

## **Guidelines for Teacher Collaboration Network Development to Promote Information**

### **Literacy Skills of Secondary Students**

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#### **Abstract**

The purposes of the research on Guidelines for Teacher Collaboration Network Development to Promote Information Literacy Skills of Secondary Students were 1) to study current teacher collaboration conditions to promote information literacy skills of secondary students, 2) to study factors causing teacher collaboration network to promote information literacy skills of secondary students, and 3) to study for guidelines for teacher. The research was implemented by using quantitative and qualitative research methods. The samples in this study were teachers working in 85 Schools under the supervision of the Secondary Educational Service Area Office 33, Surin Province. Statistics applied for data analysis were standard deviation, percentage, and mean. Research results were revealed as follows:

- 1) The mean of current teacher collaboration conditions to promote information literacy of secondary students was at the “most” level (mean = 4.55, SD = 0.60). Considering in terms of each aspect, it was found that the mean of teachers’ attitudes towards collaboration was at the “most” level (mean = 4.26, SD = 0.57).
- 2) The level of factors causing teacher collaboration network to promote information literacy skills of secondary students in overall was at the “much” level (mean = 4.49, SD = 0.61). In terms of each aspect, it was found that the aspect of school administrators’ understanding and knowledge in searching information was at the “most” level (mean = 4.68, SD = 0.56).
- 3) The study also found that development a collaboration network in schools, initiation of integrated teaching methods for all subjects, and supporting networks for activities outside schools can promote student information literacy skills.

**Keywords:** Guidelines; Collaboration network; Skill promotion; Information literacy; Secondary students

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## Introduction

The 2017 Constitution of the Kingdom of Thailand, Article 54, states that “The State shall ensure that every child receives quality education for twelve years from pre-school to the completion of compulsory education with free of charge. They have to be supported in terms of physical, mind, disciplines, emotion, society skills and intelligence in accordance with their age. Also, the state has to provide the education as needed by the population in different approaches including a life-long learning. Moreover, the state is responsible for conducting, supervising, promoting and supporting qualified education to meet international standards. As the law on national education states that all kinds of education are proposed to develop learners to be good, disciplined, proud of the nation, skillful, and responsible for family, community, society and country.” (Boonruam Tiamjan and Saranya Witchatham. 2017: 51.53). According to the law, education provision plays a very important role as a mechanism for developing human beings and social intellectual capital in order to strengthen country efficiency in terms of economic, society, politics and culture. That is to say, education can develop people intellectual, ethics and morals. For the education management with secondary students, a crucial stage in learning, the students should be encouraged to be ready in making decision on their further study or choosing of their careers. So information literacy skill plays more important rule in acknowledging students to be able to learn not only in the classroom but also outside the classroom. This skill can assist them to learn as much as they want without the limitations of time and place. (Sangwan Tukpimai, Saraphee Wannatrong, and Supasinee Wichian. 2012: 1)

Therefore, education management and promotion of students’ skill in information literacy are necessary in reinforcing students to seek for knowledge. Students’ information literacy skills in this research refers to students’ abilities in searching, analyzing, assessing, and applying information efficiently to solve problems as well as making decision. It can be said that information literacy skills may refer also to information technology skills and intellectual skills. The information literate people are able to realize when they need, access and search for information correctly and appropriately in order to strengthen and widen knowledge rapidly. So it is necessary to improve students’ learning wisely by guiding them selecting qualified information which can yield some benefits for themselves and their society. Furthermore, with current changes of society, economics and information technology, it is teacher responsibility to embed knowledge and to

promote information literacy skills for secondary students. Moreover, to manage education in a secondary school cannot be implemented in a single aspect. It needs to be done concordantly in order to promote students being knowledgeable. Consequently, teacher collaboration network for teaching management needs to be considered as a crucial issue.

Education management requires collaboration network. According to necessity of skills on information literacy, the researcher decided to conduct a research studying guidelines for teacher collaboration network development to promote information literacy skills of secondary school students. The data received from the research were used to develop guidelines for life-long learning which can drive Thailand to be a learning society in near future.

### **Research Purposes**

- 1) To study current teacher collaboration conditions in order to promote information literacy skills of secondary students.
- 2) To study factors causing teacher collaboration network in order to promote information literacy skills of secondary students.
- 3) To examine guidelines for teacher collaboration network to promote information literacy skills of secondary students.

### **Scope of Research**

The research is the Mixed Methods Research with the following studying scopes:

- 1) Sample group of quantitative research method were 346 teachers selected from 3,400 teachers from schools under the supervision of the Secondary Educational Service Area Office 33, Surin Province. The size of sample group was set based on Krejcie and Morgan Table (Krejcie and Morgan. 1970, cited in Boonchom Srisa-ard. 2004: 43) at confidence level at 95%, and discrepancy at 5%.
- 2) Sample group of qualitative research method were 16 teachers selected purposively. They were teachers from schools in different four school sizes, i.e. extra-large size, large size, medium size, and small size schools.
- 3) Research area was in Surin Province, Thailand, covering the area of 85 secondary schools under the supervision of the Secondary Educational Service Area Office 33.

