



## Art Activities to Enhance Media Information and Digital Literacy (MIDL) for Primary Students

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### Abstract

Thailand's economic, social and cultural development is taking place within a burgeoning era of media information technology. Unsurprisingly, the move to ensure Thailand's general population is proficient in Media Information and Digital Literacy (MIDL), is considered essential for civic development by Thai authorities. Arguably, to promote critical thinking and independent learning as student competencies within the Basic Education Core Curriculum B.E. 2551, MIDL is of even greater importance: in today's rapidly changing society, for example, IT skills are crucial to navigate, interact with and make sense of local, national and international cultures. This article presents the results of research into "Media Information and Digital Literacy when used in (primary) teaching and learning contexts and applied to art-based learning activities: four distinct but connected areas were sampled: 1. Media information access (2) Analysis, Criticize and Evaluate media (3) Create content and information and (4) Reflect and Act. Overall, 56.00 % of all students in the study had prior knowledge of using MIDL, increasing to 89.58 % after completing the research activity. All students were satisfied with the MIDL activity. The sampled case studies were undertaken by grade 5 students at "Ban Lamphaya school" Muang, Nakhon Pathom.

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### Introduction

Developing balanced, environmentally sustainable and competitive economic systems with tolerant, civilized and pro-active social, institutional and cultural infrastructures, requires a strengthening of the existing national human capital. Although social change is increasingly occupying political thinkers globally, widespread and ameliorative social improvements are not guaranteed, especially in emerging or third world countries: according to some observers, however,

modern technology will drive the pace of a more democratic and equitable global change for higher living standards. (Schmidt & Cohen, 2013.) "The New Digital Age" of information literacy, in the context of Thailand, has been mentioned in the Information Technology policy framework of Thailand or ICT 2020. Strategy 2 of this policy is developing human capital that can be creative and use information effectively. The role of young people in this process is crucial for future citizenship. In short, effective democratic citizenship is

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considered an essential part of national progress in all its forms and can be achieved through the application of Media Information and Digital Literacy (MIDL) to all levels of education.

This research is a development of art learning activities which promote information literacy in primary school students who are at an age when they are open to learning and can quickly develop good ethics and values. (Kohlberg, 1964). Primary school students can learn and understand the principles of cause and effect, good or bad and right or wrong - they are at the age to be able to begin to understand the rules of society. Piaget (1960) identified the developmental stages of learning for children between 7-12 years old. At this age, children have rapid cognitive and intellectual development and can think logically, in sequence and can quickly process information. They can also bring knowledge or experience of the past to solving the problems of the future. There is a transferring of learning but the situations have to relate to objects or concrete things. However, primary level children also find it difficult to solve abstract problems. Therefore, management of the learning activities have to focus on the student's ability to learn.

The art learning activity is an activity which focuses on the student's ability to engage in the visual arts music and dancing by themselves to incorporate conceptual development within human interactions. They also incorporate teamwork and socializing which are skills required in everyday life. Planning various learning activities should be done with care, diligence and efficiency. Instructors have to summarize the content clearly in every activity, create transparency and pay attention. Critical thinking is a very important skill to develop in children. In order to develop students to be active citizens who are knowledgeable about information technology and media, researchers are interested in developing learning activities that promote information media whilst at the same time teach children to be good citizens.

## Objectives

1. To study information and technology media literacy of primary school students before and after using art learning activities with MIDL.
2. To study the satisfaction of using art learning activities to promote Media Information and Digital Literacy.

## Literature review

### The following literature review was conducted:

1. The concept of MIDL from the media literacy indicator development project in the higher education level of the Child and Youth Media Institute (2016). The Child and Youth Media consists of four parts:

- 1.1 Access information media and use digital technology securely;
- 1.2 Analyze, criticize and evaluate information media and digital technology;
- 1.3 Create content and information;
- 1.4 Reflect and Act.

2. Learning management with the media and digital literacy process by using the "Essential Dimensions of Digital and Media Literacy" (Hobbs, 2011). It consists of 5 steps:

- 2.1 Access, searching, collecting and exchanging information by using media and technology as a tool;
- 2.2 Analyze using critical thinking the purpose of the message, receiver, quality and reliability;
- 2.3 Create media using creativity and targeted at the selected primary school children's age group;
- 2.4 Reflect considering the impact of media and technology with daily thinking and practicing, social responsibility and regard to ethical principles;
- 2.5 Act supporting learners to express cooperation in solving problems including being a responsible member of society;
3. Concept of art activity management according to 4 important principles:
  - 3.1 Art studio;
  - 3.2 Aesthetics;
  - 3.3 History; and
  - 3.4 Criticism (Helen, 2009).

