MULTIPLE INTELLIGENCES AMONG INDUSTRIAL TECHNOLOGY STUDENTS

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ABSTRACT

This study was conducted during the first semester, Academic Year 2013-2014 at Guimaras State College – Mosqueda Campus. Specifically, determine the profile of Industrial Technology. The respondents were the 230 Industrial Technology students. This study used a descriptive correlational research design. It was found out that most of the respondents were males aging 16-25 whose parents were not able to finish high school and with the family monthly income of 1,300 pesos and below. Results further revealed that sex, year level, and parents' educational attainment are factors which affect the academic performance of the students. Among the Industrial Technology students, the Intrapersonal is the dominant intelligence. This implies that this group of students is self-motivated individuals. It was also found out that among the multiple intelligences, only the verbal-linguistic intelligence has a significant relationship in the academic performance. However, the other intelligences must not be taken for granted. Hence, the administration of GSC especially the teaching personnel must structure their courses and programs which will cater to the intelligences of their learners.

Keywords: *Multiple Intelligence, Industrial Students, Academic Performance, Guimaras State College*

INTRODUCTION

Background of the Study

When you hear the word intelligence, the concept of IQ testing may immediately come to mind. Intelligence defined as our intellectual potential; something we are born with, something that can be measured, and a capacity that is difficult to change. In recent years, however, other views of intelligence have emerged. One such conception is the theory of multiple intelligences proposed by Harvard psychologist Howard Gardner.

Gardner defines intelligence as "the ability to solve problems, or to create products, which are valued within one or more cultural settings." He asserts that "a human intellectual competence must entail a set of skills of problem-solving—enabling the individual to resolve genuine problems or difficulties that he or she encounters and, when appropriate, to create an effective product". His concept thus speaks to a wide range of abilities that allow a person to contribute to society, not simply the ones most easily tested in schools

Howard Gardner initially formulated a list of seven intelligences. His listing was provisional. The first two have been typically valued in schools; the next three are usually associated with the arts, and the final two are what Howard Gardner called 'personal intelligences.' (Gardner, 1999)

Visual / Spatial Intelligence is an ability to perceive the visual. Verbal / Linguistic Intelligence is an ability to use words and language. Logical / Mathematical Intelligence is an ability to use reason, logic, and numbers. Bodily / Kinesthetic Intelligence is an ability to control body movements and handle objects skillfully. Musical / Rhythmic Intelligence is an ability to produce and appreciate music. Interpersonal Intelligence is an ability to relate and understand others. Intrapersonal Intelligence is an ability to self-

reflect and be aware of one's inner state of being. Intrapersonal Intelligence is an ability to self-reflect and be aware of one's inner state of being. (Herndon, 2018)

This study was based on the theory of Multiple Intelligences by Howard Gardner. The theory extends the concept of the one intelligence and defines a broader variety of intelligences for everyone. This takes into account the idea that a person who is good at mathematics is not necessarily good to other tasks. Furthermore, it questions the concept that a person with low mathematical skills is considered to be less intelligent even though he or she might be a high achiever in other areas like music, sports, etc. Students who are good with visual information often prefer to work with visual imagery, such as drawing a scene or image. Students who are strong with tone or rhythm might prefer to do a project that incorporates music, while students who are good with words might prefer to write about their thoughts and ideas.

This theory arises from conducting research on the way people understand things. Gardner believes that it documents the extent to which one student will have different kinds of minds which make her understand, perform, remember and learn uniquely.

Gardner identified eight different "intelligences" that influence the way we perceive and understand things. It's important to note that the eight intelligences identified by Gardner are not exhaustive in determining an individual's learning characteristics. Rather than seeing intelligence as a particular ability, Gardner differentiated it into eight specific modalities. These different modalities should be put into consideration when designing an educational system. The system should provide learners with different ways of understanding concepts. This is because when presented with the same learning materials, learners vary in how they learn.

The challenge therefore for the Guimaras State College as a teaching-learning institution is to determine the multiple intelligences among their college students. In that way, the faculty and those in the administration will be given direction on the formulation of teaching-learning strategies that can help build students' academic performance.

