents, on the other hand, were given enough time to answer the instrument within the same day. Finally, the researchers tabulated the gathered data and prepared for their analysis and interpretation.

3. RESULTS AND DISCUSSION

3.1 Profile of the Respondents

3.1.1 Sex

Sex is the physical trait and social position that members of the society hold. It is also their nature or characteristics of being male or female. Majority of the respondents were female (53%). This discrepancy can be attributed to the fact that females tend to engage themselves more in education than males do in the Philippine setting. According to National Center for Education [25], dropout rate was higher for males than for females. The male status dropout rate is 7.1% higher than female status dropout rate of 5.9%.

3.1.2 Age

Age is the amount of time during which a person has lived. It is also the length of existence. Most of the respondents (72%) aged 9 – 11 years old and 28% or 82 pupils aged 12 – 14 years old. This disparity does not imply that pupils aged 9 – 11 years old are more engaged in education that those of 12 – 14 years old. There is a tendency that most of the respondents are 9 – 11 years old, since the typical age of a grade 4 pupil in the Philippines ranges from 9 – 10 years old and 10 – 11 years old for a grade 5 pupil.

3.1.3 Grade level

Grade level is the grade one is currently in, or going into. It is also the level of study that is completed by a student during one year. Out of 292 pupils, most of the respondents came from grade 4 with 101 or 35% while the lowest is grade 6 with 31%. However, this does not imply that grade 4 pupils are more interested in studying than those of other grade levels. This resulted from the current enrollees of intermediate pupils in school year 2015 – 2016. The total population of enrolled grade 4 was 375. Grade 5 had 368 enrollees and grade 6 got the total of 336.

3.1.4 Monthly family income

Monthly family income is the money earned by the family from work, investments, and business in a monthly basis. It is also the money received as wages or gained as profit. Out of the 292, 56 or 19% belong to high income group, 122 or 42% are in middle income, and 114 or 39% belong to low income group. It can also be observed that most of the respondents belong to the middle income group. This outcome implies that the respondents' families can sufficiently respond to every day's call for survival. Having the school situated at Darasa, Tanauan City which offers many possibilities for investment and land development because of its strategic location, accessibility and availability of land. The city is close to major transport and logistics infrastructure, which connect Tanauan City to major markets for goods and services, including Metro Manila, Batangas City and the four cities in CALABARZON Region. There are almost 200 firms around Barangay Darasa, which gives job opportunities to the families and support the needs of the children in education.

Table 1. Distribution of respondents from intermediate pupils of Bernardo Lirio Memorial Central School

Grade level	Population	Sample
Grade 6	336	91
Grade 5	368	100
Grade 4	375	101
Total	1079	292

Table 2. Respondents' learning modalities in literature in terms of visual

Item statements	Mean	Verbal interpretation
1. I tend to sit in front during classes.	2.29	Slightly Agree
2. I prefer to see drawings and diagrams of how things work.	2.96	Agree
3. I can visualize how things would look from different angles.	2.68	Agree
4. My favorite subject is arts.	3.05	Agree
5. I often see images when I dream or close my eyes.	1.93	Slightly Agree
6. I tend to make artworks.	2.83	Agree
7. I have lots of pictures and photographs in my house.	2.86	Agree
8. I daydream a lot.	2.54	Agree
9. I like taking photos.	2.64	Agree
10. I usually make symbols when memorizing.	2.59	Agree
Composite Mean	2.64	Strong

Table 3. Respondents' learning modalities in literature in terms of auditory

Item statements	Mean	Verbal interpretation
1. I like to sing.	3.07	Agree
2. I enjoy listening to radio.	2.79	Agree
3. I play musical instruments.	2.49	Slightly Agree
4. I can remember the tune of many songs.	2.82	Agree
5. I like to have music when doing homework or studying.	2.02	Slightly Agree
6. I dreamed to be a singer.	2.33	Slightly Agree
7. I usually sing when taking a bath.	2.97	Agree
8. I love to watch concert.	2.31	Slightly Agree
9. I easily memorize lyrics of different songs.	2.88	Agree
10. My favorite subject is music.	2.79	Agree
Composite Mean	2.65	Strong

3.2 Respondents' Learning Modalities in Literature

3.2.1 Respondents' learning modalities in literature in terms of visual

Acquiring the highest weighted mean of 3.05, the respondents agreed that their favorite subject was arts. This signifies that the respondents enjoy studying through arts. The composite mean of the visual learning modality was 1.90.

Art is an outstanding tool for teaching not only developmental skills, but also academic subjects such as math, science, and literacy. The most effective learning takes place when children do something related to the topic they are learning.

When children study any given concept, they learn it better and retain it longer if they do an art activity that reinforces that learning [26]. This finding is the same with Husain, et al. [18] showing majority of the respondents from Universiti Kebangsaan Malaysia are strongly visual learners with 75% preference and Kumar [19] that 38% of the students preferred accessing information from printed words.

