

# **DIGITAL REPOSITORY FOR ENGLISH LANGUAGE TEACHING & LEARNING RESOURCES: A PANACEA IN THE TIME OF THE PANDEMIC**

*Development of a digital repository in SMK Canossian Convent, Kluang*

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# Introduction

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## COVID-19 pandemic

- Schools closed, lessons conducted online

**SMKCCK's English teachers use digital teaching and learning resources** from several platforms, websites, or portals eg.

- Johor English Digital Learning Resources
- British Council
- All Things Grammar
- YouTube

**Teachers store resources in their own computer/hard disk/pendrive for future use.**

- Locating and retrieving these stored resources can be **difficult and time consuming** as no standard metadata used
- Redundancy due to multiple storages
- Problem of accessibility

- Discussions were held with the school's Head of English Language Department and this led to a proposal for a **digital repository** to store these resources **systematically** in a specific location for **easy retrieval**.



# Aim & Objectives

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## TO DEVELOP A DIGITAL REPOSITORY PROTOTYPE FOR THE ENGLISH LANGUAGE TEACHING AND LEARNING RESOURCES IN SMKCK

1

To develop **structured metadata** in the digital repository prototype for the teaching and learning resources.

2

To develop a **digital repository prototype** for the teaching and learning resources using the **DSpace** system.

3

To evaluate the **level of satisfaction** among users of the digital repository prototype in SMKCK.

# Related Literature

## Digital Repository

- Digital repository helps to **classify, catalogue, store, preserve, disseminate, and provide access** to the knowledge assets or intellectual output of their organisations (Das and Chatterjee 2015; Murugan and Ravanan 2015)
- Digital repositories may be **proprietary or open-source** (Dhir and Dhir 2017)
- To function properly, repositories must be **sustainable, trusted, well-supported and well-managed** (Momin and Gaonkar 2016)

## DSpace

- DSpace is an **open-source repository software** that enables the sharing of digital contents (Asorey et al. 2015)
- It has the **largest** digital repository user community and developers worldwide (DuraSpace n.d.)
- Benefits of using DSpace: 1) **free** open-source software; 2) it can **manage and preserve** all types of digital content; 3) it is **customisable** (DuraSpace n.d.)

## ADDIE Model

- ADDIE model consists of five phases which are **analysis, design, development, implementation and evaluation** (Branson et al. 1975)
- It was originally **invented in 1975** to form an instructional systems development program for military training (Branson et al. 1975)
- This model became widely used as it is a **practical and simple** instructional design framework (Aldoobie 2015; Bamrara 2018; Hadi et al. 2017)

## Metadata

- Metadata refers to **data about data** (Baca 2016)
- It provides **background information** about the resource content, making it easier to **retrieve, use and manage** the resources (Mukhopadhyay 2015)
- There are three main types of metadata: **descriptive metadata, structural metadata and administrative metadata** (Prabhune et al. 2017)
- Various metadata standards are available such as **Dublin Core, MARC, TEI, METS and PREMIS** (Mukhopadhyay 2015)

# Methodology

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## ADDIE Model

### Analysis

- Conduct needs analysis questionnaire
- Collect teaching and learning resources
- Analyse the collected data

### Design

- Categorise collection of resources
- Create alphanumeric classification for the resources
- Rename resources with classification codes
- Create a metadata files using Microsoft Excel

### Development

- DSpace installation
- Set up the digital repository
- Upload metadata into the digital repository
- Authorisation
- DSpace customisation

### Implementation

- Introduce the digital repository prototype to the teachers
- Brief the teachers on how to use the digital repository
- Explain to teachers on preserving digital materials in the DSpace system

### Evaluation

- Distribute survey questionnaire to obtain user-feedback
- Analyse survey questionnaire responses