## Conceptual framework

These are the concepts to manage art activities which are important for instructors and learners to create an effective learning environment. The essence of art learning management for children is to be able to connect, search, examine and apply these concepts in the broad concept of art learning. These concepts will be linked in art teaching. They are also integrated with the surrounding internal and external environment in accordance with nature and society. As shown in Figure 1.

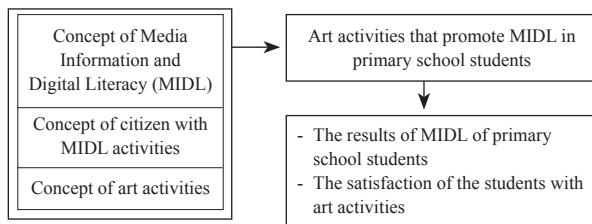


Figure 1 Concept framework

## Research methodology

### 1. Population and samples

The participants of the study were the fifth-grade students from “Ban Lam Phaya school” Muang, Nakhon Pathom. The sample was selected by simple random sampling process from the population of the primary schools under Nakhon Pathom Primary Education Service Area Office 1 that consisted of 156 schools in total.

### 2. Research instrument

The equipment used in the research were:

- 2.1 MIDL activity plans for primary school students;
- 2.2 MIDL student evaluation forms;
- 2.3 MIDL student self-assessment forms;
- 2.4 Student satisfaction questionnaires.

### 3. Collection of data

This research is the development of an art learning activity management model to promote MIDL for primary school students that consists of 2 steps.

#### Step 1

- a) Create MIDL activity for primary school students.
- b) Examine the quality of content learning to determine the consistency of art activities incorporating MIDL for primary school students by an expert observer.

#### Step 2

Use MIDL learning activities in a studied cohort to grade and measure the effectiveness.

The researchers conducted experiments in the 2018 school year in semester 2 from January to March 2019, 4 hours per week in 8 art activities following the Essential Dimensions of Digital and Media Literacy (Hobbs, 2011). It consists of 5 steps: (1) Access and searching, (2) Analyze, (3) Create media, (4) Reflect and regard to ethical principles and (5) Act supporting learners to express cooperation in solving, with integrated arts. The researchers collected data and evaluated MIDL in students four subjects: (1) access to information media and use digital technology safely, (2) analyze and

evaluate information digital technology media, (3) create content and information and (4) reflect, act and collected student satisfaction questionnaires after focus groups had completed all activities.

Table 1 Activity of MIDL arrangement of primary school student

Activity topic	Purpose of MIDL
1. How to be aware of the media?	Explain the importance of being aware of media
2. Bookmarks from online media.	Knowledge and awareness of online media.
3. Discriminatory media	Understanding and critical skills of media information appropriately
4. Social media trick	Knowledge and prevent the use of online media safely.
5. How to play the game knowingly.	How to play games safely and the effects caused by playing online games
6. False Information Buster	Knowledge and understanding about facts from information media or digital media.
7. Hansa Table 9 Channels	Able to use information media creatively and correctly
8. Funny tale	Awareness and prevention of misuse of information media

### Past – experiment

1) To analyze the experimental result to evaluate the effectiveness of MIDL for primary school students.

2) To evaluate the satisfaction of teachers and students with art activities to promote MIDL for primary school students.

### 4. Data analysis

Average and standard deviation were used to analyze the MIDL assessment results students had participated in art activities and the level of student satisfaction assessment when using MIDL art activities.

## Result

The information analysis result of MIDL art activities experimental for primary school students was based on 2 sections:

1 The effectiveness of using art activities to promote MIDL for primary school students.

Table 2 Assessment results before MIDL activity arrangement of primary school students (n = 15)

No.	Issue	Able	%	Unable	%
<b>Media information access.</b>					
1	The students know about access to information through the documents	11	73.33	4	26.67
2	The students know about access to information through the television.	14	93.33	1	6.67
3	The students know about access to information through social media.	10	66.67	5	33.33
4	The students are able to describe the way to store the information.	4	26.67	11	73.33

**Table 2** (continue)

No.	Issue	Able	%	Unable	%
5	The students are organized into groups to collect data.	9	60.00	6	40.00
6	The students know what personal information is or published information.	12	80.00	3	20.00
	<b>Total</b>	-	<b>66.67</b>	-	<b>33.33</b>
<b>Analysis, criticize and evaluate the media</b>					
7	The students describe the source of the selected media to watch and read in an online media.	11	77.33	4	26.67
8	The students describe the principles of choosing to believe the media and choose to read online media from the source.	5	33.33	10	66.67
9	The students describe the disadvantages of online media.	6	40.00	9	60.00
10	The students describe the benefits of online media.	8	53.33	7	46.67
	<b>Total</b>	-	<b>50.00</b>	-	<b>50.00</b>
<b>Create content and information.</b>					
11	The students can post the information that they need in an information system.	12	80.00	3	20.00
12	The students can describe the information which should and should not be posted in an information system.	11	73.33	4	26.67
13	The students can describe the result of posting information that is copied by other people.	1	6.67	14	93.33
14	The students can describe the results of posting their personal information.	9	60.00	6	40.00
15	The students can describe the results of posting others' personal information.	5	33.33	10	66.67
	<b>Total</b>	-	<b>50.67</b>	-	<b>49.33</b>
<b>Reflect and Act.</b>					
16	The students can describe ways of using/creating information.	11	73.33	4	26.67
17	The students can describe ways of using/creating positive information which can benefit others.	6	40.00	9	60.00
	<b>Total</b>	-	<b>56.67</b>	-	<b>43.33</b>
	<b>Total all</b>	-	<b>56.00</b>	-	<b>44.00</b>

