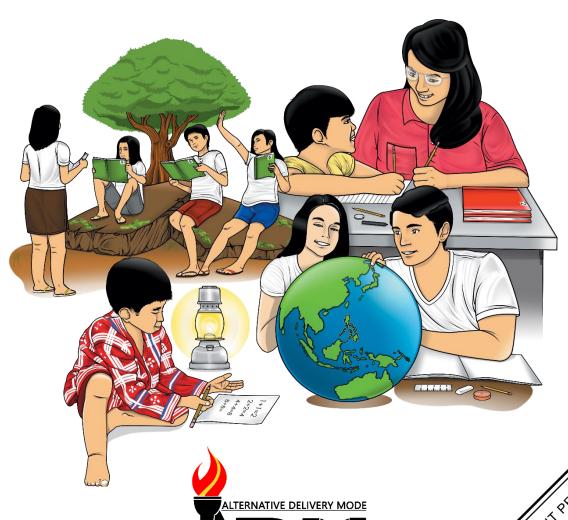


## Media and Information Literacy

Quarter 2 – Module 6:

## Manipulatives and Interactive Media



CONO PROPERTY OF SALE

Media and Information Literacy – Grade 12 Alternative Delivery Mode Quarter 2 – Module 6: Manipulatives and Interactive Media First Edition, 2020

**Republic Act 8293, section 176** states that: No copyright shall subsist in any work of the Government of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit. Such agency or office may, among other things, impose as a condition the payment of royalties.

Borrowed materials (i.e., songs, stories, poems, pictures, photos, brand names, trademarks, etc.) included in this module are owned by their respective copyright holders. Every effort has been exerted to locate and seek permission to use these materials from their respective copyright owners. The publisher and authors do not represent nor claim ownership over them.

Published by the Department of Education

Secretary: Leonor Magtolis Briones

Undersecretary: Diosdado M. San Antonio

### **Development Team of the Module**

Writer: Rachelle Toston

Editor: Engr. Floridel C. Pelin

**Reviewers**: Neolita S. Sarabia, Joseph C. Barrette

Layout Artist: Rachelle Toston

Management Team:

CID Chief: John Ariel A. Lagura

Division EPS in Charge of LRMS: Neolita S. Sarabia

Division ADM Coordinator: Elizabeth R. Escolano

### Printed in the Philippines by:

### Department of Education -Tagbilaran City Schools Division

Office Address: Rajah Sikatuna Avenue, Dampas, Tagbilaran City

Telefax: (038) 544-2147, 427-1702

E-mail Address: tagbilarancitydivision@yahoo.com

# Media and Information Literacy

Quarter 2 – Module 6: (Week 6-7)

## Manipulatives and Interactive Media



### **Introductory Message**

**For the facilitator:** This module was collaboratively designed, developed and reviewed by educators both from public and private institutions to assist you, the teacher or facilitator in helping the learners meet the standards set by the K to 12 Curriculum while overcoming their personal, social, and economic constraints in schooling.

This learning resource hopes to engage the learners into guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the module:



### Notes to the Parents/Guardians

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Furthermore, you are expected to encourage and assist the learners as they do the tasks included in the module.

<u>For the learner:</u> The hand is one of the most symbolized part of the human body. It is often used to depict skill, action and purpose. Through our hands we may learn, create and accomplish. Hence, the hand in this learning resource signifies that you as a learner is capable and empowered to successfully achieve the relevant competencies and skills at your own pace and time. Your academic success lies in your own hands!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning resource while being an active learner.

This module has the following parts and corresponding icons:



What I Need to Know

This will give you an idea of the skills or competencies you are expected to learn in the module.



What I Know

This part includes an activity that aims to check what you already know about the lesson to take. If you get all the answers correct (100%), you may decide to skip this module.



What's In

This is a brief drill or review to help you link the current lesson with the previous one.