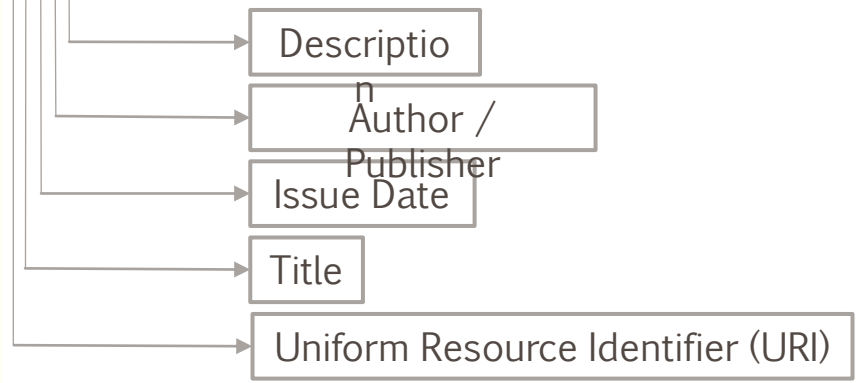
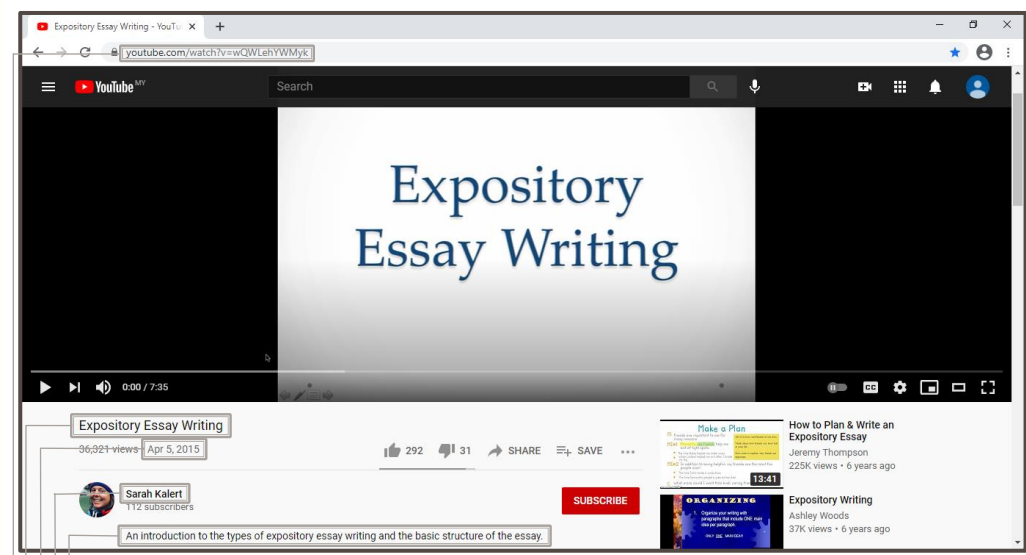
# Results

## From Unstructured Metadata to Structured Metadata

Unstructured Metadata



Structured Metadata



Home Browse Help Search DSpace Sign on

Digital Repository for the English Language Teaching and Learning Resources in SMK Canossian Convent Kluang / English Language Department SMKCC Kluang / Writing Genres

Please use this identifier to cite or link to this item: <http://localhost:8080/jspui/handle/123456789/93>

Full metadata record

DC Field	Value	Language
dc.contributor.author	Sarah Kalert	-
dc.date.accessioned	2020-12-28T13:59:58Z	-
dc.date.available	2020-12-28T13:59:58Z	-
dc.date.issued	2015-04-05	-
dc.identifier.uri	<a href="https://www.youtube.com/watch?v=wQWLehYWMyk">https://www.youtube.com/watch?v=wQWLehYWMyk</a>	-
dc.identifier.uri	<a href="http://localhost:8080/jspui/handle/123456789/93">http://localhost:8080/jspui/handle/123456789/93</a>	-
dc.description	An introduction to the types of expository essay writing and the basic structure of the essay.	en_US
dc.language.iso	en	en_US
dc.publisher	Sarah Kalert	en_US
dc.subject	Form 4	en_US
dc.subject	Form 5	en_US
dc.title	Form 4-5 Expository Essay Writing	en_US
dc.type	Learning Object	en_US
dc.type	Video	en_US

Appears in Collections: [Writing Genres](#)

Files in This Item:

File	Description	Size	Format
<a href="#">WGE F4-5 EXPOSITORY ESSAY WRITING.mp4</a>	Form 4-5 Expository Essay Writing (2015)	9.5 MB	MPEG <a href="#">View/Open</a>