Table 2 assessment reveal results before student had used MIDL activities. Overall, 56.00% of all students practiced before MIDL organizing activities while 44.00% of all students did not practice it. The details are as follows: (1) Media information access: 66.67% of the focus group practiced before organizing MIDL activities while 33.33% of all students did not practice it (2) Analysis, Criticize and Evaluate the media. Overall, 50.00% of all students practiced before organizing MIDL activities while 50. 00% of all students did not practice it. (3) Create content and information. Overall, 50.67% of all students practiced before organizing MIDL activities and some 49.33% of all students did not practice it. (4) Reflect and Act. Overall, 56.67% of all students practiced before organizing MIDL activities while 43.33% of all students did not practice it.

**Table 3** Assessment score after organizing MIDL activities of primary school students (n = 15)

No.	Issue	Able	%	Unable	%
<b>Media information access.</b>					
1	The students know about access to information through the documents	14	93.33	1	6.67
2	The students know about access to information through the television.	13	86.67	2	13.33
3	The students know about access to information through social media.	12	80.00	3	20.00
4	The students are able to describe the way to store the information.	10	66.67	5	33.33
5	The students are organized into groups to collect data.	12	80.00	3	20.00
6	The students know what personal information is or published information.	14	93.33	1	6.67
	<b>Total</b>	-	<b>83.33</b>	-	<b>16.67</b>
<b>Analysis, criticize and evaluate the media</b>					
7	The students describe the source of the selected media to watch and read in an online media.	14	93.33	1	6.67
8	The students describe the principles of choosing to believe the media and choose to read online media from the source.	13	86.67	2	13.33
9	The students describe the disadvantages of using online media.	15	100.00	0	0.00
10	The students describe the benefits of using online media.	15	100.00	0	0.00
	<b>Total</b>	-	<b>95.00</b>	-	<b>5.00</b>
<b>Create content and information.</b>					
11	The students can post the information that they need in an information system.	11	73.33	4	26.67
12	The students can describe the information what should be posted and should not be posted in an information system.	13	86.67	2	13.33
13	The students can describe the result of posting information that is copied by other people.	10	66.67	5	33.33
14	The students can describe the results of posting their personal information.	14	93.33	1	6.67
15	The students can describe the results posting the personal information of others.	12	80.00	3	20.00
	<b>Total</b>	-	<b>80.00</b>	-	<b>20.00</b>
<b>Reflect and act.</b>					
16	The students can describe the ways of using/creating information.	15	100.00	0	0.00
17	The students can describe the ways of using/creating the positive information that can be benefit others.	15	100.00	0	0.00
	<b>Total</b>	-	<b>100.00</b>	-	<b>0.00</b>
	<b>Total all</b>	-	<b>89.58</b>	-	<b>10.42</b>

Table 3 shows assessment after students had used MIDL activities. Overall, some 89.58% of all students practiced after organizing activities while 10.42% did not practice it. The details are as follows: (1) Media information access. Overall, 83.33% of all students practiced after organizing activities and 16.67% of all students did not practice it. (2) Analysis, Criticize and Evaluate the media. Overall, 95.00% of all students practiced after organizing activities while 5.00% of all students did not practice it. (3) Create content and information. Overall, 80.00% of all students practiced

after organizing activities while 20.00% of all students did not practice it. And (4) Reflect and Act. Overall, 100.00% of all students practiced after organizing MIDL activities while 0.00% of all students did not practice it.

**Table 4** Comparison of MIDL assessment results of primary school students before and after students participated in learning art activities

Issue	(1) Access		(2) Analyze		(3) Create		(4) Reflect and Act		Total	
	Able	Unable	Able	Unable	Able	Unable	Able	Unable	Able	Unable
Before	66.67	33.33	50	50	50.67	49.33	56.67	43.33	56.00	44.00
After	83.33	16.67	95	5	80	20	100	0	89.58	10.42

Table 4 shows that the MIDL assessment results after students had participated in art activities were higher.

