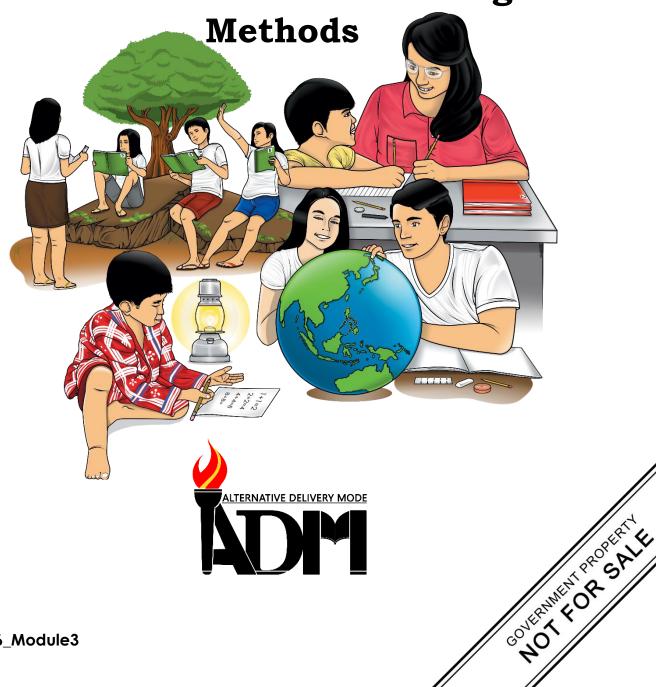




Technology and Livelihood Education

Industrial Arts-Module 3: Simple Survey using Technology and other Data Gathering



Technology and Livelihood Education – Grade 6
Alternative Delivery Mode
Industrial Arts – Module 3: Simple Survey using Technology and other
Data Gathering Methods

First Edition, 2020

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Development Team of the Module

Writers: Ariel P. Baquinquito

Editors and Reviewers: Jeanalyn L. Jamison, Ana Lee C. Bartolo,

Petronilo R. Bartolo, Velly P. Seguisa, Ivy Dalisay

Illustrator: Jofel D. Nolasco

Layout Artist: Jofel D. Nolasco, Ana Lee C. Bartolo, Edgardo D. Pamugas III

Management Team: Ramir B. Uytico, Pedro T. Escobarte, Jr.

Dr. Elena Gonzaga, Donald T. Genine Melgar B. Coronel, Ana Lee C. Bartolo

Jeanalyn L. Jamison

Printed in	the Philippines	hy
		MY .

Department of Education – Region VI (Western Visayas)

Office Address: Duran Steet, Iloilo City, Philippines, 5000

Telefax: (033) 336-2816, (033) 509-7653

E-mail Address: deped6@deped.gov.ph

Technology and Livelihood Education

Industrial Arts – Module 3: Simple Survey using Technology and other Data Gathering Methods



Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-bystep as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



This module was designed and written with you in mind. It is here to help you master the skills of conducting survey using technology and other data gathering method. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

This module focusses on the following topics:

- a. What is market survey?
- b. What are the different market surveys or data gathering material?
- c. The importance of market survey
- d. Types and sources of innovation finishing materials, accessories and design
- e. Process of enhancing and decorating finished product

At the end of this module, you should be able to:

- a. Conduct simple survey using technology and other data gathering method. (TLE6IA-0b-3)
- b. Check market trends on product made of bamboo, wood and metal
- c. Know types/sources of innovative finishing materials, accessories, and designs
- d. Apply processes in enhancing/decorating finished products.



What I Know

Directions: Choose the letter of the correct answer. Write your answer on a separate sheet of paper.