Statement of the Problem

This study was conducted to determine the multiple Intelligences of the Industrial Technology students at Guimaras State College-Mosqueda Campus for the first semester of the academic year 2013-2014.Specifically, it sought to answer the following questions: 1) What is the profile of Industrial Technology students as to age, sex, year level, parents' educational attainment and monthly income? 2) What is the academic performance of Industrial Technology Students when they are taken as a whole group? 3) What are the multiple intelligences among Industrial Technology Students? 4) Are there significant differences in the academic performance among Industrial Technology Students when they are classified according to age, sex, year level, educational attainment of parents, and monthly income? and 5) Are there significant relationships between multiple intelligences and academic performance?

METHODOLOGY

This research employed both qualitative and quantitative methods of research in order to determine the Multiple Intelligences among Industrial Technology students of Guimaras State College-Mosqueda Campus. Furthermore, one shot survey was used since the data was gathered from the respondents once. Total enumeration was used in this study.

The respondents of the study were the Industrial Technology students from first year to fourth year enrolled at Guimaras State College during the first semester of Academic Year 2013-2014. The researchers prepared a questionnaire for the students who were the respondents. The questionnaire was composed of four parts which include the personal profile of the respondents; socio-economic status of the family; Academic performance; and the multiple intelligences assessment.

The draft of the questionnaire was presented to the panel of experts for comments and suggestions. The panel determined the validity of the content of the questionnaire using the Eight- Point Criteria for content validity by Good and Scates validity and by using Lawsche's Content Validity Ratio. Their comments and suggestions were highly considered in preparing the final draft. The same instrument was presented to the panel of examiners during the proposal defense which was approved later with suggestions to refine further its organization and content. With the recommendations, the survey questionnaire was reproduced and was personally distributed to the respondents. Validity assured the researchers that each item measured what it intended to measure.

The researchers asked permission from the College President to simultaneously conduct the study on Multiple Intelligence to all students of Guimaras State College Mosqueda Campus. The researchers coordinated with the dean for the schedule to conduct this study. The researchers administered the questionnaire to the respondents using a researcher - made questionnaire. Filled–up questionnaires were immediately collected from the respondents.

The data gathered were sorted, tabulated, interpreted based on the requirement of the study and analyzed using the SPSS program for Windows. The statistical tools to be used were frequency count and percentage, mean, t-test, and Analysis of Variance (ANOVA).

RESULTS AND DISCUSSIONS

Profile of the Respondents. Results showed that out of 230 respondents, there were 218 or 94.8% belonging to age bracket 16-25 and 5 or 2.2% belonging to age bracket 26 and above. When grouped according to sex, 140 or 60.9% were male while 90 or 39.1% were female.

In view of the year levels of the Industrial Technology students, results showed that 132 or 57.4% were first year, 79 or 34.3% were second year, 5 or 2.2% were third year, 11 or 4.8% were fourth-year students, while 3 or 1.3% of students did not indicate their year levels.

Table 1.Profile of the Respondents

Categories	Frequency	Percentage
Age		
16-25 year old	218	94.8
26 year old and above	5	2.2
Did not indicate	7	3.0
Total	230	100.0
Sex		
Male	140	60.9
Female	90	39.1
Total	230	100.0
Year Level		
First Year	132	57.4
Second Year	79	34.3
Third Year	5	2.2
Fourth Year	11	4.8
Did not indicate	3	1.3
Total	230	100.0

Parents' Educational Attainment and Family Income. When grouped according to the educational attainment of the respondents' mothers, there were 40 or 17.4% elementary level, 18 or 7.8% elementary graduates, 103 or 44.8% high school level, 34 or 14.8% high school graduates, 26 or 11.3% college level, and 6 or 2.6% college graduates, while the remaining 3 or 1.3% did not indicate their educational attainment. In terms of the educational attainment of the respondents' fathers, there were 43 or 18.7% elementary level, 21 or 9.1% elementary graduates, 95 or 41.3% high school level, 30 or 13% high

school graduates, 27 or 11.7% college level, and 7 or 3.0% college graduates, 1 or .4% had a vocational education, while the remaining 6 or 2.6% did not indicate their educational attainment.

