

# LEARNING STRAND 6 DIGITAL CITIZENSHIP

## SESSION GUIDES FOR MODULE 3: DIGITAL APPLICATIONS – SPREADSHEETS

ALS Accreditation and Equivalency Program: Junior High School





# SESSION GUIDES

---

Alternative Learning System - Accreditation and Equivalency (ALS-A&E)

**JUNIOR HIGH SCHOOL: DIGITAL CITIZENSHIP**  
SESSION GUIDES FOR MODULE 3 (DIGITAL APPLICATIONS – SPREADSHEETS)

**ALS Accreditation and Equivalency Program: Junior High School**  
**Learning Strand 6: Digital Citizenship**  
**Session Guides for Module 3 (Digital Applications – Spreadsheets)**

Published in 2020 by the United Nations Educational, Scientific and Cultural Organization  
UNESCO Office, Jakarta  
Jalan Galuh II No. 5, Kebayoran Baru, Jakarta, Indonesia

*and*

Department of Education  
DepEd Complex, Meralco Avenue, Pasig City, Philippines

Copyright © UNESCO and DepEd 2020

This publication is available in Open Access under the Attribution-Share Alike 3.0 IGO (CC-BY-SA) 3.0 IGO license (<http://creativecommons.org/licenses/by-sa/3.0/igo/>). By using the content of this publication, the users accept to be bound by the terms of use of the UNESCO Open Access Repository (<http://www.unesco.org/open-access/terms-use-ccbysa-en>).

The designations employed and the presentation of material throughout this publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The selection and presentation of the material contained in this publication, as well as the opinions expressed herein are the sole responsibility of the authors and not necessarily those of UNESCO, nor do they commit the organization in any way.

This educational resource material was developed and printed through the project “Better Life for Out-of-School Girls to Fight Against Poverty and Injustice in the Philippines” with financial support from Korea International Cooperation Agency (KOICA).

Printed by APC Printers Corporation  
Printed in Makati City, Philippines

ISBN 888-888-8888-88-8

## DEVELOPMENT TEAM



Jenelyn Marasigan Baylon	Master Teacher I, ALS Task Force (On-detail)
Kristine Lee S. Lumanog	Education Program Specialist II, ALS Task Force (On-detail)
Judy R. Mendoza	Project Development Officer III, Bureau of Learning Resources
Reyangie V. Sandoval	Education Program Specialist II, Bureau of Learning Resources
Josephine C. Intino	Senior Education Program Specialist, Bureau of Curriculum Development
Eric U. Labre	Senior Education Program Specialist, Bureau of Learning Resources
Roderick P. Corpuz	Supervising Education Program Specialist, ALS Task Force
Daisy Asuncion O. Santos	Chief Education Program Specialist, Bureau of Learning Resources
Marilette R. Almayda	Director III/Head, ALS Task Force
Ariz Delson Acay D. Cawilan	Officer-In-Charge, Office of the Director IV, Bureau of Learning Resources
G. H. S. Ambat	Assistant Secretary for Alternative Learning System Program and Task Force
Tonisito M. C. Umali	Undersecretary for Legislative Liaison Office, External Partnership Service and Project Management Service
Leonor Magtolis Briones	Secretary



Heiden Chan	Author
Adelina Calub	Content Expert
Bernadette Sison	Admin and Finance Staff
Mildred Parbo	Project Lead
Ma. Teresita Medado	President

### Content and Language Evaluators and Instructional Design Reviewer

Edward C. Jimenez	Schools Division Office of Meycauayan City, Department of Education
Melvin Lazaro	Regional Office III – Central Luzon, Department of Education
Ma. Jessamine Anne R. Verzosa	Freelance Language Editor



United Nations  
Educational, Scientific and  
Cultural Organization

Ade Sandra	Admin and Finance Assistant
Rusyda Djamhur	Project Assistant
Marmon Abutas Pagunsan	National Project Consultant
Remegio Alquitran	National Project Officer
Maria Karisma Bea Agarao	National Programme Coordinator
Mee Young Choi	Head of Education Unit
Shahbaz Khan	Director and Representative

# User's Guide

*For the ALS Teacher/Instructional Managers/Learning Facilitator:*

Welcome to the session guide of this module entitled Digital Applications – Spreadsheets under Learning Strand 6 Digital Citizenship of the ALS K to 12 Basic Education Curriculum (BEC).