What's New

In this portion, the new lesson will be introduced to you in various ways such as a story, a song, a poem, a problem opener, an activity or a situation.

is It	This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.
s More	This comprises activities for independent practice to solidify your understanding and skills of the topic. You may check the answers to the exercises using the Answer Key at the end of the module.
I Have ed	This includes questions or blank sentence/paragraph to be filled in to process what you learned from the lesson.
I Can	This section provides an activity which will help you transfer your new knowledge or skill into real life situations or concerns.
sment	This is a task which aims to evaluate your level of mastery in achieving the learning competency.
onal ties	In this portion, another activity will be given to you to enrich your knowledge or skill of the lesson learned. This also tends retention of learned concepts.
r Key	This contains answers to all activities in the module.
	s More I Have ed I Can ement onal

At the end of this module you will also find:

### References

This is a list of all sources used in developing this module.

The following are some reminders in using this module:

- 1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
- 2. Don't forget to answer *What I Know* before moving on to the other activities included in the module.
- 3. Read the instruction carefully before doing each task.
- 4. Observe honesty and integrity in doing the tasks and checking your answers.
- 5. Finish the task at hand before proceeding to the next.
- 6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator. Always bear in mind that you are



### What I Need to Know

There are two types of Manipulatives media the traditional and digital. Traditional Manipulative Media is actually being used in certain schools, wherein they use different materials that the students can use to have a hands-on experience regarding the lesson. Digital Manipulatives are computationally enhanced versions of physical objects, created in an effort to expand the range of concepts that children

can explore through direct manipulation. (Patten et al, as cited in Zuckerman et al 2005) They contain embed computational and communication hardware inside physical objects. (Resnick, et al cited in Britez 2009)

After going through this module, you are expected to:

- 1. Describe the different dimensions of manipulative information and media.
- 2. Comprehend manipulative information and media is/are formally and information produced, organized, and disseminated.
- 3. Evaluate the reliability and validity of manipulative information and media and its/their sources using selection criteria.
- 4. Produce and evaluate a creative manipulative-based presentation using design principle and elements.



### What I Know (Pre-test)

**I. Interacting With Social Media:** Answer the questions briefly in your own words. Below is the sample infographics about top 10 most popular action of Facebook.

### TOP 10 MOST POPULAR ACTIONS ON FACEBOOK

% of Facebook active users who did the following last month



Source:

https://www.marketing-interactive.com/infographic-10-popular-actions-facebook

- 1. Why do you think Facebook is very popular?
- 2. Which of the following actions are considered interactive?

3. With regards to your answer/answers in number one, what content is a user providing to Facebook every time they do that action? (Example: Clicked the "like" button (clicking the like button adds the number of likes to the post.

## Lesson 1

### Manipulative Media and Information



### What's In

In the previous lesson you have learned that motion information media is visual media that gives the appearance of a movement can be a collection of graphics, footage, videos. It is combined with audio, text and/or interactive content to create multimedia. We also categorized the different formats of motion media and information and how the format affects the design of the media presentation, and using for evaluating the design on popular motion based media presentation based on their design and use of elements.



### What's New

Activity 1. Identify: How well you do know interactive media?















### Guide Questions:

1. How much you know about the image inside the box? Can you name them all?

2. How much time do you spend on this interactive media daily?

3. What are the advantage and disadvantage in interactive media?



### What Is It

Manipulatives media can be both traditional and digital. In empowerment technologies, we focus on the digital side or "digitally interactive media". The use of manipulatives media in the classroom is essential since it gives a concrete experience for the learners because students are able to explore and investigate.

Interactive Media is a method of communication in which the program's outputs depend on the user's inputs, and the user's inputs in turn affect the program's outputs. Interactive media engage the user and interact with him or her in a way that non-interactive media do not. Websites and video games are two common types of interactive media.

### Example:

- 1. **Social media (Facebook)** sent friend request; responded to friend request; liked a post; followed a site; commented on a friend's post; uploaded a file; chat with a friend; sent private message.
- 2. **Online booking** search for flights; booked a flight and paid through credit card; web-check-in.