In terms of monthly family income, 93 or 40.4% indicated to receive a wage of 1,300 or below, 65 or 28.3% whose income were below minimum wage(1,301-6,900), there were 17 or 7.4% who receives a monthly minimum wage or (6,901-7000), 18 or 7.8% indicated to have received 7,001-10,000, 21 or 9.1%belong to those whose income is between 10,001-15,000, 4 or 1.7% have an income of 15,001-20,000, 5 or 2.2% have an income of 20,001-30,000, 1 or .4% has 30,001-40,000, 2 or .9% of which receive 40,001-50,000, while 4 or 1.7 did not indicate their family income per month.

Table 2.Parents' Educational Attainment and Family Income

Categories	Frequency	Percentage
Educational Attainment of Mother		
Elementary Level	40	17.4
Elementary Graduate	18	7.8
High School Level	103	44.8
High School Graduate	34	14.8
College Level	26	11.3
College Graduate	6	2.6
Did not indicate	3	1.3
Total	230	100.0
Educational Attainment of Father		
Elementary Level	43	18.7
Elementary Graduate	21	9.1
High School Level	95	41.3
High School Graduate	30	13.0
College Level	27	11.7
College Graduate	7	3.0
Vocational	1	.4
Did not indicate	6	2.6
Total	230	100.0
Family Income		
1,300 and below	93	40.4
Below minimum wage (1,301-6,900)	65	28.3
Minimum wage (6,901- 7000)	17	7.4
7001-10,000	18	7.8
10,001-15,000	21	9.1
15,001-20,000	4	1.7
20,001-30,000	5	2.2
30,001-4,000	1	.4
4,0001-5,000	2	.9
Did not Indicate	4	1.7
Total	230	100.0

Academic Performance. In terms of the academic performance of the respondents, results showed that there were 26 or 11.2% students who had a passing grade point average of 3.0-2.6, 91 or 39.6% got a fair grade point average which ranges from 2.5-2.1, 112 or 48.7% respondents performed good obtaining a grade point average of 2.0-1.6, and only 1 or .4% got a very good grade or 1.5-1.1. The total mean of the grade point average of the respondents was 2.15, categorized as fair.

Table 3.Academic Performance

Average Performance	Frequency	Percentage
Passing (3.0 to 2.6)	26	11.3
Fair (2.5 to 2.1)	91	39.6
Good (2.0 to 1.6)	112	48.7
Very Good (1.5 to 1.1)	1	.4
Total	230	100.0
Total Mean = 2.15 (Fair),SD = .301		

Summary of Multiple Intelligences' Mean. Results indicated that among the respondents the top three ranks of their intelligences were: (1) intrapersonal with a mean of 3.15 (Good), (2) interpersonal with a mean of 3.1 (Good), and (3) bodily-kinesthetic with a mean of 3.11 (Good). These results relate to the fact that the Industrial Technology students are highly self-motivated and people-oriented individuals. Furthermore, students tend to learn best with hands-on exercises because of their bodily-kinesthetic intelligence. Meanwhile, their three least intelligences were: (6) visual-spatial having a mean of 2.99 (Good), (7) logical-mathematical having a mean of 2.93 (Good), and lastly, (8) verbal-linguistic having a mean of 2.89 (Good). The results imply that the Industrial Technology students have less interest with activities relating to these intelligences, such as drawing, designing, solving math problems, writing, etc. Data are presented in table 4.

Teachers should take innovative actions to determine the level of multiple intelligences of their students to effectively deliver instruction based on their skills and capability to learn. One innovative action is multiple intelligence profiling, which is a significant approach towards knowing personally the students' capability to succeed in their chosen course in college. Through this profile, teachers understand their cognitive abilities and eventually help them to succeed. Teachers can better prepare engaging and relevant lessons that correlate with those strengths. Thus, students who learn their learning style may help themselves develop coping strategies to compensate for their weaknesses and capitalize on their strengths. (Mojales, 2015).

