
ABSTRACT

This study aimed to assess the knowledge, attitudes and practices of solid waste management of secondary schools in the division of Leyte. It utilized a descriptive-correlational study.

Majority of the respondents were in the age range 21 years old and below, more than half were females and single and greater bulk of the respondents were secondary level. In terms of knowledge in solid waste management, majority of the respondents stored their waste in the containers with covers, in waste processing point out that waste minimization got the highest rank. Open burning is the most common method in use for disposing waste in terms of waste paper/cartoon materials.

The respondents' attitude in solid waste management mostly "Agree" which means that they have positive attitudes and they are willing to follow the rules and policy in school. Meanwhile, the solid waste management practices are moderately and fairly practiced by the respondents which need more supervision by the school administrators. The educational attainment was significantly related to the waste storage and disposal of the knowledge in solid waste management.

KEYWORDS: Knowledge, Attitudes, Practices, Solid Waste Management, Division of Leyte

INTRODUCTION

Recent rise in global urbanization has led to serious socio- economic impacts among societies and the environment. Developments arising from and together with the advent of change have led to rapid consequences often at high social and environmental costs. One of these major consequences that have led to a serious problem that affected both the general public and the environment, as a result of concentrated activities by the population, industries, businesses, and institutions, is solid waste, particularly on the aspect of its proper management.

Solid waste production in these highly urbanized areas has increased dramatically and its disposal becomes a major challenge for the society (Sumalde, 2004). The Philippines faces the same problem in terms of increasing solid waste generation as a result of urbanization. Every day, a staggering 10, 000 tons of solid wastes are generated countrywide with about 50% accounted to the Metro Manila area. Unfortunately, the Philippines has one of the highest amount of solid waste generated in the world yet, still has no sustainable and effective waste disposal facility (Calica, 2009). The need for dumping sites for these wastes is becoming more and more of a problem than a challenge in the country for it does not only pose a serious resource exploitation but there is opportunity cost at stake whether to choose sacrificing lands for dump site conversion or to risk the populations health and living at stake with the increasing danger of undisposed garbage. Apparently, most landfills and garbage dumpsites filled up very fast. As such, there is a great danger that the country may run out of proper dumpsites and waste facilities that will ultimately lead to further environmental and human hazards (Imagine Echo Projects Waste, 2008).

Nationally, these serious issues behind solid waste management have led to the call for various legislations to counter the increasing problem. In response, the Ecological Solid Waste Management Act (ESWM) also known as Republic Act 9003 (R.A. 9003) was enacted in 2000 in order to address the need for a law to cover the deleterious upshot of solid waste.

In the Visayas, the smallest of the three major islands of the Philippine Archipelago, no substantial data on solid waste generation and management is available especially dealing on the specific coverage like schools and other institutions, thus this study.

Educational institutions cover a large population of waste generators most especially that the children, occupying a big portion of the population pyramid, spends most of their active lives in school. In the same manner, schools also provide the avenue from where almost all types of wastes from papers, food wrappers, plastic cups/ bottles, empty containers and other forms of wastes (solid, liquid and gaseous in form) are generated.

The present study seeks to cover selected secondary schools in Eastern Visayas particularly in the Province of Leyte and look into the implementation in terms of their solid waste generation and management practices and furthermore will try to elucidate the different mechanisms of how these types of entity contributes much to the solid waste management issue in general.

METHODOLOGY

The study used a descriptive-correlational study on the pattern of profile, knowledge, attitude and practices in solid waste management among secondary schools in the division of Leyte.

The research was conducted among secondary schools in the Division of Leyte. The population of the study comprised of secondary school heads, teachers, students and eco-club members of about 180 respondents. The study includes selected secondary schools in the division of Leyte.

The research instrument on this study was a semi-structured questionnaire which was constructed based on the research topic and objectives.

Data was analyzed using the scoring of a 5-point Likert scale. It was subjected to statistical analysis using descriptive statistics such as mean, range, relative frequency and percentage. Correlational analysis and t-test were also used to ascertain the significant relationships between variables.