### **Platforms of Interactive Media**

- 1. **Mobile apps** a software application developed specifically for use on small, wireless computing devices such as smartphones and tablets, rather than PCs or laptops.
- 2. **3D TV** a television display technology that enables a three-dimensional effect, so that viewers perceive that an image has depth as well as height and width, similar to objects in the real world.
- 3. **Video games (multi-player)** a game played by electronically manipulating images produced by a computer program on a television screen or other display screen. Multiplayer games allow two



The History of 3D Television http://technosnowball.co.uk/blog/the-history-of-3d-television/

other display screen. Multiplayer games allow two or more players to play with one another or play together.

- 4. **Role-playing games (RPG)** a game in which players assume the roles of characters in a fictional setting. Players take responsibility for acting out
  - these roles within a narrative, either through literal acting or through a process of structured decision-making or character development.
- 5. Massively Multiplayer Online Role Playing Game (MMORPG) any story-driven online video game in which a player, taking on the persona of a character in a virtual or fantasy world, interacts with a large number of other players.



6. **Interactive websites** (pools, surveys, exams, exercises)

- 7. **Virtual reality and immersive environments** the computer-generated simulation of a three-dimensional image or environment that can be interacted with in a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors
- 8. **Social media** websites or online services where users (actual people) are the creators and consumers of the content, and where social interactions (commenting, liking, posting, talking) are the main features of content. Examples are Facebook, Twitter, Instagram, Snapchat, Vine, etc. Relate this topic to their output in the previous activity

**Interactivity** - the communication process that takes place between humans and computer software. The most constant form of interactivity is typically found in games, which need a continuous form of interactivity with the gamer. Database applications and other financial, engineering and trading applications are also typically very interactive.

### **Activity 2. Short-Response Questions:** Answer the questions briefly.

1. Name 3 actions that demonstrate the interactivity of online shopping?

1	
2	
3	

2. Name 3 advantages and 3 disadvantages of online gaming.

	ADVANTAGE		DISADVANTAGE
1		1	
2		2	
3		3	

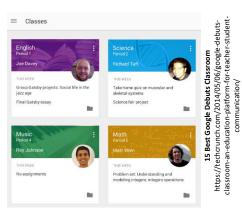
**Note to the teacher:** The number of activities for this module that you wish to include in your actual MDL is upon your discretion, as stated in your WHLP.

### Interacting with Social Media

- a. **Online shopping** compare prices; compare features of similar items; add to cart; choose payment type; track delivery; get advice from experts; search products; check local availability; get product recommendations
- b. **Online gaming** choose a game; play with computer; play with others; choose a level, in-game customization, etc.

15 Best MMORPGs You Should Definitely Try Out https://beebom.com/15-best-mmorpgs//

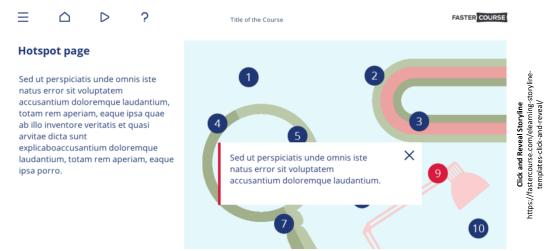
- Online classes interact with content; interact with instructors; interact with classmates.
- d. **Chat** - group chat; search groups; search friends; translate language.
- **News and information** exchange information; e. give reaction; news on demand; monitor views.
- f. Videos - choose your own adventure; get multimedia content; experience game elements.



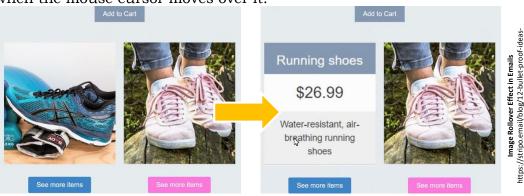
### Types of interactivity and their purposes:

CLICK HERE -**Click Here Button** a. Click images on https://www.shutterstock.com/search/click

b. Hotspot - a special region to act as a trigger to another web page. The hotspot could be a circle, triangle, rectangle or polygon.



c. Rollover - an image or portion of an image that changes in appearance when the mouse cursor moves over it.