Table 4.Summary of Multiple Intelligences' Mean

Multiple Intelligences	Mean	Interpretation	Rank
1.Verbal-Linguistic	2.89	Good	8
2.Logical-Mathematical	2.93	Good	7
3.Visual-Spatial	2.99	Good	6
4.Musical	3.08	Good	5
5.Bodily-Kinesthetic	3.11	Good	3
6.Interpersonal	3.14	Good	2
7.Intrapersonal	3.15	Good	1
8.Naturalistic	3.09	Good	4

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good), 4.20 (Excellent)

Verbal-Linguistic. Table 5 presents the summary of assessment for verbal linguistic. Results show that respondents could easily absorb information from the radio or audio cassettes supported with a mean of 3.39(Good). This implies that these students learn well by hearing or with the aid of audio materials. Meanwhile, language games and such are less likely to be enjoyed by the respondents which resulted in having a mean of 2.43(Fairly Good).

Table 5.Summary of Assessment for Verbal-Linguistic

Category	Mean	SD	Interpretation
Verbal-Linguistic			
1. I enjoy word play. Making puns, tongue-twisters, limericks.	2.43	1.045	Fairly Good
2. I can easily express myself either orally or in writing, i.e. I'm a good story-teller or writer.	2.45	0.997	Fairly Good
3. .I can easily express myself either orally or in writing, i.e. I'm a good story-teller or writer.	2.94	1.051	Good
4. I pepper my conversation with frequent allusions to things I'm read or heard.	2.80	1.021	Good
5. I like to do crosswords, play Scrabble or have a go at other word puzzles.	2.90	1.139	Good
6. People sometimes have to ask me to explain a word I've used.	3.06	1.134	Good
7. In school, I preferred subjects such as English, history and social studies.	2.78	1.064	Good
8. I can hold my own in verbal arguments or debates	2.74	1.073	Good
9. I like to talk through problems, explain solutions, ask questions.	3.28	1.202	Good
10. I can readily absorb information from the radio or audio cassettes.	3.39	1.058	Good
Total	2.89	.693	Good

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good), 4.20 (Excellent)

Logical-Mathematical. From the results of the summary of assessment for logical-mathematical, it is implied that Industrial Technology students could efficiently manage their allowances as shown by the mean of 3.45 (Very Good). However, the mean of 2.68(Good) indicated that mathematics and science are the respondents' least favorite subjects.

Table 6.Summary of Assessment for Logical-Mathematical

Category	Mean	SD	Interpretation
Logical-Mathematical			
1. I enjoy working with numbers and can do mental calculations.	2.77	1.10	Good
2. I'm interested in new scientific advances.	3.02	1.11	Good
3. I can easily balance my school allowance; do the school budget.	3.45	1.29	Very Good
4. I like to put together a detailed itinerary for vacations or business trips.	2.78	1.10	Good
5. I enjoy the challenge of brain teasers or other puzzles that require logical thinking.	2.73	1.10	Good
6. I tend to find the logical flaws in things people say and do.	2.84	0.99	Good
7. Mathematics and science were among my favorite subjects in school.	2.68	1.06	Good
8. I can find specific examples to support a general point of view.	2.88	0.99	Good
9. I take a systematic, step-by-step approach to problem-solving.	3.11	1.07	Good
10. I need to categorize, group or quantify things to properly appreciate their relevance.	3.00	1.05	Good
Total	2.93	.721	Good

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good), 4.20 (Excellent)

Visual-Spatial. Results from the items given for visual-spatial intelligence show that with a mean of 3.20 interpreted as Good, students have a sense of appreciation for the arts. However, the respondents find it difficult to read a map or navigate due to their less exposure to the subject, (M=2.70, SD=.931).