RESULTS AND DISCUSSION

This part presents the analysis and interpretation of the results of the study. It includes the respondents' profile, level of knowledge, attitudes and practices in solid waste management and the relationship of variables.

Table 1 Profile of the Respondents

	f	%
Age		
60 and above (senior citizen)	1	.56
46-59 (old age)	13	7.22
22-45 (middle-aged)	75	41.67
21 and below (young)	91	50.56
Total	180	100.00
Sex		
Male	66	36.67
Female	114	63.33
Total	180	100.00
Civil Status		
Single	119	66.11
Married	59	32.78
Separated	1	.56
Widow/widower	1	.56
Total	180	100.00
Educational Attainment		
Doctorate Degree Holder	2	.56
Masters Degree with Doctoral Units	1	.56

Masters Degree Holder	8	4.44
Masteral Level	34	18.89
College Graduate	44	24.44
Secondary Level	91	50.56
Total	180	100.00

Age. As gleaned in the table, majority of the respondents were in the age range 21 years old and below with a frequency of 91 or 50.56 percent, followed by those in the age range 22-45 years old with a frequency of 75 or 41.67 percent and on the lowest rank was only 1 or .56 percent who belonged to the age range 60 years old and above. This denotes that many of the respondents are young.

Sex. More than half or 63.33 percent were females while the male respondents got 66 or 36.67 percent. The female respondents dominate the male ones.

Civil status. As shown in the table, single got the highest frequency of 119 or 66.11 percent while married respondents got 59 or 32.78 percent. This connotes that majority of the respondents are single.

Educational attainment. A greater bulk of the respondents with a frequency of 91 or 50.56 percent were secondary level, followed by those with BS degrees or college graduate with a frequency of 44 or 24.44 percent, having masteral level of 34 or 18.89 percent and at the bottom were those having Doctorate degrees with a frequency of 2 or .56 percent. This means that majority of the respondents are still students and those who are college graduates need to upgrade their academic qualifications to increase the number of those holding masteral and doctorate degrees.

Respondents' Knowledge towards Solid Waste Management

This part shows the respondents' knowledge towards solid waste management in terms of waste storage, processing, and disposal. This is shown in the succeeding tables.

Table 2 Knowledge in Waste Storage

Waste Types	Plastic Bags		Cardboard Box		Containers with Covers		Containers without Covers		Open Pile		Baskets		Recycling Bins	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Plastic bags	45	25.0	7	3.9	79	43.9	10	5.6	12	6.7	0	0	24	13.3
Plastic packaging	24	13.3	12	6.7	85	47.2	21	11.7	5	2.8	2	1.1	31	17.2
Waste paper/cartoon	20	11.1	52	28.9	30	16.7	15	8.3	5	2.8	12	6.7	46	25.6
Ash/street sweepings	8	4.4	3	1.7	56	31.1	28	15.6	68	37.8	3	1.7	14	7.8
Tin canned	4	2.2	3	1.7	39	21.7	11	6.1	40	22.2	5	3.3	77	42.5
Vegetables	14	7.8	4	2.2	80	44.4	18	10.0	31	17.2	15	8.3	8	4.5
Food residue	11	6.1	5	2.8	75	41.7	28	15.6	34	18.9	8	4.4	19	10.6
Woods	1	.6	7	3.9	38	25.6	17	35.0	80	44.4	3	1.7	33	18.3
Textile/cloth	15	8.3	7	3.9	57	31.7	16	8.9	36	20.0	10	5.6	39	21.7
Glass/ceramics	2	1.1	6	3.3	56	31.1	16	8.9	47	26.1	10	5.6	43	23.9
Rubber	4	2.2	8	4.4	53	29.4	10	5.6	36	20.0	14	7.8	55	30.6

Metal scrap	2	1.1	2	1.1	8	4.4	10	5.6	89	49.	1	.6	68	37.8
										4				

As gleaned in the table, among of the seven (7) waste storage, majority of the respondents stored their waste in the containers with covers and these are plastic packaging got a frequency of 85 or 47.2 percent, vegetables 80 or 44.4 percent, plastic bags 79 or 43.9 percent and food residue 75 or 41.7 percent.