- 1. Which of the following is a data gathering method?
 - a. survey

c. raffle d. training

- b. talk show
- 2. What is the importance of conducting face-to-face surveys?
 - a. To know the problems of your neighbor.
 - b. To understand your role in the community.
 - c. To gather important information from the teachers.
 - d. To become closer with other people in your area to get more specific data or information.
- 3. Who can conduct surveys?
 - a. Teachers

- c. health workers
- b. Elementary learners d. All of the above
- 4. Is data gathering essential in starting small a business?
 - a. Yes, it will tell you the prices of goods in the market.
 - b. Yes, it will tell you what kind of business to start.
 - c. No, budget is more important in starting a business.
 - d. No, it will entail a lot of time.
- 5. Why do you need to send a survey questionnaire to your target customers?
 - a. To know their likings
 - b. To ask for their views, and opinions.
 - c. To suit customers' preferences.
 - d. All of the above
- 6. Which is the fastest way of conducting a survey?
 - a. house to house

c. newspaper

b. On-line

d. letter

- 7. If you want to sell bamboo and wood products, what information can be included in your survey?
 - a. monthly electrical consumption of the family
 - b. food preferences of the family
 - c. places visited by the family
 - d. possible furniture you intend to buy
- 8. Which of the following can be used as accessories for bamboo products?
 - a. Beads and ribbons

c. paint and thinner

b. Sand and stones

d. metal and bottles

- 9. Which of the following product uses shellac as enhancing material?
 - a. Wind chimes

c. bird cage

b. Bamboo sala set

- e rubber pots
- 10. Paper twines can be used as decorating materials for___
 - a. Athletes shoes

c. Bamboo basket

b. Baby's dress

d. metal grills

Lesson

Simple Survey Using Technology and other Data Gathering Method

A Survey is an important source of information or facts that are collected from a sample of respondents. At present, data gathering employs the use of technology to a target audience about a topic of interest which is needed in starting a small business or in marketing products or goods.



Jofel D. Nolasco, A boy using computer

What is the importance of conducting survey or gathering of data?



Strategies

feedback

Directions: Fill in the blanks with the correct answer. Choose your answer from the box and write it in a separate sheet of paper.

marketability

methods

accessories

innovativeness

finishing	finished product	survey
customers' prefere	ences	
1. It is an innovative, e		nformation through the use of
2. It is an information product.	regarding customers' reactio	ons and suggestions of the
3. A creative and inver	ntive way of enhancing a pro	duct
4. Something that con	tributes to the beauty of the	product
5. It is the ease of selli	ng product	
6. A product that cust	omers would like to buy	
7. Ways or processes t	to improve the appearance of	f the product
8. Materials used to in	nprove, enhance and enrich	the appearance of a product.
	nproved product that passed he market.	l quality control and is ready
10. Use by entreprene	urs to encourage customers	to buy their products.

Important words to remember:

- 1. Attributes a quality or feature regarded as characteristic of something
- 2. Survey a detailed inspection or investigation of something.
- 3. Market Survey an investigation into the state of the market for a product or service, including an analysis of consumer's need and preferences.
- 4. Online Survey is a questionnaire that the target audience can complete over the internet.
- 5. Market trend is a perceived tendency of financial markets to move in a direction over time.
- 6. Data gathering is the process of gathering and measuring of information on targeted variables in an established system, which then enables one to answer relevant questions and evaluate outcomes.
- 7. Feedback information about reactions, comments, suggestions to a product



Donna wanted to start a new business while at home due to COVID -19 pandemic. She needs work to earn a living in order to feed her family because their company had a "No Work, No Pay" policy. The provision of their daily sustenance and providing the medical needs of her sick mother were some of her priority, especially if the Enhanced Community Quarantine (ECQ) will be extended.

What possible business or income generating project will Donna do with P3,000.00 savings she had left? What should Donna do first?

? What is It

Knowing the needs and what is trending in the market today one will be guided on what small business of income generating project will he/she start.

What is a market survey?

A market survey is a tool use to gather facts and statistics about prospective customers or residents in your community. It will tell us where and how customers spend their money and their purchasing power to acquire the product.