4) Research issues were as follows:

4.1 to study current teacher collaboration conditions to promote information literacy skills of secondary students,

4.2 to study factors causing teacher collaboration network to promote information literacy skills of secondary students, and

4.3 to examine guidelines for development of collaboration network to promote information literacy skills of secondary students.

### **Data Analysis Results**

Data analysis results were presented in tables with descriptions. Data analysis was done based on the following purposes:

#### **1. To study current teacher collaboration conditions in order to promote information literacy skills of secondary students**

The results of study on current teacher collaboration conditions to promote information literacy skills for students in schools in terms of teachers' attitudes towards collaboration, shown as follows:

Table 1 Teachers' attitudes towards collaboration

<b>Teachers' attitudes towards collaboration</b>	<b>Level of opinion</b>		
	$\bar{X}$	S.D.	Result interpretation
1. Level of the importance of collaboration to promote students' information literacy	4.54	0.57	most
2. Students need to know information for their self-directed learning	4.61	0.60	most
3. Students must have information literacy	4.65	0.54	most
4. Students must have knowledge on ethics for information uses and related laws	4.63	0.60	most
5. Information searching skill is important to students' learning	4.66	0.54	most

<b>Teachers' attitudes towards collaboration</b>	<b>Level of opinion</b>		
	$\bar{X}$	S.D.	Result
			interpretation
6. School learning sources are important to students	4.64	0.56	most
<b>Average</b>	<b>4.62</b>	<b>0.57</b>	<b>most</b>

Table 1 shows analysis of mean and standard deviation (SD) of current teacher collaboration conditions to promote students' information literacy skills in terms of teachers' attitudes towards collaboration in overall was at the "most" level (mean = 4.62, SD = 0.57). When considering in each item, it was indicated that the "information searching skill was important to students' learning," it was at the "most" level (mean = 4.66, SD = 0.54).

Table 2 Information literacy promotion

<b>Information literacy promotion</b>	<b>Level of opinion</b>		
	$\bar{X}$	S.D.	Result
			interpretation
1. You teach or practice students to specify types and scope of required information and access information	4.41	0.60	much
2. You teach students to specify information sources for searching more knowledge related to the subjects learnt	4.58	0.61	most
3. You teach or co-teach students on information search strategy	4.51	0.66	most
4. You teach students on trusting information and information sources evaluation	4.48	0.68	much
5. You teach or co-teach students on reference writing, ethics and virtue for information uses, or on tort due to a plagiarism	4.54	0.62	most

Information literacy promotion	Level of opinion		
	$\bar{X}$	S.D.	Result
	interpretation		
<b>Average</b>	<b>4.50</b>	<b>0.63</b>	<b>much</b>

Table2 shows analysis of mean and standard deviation of current teacher collaboration conditions to promote students' information literacy skills in terms of promotion of learning for information literacy in overall was at the "much" level (mean = 4.50, SD = 0.63). When considering in each item, it was illustrated that mean value of item "teachers specify information sources for searching more knowledge related to the subjects learnt" was the highest which was at the "most" level (mean = 4.58, SD = 0.61).

Table 3 Collaboration with school library or teacher librarians

Collaboration with school library or teacher librarians	Level of opinion		
	$\bar{X}$	S.D.	Result
	interpretation		
1 . You used to recommend books to school library	4.63	0.57	most
2 . Your used to coordinate for having a teacher librarian to teach information literacy in your responsible subject	4.58	0.56	most
3 . You used to take students to school library for information search with having prior appointment with library	4.54	0.61	most
4 . You organized meeting forum for discussion on collaborative teaching in information literacy, search, or library uses	4.36	0.73	much

<b>Collaboration with school library or teacher librarians</b>	<b>Level of opinion</b>		
	$\bar{X}$	S.D.	Result
interpretation			
5. You used to co-organize with school library for activities such as library's week, etc.	4.54	0.57	most
<b>Average</b>	<b>4.53</b>	<b>0.61</b>	<b>most</b>

Table 3 shows the mean and standard deviation (SD) of current teacher collaboration conditions to promote students' information literacy skills in terms of teachers' collaboration with librarian teachers in overall was at the "most" level (mean = 4.53 and SD = 0.61). To analyze each item separately, it was indicated that mean value of item "teachers used to recommend books to school library" was the highest. It was at the "most" level (mean = 4.63, SD = 0.57).