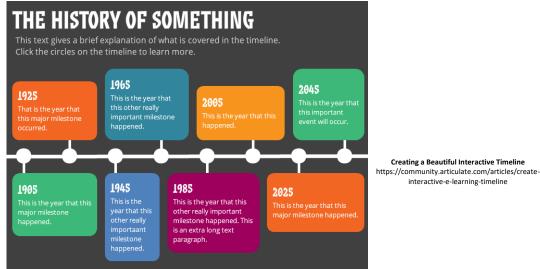


d. **Tabs** - clicking on them displays a relevant content with appropriate graphic.

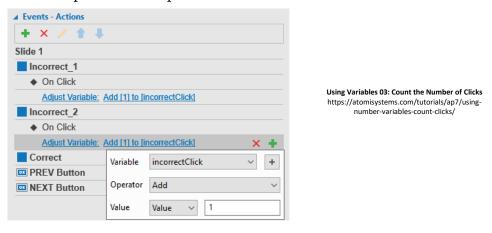
include-image-rollover-effect-emails



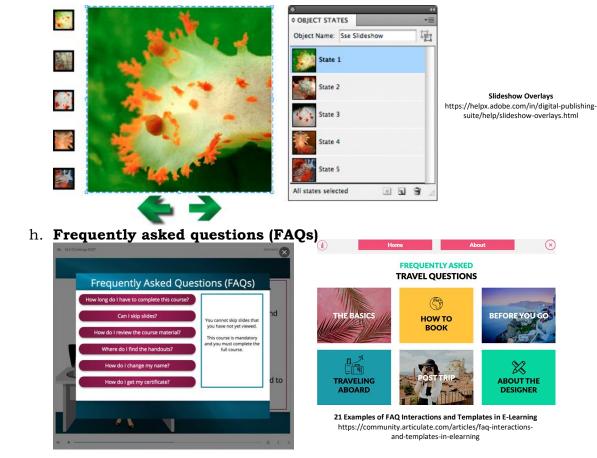
e. **Timeline** - a menu slide that branches to different events.



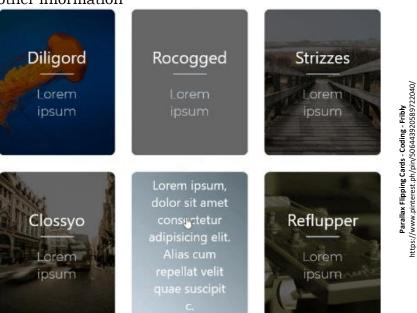
f. **Numbers/processes** - the number of clicks and the time spent in an interactive function provide data points.



g. **Slideshow** - non-linear interactive slideshow where the pathway through the show is determined by the user's interaction with it.



i. **Flip cards** - a card that when clicked flips to display a description and other information



### Emerging interactive media:

a. **Interactive television** - also known as ITV or iTVA form of media convergence, adding data services to traditional television technology. Throughout its history, these have included on-demand delivery of content, as well as new uses such as online shopping, banking, and so

forth. ITV enables the viewer to issue commands and give feedback information through an electronic device called a setup box. The viewer can select which program or movie to watch, at what time, and can place orders in response to commercials. New setup boxes also allow access to email and e-commerce applications via internet.

- b. **Allow viewers to participate in games shows** viewers compete with onscreen contestants
- c. Select alternate endings to their favorite program.
- d. Encourage children to interact with educational programs.



### What's More

**Activity 3. Explore around!** Understand the use of manipulatives or interactive media, and gain comprehensive knowledge on how to effectively ulilize and evaluate them by performing these four activities using internet connectivity. Follow the template below each item.