What are the different market surveys or data gathering methods?

- 1. **Online Survey** it is innovative, cost-effective, easy, and fast way of reaching maximum number of people, to gather information about the market trends and customers' preferences of the product.
- 2. **Face-to-face Survey** it is a survey method that is gained or acquired information from respondents via face-to-face mediums. It is much more effective than the other mediums because respondents usually tend to trust the surveyors and provide honest and clear feedback about the subject inhand.
- 3. **Telephone Survey** it is a method using a telephone and requires much lesser investment than face-to-face surveys. Depending on the required reach, telephone surveys cost as much or a little more than online surveys. Contacting respondents via the telephonic medium requires less effort and manpower than the face-to-face survey medium.
- 4. **Paper Survey** these surveys can be used where laptops, computers, and tablets cannot go and hence they use the age-old method of data collection; pen and paper.

MARKET SURVEY SAMPLE

Dear Valued Customer,

Warm Greetings!

We want to produce products that respond to your tastes and needs. Furthermore, we would like to know what you think of our product by filling up this questionnaire. Your honest response can help improve our local bamboo, woodcraft and metal craft industries.

Thank you.

ORMATION		
ent: (optional)		
Male	F	emale
Single	N	I arried
members if ma	arried:	_
Mos	nthly Income:	
eck (/) on the s	tatement of your	r choice.
product:		
ce of material	for the furniture	e you wanted to have at
Bamboo	wood	Metal
ooo/wood/ meta l chairs ecors	al furniture do yo walls ar beds &	nd ceiling floors
	ormation ent: (optional) Male Single members if ma Moreck (/) on the seconduct: ce of material Bamboo coo/wood/ metal chairs	ormation ent: (optional) Male F Single N members if married: Monthly Income: eck (/) on the statement of your product: ce of material for the furnitur Bamboo wood ooo/wood/ metal furniture do you chairs walls an

3. Which bamboo/wood/metal hand	licraft do you want to have?
key chain	wall décor
centerpieces	card
tags	plant racks
picture frame	wine holder
straw	utensils
4.If you choose wood material, are y	you looking for wood products made of: bamboo any
kamagong	rattan
Thank you for your time and k will greatly help our objective to serv	cindness. I assure you that your answers we you better.

The Importance of Market Survey

The main purpose of the market survey is to collect data about a target market such as pricing trends, customers' requirements, competitors, analysis and other details to help you improve your business.

1. Gain customers' feedback

Market survey offers marketing and business ideas about the needs, wants/likings of the costumers to a certain product, thus giving you the idea to suit your product to these preferences.

2. Understand customers' preference to procure products

Products are in the form of home furnishing or fixtures, accessories jewelry and home decors. These are trending products that can be made from bamboo, wood and metal found in our market today.

Customer's buying craft vary generally from tourists, collectors, business people, artists or artisans, people attending conferences and many others.

To have a marketable and salable product, artists and manufacturers must know their costumers and their preferences in terms of color, style, size and quantity. It is also helpful to know their interests and needs. They must be creative and adopt new design trends for their products to be competitive in the market.

3. Enhance existing products and services

A market survey can also be applied with the purpose of refining; enriching and improving existing products/services, study customers' approval levels along with getting data about their insights and awareness of your products. Use these data to increase customers' level of expectation to your products.

4. Make important business decisions

Data gathered using market surveys is helpful in making major variations in the industry which decreases the degree of risks involved in making important business decisions.

Types and sources of innovative finishing materials, accessories, and design:

A good and competitive business minded person aside from conducting survey and knowing customers' preferences, must also know the types or sources of innovative finishing materials, accessories and design that can be applied to products.