Next commonly used waste storage is open pile. These are the metal scrap obtained a frequency of 89 or 49.4 percent followed by woods with 80 or 44.4 percent. This remains the simplest way in storing solid waste materials since it can be easily stored in backyard or open area.

The recycling bins were utilized in storing tin canned with 77 or 42.5 percent and rubber with 55 or 30.6 percent. Meanwhile, the cardboard box was utilized mainly by the waste paper/cartoon. This means that the waste materials were properly stored on its appropriate waste storage.

Table 3 Knowledge in Waste Processing

Indicators	f	Rank
Waste Minimization	141	1
Composting	118	2
Material Recovery Facility (MRF)	93	3
Waste to Energy	13	4
Incineration/Combustion	11	5

*Multiple Responses

As shown in the table 3, the knowledge in solid waste management in waste processing point out that waste minimization got the highest rank with 141 responses. This means that the respondents are able to reuse and recycle waste materials from their school. Meanwhile, incineration/combustion got the lowest rank with only 11 responses which imply that the schools need more facilities and equipment in order to utilize the said process.

Table 4 Knowledge in Waste Disposal

Waste Types	Feed to Animals		Bury		Open Burning		Open dumping		Unoccupied landfill		Sea		Compost pit	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Plastic bags	0	0	28	15.6	61	33.9	25	13.9	27	15.0	0	0	39	21.7
Plastic packaging	0	0	35	19.4	57	31.7	26	14.4	29	16.1	0	0	33	18.3
Waste paper/cartoon	0	0	12	6.7	67	37.2	42	23.3	35	19.4	0	0	24	13.3
Ash/street sweepings	0	0	17	9.5	31	17.2	18	10.0	22	12.2	2	1.1	90	50.0
Tin canned	0	0	14	7.8	10	5.6	60	33.3	60	33.3	2	1.1	34	18.9
Vegetables	64	35.6	5	2.8	14	7.8	20	11.11	7	3.9	0	0	70	38.9
Food residue	46	25.6	7	3.9	8	4.4	21	11.7	25	13.9	0	0	73	40.6
Woods	0	0	11	6.11	38	21.1	30	16.7	49	27.3	5	2.8	47	26.1
Textile/cloth	0	0	21	12.3	18	10.1	54	30.2	38	21.2	3	1.7	44	24.6
Glass/ceramics	0	0	23	12.8	5	2.8	46	25.7	54	30.2	1	.6	33	18.4
Rubber	0	0	22	12.2	27	15.0	33	18.3	43	23.9	1	.6	35	19.4
Metal scrap	0	0	3	1.7	1	.6	68	37.8	54	30.0	0	0	2	1.1

Table 4 shows that open burning is the most common method in use for disposing waste in terms of waste paper/cartoon materials having a frequency of 67 or 37.2 percent, followed by the plastic bags 61 or 33.9 percent and plastic packaging 57 or 31.7 percent.

Meanwhile, open dumping method is in use for disposing tin canned with a frequency of 60 or 33.3 percent and textile/cloth having 54 or 30.2 percent.

Most of the respondents also claimed to use unoccupied landfill site in disposing tin canned 60 or 33.33 percent, glass/ceramics 54 or 30.2 percent, metal scrap 54 or 30.0 percent, woods 49 or 27.3 percent and rubber 43 or 23.9 percent respectively.

There are three waste types that used compost pit as disposal method namely: ash/street sweepings having a frequency of 90 or 50.0 percent, food residues 73 or 40.6 percent and vegetables 70 or 38.9 percent.

Attitudes of the Respondents towards Solid Waste Management

Table 5 presents the attitude towards solid waste management in terms of waste generation, storage, collection, transfer and transport, waste processing and waste disposal.

Waste generation. The respondents rated 4.44 as the highest weighted mean described as “Strongly Agree” to the statement “Encourage waste reduction across all levels of society, including at school level”. With the given results, most of the respondents have a positive attitude towards waste generation.