Table 4 State of collaboration to promote all students' information literacy skills

<b>State of collaboration to promote all students' information literacy skills</b>	<b>Level of opinion</b>		
	$\bar{X}$	S.D.	Result
interpretation			
1. Teachers' attitudes towards collaboration	4.62	0.57	most
2. Promotion of student's information literacy	4.50	0.63	much
3. Collaboration with school library or teacher librarians	4.53	0.61	most
<b>Average</b>	<b>4.55</b>	<b>0.60</b>	<b>most</b>

1.4 Mean and standard deviation of current collaboration conditions to promote students' information literacy skills in overall aspects was at the "most" level (mean = 4.55, SD = 0.60). To consider in each item, it was shown that mean value of the item "teachers' attitudes towards collaboration" was the highest which was at the "most" level (mean = 4.62, SD = 0.57).

The second highest one was mean value of the item "teachers' collaboration with librarian teachers". It was at the "most" level (mean = 4.53, SD = 0.61).

The third highest one was the mean value of the item "promotion of student's information literacy" which was at the "much" level (mean = 4.50, SD = 0.63).

**2. To study factors causing teacher collaboration network to promote information literacy skills of secondary students**

The results of study on factors causing teacher collaboration network to promote information literacy skills of secondary students demonstrated as follows:

Table 5 Levels of factors supporting collaboration network to promote information literacy

Factors supporting collaboration network to promote information literacy	Level of opinion		
	$\bar{X}$	S.D.	Result interpretation
1. School administrators place importance on development of students' information literacy	4.64	0.60	most
2. School administrators have knowledge on information searching	4.68	0.56	most
3. School administrators place importance on learning sources for students	4.66	0.59	most

Factors supporting collaboration network to promote information literacy	Level of opinion		
	$\bar{X}$	S.D.	Result
		interpretation	
4. School administrators place importance on assessment of information for students before use	4.54	0.67	most
5. School administrators place importance on ethics, and law related to information use of students	4.60	0.61	most
6. School administrators issue orders, announcements or regulations on knowledge provision on information literacy and technology literacy	4.53	0.67	most
7. Teachers and school personnel realize on information literacy of themselves	4.25	0.58	much
8. Teachers realize importance of independent searching, and lifelong learning of students	4.52	0.57	most
9. Information resources provision	4.43	0.56	much
10. Provision of guidance and service on information to students	4.41	0.53	much
11. Teachers assign information searching tasks in library to students	4.44	0.67	much
12. Co-planning for activities on special days and planning for information searching such as Library's Week activity	4.42	0.59	much
13. Adding teaching on ethics, law related to information and punishment due to a case of information infringement	4.41	0.64	much

Factors supporting collaboration network to promote information literacy	Level of opinion		
	$\bar{X}$	S.D.	Result
		interpretation	
14. Collaboration among teachers in school for library-based-teaching plan	4.32	0.71	much
<b>Average</b>	<b>4.49</b>	<b>0.61</b>	<b>much</b>

Table 5 shows the overall result was at the “much” level (mean = 4.49, SD = 0.61). When considering each item, it was indicated that the mean of the item “school administrators have knowledge in information searching method” was the highest. It was at the “most” level (mean = 4.68, SD = 0.56).

The second highest was at the item “school administrators place importance on learning sources for students” which was at the “most” level (mean = 4.66, SD = 0.59).

The third highest was at the item “school administrators place importance on development of students’ information literacy”. It was at the “most” level (mean = 4.64, SD. = 0.60).

### **3. To examine guidelines for the development of a collaboration network to promote information literacy of secondary students**

According to group discussion and knowledge sharing among teachers, librarians, school administrators and related personnel, the guidance in developing collaboration network to promote secondary students’ information literacy skills were found as follows:

(1) In terms of the policy, secondary schools foresee the importance of having information literacy skills which related to the current social contexts.

(1.1) The school library should provide programs on information literacy to students.

1.2 School administrators should realize the importance of the collaboration network to promote students’ information literacy skills.

(2) Collaboration in preparing information literacy promotion

(2.1) Collaboration in terms of having a coordinator who defines teachers' responsibilities and organizes integrated activities in school.

(2.2) Collaboration in terms of co-working, e.g. co-teaching planning, co-testing, and co-assessing.

(2.3) Collaboration in terms of curriculum integration (information literacy skills should be integrated in all subject learning).



