

Prerequisite Knowledge and Tool for Assessing Students' Readiness for Online Learning



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Objectives



After the Presentation, participants will be able to:

- ❖ State some related facts about online learning;
- ❖ Classify areas of prerequisite skill needs for online learning;
- ❖ List some critical skills required of learner before engaging of online learning;
- ❖ Review the tool for accessing prerequisite online learning skills.

WHAT IS PREREQUISITE KNOWLEDGE AND/OR SKILLS?



Prerequisite knowledge and/or is the foundation upon which new knowledge is built and scaffolded.

Some Known Facts About Online Learning



- There is no one-size-fit-all learning environment (Paquette, Mariño, Rogozan, & Léonard, (2015, p. 1).
- Online courses are best for students who are strong self-learners (Case, & Davidson (2011, p. 48).
- Of the large numbers of students who register for online courses, many end up withdrawing (Stanford-Bowers, 2008, 1).
- Technology awareness and motivation are prerequisite for successful e-learning (online) implementation (Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, (2012, p, 843).
- In online learning, individual manage time, set own goals, finds resources, and try out new tools (Kop, 2011).

Two Major Traditions with Online Learning



- Connection with people
 - Communication and interaction between people (instructor and learners; learners and learners) at the heart of learning.
 - What are the associated skills?
 - Connection and engagement with resources
 - Interaction and engagement with online learning resources
 - What are the associated skills?

(Kop, 2011).

Consider this



United States in the year 2012, 2013, and 2014, the students' enrollment in online course was 2,633,515, 2,701,684, and 2,858,792 respectively (Allen and Seaman, 2016).

The increase in enrolment can lead an instructor to assume that a new class is an extension of the previous class, thereby, assuming that every student has the prerequisite knowledge

Enrollment – convenience **VERSUS** good fit

Related Studies



Menchaca, & Bekele, (2008). Learner and instructor identified success factors in distance education.

- Hung, M. L., Chou, C., Chen, C. H., & Own, Z. Y. (2010). Learner readiness for online learning: Scale development and student perceptions. Focused on Computer/Internet self-efficacy , Self-directed learning, Learner control , Motivation for learning , and Online communication self-efficacy

Gladhart, M. A. (2010). Determining faculty needs for delivering accessible electronically delivered instruction in higher education.

CHARACTERISTICS OF SUCCESSFUL DISTANCE EDUCATION LEARNERS



- Open minded about sharing life, works, and educational experience as part of the learning,
- Able to communicate through writing, self-motivated and self-disciplined,
- Willing to “speak up” if problems arise,
- Able and willing to commit four to fifteen hours per week per course,
- Able to meet the minimum requirements for the program (that is, this is not an easier way to meet degree requirements)

Characteristics of Successful Distance Education Learner Contn'd



- Accept critical thinking and decision making as part of the learning process,
- Have access to a computer and a modem and minimal ability to use them.
- Able to think ideas through before responding.
- Feel that high-quality learning can take place without going to a traditional classroom.

(Pallof and Pratt (2007))

Critical Prerequisite Knowledge



Basic Computer Knowledge and Skills

❖ Hardware

- ❖ Power connection
- ❖ Power - on, off, restart, log-in, and log-off
- ❖ Keyboard - the use of most popular keys (Caps Lock, Shift, Backspace, Delete, and Enter)
- ❖ Mouse – the use of mouse buttons- Left/Right Clicks, and Scroll buttons



- **Software**

- Creating a Folder

- Creating word document file (formatting)

- Using Word Document Tools

- ✦ Save, Copy, Paste, Fonts, Align (left, center and right) Print, Undo, New, Paragraph, etc.

- Creating PDF File

Internet Associated Skills



- Connecting/disconnecting device from the internet
- **Browsers**
 - **Internet Explorer:** <https://support.microsoft.com/en-us/help/17621/internet-explorer-downloads>
 - **Microsoft Edge:** <https://www.microsoft.com/en-us/download/details.aspx?id=48126>
 - **Google Chrome:** <https://www.google.com/chrome/>
 - **Safari:** <https://support.apple.com/downloads/safari-for-windows>
 - **Firefox:** <https://www.mozilla.org/en-US/firefox/new/>

Internet Associated Skills Contd



- Uniform Resource Locator (URL) and world wide web (www)
- Researching online using search engines (Google, Bing, Yahoo, AOL.com, Ask.com, etc)
- Allowing and disallowing pop up blocker
- Web link or address
- Downloading, updating, and installing software

Communication Skills



- **Email**
 - Creating, Sending, Receiving, and Replying
 - Uploading, Downloading, and Printing Attachments
- The use of text messages
- The use of video messaging Apps (Skype, WhatsApp, Duo, Face Time, etc)

Course Management System Tools



- The use of discussion board (creating and responding to postings)
- Using real-time chat rooms
- Accessing a link
- Knowledge of the automatic monitoring of the frequency of log-in

Course Management System Tools Contd



- Knowledge of the automatic monitoring of contributions to the discussion
- Knowledge of the automatic monitoring of visitation and time spent on the course website
- Due dates and deadlines are automatically monitored and enforced
- Online Testing