Table 5 Attitudes towards Solid Waste Management

Indicators	WM	Interpretation
Waste Generation		
I am responsible for the generation of waste.	4.21	Agree
The purchase decisions that I make can increase or decrease the amount of garbage my school must get rid of (dispose of).	4.13	Agree
Encourage waste reduction across all levels of society, including at school level.	4.44	Strongly Agree
Preferred to make waste as a resource	4.04	Agree
Willingness to reduce waste generation at source.	4.36	Strongly Agree
AWM	4.24	Agree
Waste Storage		
I play an important role in the management of garbage in my community/school.	4.17	Agree
Preferred to self-disposal of waste to community bins.	4.01	Agree
Preferred to segregate waste into different bins.	4.27	Agree
I am worried about waste around school premises	4.31	Strongly Agree
I am not comfortable having waste around school premises	4.27	Agree
AWM	4.21	Agree
Waste Collection		
Regular collection of garbage is the only solution to garbage problem	4.03	Agree
Willingness to separate material for collection	4.26	Agree
Preferred daily collection of waste	4.08	Agree
Willing to pay extra service charges for waste collection	3.44	Moderately Agree
Planning and introducing an organized refuse collection service is a complex business.	3.44	Moderately Agree
AWM	3.85	Agree
Waste Transfer and Transport		
I am satisfied with the way the waste are handled by our school management	3.72	Agree
The transportation of waste to disposal site is a very important aspect of solid waste management.	4.08	Agree

The efficient use of resources by the school in the collection and transport of solid waste shows how effectively the school community engages in this activity.	3.98	Agree
Efficient collection and transport of solid waste will provide citizens with a clean environment in which communicable diseases will be greatly reduced.	4.24	Agree
Actively involved in collection and transport of waste material in school premises.	3.93	Agree
AWM	3.99	Agree
Waste Processing		
It is very important that the school administration put recycling laws and programs in place.	4.51	Strongly Agree
Had any form of training on waste management/processing	4.06	Agree
Public education about proper garbage management is one way to fix the garbage crisis.	4.26	Agree
Environmental education should be taught in schools.	4.31	Agree
Correct garbage management should not be taught in schools.	2.06	Disagree
The school is not doing enough to fix the garbage problem.	2.4	Disagree
AWM	3.6	Agree
Waste Disposal		
Improper waste disposal is a threat to environment.	4.17	Agree
I involved school composting to produce compost	4.13	Agree
I don't care that burning garbage can be bad for my health and the health of others.	1.82	Strongly Disagree
People throw garbage on the streets and in the drains and gullies because they have no other means of getting rid of (disposing of) their garbage.	2.66	Disagree
Picking up garbage around my school is my responsibility as a student.	4.24	Agree
AWM	3.40	Moderately Agree

Waste storage. The respondents' attitude towards waste storage found out that the respondents "preferred to segregate waste into different bins" and "I am not comfortable having waste around school premises" which obtained a weighted mean of 4.27 described as "Agree".

Waste collection. It could be seen that most of the respondents rated 4.26 as highest weighted mean and described as "Agree" to the statement "willingness to separate materials for collection". This means that the respondents are willing to segregate the waste materials before collection and disposed to designated area and in that it implies that they have a positive attitude towards waste collection.

Waste transfer and transport. It is clear that the statement "Efficient collection and transport of solid waste will provide citizens with a clean environment in which communicable diseases will be greatly reduced" got the highest weighted mean of 4.24 which described as "Agree". The average weighted mean of 3.99 which also described as "Agree" which means that the transport and waste is very important aspect of solid waste management.

Waste processing. Among of the different aspect of solid waste management, waste processing got the highest weighted mean of 4.51 described as "Strongly Agree" to the statement "It is very important that the school administration put recycling laws and programs in place". This suggests that the administration has the significant role in maintaining the schools' healthy environment.

Waste disposal. It is noted that the statement "Picking up garbage around my school is my responsibility as a student" obtained highest weighted mean of 4.24 described as "Agree". Meanwhile, the statement "I **don't** care that burning garbage can be bad for my health and the health of others" obtained the lowest weighted mean of 1.82 described as

Practices of the Respondents towards Solid Waste Management

This part presents the practices in solid waste management in terms of waste generation, storage, collection, transfer and transport, waste processing and waste disposal. This is presented in Table 6.