2. The results of student satisfaction assessment when using MIDL art activities:

Overall, the average score of student satisfactions were at a high level. ( $M = 2.62$ ,  $S.D. = 0.39$ ). When considering each aspect, it was found that the focus group students were satisfied at high levels for two aspects of MIDL art activities. Results were categorized in descending order, including the atmosphere around activities ( $M = 2.73$ ,  $S.D. = 0.35$ ) and in the process of activities ( $M = 2.50$ ,  $S.D. = 0.42$ ), respectively. When considering each aspect the details are as follows:

During the first order, the atmosphere in activities suggested that students were satisfied to a high level. ( $M = 2.73$ ,  $S.D. = 0.35$ ) which is sorted in descending order as follows:

(1) The students felt that the atmosphere in the class was co-operative and that teachers were also satisfied at a high level. ( $M = 2.87$ ,  $S.D. = 0.35$ )

(2) The students felt that the location for the experiments are cool, airy, clean and tidy. Students emphasized that they would like to study in this type of classroom environment in which the teacher organized activities. They were satisfied at a high level. ( $M = 2.80$ ,  $S.D. = 0.41$ )

(3) The materials provided are sufficient with enough resources for all students. They were satisfied at a high level. ( $M = 2.73$ ,  $S.D. = 0.46$ )

(4) The teachers have the examples of steps to do activities and engaging resources. Teachers motivate and help students understand the logical sequence of activities which creates a co-operative and stimulating learning environment. They were satisfied at a high level. ( $M = 2.67$ ,  $S.D. = 0.49$ )

(5) The students would like to do activities that

the teachers taught again. They were satisfied at a high level. ( $M = 2.60$ ,  $S.D. = 0.51$ )

During the second order process of activities, student satisfactions were at a high level. ( $M = 2.50$ ,

$S.D. = 0.42$ ). In descending order, the data was organized as follows:

(1) The students and teachers helped to summarize the activities together, a strategy which assisted students to better understand the learning process. This fulfillment was expressed in high levels of student satisfaction. ( $M = 2.73$ ,  $S.D. = 0.46$ )

(2) The students felt that MILD content is interesting and engaging and they would like to learn more. They were satisfied at a high level, ( $M = 2.60$ ,  $S.D. = 0.51$ )

(3) The students felt that the learned content was continuous and easily understood and assimilated. Accordingly, they were satisfied at a high level, ( $M = 2.53$ ,  $S.D. = 0.52$ )

(4) Teachers' explanations of activities were understood clearly and students were satisfied at a medium level, ( $M = 2.47$ ,  $S.D. = 0.64$ )

(5) The Students felt that MIDL activities were entertaining and were motivated to do more. They were satisfied at a medium level. ( $M = 2.40$ ,  $S.D. = 0.63$ )

(6) The students thought that the duration of the study time was appropriate and suitably stimulating. They were satisfied at a medium level. ( $M = 2.27$ ,  $S.D. = 0.59$ )

In addition, the students have provided comments derived from open-ended questions in responding to satisfaction surveys. Students found that activities were largely stimulating and entertaining and therefore easy to engage with and learn from. They were not only motivated but also gained knowledge from working in groups, learning how to be leaders and followers. They would like to do more MIDL activities and expand such learning activities to Grade 6 in order to learn more. In short, primary school students are consciously motivated to learn about information and digital media; moreover, they have capacity to use judgment in evaluating the social and cultural usefulness of

information and digital media and its moral dimension in public use.

Within this research, every student participated in group work: this resulted in participants developing systematic work skills in planning and setting group goals. It also encouraged every student to take on responsibility, be diligent and patient as well as disciplined and to be good leaders and followers. It created a group dynamic where students were able to express themselves without undue criticism from other group members. Perhaps as important, each student developed learning skills which can be used in everyday life. The design of future learning activities must, therefore, focus on questioning and creating experiences through activities which enhance critical thinking by integrating the arts, music and the dance to see the benefits and disadvantages of using information and digital technology in art activity learning.

## Discussion

Assessment results summary before organizing art activities of focus groups. Over all, 56.00% of all students' abilities of MIDL before organizing art activities: students in England by comparing scores pretest and post test of two student groups. The primary school students who attended MIDL art activities were satisfied. Overall, they agree at a high level ( $M = 2.62$ ,  $S.D. = 0.39$ ). They were satisfied with the learning environment and the process of the activities. The research presented in this paper corroborates and extends the findings of Hobbs (2011) and suggests the increasing

importance of linking art education to digital media and information technology to engage, motivate and bring fun to the contemporary curriculum.

## Suggestion

Suggestions for applying research results MIDL art activities should be integrated with art teaching activities at other levels. Suggestions for the next research

1. The research should be used on higher grade students
2. Research should study other MIDL art activity guidelines for primary school students in order to organize activities in new ways to strengthen MIDL.

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