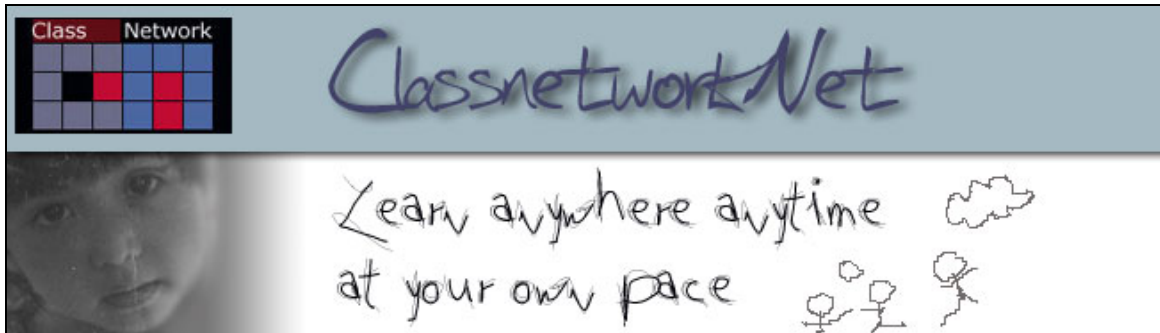


# Welcome to



## Teachers' Manual

by:

**Zahari Hamidon**

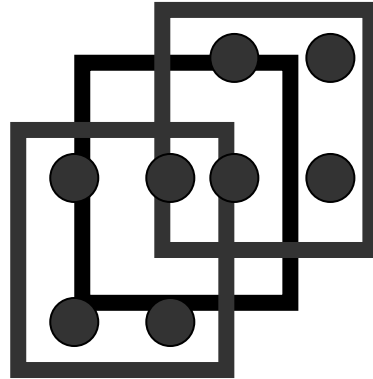
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## MODULES

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### **OBJECTIVE**

This manual will demonstrate how to use learning objects available online and how to compile LOs into a complete learning package for teaching and learning purposes.

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### Notes:

The content in Classnetwork is structured based on the SCORM sequencing techniques. The purpose of this manual is to provide you tips on how to handle learning objects effectively. Since most of the content in Classnetwork is link to relevant learning objects, we hope this manual will be able to assist you in delivering the content to your students.

## **MODULE 1 – SEARCHING AND RETRIEVING LOs**

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### **Introduction to Learning Objects (LO)**

#### **What is an LO?**

An LO can be anything from a single piece of digital content to an entire course (Learning Objects Group, 2003)

#### **What is an asset?**

Asset is a defined fragment within Learning Object. It is a smallest piece of instruction or information that makes sense on its own (iLearn, 2006)

#### **Searching and Retrieving.**

Where can you find the LOs?

Guidelines:

1. Solve the copyright problem (Don't copy outright/plagiarise)
2. Make sure your learning object is self-contained and can stand on its own

Search for LOs at:

Search for appropriate LOs:

[http://www.uwm.edu/Dept/CIE/AOP/LO\\_collections.html](http://www.uwm.edu/Dept/CIE/AOP/LO_collections.html)

or

Choose the appropriate Content Repositories:

<http://ilearn.senecac.on.ca/lop/repositories/repositories.htm>

or

Use the Content Repository below:

<http://www.teachersdomain.org/>

Register at Teachers' Domain

## 1. Sign up at Teachers' Domain

Please sign in:

Sign-in Name:

Password:

[Forgot Your Password?](#)

Not yet registered? [Why should I register?](#)

Registration is simple, safe, and free!

or

## 2. After successful sign up, Login and browse for LOs.

**teachers'domain** Multimedia Resources for the Classroom and Professional Development

Search

User: zahari hamidon of Universiti Brunei Darussalam [Help](#) | [Sign out](#)

[My Folders](#) [My Groups](#) [My Courses](#) [My Profile](#) Show me grades: **K-12**

[Resource Collections](#) [Professional Development Courses](#)

Welcome zahari hamidon!  
*Teachers' Domain is New and Improved!*

- faster to navigate, easier to read, improved search performance
- add your own URLs to folders

More Improvements Coming Soon...