Table 7.Summary of Assessment for Visual-Spatial

Category	Mean	SD	Interpretation
Visual-Spatial			
1. I have an appreciation of the arts.	3.20	1.22	Good
2. I tend to make a visual record of events with a digital camera or cell phone camera.	2.99	1.20	Good
3. I find myself doodling when taking notes or thinking through something.	2.91	1.10	Good
4. I have no problem reading maps and navigating.	2.70	0.93	Good
5. I enjoy visual games such as jigsaw puzzles and mazes.	2.99	1.16	Good
6. I'm quite adept at taking things apart and putting them back together.	2.91	1.06	Good
7. In school, I liked lessons in art and preferred geometry to algebra.	3.19	1.14	Good
8. I often make my point by providing a diagram or drawing.	2.98	1.10	Good
9. I can visualize how things look from a different perspective.	2.97	1.09	Good
10. I prefer reading material that is heavily illustrated.	3.03	1.09	Good
Total	2.99	.735	Good

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good), 4.20 (Excellent)

Musical. Results showed that among the criteria for musical, the respondents often listen to music at home even in jeepney with a mean of 3.63 (Very Good). This implies that music plays a big role in the daily routine of the musically intelligent people. Meanwhile, only a mean of 2.53(Fairly Good) was indicated in the respondent's ability to play a musical instrument.

Table 8.Summary of Assessment for Musical

Category	Mean	SD	Interpretation
Musical			
1. I can play a musical instrument.	2.53	1.19	Fairly Good
2. I can manage to sing on key.	2.67	1.21	Good
3. Usually, I can remember a tune after hearing it just a couple of times.	3.06	1.16	Good
4. I often listen to music at home and even in jeepney.	3.63	1.24	Very Good
35. I find myself tapping n time to music.	3.26	1.21	Good
6. I can identify different musical instruments.	2.98	1.10	Good
7. Theme music or commercial jingles often pop into my head.	2.90	1.14	Good
8. I can't imagine life without music.	3.37	1.25	Good
9. I often whistle or hum a tune.	2.90	1.25	Good
10. I like a musical background when I'm working.	3.56	1.32	Very Good
Total	3.08	.801	Good

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good), 4.20 (Excellent)

Bodily-Kinesthetic. Results showed that among the categories of bodily-kinesthetic, respondents scored highest (M=3.35, Good) on taking part in a sport or regularly performing some exercise. This shows that Industrial Technology students process knowledge through bodily sensations. But their passion to perform is not connected with their boldness to be on the dance floor; hence, a mean of 2.73 (Good) is reflected.

Table 9.Summary of Assessment for Bodily-Kinesthetic

Category	Mean	SD	Interpretation
Bodily-Kinesthetic			
1. I take part in a sport or regularly perform some kind of physical exercise.	3.35	1.11	Good
2. I'm quite adept at 'do-it-yourself.'	3.12	1.07	Good
3. I like to think through problems while engaged in a physical pursuit such as walking or running.	3.01	1.07	Good
4. I don't mind getting up on the dance floor.	2.73	1.17	Good
5. I like the most thrilling rides at the fun fair.	3.06	1.21	Good
6. I need to physically handle something to fully understand it.	3.25	1.07	Good
7. The most enjoyable classes in school were PE and any handicrafts lessons.	3.40	1.10	Very Good
8. 48. I use hand gestures or other kinds of body language to express myself.	2.90	1.11	Good
9. I like rough and tumble play with children.	3.07	1.14	Good
10. I need to tackle a new learning experience 'hands on' rather than reading a manual or watching a video.	3.26	1.12	Good
Total	3.11	.729	Good

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good), 4.20 (Excellent)

Interpersonal. In terms of the respondents' rate in interpersonal, they claimed that they enjoy working with other people as part of a group or committee (M= 3.45, SD=1.209). This implies that students' learn more when group activities are included in their classes which further enhance their skills and social aspect. Meanwhile, playing board games which involves other people is their less favorite choice having a mean of 2.74 (Good).