The module and the session guides were collaboratively designed, developed, and reviewed by select DepEd field officials and teachers from formal school and ALS, and private institutions to assist in helping the ALS learners meet the standards set by the ALS K to 12 Basic Education Curriculum (BEC) while overcoming their personal, social, and economic constraints in attending ALS learning interventions.

This learning resource hopes to engage the learners in 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.

As an ALS Teacher/Instructional Manager/Learning 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 learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.







## **DIGITAL APPLICATIONS: SPREADSHEETS Module 3 Session Guide**

We deal with numbers every day. For example, we budget our money for our food, fare, clothing, and other expenses.

Calculating numbers is a skill we can easily do and apply in our daily lives, but what if you need to calculate larger numbers and bigger sums such as in banks, department stores, supermarkets, grades, or payrolls? This is where spreadsheet programs take part, as it helps in computing and organizing data.

This module will walk you through how to use spreadsheets to help you get familiar with it. The following are the three lessons in this module:

**Lesson 1** – Understanding Spreadsheets

**Lesson 2** – Using Formulas and Formatting Cells

**Lesson 3** – Inserting Charts and Finalizing Spreadsheets

### **Introductory Activity** (optional)

1. Welcome the learners to Module 3, and discuss the lessons covered, the key concepts, and the learning objectives.
2. Let the learners answer the pre-assessment activity for Module 3 to test their prior knowledge about spreadsheets.
3. Tell the learners that the module will help them understand and learn skills on using spreadsheets.

### UNDERSTANDING SPREADSHEETS Session Guide No. 1

#### I. Key Understandings to Be Developed

- A spreadsheet or worksheet is an arrangement of cells in columns and rows used to organize, analyze, calculate and report information, usually in numerical form.
- Spreadsheet programs can calculate values using mathematical formulas and the data in cells.

#### II. Learning Objectives

1. Use the spreadsheet application to generate different documents.
2. Create a new spreadsheet based on the different available templates.
3. Demonstrate how to save a spreadsheet under another name, as another file type, and to a location in a drive.
4. Distinguish the different uses of zoom tools.
5. Determine the use of the different toolbars.
6. Demonstrate understanding of using cells in a spreadsheet.
7. Apply the process of modifying rows and columns.
8. Customize worksheets.

#### III. Resources

- Module 3
- Slideshow presentation
- Computer unit for demonstration

#### IV. Activity

To become familiar with cell references, let the learners answer the activity in *Trying This Out*.

#### V. Analysis

1. Process the learners after the activity; ask the following questions:
  - What are your thoughts about the activity?
  - Have you ever used a spreadsheet application?

2. Have the learners understand what spreadsheet is and its uses.
3. Using a computer unit, let the learners become more familiar with the spreadsheet program.
4. Demonstrate creating a new spreadsheet based on the available templates and saving workbooks in different ways.
5. Continue to assist learners to familiarize with the different tools of spreadsheet.
6. Show learners how spreadsheet cells work.
7. Continue to demonstrate the following:
  - Using the AutoFill tool
  - Selecting rows and columns
  - Adjusting row heights and column widths
  - Inserting and deleting rows and columns
  - Freezing and unfreezing panes
  - Customizing worksheets

### **VI. Generalization**

Highlight that spreadsheet programs such as MS Excel have features that will help them create spreadsheets easily and efficiently.

### **VII. Application**

Let the learners answer the activity in *Sharpening Your Skills* by identifying the parts of MS Excel.

### **VIII. Concluding Activity**

1. Ask the learners to answer the activity in *Treading the Road to Mastery*.
2. End the session by reviewing key understandings.

### **USING FORMULAS AND FORMATTING CELLS** **Session Guide No. 2**

#### **I. Key Understandings to Be Developed**

- Formulas in a spreadsheet are an expression that operates or calculates the values in a range of cells, while functions are predefined formulas that are already available in MS Excel.