- open content, available for download and remix
- improved accessibility, including audio descriptions for images and videos

**Science K-12** NSDL

- ▶ [Earth and Space Science](#) (248 resources)
- ▶ [Engineering](#) (173)
- ▶ [Life Science](#) (309)
- ▶ [Physical Science](#) (287)

**Special Collections**

- [Civil Rights](#) - captures the voices, events, and images of the Civil Rights movement.

**Resource Highlight**

[Deep Time](#)  
Type: **Flash Interactive**

Watch this video to see Teachers' Domain in action in real classrooms!

3. List of LOs found under the resources page



4. Make a list of LOs. Feel free to make use of the form below.

LOs Inventory

Code	Target Audience	Level	Subject	Topics	Name of LOs	Asset
Description						
Type your own code	Eg. Primary	4	Science	Living Things	Food Chain	Task Sheet (PDF)
Eg						
SC1	Pri	4	SC	LivingThings	FoodChain	TS (PDF)

Each LO should be named as per the following format:

**SC1-Pri-4-SC-LivingThings-FoodChain-TS (PDF)**

## MODULE 2 - Evaluating the LOs.

Use the instrument below to evaluate the LOs:

USABILITY STUDY – SCORM COMPLIANT  
 KAJIAN KEBOLEHGUNAAN(USABILITY) KESERASIAN SCORM  
 Konsep SCORM (sumber: Carnegie Melon University, 2002:6)

Tick any check box based on the scale below:

- 1- Strongly Disagree  
*Sangat tdak bersetuju*
- 2- Disagree  
*Tidak berstuju*
- 3- Not Sure  
*Tidak pasti*
- 4- Agree  
*Bersetuju*
- 5- Strongly Agree  
*Sangat bersetuju*

Gunasemula (Reusable)	1	2	3	4	5
1. The content provided in the LOs can be used with other subjects (eg. Science topic can be used in geography lesson) <i>Kandungan dalam topik di laman ini sesuai digunakan dalam matapelajaran lain (contohnya: topik sains sesuai digunakan dalam matapelajaran goegrafi, bahasa melayu dan lain-lain)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Learning objectives provided in the Learning Objects can be adapted to other topics in other subjects <i>Objektif pembelajaran dalam topik di laman web ini boleh disesuaikan dengan topik dalam matapelajaran lain.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The content in LOs can be used in any learning situation (eg. Individualized or collaborative) <i>Kandungan dalam topik ini sesuai digunakan dalam pelbagai situasi pembelajaran (contohnya: pembelajaran sendiri atau kolaboratif)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The content in LOs can be used anyplace, anywhere (eg. At home, cybercafe, school) <i>Kandungan dalam topik ini sesuai digunakan dalam pelbagai situasi masa dan tempat (contohnya di sekolah, dirumah, di kafe siber)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Keupayaan Operasi (Interoperable)		1	2	3	4	5
5.	The formats of the content in the LOs are compatible with your system and can be used in most of the platform (Windows, Linux, Unix etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Format kandungan serasi dengan sistem anda dan boleh digunakan dalam semua landasan (Windows, Linux, Unix dan sebagainya)</i>					
6.	The LOs downloaded can be used by the system in my computer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Bahan-bahan yang dimuat turun (download) boleh digunakan dalam sistem komputer awda.</i>					
7.	The LOs in the page take a short time to download	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Bahan-bahan dilaman ini mengambil masa yang singkat untuk dimuat turun (download)</i>					
8.	The ease of which the LOs can run on your computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Kemudahan perisian dalam komputer anda boleh melaksanakan (run) bahan dengan berkesan.</i>					
Ketahanan (Durable)		1	2	3	4	5
9.	The content in LOs can be used in my upgraded system in terms of:					
	<i>Bahan-bahan dari kandungan boleh digunakan dalam sistem awda yang dipertingkatkan (upgrade) dari segi:</i>					
	a. Software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Perisian</i>					
	b. Hardware	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Perkakasan</i>					
10.	The content in the LOs can be used by my computer without changing its format.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Bahan-bahan dari kandungan dilaman web boleh digunakan oleh komputer saya dengan berkesan tanpa menukar formatnya.</i>					