Materials used to enhance, decorate and improve finished product quality:

- 1. Finishing Materials these are used to smoothen the surface before decorating the product.
 - a. Varnish Used for finish or topcoat, it is durable because it contains a higher ratio of solid.
 - b. Shellac This finish is natural that is very safe once dried and hardened. It is also used as protective coat on non-wood item.
 - c. Lacquer Provides intense gloss finish often used on Asian-inspired furnishing. It is extremely durable and resistant to damaged. It can be applied with the use of a sprayer.
 - d. Polyurethane essentially a plastic in the form of a liquid. Available in water and oil-based options.
- 2. Decorating and wrapping materials Colored paper twines and ribbon cloth use as decoration and wrappings for bamboo and wood products.
- 3. Accessories Beads and charms are small accessories of different colors used to make products attractive.

4. Abaca and Sinamay Fibers – are thin-paper locally-made materials used for wrapping and packaging of the finished products.

Process of enhancing and decorating finished products:

A. For Wood and Bamboo Products:

- 1. Wood Turning is a process of using a lathe to make various forms and shapes of wood.
- 2. Hand Carving is considered a woodcraft in which a sharp object is used to create designs on the wood.
- 3. Pyrography the art or technique of decorating wood or leather by burning a design on the surface with a heated metallic point.
- 4. Flocking lines the interior of drawers and boxes with a soft velvety finish
- 5. Inlaying combines several techniques that involve inserting decorative pieces into a base object to incorporate new designs on the original products.
- 6. Gilding decorative technique in which powder is applied on wood or other materials to give a thin coating of gold.
- 7. Staining is used to color wood to give an illusion of texture.
- 8. Painting the simplest way of decorating wood since there are a variety of colors that you can choose from.

B. For Metal Products:

- 1. Engraving transferring a design on metal using hardened steel tool called burin or graver to cut into the surface of the metal
- 2. Texturing & Embossing in this technique you will need hammer, metal, stamp, stencils, and other materials to create imprints on the metal.
- 3. Etching is a process used to make designs or pictures on a metal plate by using acid that produces corrosive action.



Activity 1: Understanding the methods and importance of conducting a market survey.

Learning the Skills: Classifying Ideas

Directions: Write $\underline{\mathbf{M}}$ if the statement demonstrates a method of conducting a market survey and $\underline{\mathbf{I}}$ if it expresses the importance of a market survey.

1.	Gathering facts and information about the prospective customers in your areas of business operation using online survey
2.	Collecting data and evidence about the market trends and customers' preferences of the products
3.	Finding out the pattern of gradual changes or the tendency of the product to go on sales and earn more or slow down its sales and results to losing ends.
4.	Studying the customers' capacity to purchase and buying prospective for crafting products/services that satisfy those wants/needs
5.	Using telephone in contacting respondents via the telephonic medium
6.	Offers marketing and business ideas about needs wants/likings of the costumers to a certain product
7.	Helps you understand customers' preference to buy the products
8.	Helps you to know the costumers' thoughts about the quality and functionality of the product
9.	Face-to-face survey will gain an honest and clear feedback about the subject in-hand
10	.These surveys can be used where laptops, computers, and tablets cannot go

Activity 2: Tell How You Understand

Learning the Skills: Comparing

Directions: Compare the following survey or ways of gathering data. Use the

words inside the box. Write your answer in a separate sheet of

paper.

Age-old method pen and paper online

Lesser investment easy fast

Clear feedback gain respondents' trust cost effective

House to house less effort less manpower

sure of honest answer

Online	Face-to-face	Telephone	Paper

Activity 3: Tell How You Understand

Learning the Skills: Explaining Ideas

Directions: In your own words or understanding. Write a brief explanation for each question below on your answer sheet.

1.	What is a market survey?

2.	Why is it important to conduct a market survey?	
3.	Why is customers' preference important in enhancing and decorproducts?	rating
4.	Why is there a need to decorate and to add accessories to fin products?	ished



What I Have Learned

Directions: Choose the correct answer from the set of words in the parentheses. Write your answer on a separate sheet of paper.