3.2.2 Respondents' learning modalities in literature in terms of auditory

Statement no. 1 gained the highest mean of 3.07. The respondents agreed that they like singing and it is a great help for them when studying. It also signifies that they appreciate

studying when accompanied with music. According to Hachmiester [27], songs can be a handy tool for teachers trying to help their students who have delayed language. It is developmentally appropriate and so joyful that students will not realize how much they are learning through song. Music makes learning a great adventure. Singing connects students, especially the struggling ones, to the joy of learning.

3.2.3 Respondents’ learning modalities in literature in terms of kinesthetic

Respondents agreed that one of their favorite subject is Physical Education (P.E), with a mean of 3.14. This implies that pupils also enjoy studying when there are physical activities. In the survey commissioned by Raytheon Corporation about the favorite subject of the students, Physical Education ranked 1st with the percentage of 18% [28]. Most of the students said they prefer hands-on and interactive activities when it comes in studying. This result also conforms with the study of Wintergerst, DeCapua& Verna [29] saying that the preferred major learning style of these Russian-speaking students was kinesthetic. In addition [6] reported that among 155 student-respondents, 23.3% were kinesthetic. The same with Jhaish [13]

which revealed that most of the respondents prefer kinesthetic and tactile learning.

3.3 Relationship between the Respondents’ Profile and their Learning Modalities in Literature

Table 5 shows that there is a significant relationship between respondents’ sex and learning modalities. The computed chi-square value is 9.066 with the equivalent tabular value of 7.815 which is lower than the computed value. Thus, null hypothesis is rejected which means that there is a significant relationship between sex and learning modalities. This is in contrast with Zeynep & Nakar [6] findings that the learning styles did not differ between male and female students.

The second variable correlated with learning modalities is the respondents’ age. The computed chi-square value is 18.244 with its equivalent tabular value of 7.815. The tabular value is lower than the computed value, and the null hypothesis is rejected confirming that there is a significant relationship between respondents’ age and learning modalities. This result contradicts with the ages of nursing students were not significantly related to their learning styles [30].

Table 4. Respondents’ learning modalities in literature in terms of kinesthetic

Item statements	Mean	Verbal interpretation
1. My favorite class is P.E.	3.14	Agree
2. I love sports.	3.10	Agree
3. I learn best in performance rather in reading.	2.74	Agree
4. I think best when doing physical activities.	2.86	Agree
5. I enjoy actual activities.	2.96	Agree
6. I enjoy outdoor activities.	2.89	Agree
7. When studying, I usually make gestures.	2.63	Agree
8. I like dancing.	2.68	Agree
9. I like role playing.	2.36	Slightly Agree
10. I walk around when memorizing.	2.21	Slightly Agree
Composite Mean	2.76	Strong

Table 5. Relationship between the respondents’ profile and their learning modalities in literature

Variables	Computed value	Tabular value	Decision (H ₀)	Verbal interpretation
Sex and learning modalities	9.066	7.815	Reject	Significant
Age and learning modalities	18.244	7.815	Reject	Significant
Grade level and learning modalities	91.147	12.592	Reject	Significant
Monthly family income and learning modalities	72.428	12.592	Reject	Significant

The third variable correlated with learning modalities is the respondents' grade level. The computed value of 91.147 is greater than the tabular value of 12.592. The null hypothesis is rejected confirming that there is a significant relationship between the respondents' grade level and learning modalities. This is supported by the findings of Chen [31] that statistically significant relationships were found to exist between grade level and kinesthetic learning style preference.

The last variable correlated with learning modalities is the monthly family income. There is a significant relationship between monthly family income and learning modalities since the computed value of 72.428 is greater than the tabular value of 12.592 with the null hypothesis rejected. This means that monthly family income has significant relationship to learning modalities. Though not directly related, the study of Crosnoe [32] that low-income students progressed less far in math and science, and experienced more psychosocial problems explains that the more teachers be aware of the individual needs and learning styles [23].

4. CONCLUSION

This study concluded that majority of the respondents are female, aged 9 – 11, grade 4, belonging to the middle income group; most of the respondents use the kinesthetic learning modality; there is a significant relationship between the respondents' profile and their learning modalities; and there are several activities suggested enhancing teaching literature among intermediate pupils.

The researchers suggested that a) since respondents agreed that they like singing, arts, and physical activities they may use these to make the school a child-friendly institution. They may do group works like song writing, interpretative dancing and collage making about some literary pieces; b) Teachers may use language model. With this model of studying literature, teachers can choose to focus on general grammar and vocabulary or use stylistic analysis which enable students to make meaningful interpretation of the text; c) Personal growth model may also be used by the teachers. This model encourages learners to draw on their own opinions, feelings, and personal experiences; d) Teachers may give several activities that help the students to engage themselves more in studying literature; and

e) The institution may conduct a seminar about learning modality and current trends in teaching. This may enhance the teaching skills of the teacher when it comes to literature.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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