Table 6 Solid Waste Management Practices

Indicators	WM	Interpretation
Waste Generation		
Change ways in order to reduce the amount of waste generated in school	3.76	Moderately Practiced
School products that you think are better for the environment	3.59	Moderately Practiced
The wastes were collected, sorted, weighed and classified according to their components	3.55	Moderately Practiced
Contribute to an organization that works to protect the environment	3.54	Moderately Practiced
Source reduction (eliminating unnecessary packaging and buying and reusing fewer toxic products) and recycling are the methods of choice and the direct involvement of citizens is essential.	3.58	Moderately Practiced
AWM	3.60	Moderately Practiced
Waste Storage		
Bins are consistently labeled with correct information	3.97	Moderately Practiced
Storage bins have standard colors and shaped openings to help with sorting	3.55	Moderately Practiced
Waste is stored at collection points for recyclables. These facilities include MRFs, garden sites, drop-off and buy-back centers.	3.52	Moderately Practiced
Keeping storage facilities clean and neat.	3.86	Moderately Practiced
Installing containers that can accommodate larger volumes of waste. Because bin capacity is increased, regular collections can now be scheduled and adhered to.	3.52	Moderately Practiced
AWM	3.68	Moderately Practiced
Waste Collection		
Door-to-Door	2.99	Fairly Practiced
- Involves the laborers entering the premises, collecting garbage from a storage area and emptying it into the collection vehicle.		
Building-to-Building	2.94	Fairly Practiced
- Collecting garbage from outside/adjacent to buildings, along streets or alleyways.		
Bell Collection	2.63	Fairly Practiced
- Music based collection method, where garbage collection vehicles play special music or callers shout "dustbin" as they collect garbage.		
Kerbside Collection	3.11	Fairly Practiced
- Closed containers placed on roadside for collection.		
- Containers are returned to pickup point after emptying.		
Handcart Collection	3.06	Fairly Practiced
- Handcart collection is a type of a kerbside collection system.		
- Laborers collect waste stored in containers, bags of waste left at the kerbside or collect waste directly from the resident.		
- Handcarts must transfer their loads to a tractor, lorry or compactor for transportation to the disposal site.		
- In areas of the town/city that have narrow or congested roads, handcarts are often used for collection.		
Waste Pooling Sites	2.84	Fairly Practiced

- A centralized collection point typically located on public property no more than a specified distance from any waste generator.			
Stationary Trailer Collection	2.71		Fairly Practiced
- Similar to the public bin collection system, except that in this case, a stationary trailer is parked at a particular location on specified collection day(s) and/or times.			
- People are required to discharge their waste into the trailer.			
	AWM	2.90	Fairly Practiced
Waste Transfer and Transport			
Safe transport to disposal site.	3.51		Moderately Practiced
Transfer of compacted waste in closed container.	3.48		Fairly Practiced
Schools facilitating and funding the operation: Each classroom can be made responsible for transporting their waste to central collection points and/or transfer stations which are easily accessible to the vehicles.	3.49		Fairly Practiced
The successful collection and transport of waste material, not only depends on the efficient operation but also on the active involvement of citizens	3.71		Moderately Practiced
Organized transport to central collection points	3.26		Fairly Practiced
	AWM	3.49	Fairly Practiced
Waste Processing			
Participate in waste and waste management activities in your school.	3.96		Moderately Practiced
Support the development of Environmental policy for your school	3.90		Moderately Practiced
Attended any training, seminar, or workshop on environmental education/ management	3.37		Fairly Practiced
Decided to reuse or recycle something rather than throw it away	3.88		Moderately Practiced
Waste Reduction at source	3.60		Moderately Practiced
- this can be achieved by changing or modification of production process and/or equipment used, with assurance that product quality is not affected			
Treatment of Waste	3.47		Fairly Practiced
- eliminates the toxic content of the waste stream, reduces the risk of pollution and health of the public, and increases its acceptability for discharge into the environment for its intended use. This also provides incentive to the user as it enhances the quality of waste and increases the potential for recycling			
	AWM	3.70	Moderately Practiced
Waste Disposal			
Discouraged burning of refuse	3.66		Moderately Practiced
Schools are more likely to dispose their waste illegally and not be concerned to separate their waste for recycling if they lack the appropriate facilities or if such facilities are not easily accessible to them.	2.8		Fairly Practiced
Disposal of re-usable and recyclable waste to landfill	3.17		Fairly Practiced
Cleared a refuse site around your school premises.	3.63		Moderately Practiced
Disposed waste through a socially and environmentally acceptable practice.	3.73		Moderately Practiced
	AWM	3.40	Fairly Practiced