Show simple item record

# Results

From Computer Folder System to Digital Repository System

Computer Folder System



Digital Repository System



FLA F1-3 COMPARATIVE ADJECTIVES GRAMMAR CROSSWORD Adobe Acrobat Document	FLA F1-3 IRREGULAR AND REGULAR VERBS WORD SEARCH Microsoft Word 97 - 2003 Document	FLA F1-3 IRREGULAR VERBS WORD SEARCH Adobe Acrobat Document	FLA F1-3 PAST SIMPLE (IRREGULAR VERBS) GRAMMAR CROSSWORD Adobe Acrobat Document
FLA F1-3 READING GAMES FOR MIDDLE SCHOOL STATIONS - REA... 00:03:43	FLA F1-3 SINGULAR TO PLURAL CROSSWORD Adobe Acrobat Document	FLA F1-3 SPIN AND SPEAK FOR LIKES AND DISLIKES GAME PNG File	FLA F1-5 1ST AND 2ND CONDITIONAL SENTENCES BOAR... JPG File
FLA F1-5 KEEP TALKING - COMMUNICATIVE FLUENCY ACTI... Adobe Acrobat Document	FLA F1-5 ONLINE CLASSROOM GAMES TO IMPROVE STUDENTS' ... 00:06:24	FLA F1-5 TOP SPEAKING GAMES OR ACTIVITIES FOR KIDS & ADULT... 00:06:18	FLA F4-5 15 FUN PUBLIC SPEAKING ACTIVITIES 00:10:00
FLA F4-5 50 READING ACTIVITIES FOR ENGLISH CLASS 00:18:16	FLA F4-5 ADJECTIVES AND ADVERBS GRAMMAR CROSSWORD Adobe Acrobat Document	FLA F4-5 BRANDING AND BRAND NAMES Adobe Acrobat Document	FLA F4-5 DESIGN A LEAFLET Microsoft Word Document 148 KB
FLA F4-5 ENGLISH LISTENING GAMES 00:10:42	FLA F4-5 PHRASAL VERBS WITH 'UP' CROSSWORD Adobe Acrobat Document	FLA F4-5 PLANNING A MAGAZINE PROJECT - ENGLISH AND MEDIA Microsoft Word 97 - 2003 Document	FLA F4-5 PRESENT PERFECT CONTINUOUS BOARD GAME PNG File
FLA F4-5 SPEAKING ACTIVITIES FOR ESL - 10 BEST SPEAKING ACTIVIT... 00:10:21	FLA F4-5 VOCABULARY GAMES AND ACTIVITIES Adobe Acrobat Document	FLA F4-5 WOULD YOU RATHER...WHY BOARD GAME Adobe Acrobat Document	FLA FUN LEARNING ACTIVITIES (R) Microsoft Excel Worksheet 19.1 KB

The screenshot shows a digital repository website with a navigation bar (Home, Browse, Help), a search bar (Search DSpace), and a user login option (Sign on to:). Below the navigation is a green banner with the text: "Digital Repository for the English Language Teaching and Learning Resources in SMK Canossian Convent Kluang".

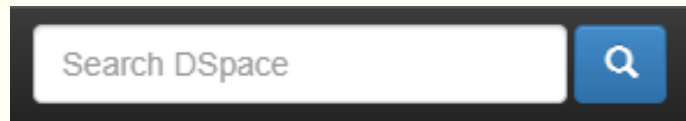
The main content area is titled "Communities and Collections" and includes the text: "Shown below is a list of communities and the collections and sub-communities within them. Click on a name to view that community or collection home page." Below this text are three collection cards:

- English Language Department SMKCC Kluang**  
Teaching and learning resources; in the form of image, text, and video collections.
  - Examination Questions**  
A collection of exam papers across the board (Form 1-5).
  - Fun Learning Activities**  
Exciting learning activities that keep learners engaged in the classroom.
  - Writing Genres**  
Genres are ways of writing and speaking that help people communicate and work together in specific situations. Writing comes in dozens of types and styles, depending on the purpose of the writer. One way to examine writing is to divide writing into specific types or genres.

# Results

## Improvement in Information Retrieval Process

### Searching



#### Search

Search:

for

Add filters:  
Use filters to refine the search results.

Results/Page  | Sort items by  In order  Authors/record

### Browsing

#### Discover

##### Author

N/A	15
English Language Department SMKCC...	10
District Education Office	9
Malaysian Examinations Syndicate	9
Pushpa A/P Kandasamy	7
Eric Oscar Wesch	3
Samshath Begum Bte Kathar Moideen	3
1mada	1
Beverly Scott	1
Carlos Islam	1
<a href="#">next &gt;</a>	

##### Subject

Form 5	44
Form 4	38
Form 3	27
Form 1	22
Form 2	22

##### Date issued

2010 - 2020	72
2000 - 2009	2
1985 - 1989	1

##### Has File(s)

true	75
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# Results

Feedback Questionnaire on 4 Aspects

Respondents: 8 English Language teachers of SMKCC Kluang

Aspect	Disagree	Somewhat Agree	Agree	Strongly Agree
1. Usefulness	0%	0%	21%	79%
2. Ease of use	0%	9%	56%	35%
3. Ease of learning	0%	0%	25%	75%
4. Satisfaction	0%	0%	6%	94%

### SUGGESTIONS FROM USERS:

- ✓ Include other collections of resources
- ✓ Improvement in user interface
- ✓ Published into the Internet



# Conclusion

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**DIGITAL REPOSITORY** for the English Language teaching and learning resources in SMKCK

- replaced the folder system
- used DSpace system to pool resources under different categories
- results in systematically organised resources with structured metadata for easy retrieval
- led to better information management of teaching and learning resources

**EVALUATION RESULTS** indicated all users agreed that this digital repository was useful as it solved the storage and retrieval issues.

## **RECOMMENDATIONS**

- this digital repository to be further improved in future
- this project to be adopted by other subject departments in the school or by other institutions



# THANK YOU

## **Special thanks and appreciation**

to the teachers of SMKCK for their support, cooperation and the provision of all the necessary resources which ensured the successful completion of this project.