Picture 1 Group Discussion



Picture 2 Sub-group Discussion

### **Suggestion for Collaboration Network Development**

1. Guidelines for developing information literacy collaboration network of school libraries were as follows:

1.1 develop a reliable network, provide guidance for effective and fast searching that the users can search by themselves,

1.2 create supporting learning atmosphere and provide sufficient technology media for the users,

1.3 develop co-working plan by encouraging all school personnel work harmoniously (school administrators, students, teachers and coordinators) to promote network coordination, and

- 1.4 develop collaboration network within schools by integrating all learning subjects as well as creating outside school networks to promote students' information literacy skills.
2. Factors in promoting students' information literacy collaboration
  - 2.1 Students must have sufficient knowledge and understanding in information literacy as well as realization in using information literacy properly.
  - 2.2 Budgets provided for the library must be sufficient. The library personnel must be well trained.
  - 2.3 Teacher raise awareness, knowledge, understanding, and collaboration among all related sectors and act implementation.
  - 2.4 Knowledge and understanding in information literacy, and co-working awareness must be strengthened among the parties.
  - 2.5 Integration of all learning subjects with information literacy must be seriously conducted and realized by teachers.
3. Collaboration problems in promoting information literacy (limitations)
  - 3.1 The users do not have adequate knowledge, understanding, and awareness in accessing different types of information. Some information is not reliable, and some is not cited correctly.
  - 3.2 There is not adequate budget in providing information resources in schools.
  - 3.3 Budget for library activities is not adequate. Also, the teachers and students spend less time in the library.
  - 3.4 The teachers are added much workload in acknowledging and assessing students' information literacy skill.
  - 3.5 Budget for information literacy promotion is not adequate.
  - 3.6 Budget in providing up to date information sources which can cover all subject learning is inadequate.
4. Other suggestions
  - 4.1 Qualified books and up to date media should be provided to needy schools by the government.
  - 4.2 Collaboration from all related sectors, especially from schools administrators, on information literacy promotion is extremely needed.

## **Discussion**

According to the research findings, there are issues to be discussed as follows:

1. The mean of the study on teachers' collaboration to promote information literacy skills of secondary students was at the "most" level (mean = 4.55, SD = 0.60). To consider in each aspect, the highest mean was at the aspect of teachers' attitudes to collaboration ("most" level and mean = 4.62, SD = 0.57). The second highest mean was on the aspect of "teachers' collaboration with librarian teachers" ("most" level and mean = 4.53, SD = 0.61). The mean of the aspect of "promotion of information literacy learning" was the third highest ("much" level and mean = 4.50, SD = 0.63). The results were not different from the research results found by Santhana Koolrat (2013); Walter (2003); Ducas and Michaud-Ostryk (2003).

According to the study, although there are different educational backgrounds of learners, teachers, and librarians, they concerned much on information literacy skills promotion collaboration. They also realized the importance of collaboration in promoting students' information literacy skills in terms of teaching information literacy, providing information services and information technology/resources, and conducting research.

For the teachers' collaboration, it was found that they worked with each other in selecting and recommending interesting information resources which can be manipulated in their teaching with the information resources provision from the librarians.

2. From the study, the overall result of the level of factors causing collaboration network to promote information literacy was at the "much" level (mean = 4.49, SD = 0.61). Moreover, when consider in each item, the highest mean was at "school administrators have knowledge on information searching" ("most" level, mean = 4.68, SD = 0.56). The second highest mean was the aspect of "school administrators place importance on learning sources for students" (the "most" level, mean = 4.66, SD = 0.59). The third highest mean was at the "most" level (mean = 4.64, SD = 0.60 ("school administrators place importance on the development of students' information literacy")). It related to the study of Satjaree Sirichai (2009); Santhana Koolrat (2013); Wijayasundara (2008) who concluded that factors causing collaboration network to promote information literacy were setting up policy on the development of information literacy skills, the importance of information literacy realization of school administrators, and collaboration awareness.

3. For the guidelines to develop collaboration network promoting secondary students' information literacy skills, it was found that to build up collaboration network inside schools, to integrate all learning subjects and to create collaboration network outside schools were extremely necessary. The mentioned guidance associated with the study of Santhana Koolrat (2013) which revealed that policy on students' information literacy and activities for teachers and librarians to get to know each other and work together must be set up. Furthermore, the finding also related to the study from Sangwan Tukpimai (2016). He proposed that, nowadays, in the changeable society, to access information, and to teach information literacy are necessary for everyone. Moreover, the collaboration and information network must be reliable. Teachers and librarians should be able to recommend the learners in searching information effectively and quickly. On the other hand, the learners must be able to search information by themselves. Then the atmosphere in school must be supporting to learn as well as the media technology must be sufficient. Furthermore, there should be collaboration among school administrators, teachers, coordinators, and students.

### **Conclusion**

Guidance on the development of a teacher's cooperation network to promote the educational skills of secondary students can be applied in school managing policy which has an ultimate goal in creating the youth to be creative and impromptu in problem solving. The following diagram illustrates the summarizing of the finding.



Picture 3 Diagram of The teacher's collaboration network is promoted to develop secondary school education skills.

#### **Suggestion for Further Use of Research Results**

Research results can be applied in setting up school policy to develop students' information literacy skills. Also, it can be used in developing student- centered teaching and learning approaches. Furthermore, it can be used to strengthen the information literacy skills in students which is a key factor in encouraging them to have life-long learning.

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