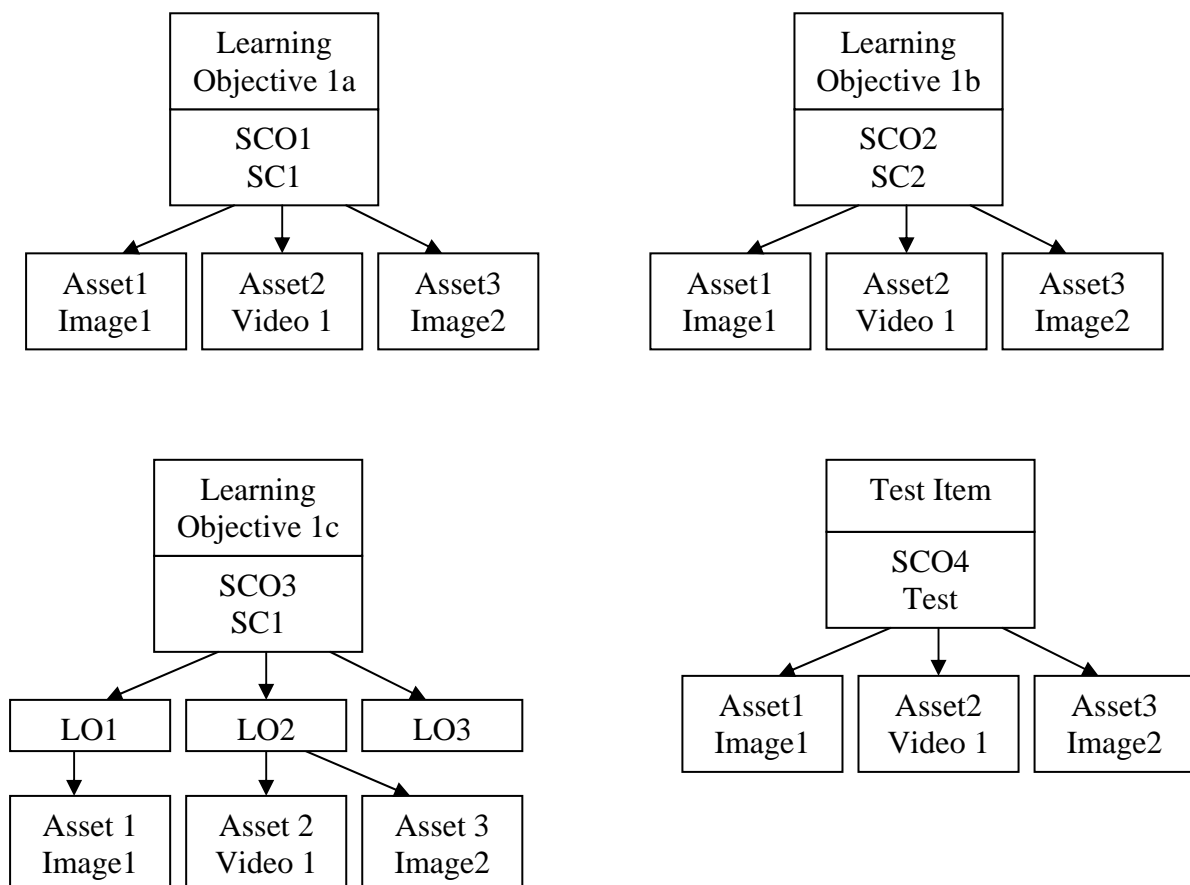
Mudah di akses (Accessible)	1	2	3	4	5
11 LOs provided in the web is easy to access <i>Bahan-bahan dilaman web ini mudah diakses</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 The instructional facilities below are easy to access and to retrieve  <i>Kemudahan pembelajaran seperti di bawah mudah diakses dan diperolehi:</i>					
a. Search facilities <i>Kemudahan carian</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Content Repository <i>Repositori kandungan (Librari kandungan)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Interaction (i.e. email) <i>Interaksi (seperti mel elektronik)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Online Discussion (such as web blog) <i>Perbincangan (seperti Web Blog)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Learning Management System <i>Sistem Pengurusan Pembelajaran (seperti ExamBuddy)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Download <i>Muat-turun (download)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 The access facilities meet our instructional needs  <i>Kemudahan akses bersesuai dengan keperluan latihan dalam organisasi awda (contohnya di sekolah, kolej dan universiti).</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## MODULE 3 – PACKAGING CONTENT (SCORM TECHNIQUE)