- 1. The (online, cellphone, television) is the most effective and the fastest way to gather data and information.
- 2. Gathering data and information about the market trends, demands, and customers' preferences is called (method, survey, planning).
- 3. A survey is used to (study, answer, unlock) market trends, product demands, characteristics and purchasing power of the customers.
- 4. When conducting a survey about a product, we examine the (marketability, characteristic, description) of the product.
- 5. Customers' (attitude, preference, answer) should be given attention for products to be competitive.
- 6. (Decorations, Surveys, Finishing) are materials used to enhance and smoothen products.
- 7. Pyrography, carving and gilding are some of the (materials, accessories, processes) of enhancing/decorating finished products.
- 8. Accessories like beads can make the product (durable, common, attractive).
- 9. (Charm, Abaca, Paper Twines) is a thin paper locally made material used for wrapping finished products.
- 10.(Varnish, Shellac, Lacquer) is a material that gives natural finish and protective coat on non-wood item.



Anyone who wishes to have extra income or plan to start a business must consider conducting a survey on the product he/she wants to bring out of the market to find out if such product will suit to the costumers' preferences and sustain its marketability.

Conduct a market survey of the product that you want to sell. Use what you have learned from this module to guide you in conducting your survey. Through the help of your parents and elder brothers and sisters gather data on <u>Bamboo</u>, <u>Wood</u> and <u>metal furniture</u> in your community. Use the sample survey below.

	PROI			
ate				
ERSONAL I	NFORMATION	ī		
-	ondent: (optior	•		
ender: M	ale Femal Mo	le Status:		
ame of the P	roduct:			
Instruction	n: Put a checl	k (/) on a wore	d /or phrase o	of your choice
1. What is y	our assessme	nt with the pro	oduct?	
Very Positive	Somewhat Positive	Neutral	Somewhat Negative	Very Negative
2. How wou	ld you rate the	e quality of the	product?	
	ld you rate the High Quality	e quality of the Average Quality	product? Poor Quality	Very Poor Quality
Very High Quality	High	Average Quality	Poor Quality	

the produ	own assessment, what are the things you like most abou et?
Answer:	
5. Is there new produ	something you want to suggest in order to improve our et?
Answer:	



Assessment

A. Directions: Read the following test items and choose the letter of the correct answer. Write your answer on a separate sheet of paper.

1.	What	is	an	important	tool	used	to	gather	in formation	from	sample
	respon	nde	nts?								

a. Survey c. Writings b. Letter d. Telephone

2. What is used as the fastest way to gather data from a target audience?

a. radio c. technology

d. letter b. newspaper

3. What contributes to the beauty and attractive appearance of a finished product?

a. methods c. importance b. accessories d. information

4. Why do you have to send a survey questionnaire to your target customers?

a. To know the likings of the customers.

b. To ask their feelings, views, and opinions.

c. To suit customers' preferences.

d. All of the above

5. Which of the following is the most innovative, cost-effective method of survey or gathering of data?

a. Paper c. Face-to-face

b. Telephone d. online

6. What should be given emphasis in innovating or adding of accessories to a product?

a. the size of the product c. artist's style

b. customers' preference d. number of products

7. What do you call a material that is plastic in form, available in water and oil-based options used as finishing for products?