#### **II. Learning Objectives**

1. Employ good practices in using arithmetic formulas and functions in spreadsheets.
2. Create formulas using cell references and arithmetic operators.
3. Identify errors in a formula.
4. Use relative and absolute cell referencing in formulas.
5. Employ spreadsheet functions.
6. Use logical functions.

#### **III. Resources**

- Module 3
- Slideshow presentation
- Computer unit for demonstration

#### **IV. Activity**

1. Review the previous lesson about the basics of a spreadsheet.
2. Let the learners answer an exercise about identifying mathematical and logical operators in *Trying This Out* as an introduction for Lesson 2.

#### **V. Analysis**

1. Process the activity, which leads to understanding the formulas in a spreadsheet.
2. Demonstrate how to enter a formula in a spreadsheet:
  - Identifying error values in formulas
  - Applying relative and absolute cell referencing

3. Continue to show how to use the following functions on spreadsheet:
  - SUM
  - AVERAGE
  - COUNT
  - MAX
  - MIN
  - IF
4. Demonstrate how to format numerical data, cell appearance, cell alignments, and cell borders.

### **VI. Generalization**

Summarize the lesson and remind the learners they can improve their spreadsheets that create finance applications, keep tabular records, calculate numbers, and many more by using formulas and formatting cells.

### **VII. Application**

Let the learners answer the activity in *Sharpening Your Skills* by determining the formula needed in the given situations.

### **VIII. Concluding Activity**

1. Ask the learners to acquire computer units to do the hands-on exercise in *Treading the Road to Mastery* using MS Excel.
2. End the session by reviewing key understandings.

# INSERTING CHARTS AND FINALIZING SPREADSHEETS

## Session Guide No. 3

### I. Key Understandings to Be Developed

- Charts allow to illustrate workbook data graphically, which makes it easy to visualize comparisons and interpret results.

### II. Learning Objectives

1. Create different types of charts in a spreadsheet.
2. Edit charts in a spreadsheet.
3. Demonstrate the preparation of outputs in a spreadsheet.

### III. Resources

- Module 3
- Slideshow presentation
- Computer unit for demonstration

### IV. Activity

1. Review the previous lesson on creating formulas and formatting cells.
2. Introduce Lesson 3 using the activity in *Trying This Out*. Students will need to answer questions based on the given pie chart.

### V. Analysis

1. Group the learners into five to discuss among themselves their thoughts on the activity.
2. With the activity, discuss the different charts used in a spreadsheet.
3. Demonstrate how to create a chart with basic information.
4. Demonstrate how to format a chart and finalize spreadsheets before printing.

### VI. Generalization

1. Stress that charts are used to visually present and interpret data. They may encounter charts in other office productivity tools, and the same procedure in creating charts can still be applied.

2. Remind learners that previewing their output in spreadsheets first is important to avoid errors and waste of papers when printing.

### **VII. Application**

Let the learners answer the activity in *Sharpening Your Skills* by comparing the types of charts using a Venn diagram.

### **VIII. Concluding Activity**

1. Let the learners do the hands-on exercise in *Treading the Road to Mastery*.
2. End the session by reviewing key understandings.
3. Ask the learners to answer the questions in *Reach the Top*.





*The development and printing of this teaching resource was made possible with the cooperation of Asia Pacific College. This is a component of the project “Better Life for Out-of-School Girls to Fight Against Poverty and Injustice in the Philippines” implemented by UNESCO Office, Jakarta in partnership with the Department of Education. This initiative received a generous financial support from Korea International Cooperation Agency (KOICA).*

For inquiries, please contact:

**Department of Education, Bureau of Learning Resources (DepEd BLR)**

Office Address : Ground Floor, Bonifacio Building, DepEd Complex,  
Meralco Avenue, Pasig City, Philippines 1600  
Telefax : +63-2-8631-1072; +63-2-8634-1054; +63-2-8631-4985  
Email Address : [blr.qad@deped.gov.ph](mailto:blr.qad@deped.gov.ph); [blr.lrp@deped.gov.ph](mailto:blr.lrp@deped.gov.ph)