### 1.) Social Media:

a) Name at least 5 actions that give social media its interactivity. You've used

Facebook for years, explore **Instagram**!

https://www.instagram.com

- b) Interact with your classmates or family relatives' Instagram account by doing the 5 actions you have listed.
- c) Write a brief evaluation of the social media you used, focusing on the following:
  - i. Social media as a means of communicating to people
  - ii. Interactivity of social media
  - iii. Social media as a way of posting of news
  - iv. Other features you would like incorporated, or how it could be improved



### Instagram

### **ACTIVITY TEMPLATE**

SOCIAL MEDIA USED:	Instagram
	1.
FIVE ACTIONS THAT	2.
GIVE SOCIAL MEDIA	3.
ITS INTERACTIVITY:	4.
	5.

	1.
EVALUATION	2
ACCORDING TO	2.
FOUR FACTORS:	J.
	4.

### 2. Online Diagnostic Exam:

a) Search for the words "online psychological test" on the Internet. There are numerous tests on the internet. Try to open **16 Personalities.** 



### https://www.16personalities.com/

- b) Take the test and submit your results either through Messenger or printout.
- c) Write a brief evaluation or assessment on the diagnostic exam taken, focusing on the following:
  - i. The practicality of an online diagnostic exam
  - ii. Interactivity of an online exam
  - iii. Other features you would like incorporated, or how it could be improved



### **ACTIVITY TEMPLATE**

ONLINE TEST USED:	16 Personalities
MY PERSONALITY	()
TYPE IS:	
MY MIND IS:	% EXTRAVERTED,% INTROVERTED
MY ENERGY IS:	% INUITIVE,% OBSERVANT
MY DECIDING NATURE IS:	% THINKING,% FEELING
MY TACTICS ARE:	% JUDGING,% PROSPECTING
MY IDENTITY IS:	% ASSERTIVE,% TURBULENT
<b>EVALUATION</b>	1.
ACCORDING TO	2.
THREE FACTORS:	3.

### 3. Online Game:

- a) Search for an online game, better yet, explore a website with many gaming options! Open Friv (<a href="https://www.friv.com">https://www.friv.com</a>) and choose a game that you like. Read the description and detailed specifications of your chosen game.
- b) List all the interactive actions that are available for game.
- c) Write a brief evaluation or assessment on the online game played, focusing on the following:
  - i. The enjoyment or entertainment from a game online
  - ii. Interactivity of an online game
  - iii. Other features you would like incorporated, or how it could be improved

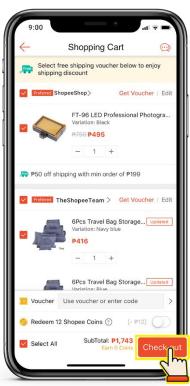


### **ACTIVITY TEMPLATE**

	MOTIVITI I DMI DILLD
FRIV GAME USED:	
GAME INSTRUCTION:	
INTERACTIVE ACTIONS AVAILABLE FOR THE GAME:	1. 2. 3. 4. 5.
EVALUATION ACCORDING TO THREE FACTORS:	1. 2. 3.

### 4. Online Shopping:

- a) Go to an online shopping site. Open **Shopee** on mobile app or by its website (<a href="https://shopee.ph/">https://shopee.ph/</a>).
- b) Search for an item to purchase.
- c) Open the store's page or account and try to add a few more items from the same store.
- d) Determine the total price of all items to be purchased.
- e) Try to check if there are vouchers applicable.
- f) Take a screenshot of the list of items and their price.
- g) Submit a screenshot through Messenger or printout.
- h) Write a brief evaluation or assessment on the online shopping experience, focusing on the following:
  - As a means of communicating to people, especially product inquiries and order concerns to sellers from around the country
  - ii. Interactivity of online shopping
  - iii. Other features you would like incorporated, or how it could be improved





ONLINE SHOPPING PLATFORM USED:	Shopee	
PRODUCT SEARCHED:		
SELLER/STORE NAME:		
TOTAL PRICE OF		
ITEMS (FROM THE		
SAME STORE):		
VOUCHERS		
AVAILABLE:		
EVALUATION	1.	
ACCORDING TO THREE	2.	
FACTORS:	3.	