The first step in making a Learning Object is to bring together all the digital assets that will be required (iLearn, 2006)

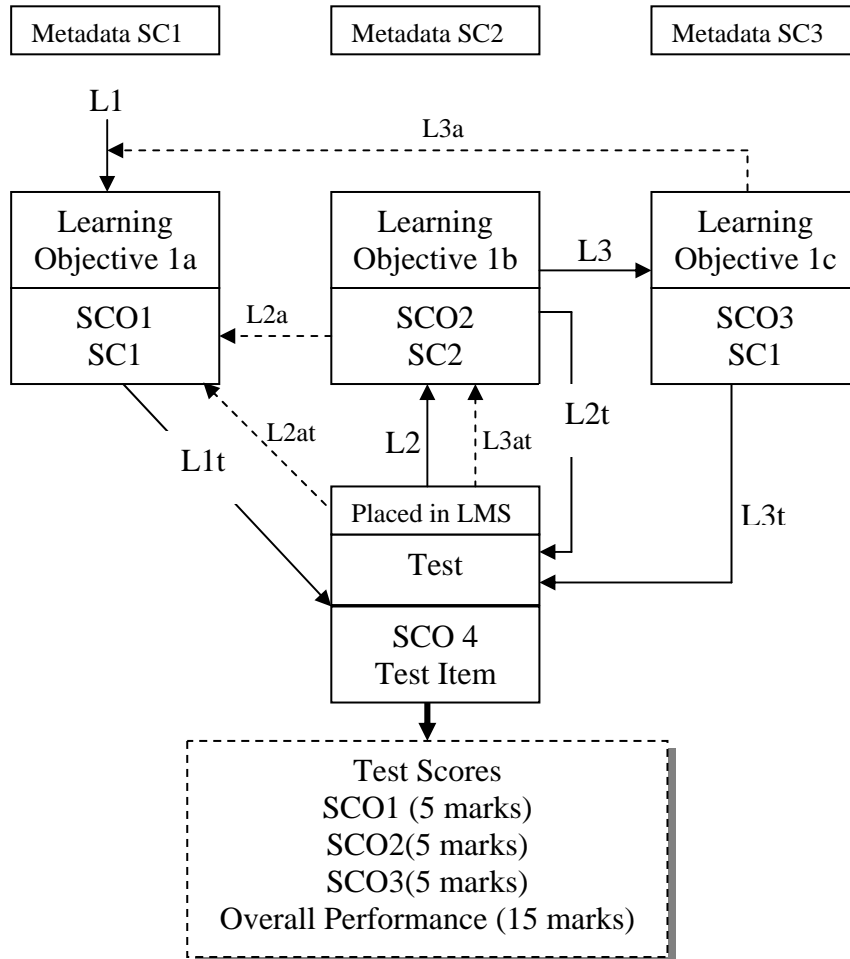
1. Organize your LOs.  
Things to consider
  - a. Your LOs found might be a small unit (single piece of digital content) OR
  - b. A large unit (a composite piece of digital content)
  - c. Is it a standalone digital content?
2. Refer to LOs Inventory Form (as provided in Module 1)
3. Select LOs that are relevant to your learning objectives.
4. Form the Sharable Content Objects (SCOs). The SCOs might contain more than one LO.

Example,



## Sequencing the SCOs

Example,



Notes:

L1 – Launch First SCO1

L1t- Launch 1 to Test

L2 – Launch Second SCO2

L2a- Launch SCO1 to be used in SCO2

L2at – Launch SCO1 to be used in Testing SCO2

L3 – Launch Third SCO3

L3a- Launch SCO1 to be used in SCO3

L2at – Launch SCO2 to be used in Testing SCO3

## MODULE 4 – TRYING OUT LOs

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### Trying out LOs.

- a. Plan your lesson  
Or adopt the ready made lesson plan
- b. Download a lesson plan at <http://www.lessonplanspage.com/>