a. varnish c. shellac b. polyurethane d. lacquer

8. Which process of enhancing a finished product using a sharp object to create designs on wood?

a. hand carving c. etching b. flocking d. texturing

9.		is the process of ϵ sive action?	enhancing m	etal products	that uses	acid to prod	.uce
		aining		c. etch	ing		
		graving		d. text	O		
	D. CII	graving		u. text	aring		
		of the following ex	plains the in	nportance of c	onducting	g a market	
S	urvey?	ain customers' feed	thools				
		in customers leed iderstand custome		ce to procure	nroducts		
		sist in making im	-	-	-	oduct	
		of the above	ortant deek	sions in cimal	icing a pro	oddei	
product accesso	s. Wri ries ar	Identify the kind te FM for finishind WP if use for to of paper.	ing material	s, DM for d	ecorating	material, A	for
1.	Beads	.					
		n cloth					
3.	Sinan	nay fibers					
	Varnis	-					
5.	Lacqu	er					
6.	Colore	ed paper twines					
7.	Shella	ıc					
8.	Abaca	L					
	-	rethane					
10.	.Charn	ns					
		Choose from the li ach statement. W			_	_	hod
						٦	
		Online Surve	y	Telephone S	Survey		
		Face-to-face S	Survey	Paper Surve	ey		
1. It	t can b	e used where tech	nology cann	ot reach custo	omers.	J	
		method research fortable with the qu		•	if the r	respondents	are
3. A	wides	pread data collect	ion method.				

4. Contacting respondents individually via the telephonic medium.

5. An age-old method of data collection.



Pretend that you are a costumer. Fill out this survey form. Your preference might be the same that of your costumers. Ask copy of the survey form from your teacher or facilitator.

School Canteen Survey							
Grade:	Grade: Section:						
	eeking your feedb and improve the		-	aluate th	e offering	gs and hel	p us make
Ca	ow many days in anteen? lease check the ap		0 01	v			e school
		1	2	3	4	5	
	Breakfast						
	Snacks						
	Lunch						

2. Please tell us what item/s do you buy most often and never buy. Please check the appropriate box beside each type of food

Items	Buy Most	Never Buy
	Often	
Chicken Joy		
Boiled Banana		
Egg/Chicken Sandwich		
Siomai		
biscuits		
Banana cake		
Fries		
Boiled egg		
Arroz Caldo		

riease put a check on th	e space before the item of your choice.
Banana cue	Pudding
Sweet corn	Calamansi Juice
Shanghai	Fresh milk
Cupcakes	Siopao
Donuts	Pancakes
We welcome any addition the canteen service for ex	nal comments and suggestions to improve veryone.



	Additional A Smere mag
епілеў ілеў епілеў	C. 1. Paper sur 2. Face-to-fa 3. Online su 4. telephone 5. paper sur
МО . 6 МЭ . 7 8 . WP 9. РМ 10. А	B. 1. A 2. DM 3. WP 4. FM 5. FM
6. b 8. 8 9. c 10. D	8.1 2.2 3.5 4.6 b.4 b.3
!	Assessment A.

1. online 2. survey 3. study 4. marketability 5. preferences		Activity I M. I. M. 2. I. 2. I. 3. I. 6. I. 4. I. 4. I. 4. I. 5. M. 5. M. 5.	в1 b2 b8 d4 b3
6. Finishing 7. processes 8. attractive 9. Paper twines 10. Shellac What I Can Do Teacher will check learners	Face-to-face Gain respondents	6. I 7. I 9. M 10. M Activity 2 Cost effective Essy	6. b 7. d 8. a 9. b 10. c What's In 1. Survey 2. Feedback
įndįno	trust Sure of honest Reedback Paper Age-old method method method paper Age-old method method method method paper Teadback	Telephone Lesser investments Less effort Less manpower manpower	3. Innovativeness 4. Accessories 5. marketability 6. Customers' 7. Methods 8. Finishing materials 9. Finish product 10. strategies

References

Department of Education Curriculum Guide 2016, EPP 6, Industrial Arts pages 38 – 41

Department of Education MELCs in EPP/TLE Grade 6 Industrial Arts pages 353 – 354

youtube.com/watch?v=Uy2ZvRgVxQk (EZ Link)

For inquiries or feedback, please write or call:

Department of Education - Bureau of Learning Resources (DepEd-BLR)

Ground Floor, Bonifacio Bldg., DepEd Complex Meralco Avenue, Pasig City, Philippines 1600

Telefax: (632) 8634-1072; 8634-1054; 8631-4985

Email Address: blr.lrqad@deped.gov.ph * blr.lrpd@deped.gov.ph