Technology Tools – downloadable programs

Roblyer & Doering, 2010; openoffice.org, 2018



Type of Program	Program name	Download Source
Openoffice	Tex Document, Spreadsheet, Presentation, Drawing, Database, and Formula	Openoffice https://openoffice.apache.org/downloads.html
PDF (Portable Document Format)	Adobe Reader	Adobe http://www.adobe.com/product/acrobat/readstep2.htm
Streaming video and audio players	RealPlayer (audio/video)	RealNoteworks http://www.real.com/
Movie Player	Quick Time movie player	Apple Computer http://www.apple.com/quicktime
Animation player	Flash animation player Adobe Flash	Adobe http://www.adobe.com/products/flashplayer

Image Downloading Tools



- EPS (encapsulated post script) – sharing artwork.
- TIF (tagged image file) – flexible format for image manipulation
- PDF (portable document format) – storing document pages as image.
- GIF (graphic interchange format) – used for drawing images, illustrations, clip art, or animations.
- JPEG (joint photographic experts group (jpg)) – used for sharing photographs

Other Tools



- Plug-in – special program required to play a movie or sound
- Java – used for special feature like chatroom
- Hypertext Markup Language (HTML) – most web sites are written in HTML format.
- Firewall software – prevents unauthorized access to computer and some WebPages

(Roblyer & Doering, 2010)

Tool for Accessing Learner's Readiness

(Five-points Likert Rating Scale)



The “ABCD” Online Learning Readiness Rating Scale

The purpose of this rating scale is to assess your readiness for taking online course(s). It is specifically meant to provide you and instructor a feedback on where (if any) you may need a little or more help that will enable you to start off smoothly and get the best out of your online learning experience.

Below are items/concepts associated with traits and skills for taking online courses with corresponding ratings (1, 2, 3, 4, 5), “1” being the least and “5” being the highest. Rate your level of understanding, familiarity, and/or comfortability with the traits and/or skills associated with the concepts.

Section 'A' – Bio-Data



What is your academic level?

(1) Freshman (2) Sophomore (3) Junior (4) Senior

How many times have you taken online class?

(0), (1), (2), (3), (4+)

Section 'B' – Rating Items



SN	Items	1	2	3	4	5
	Initiating and completing a task without guidance					
	Planning and sticking to schedules					
	Free to share life and educational experiences					
	Reading and writing for reasonable amount of time without distraction					
	Feeling that high-quality of learning can take place online					
	Thinking ideas through before responding					
	Accept critical thinking and decision making as part of the learning process					
	Able and willing to commit four to fifteen hours per week per course					
	Willing to “speak up” if problems arise					
	Self- motivated and disciplined					
	<i>Computer hard and software</i>					
	Computer power (on, off, restart, and log off)					
	Keyboard and mouse					
	Creating files and folders and saving a word document					
	Using word document tools (e.g. copy, paste, insert, etc.)					
	Document formatting					
	Creating PDF file					

Rating Items Contnd

SN	Items	1	2	3	4	5
	<i>Connecting and using the internet</i>					
	Connecting and disconnecting devices from the internet and troubleshooting connectivity					
	The use and kinds of browsers (e.g. Google Chrome, Internet Explorer, Microsoft Edge, Safari, Firefox, etc.)					
	Uniform Resource Locator (URL) and world wide web (www)					
	Researching online using search engines (Google, Bing, Yahoo, AOL.com, Ask.com, etc)					
	Allowing and disallowing pop up blocker					
	Web link or address					
	Downloading, updating, and installing software					
	<i>Communication</i>					
	Using online communication tools (e.g. creating, sending, receiving, replying email; uploading, downloading, and printing attachment)					
	<i>Course System Management</i>					
	The use of discussion board (creating and responding to postings)					
	Using real-time chat rooms					
	Accessing a link					
	Knowledge of the automatic monitoring of the frequency of login					
	Knowledge of the automatic monitoring of contributions to the discussion					
	Knowledge of the automatic monitoring of visitation and time spent on the course website					
	Due dates and deadlines are automatically monitored and enforced					
	Online Testing					
	<i>Online learning terminologies</i>					
	Synchronous (real time)					
	Asynchronous (delayed time)					

Data Analysis



- ❑ Section 'A' (Bio Data) will be analyzed using 'frequency count' and 'percentage'.
- ❑ Section 'B' will be analyzed using 'mean'.

Decision Making



To make decision on the items, the real limit of number as shown below will be used to interpreted the mean response to each item. The responses with the mean 3.00 and above are considered the areas learners have prerequisite knowledge and/or skills

SN	Numerical Values	Real Limit
1	5	4.50 – 5.00
2	4	3.50 – 4.49
3	3	2.50 – 3.49
4	2	1.50 – 2.49
5	1	0.50 – 1.49

CONCLUSION



Possessing online prerequisite knowledge and/or skills prior to engaging on online learning is very crucial as a first false step can lead to frustration and enduring dislike of the process.

Questions, Answers, and Suggestions



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