Rubrics for Instagram, 16 Personalities, Friv, and Shopee Activity

Criteria	Excellent (4pts)	Merit (3pts)	Achieved (2pts)	Needs Improvement (1pt)
1. ACCURACY OF INFORMATION	All information are accurate and well supported	Most information is accurate	Information has some vague points	A good amount of the information is inaccurate
2. ORGANIZATION	Information is clearly ordered in such a way that it brings a full picture of the material	Information are clearly presented and ordered	Order of information does not clearly show cohesiveness	Information is unclear and written in random order
3. SPELLING/ GRAMMAR	All are correct	Very few grammar errors	Some errors	Notable errors
4. ORDER OF OUTPUT	Work is in order as instructed	Most work is in order as instructed	Some slides are in order as instructed	Slides are not in order
5. EVALUATION	Evaluation is sincere and easy to follow. Student shows interest in his work	Explains evaluation with minimal errors. Student shows interest in his work	Evaluation is generally easy to follow. Student shows a little interest in his work	Unable to relay information well. Evaluation is hard to follow. Student shows no interest in his work



### Manipulatives media:

- can be both traditional and digital.
- can be physical objects or computer programs which learners can manipulate in order to grasp an idea.
- are simply items or tools used to aid in hands-on learning.
- are models in which learners can manipulate to gain understanding and/or mastery of a concept.
- are tools to assist students to advance from concrete novice knowledge to a more expert understanding of abstract ideas through visual and kinesthetic senses.
- are vital tools in the classroom since it involves people in learning, this stimulates a lot of senses and this produces better learning retention.

### Interactive media:

- is a method of communication in which the program's outputs depend on the user's inputs, and the user's inputs, in turn, affect the program's outputs.
- refers to the different ways in which people process and share information, or how they communicate with one another.
- allows people to connect with others—whether that's people or organizations—making them active participants in the media they consume.
- is meant to enhance a user's experience. In order to do so, an interactive medium will require one more of the following elements:

✓ Moving images and graphics

✓ Video

✓ Animation

✓ Audio

- ✓ Digital Text
- has a very important role in today's world. Not only does it make people
  more active, but also it gives them the power to communicate with others
  (people, companies, organizations) with whom they would normally have no
  contact. It also allows the free-flow and exchange of ideas and information.



### What I Can Do

### Activity 4. Complete Me: Complete the worksheet. The first one is done for you.

Interactive Media Platform	Example	Non-interactive Action	Interactive Action
Mobile apps	Candy Crush	Looking at the highest score	Asking others to send you life
3D TV			
Video games			
Web design and			
productions			
Virtual reality and			
immersive			
environment			
Social media			
Multi-player online			
game			

(	
1	$\prec \rangle$

### **Assessment**

<b>A. Multiple Choice:</b> Read the following state	ments and choose the best answer.
	specifically for use on small, wireless artphones and tablets, rather than desktop
A. Mobile Apps	C. Video Games
B. 3D TV	D. Role playing Games
2. A game played by electronically man program on a television screen or A. Mobile Apps B. 3D TV	ripulating images produced by a computer other display screen.  C. Video Games  D. Role playing Games
· · ·	e in which a player, taking on the persona sy world, interacts with a large number of
A. Mobile Apps	C. MMORPG
B. 3D TV	D. Role playing Games
1 0 00	enables a three-dimensional effect, so that depth as well as height and width, similar