Waste generation. The respondents rated 3.76 as the highest weighted mean described as “Moderately Practiced” to the statement “Change ways in order to reduce the amount of waste generated in school”. With the given results, most of the respondents “Moderately Practiced” with the practices mentioned in the indicators of waste generation.

Waste storage. The indicators “Bins are consistently labeled with correct information” got the highest weighted mean of 3.97 described as “Moderately Practiced” followed by the statement “Keeping storage facilities clean and neat” with a weighted mean of 3.86 which also described as “Moderately Practiced”. The rest of the weighted mean are described as “Moderately Practiced” and the average weighted mean of 3.68 which also described as “Moderately Practiced”.

Waste collection. It could be seen that most of the respondents rated 3.06 as highest weighted mean and described as “Fairly Practiced” to the waste collection practice using handcart. This means that the respondents stored their waste and will be collected using handcart.

Waste transfer and transport. It is clear that the statement “The successful collection and transport of waste material, not only “depends on the efficient operation but also on the active involvement of citizens” got the highest weighted mean of 3.71 which described as “Moderately Practiced”. The average weighted mean of 3.49 which described as “Fairly Practiced” which means that the transfer and transport of waste needs more planning among school administrators.

Waste processing. The respondents are willing to participate in waste processing and management activities in school which obtained the highest weighted mean of 3.96 described as “Moderately Practiced”. They also support the development of Environmental Policy in order to improve the solid waste management in school.

Waste disposal. It is noted that the statement “Disposed waste through a socially and environmentally acceptable practice” obtained highest weighted mean of 3.73 described as “Moderately Practiced”. Meanwhile, the statement “Schools are more likely to dispose their waste illegally and not be concerned to separate their waste for recycling if they lack the appropriate facilities or if such facilities are not easily accessible to them.” obtained the lowest weighted mean of 2.8 described as “Fairly Practiced”.

Relationship of Variables

The succeeding tables present the significant relationship among the variables of the study.

Table 7 Significant Relationship between the Age Profile of the Respondents and Knowledge in Solid Waste Management

Variable	r-value	Sig.(2-tailed)	Decision
storage	-.064	.564	Ho Accepted
processing	-.031	.978	Ho Accepted
disposal	-.165	.133	Ho Accepted

Table 7 shows the significant relationship between the age profile of the respondents and knowledge in solid waste management. The r-value for storage = -.064; processing = -.031; and disposal = -.165 with corresponding p-values of .564, .978 and .133 respectively. The results revealed that there are no significant relationships exist between the variables. It means that age does not affect the level of knowledge of the respondents towards solid waste management.

Table 8 Significant Relationship between the Gender Profile of the Respondents and Knowledge in Solid Waste Management

Variable	X ²	df	p-value	Decision
storage	53.82	46	.20	Ho Accepted
processing	5.00	4	.151	Ho Accepted
disposal	41.057	45	.640	Ho Accepted

Table 8 shows the significant relationship between the gender profile of the respondents and knowledge in solid waste management. The chi-square value for storage = 53.81, df = 46; processing = 5.00, df = 4; and disposal = 41.057, df = 45 with corresponding p-values of .20, .151 and .640 respectively. The results revealed that there are no significant relationships exist between the variables. It means that gender does not affect the level of knowledge of the respondents towards solid waste management.