Table 10.Summary of Assessment for Interpersonal

Category	Mean	SD	Interpretation
Interpersonal			
1. I enjoy working with other people as part of a group or committee.	3.45	1.21	Very Good
2. I take great pride in being a mentor to someone else.	3.08	1.09	Good
3. People tend to come to me for advice.	3.36	1.17	Good
4. I prefer team sports—such as basketball, softball, soccer, football—to individual sports such as swimming and running.	3.06	1.40	Good
5. I like games involving other people—bridge, Monopoly, Trivial Pursuit.	2.74	1.13	Good
6. I'm a social butterfly. I would much prefer to be at a party rather than home alone watching television.	2.80	1.20	Good
7. I have several very close personal friends.	3.57	1.23	Very Good
8. I communicate well with people and can help resolve disputes.	3.23	1.05	Good
9. I have no hesitation in taking the lead; showing other people how to get things done.	3.03	1.12	Good
10. I talk over problems with others rather than trying to resolve them by myself.	3.11	1.13	Good
Total	3.14	.726	Good

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good), 4.20 (Excellent)

Intrapersonal. The intrapersonal intelligence tops among other intelligences. The results show that Industrial Technology students are goal-setters (3.49, Very Good). This intelligence directs them to know themselves fully and to pursue their dreams and aspirations in life. Though going fishing alone is not enjoyable for them, a mean of 2.75 (Good) indicates this inference.

Table 11.Summary of Assessment for Intrapersonal

Category	Mean	SD	Interpretation
Interpersonal			
1. I enjoy working with other people as part of a group or committee.	3.45	1.21	Very Good
2. I take great pride in being a mentor to someone else.	3.08	1.09	Good
3. People tend to come to me for advice.	3.36	1.17	Good
4. I prefer team sports—such as basketball, softball, soccer, football—to individual sports such as swimming and running.	3.06	1.40	Good
5. I like games involving other people—bridge, Monopoly, Trivial Pursuit.	2.74	1.13	Good
6. I'm a social butterfly. I would much prefer to be at a party rather than home alone watching television.	2.80	1.20	Good
7. I have several very close personal friends.	3.57	1.23	Very Good
8. I communicate well with people and can help resolve disputes.	3.23	1.05	Good
9. I have no hesitation in taking the lead; showing other people how to get things done.	3.03	1.12	Good
10. I talk over problems with others rather than trying to resolve them by myself.	3.11	1.13	Good
Total	3.14	.726	Good

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good),4.20 (Excellent)

Naturalistic. Results for naturalistic intelligence showed that the respondents are pet lovers with a mean of 3.29 (Good). Only a mean of 2.81 (Good) was indicated in the category which deals with envisioning oneself as a farmer or a fisherman. From these results, it can be implied that the Industrial Technology students plan to land a job which relates to their chosen field and expertise.

Table 12.Summary of Assessment for Naturalistic

Category	Mean	SD	Interpretation
Naturalistic			
1. I keep or like pets.	3.29	1.22	Good
2. I can recognize and name many different types of trees, flowers and plants.	3.15	1.15	Good
3. I have an interest in and good knowledge of how the body works—where the main internal organs are, for example, and I keep abreast on health issues.	3.06	1.13	Good
4. I am conscious of tracks, nests and wildlife while on a walk and can 'read' weather signs.	3.11	1.08	Good
5. I could envision myself as a farmer or maybe I like to fish.	2.81	1.15	Good
6. I am a keen gardener.	2.87	1.17	Good
7. I have an understanding of, and interest in, the main global environmental issues.	3.24	1.10	Good
8. I keep reasonably informed about developments in astronomy, the origins of the universe and the evolution of life.	2.97	1.08	Good
9. I am interested in social issues, psychology and human motivations.	3.13	1.15	Good
10. I consider that conservation of resources and achieving sustainable growth is two of the biggest issues of our times.	3.21	1.16	Good
Total	3.09	.801	Good

Scale: 1-1.79 (Poor); 1.80-2.59 (Fairly Good); 2.60-3.39 (Good); 3.40-4.19 (Very Good), 4.20 (Excellent)

Difference of Academic Performance of the Respondents When Grouped According to Different Variables

Table 13 presents the T-test results for the difference in the academic performance when grouped according to age and sex. Results signified that age is not a significant factor for the respondents to perform well in the academy. Further study revealed that there was a significant difference in the academic performance of the Industrial Technology students when grouped according to variable sex. Male students performed better (M=2.2000) than the females (M=2.1178).Results signified that age is not a significant factor for the respondents to perform well in the academy.