A. Mobile Apps	C. MMORPG
B. 3D TV	D. Role playing Games
5. A Websites or online services where	users (actual people) are the creators and
	re social interactions (commenting, liking,
A. Social media	C. MMORPG
B. 3D TV	D. Role playing Games
6. Interact with content; interact with i	nstructors: interact with classmates.
A. Online Shopping	B. Online gaming
C. Online classes	D. Chat
or original crasses	2. Glac
	play a description and other information.
A. Online Shopping	B. Online gaming
C. Online classes	D. Flip cards
8 Compare prices: compare features	s of similar items; add to cart; choose
payment type; track delivery; get ac	lvice from experts; search products; check
local availability; get product recon	
A. Online Shopping	C. Online classes
B. Online gaming	D. Flip cards
9. A menu slide that branches to differe	ent events.
A. Online Shopping	C. Timeline
B. Online gaming	D. Flip cards
	r
10. A special region to act as a trigger to	
A. Online Shopping	C. Timeline
B. Hotspot	D. Flip cards



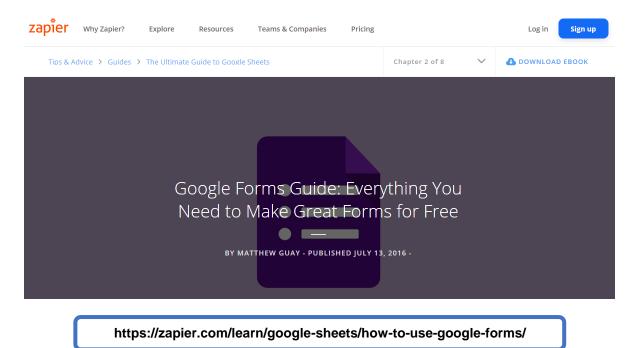
### **Additional Activities**

**Activity 5. Making an Online Form:** Think of a topic for survey research (or your own topic in your Practical Research subject) wherein the respondents will be your classmates. To prepare for the online form, pick five questions to use for the survey and fill in the table below.

Components	Guide Questions	Answers		
Target Audience	Who are the respondents?			
Sender/Author	Who is the researcher?			
Key Content	What are the survey questions?			
Purpose	What is the research problem?			

Form/Style	What are considered in designing the electronic form? What is the software used for creating the electronic form?	
Medium/Format	How would you implement the electronic form?	

Use the link below for your guide on how to create a google forms.



You can use Google Forms to create customer feedback surveys, job applications, RSVP forms, quizzes, order forms, time off requests, and more. Additionally, you can use Google Forms to collect contact information and integrate it with a Google Sheet.

Using Google Forms, create an online questionnaire that can then be filled up by your classmates and other Grade 12 students (depending on your demographic). Try to change the theme of the form, and play around with the different tools of the platform. For checking, make sure to write the link of your Google Form in your answer sheet or forward it to your teacher's social media account. Below your accomplished table and Forms link, write a short reflection about the activity, and how it helped you become more *media-literate*.



**c. Disadvantages**: addictive; false sense of reality; promotes isolation; demand sophisticated equipment which could be expensive; unproductive use of time

thinking

**b. Advantages:** play against computer; play with others; choose level; educational; entertaining; improve eyehand coordination; promote quick

a. **Interactivity of online shopping:** Check specifications; compare prices; compare features of similar items; add to cart; choose payment type; track delivery; get advice from experts;

Sample Answers:

Activity 2

10.B 3. C 4. B 6. C 7. D 8. A 6. C 7. D 8. A 9. C

Assessment

### References

- Investopedia, Interactive Media. Retrieved from http://www.investopedia.com/terms/i/interactive-media.asp
- Johnson, Marc. Elements of Good Interactive Media Design. Retrieved from http://www.columbia.edu/itc/visualarts/r4110/f2000/week07/07\_01\_Elements\_of\_Good\_Desi.pdf
- Marketing Intercative, Top Ten Most Popular Actions on Facebook. Retrieved from http://www.marketing-interactive.com
- Rogge & Pott (2009) The Basics of Motion Media. Retrieved from https://vimeo.com/7440725 on 09/01/2015
- Technopedia, Definition: Interactivity. Retrieved from https://www.techopedia.com/definition/14429/interactivity
- Sperka, Martin and Stolar, Anton.Graphic Design in the Age of Interactive Media.
   Retrieved from http://newmedia.yeditepe.edu.tr/pdfs/isimd\_05/16.pdf

### 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