Table 9 Significant Relationship between the Civil Status Profile of the Respondents and Knowledge in Solid Waste Management

Variable	X ²	df	p-value	Decision
storage	53.610	92	1.0	Ho Accepted
processing	5.0	4	.287	Ho Accepted
disposal	80.256	90	.759	Ho Accepted

Table 9 shows the significant relationship between the civil status profile of the respondents and knowledge in solid waste management. The results revealed that there are no significant relationships exist between the variables. It means that civil status does not affect the level of knowledge of the respondents towards solid waste management.

Table 10 Significant Relationship between the Educational Attainment Profile of the Respondents and Knowledge in Solid Waste Management

Variable	X ²	df	p-value	Decision
storage	287.515	230	.005*	Ho Rejected
processing	10.0	8	.265	Ho Accepted
disposal	300.94	225	.001*	Ho Rejected

*Significant at 0.01 level

Table 10 shows the significant relationship between the educational level profile of the respondents and knowledge in solid waste management. The results revealed that there is significant relationship exists between educational level and waste storage method with chi-square value of 287.515, df = 230, p-value = .005 which is significant at .01 level. The table also revealed that there is significant relationship exists between educational level and waste disposal method with chi-square value of 300.94, df = 225, p-value = .001 which is significant at .01 level. It means that educational level affects the level of knowledge of the respondents towards solid waste management in terms of waste storage and disposal method. This implies that level of education has statistical significant influence on respondents towards solid waste management in terms of waste storage and disposal method. The finding is not surprising and therefore expected because those with higher level of education were expected to exhibit more knowledge on waste management than those with lowers level of education.

Table 11 Significant Relationship between the Profile of the Respondents and Attitudes towards Solid Waste Management

Variable	X ²	Df	p-value	Decision
Gender	22.570	22	.426	Ho Accepted
Civil Status	26.146	22	.245	Ho Accepted
Educational Attainment	101.396	110	.709	Ho Accepted
Variable	r-value	Sig.(2-tailed)	Decision	
Age	-.308	.092	Ho Accepted	

Table 11 shows the significant relationship between the profile of the respondents and attitude in solid waste management. The results revealed that there are no significant relationships exist between the variables. It means that respondents' profile does not affect the attitudes of the respondents towards solid waste management.

Table 12 Significant Relationship between the Profile of the Respondents and Practices in Solid Waste Management

Variable	X ²	df	p-value	Decision
Gender	30.839	30	.423	Ho Accepted
Civil Status	30.633	30	.434	Ho Accepted
Educational Attainment	152.625	150	.425	Ho Accepted
Variable	r-value	Sig.(2-tailed)	Decision	
Age	-.189	.110	Ho Accepted	

Highlighted in table 12 is the relationship between the profile of the respondents and practices in solid waste management. The computed p-values were higher than .05 level of significance. The results revealed that there are no significant relationships exist between the variables. It means that respondents' profile does not affect the practices of the respondents towards solid waste management.

Table 13 Significant Relationship between the Attitudes and Practices of the Respondents towards Solid Waste Management

Variable	r-value	Sig.(2-tailed)	Decision
Attitudes and Practices of the Respondents towards Solid Waste Management	.110	.557	Ho Accepted

As gleaned in table 13 is the relationship between the respondents' attitudes and practices towards solid waste management. The computed $r = .110$ sig. (2-tailed) = .557 which is higher than .05 level of significance. The results revealed that there is no significant between the respondents' attitude and practices towards solid waste management. It means that respondents' attitude does not affect the practices of the respondents towards solid waste management. This further implies that the respondents were able to adopt practices though some of the respondents have negative attitudes towards solid waste management.

CONCLUSION

After thorough analysis of the results based from the findings gathered from the study, the researcher came up these conclusions.

Age, gender, civil status and educational attainment among others, were factors influencing solid waste management in secondary schools. It was concluded that most respondents with lower level of education possessed moderate level of knowledge of the impact of improper waste management than those with higher level of education.

The knowledge, attitudes and practices of waste management was relatively moderate in secondary schools of division of Leyte, the percentage of those who used solid waste disposal methods like open burning and open dumping was higher in terms of their knowledge towards solid waste management. The attitudes towards solid waste management are "moderately agree" and the practices towards solid waste management are "moderately practiced".

The educational attainment was significantly related to the waste storage and disposal of the knowledge in solid waste management.

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