Table 13.T-test Results for the Difference in Academic Performance and Respondents Profile When Grouped According to Age and Sex

Category	T	Df	Sig.(2-tailed)	Interpretation
Age				
Equal variances assumed	1.861	221	.064	Not Significant
Sex				
Equal variances assumed	2.033*	228	.043	Significant

The results presented in table 14 indicate that there was a significant difference in the multiple intelligences of the respondents when grouped according to year level. With F=19.123, p=000, it implies that as the every year level progresses, the knowledge acquired also increases.

As to Educational Attainment of the mother, results revealed that there was a distinct variation between levels of educational attainments of the mothers, which resulted to a significant difference in the academic performance of the respondent and the educational attainment of the mother F (5,221) =2.492, p=.032.

As to educational attainment of the father and their family Income, result revealed that there is no significant difference between the educational attainment of the father and the academic performance of the respondent. Furthermore, results for the relationship between academic performance and family income showed no significant difference. This implies that the income of the family cannot be considered as a factor for a student to perform well in class.

Table 14.Difference Between Academic Performance, Year Level, Educational Attainment of Parents and Family Income

	Sum of Squares	Df	Mean Square	F	Sig.	Interpretation
Year Level						
Between Groups	1.104	5	.221	2.492*	.032	Significant
Within Groups	19.587	221	.089			
Total	20.692	226				
Educational Attainment of Mother						
Between Groups	1.104	5	.221	2.492*	.032	Significant
Within Groups	19.587	221	.089			
Total	20.692	226				
Educational Attainment of Father						
Between Groups	1.095	6	.182	2.043	.061	Not Significant
Within Groups	19.381	217	.089			
Total	20.476	223				
Family Income						
Between Groups	.510	8	.064	.691	.700	Not Significant
Within Groups	20.037	217	.092			
Total	20.547	225				

Relationship between Respondent's Academic Performance and their Multiple Intelligence

Results showed that among the multiple intelligences only the verbal-linguistic intelligence, as shown by r=.0001, has a significant relationship in the academic performance. From this result, it implies that if the students are not motivated to develop their language skill. There is a tendency that their academic performance will be affected.

Katzowitz (2003) found out that a relationship exists between MI and academic performance which implies that boosting the intelligences of the students will affect academic performance.

Table 15.ANOVA for the Relationship in Multiple Intelligence and Academic Performance

		Sum of Squares
Verbal-Linguistic	Pearson Correlation	-.226
	Sig. (2-tailed)	.001*
	N	227
Logical-Mathematical	Pearson Correlation	-.033
	Sig. (2-tailed)	.616
	N	230
Visual-Spatial	Pearson Correlation	-.006
	Sig. (2-tailed)	.924
	N	230
Musical	Pearson Correlation	.003
	Sig. (2-tailed)	.960
	N	229
Bodily-Kinesthetic	Pearson Correlation	.001
	Sig. (2-tailed)	.986
	N	230
Interpersonal	Pearson Correlation	.006
	Sig. (2-tailed)	.932
	N	230
Intrapersonal	Pearson Correlation	-.052
	Sig. (2-tailed)	.434
	N	229
Naturalistic	Pearson Correlation	-.124
	Sig. (2-tailed)	.062
	N	229

**<0.05 significance*

CONCLUSIONS

Based on the results of the study, majority of the respondents aged from 16-25, most of them were male. The first year has the biggest population. Most of the respondents' parents were not able to finish high school. Majority of the family income is 1,300 or below. Most numbers of respondents performed good in their classes. Furthermore, respondents demonstrated a strong preference for Intrapersonal, interpersonal, and (3) bodily-kinesthetic. Though, visual-spatial, logical-mathematical, and verbal-linguistic scored less. There are three significant variables which affect the academic performance of the respondents namely: sex, year level, and educational attainment of the mother. Among the multiple intelligences, only the verbal-linguistic intelligence has a significant relationship with the students' academic performance.

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