

การบูรณาการการรู้สารสนเทศในการเรียนการสอนกลุ่มสาระ สังคมศึกษา ศาสนาและวัฒนธรรมในระดับประถมศึกษา

Information Literacy Integration in Learning and Teaching of the Social Studies, Religion and Culture Courses at Primary School Level

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การศึกษาค้นคว้าครั้งนี้มีวัตถุประสงค์เพื่อตรวจสอบสภาพการบูรณาการการรู้สารสนเทศในการเรียนการสอนกลุ่มสาระสังคมศึกษา ศาสนา และวัฒนธรรมในระดับประถมศึกษา (ช่วงชั้นที่ 2) ซึ่งการวิจัยในครั้งนี้เป็นการวิจัยเชิงสำรวจ เก็บรวบรวมข้อมูลโดยการแจกแบบสอบถามให้กับผู้สอนกลุ่มสาระการเรียนรู้สังคมศึกษา ศาสนา และวัฒนธรรม ช่วงชั้นที่ 2

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ระดับประถมศึกษาในภาคตะวันออกเฉียงเหนือ ผลการศึกษาปรากฏผลดังนี้ 1) ด้านการกำหนดจุดมุ่งหมายการพัฒนาผลสัมฤทธิ์การเรียนรู้ของผู้เรียน พบว่า มีการกำหนดจุดมุ่งหมายการพัฒนาคุณลักษณะของผู้เรียน 4 ด้านได้แก่ การมีคุณธรรม จริยธรรม และค่านิยมที่พึงประสงค์ การเห็นคุณค่าตนเอง ความสามารถในการใช้ทักษะชีวิต และทักษะการแก้ปัญหา 2) ด้านการกำหนดผลสัมฤทธิ์การเรียนรู้ที่คาดหวังเกี่ยวกับทักษะรู้สารสนเทศ พบว่ามีการกำหนดจุดประสงค์การเรียนรู้ไว้ 3 ทักษะ ได้แก่ ความสามารถในการระบุความต้องการสารสนเทศที่สัมพันธ์กับปัญหาหรือหัวเรื่องที่ศึกษา ความสามารถในการระบุแหล่งและทรัพยากรสารสนเทศ และความสามารถในการพิจารณาเลือกสารสนเทศที่ตรงกับความต้องการ 3) ความร่วมมือระหว่างผู้สอนกับบรรณารักษ์ พบว่า ผู้สอนกับบรรณารักษ์ส่วนใหญ่มีความร่วมมือในการกำหนดกิจกรรมการเรียนรู้ การออกแบบแผนการสอน และการเตรียมแบบฝึกหัด และการมอบหมายงานให้กับผู้เรียน 4) ด้านวิธีการสอน พบว่า ผู้สอนส่วนใหญ่ใช้วิธีการสอนแบบบรรยาย การทัศนศึกษา และการศึกษาร่วมด้วยตนเอง 5) การจัดกิจกรรมการเรียนรู้ พบว่าผู้สอนส่วนใหญ่ใช้วิธีการศึกษาค้นคว้าด้วยตนเอง การทำแบบฝึกหัด และการทำงานกลุ่มย่อย 6) การใช้แหล่งและทรัพยากรสารสนเทศ พบว่า ผู้สอนใช้ตำราเรียนตามหลักสูตรของกลุ่มสาระวิชาแหล่งเรียนรู้ภายนอก และสื่อต่างๆ 7) วิธีการวัดและประเมินผล พบว่าผู้สอนส่วนใหญ่ใช้วิธีการวัดและประเมินผลการเรียนรู้ของผู้เรียนจากการทำแบบฝึกหัดและการมอบหมายงาน รายงานการศึกษาค้นคว้าด้วยตนเอง และการสอบปลายภาค

ABSTRACT

The purpose of this study was to examine the status of information literacy (IL) integration in learning and teaching of the Social Studies, Religion and Culture courses at primary school level (Grades 4-6). The survey research method was used for the study. Data was collected by sending the questionnaires to primary school teachers (Grades 4-6) of the course in the Northeast of Thailand. The research results revealed that: 1) Expected students' learning outcomes – four characteristics were aimed to develop: morality, values, life skills and problem-solving

skills. 2) Expected students' IL skills – three IL skills were aimed to be developed: ability to identify of the information needs which relevant to their study problems or topics of interest; ability to identify the information sources and resources, and ability to select the information in accordance to their needs. 3) Teachers and librarians cooperation – teachers and librarians mostly cooperated in the activities including learning activity assignment, course designing, and preparation of exercises and homework for students. 4) Teaching methods – most teachers use lecture, field trips, and self-study methods. 5) Learning activities - most teachers organized self-study learning activities, exercises and assignments, and small group work. 6) Learning resources utilization – most teachers used textbooks that were required for the course teaching, external reading materials, and media as the resources for course teaching and learning. 7) Learning assessment and evaluation - most teachers evaluated and assessed students' performances from exercises and homework assignments, self study report and final examination.

คำสำคัญ: การรู้สารสนเทศ การบูรณาการการรู้สารสนเทศ การเรียนการสอน โรงเรียนประถมศึกษา

Keywords: Information literacy, Information literacy integration, Learning and teaching, Primary schools

INTRODUCTION

In the 21st century, research by UNESCO (2002) presented its “Lifelong Learning” study report as the key for 21st century education. This report emphasized the following four fundamental principles of education: 1) learning to know, 2) learning to do, 3) learning to live together, and 4) learning to be. These principals focused on demand, opportunities, quality standards, and equality in education. Hence, education stands as an important mechanism for the development of individual and countries. The process of “information” or “information literacy” is a tool for

connecting with learning and is the solution for lifetime learning in this learning society. Information literacy is an individual's ability to identify, evaluate, analyze, and utilize information effectively to solve problems or make decisions. In other words, information literacy covers other skills such as intellectual skills which include the abilities to analyze, synthesize, and solve problems (American Library Association (ALA), 2000.) These abilities are essential in learning and teaching management according to the educational reform concept which underlines the ability of a learner to perform self-study. Information literacy is a crucial skill supporting the analysis process development and leading to lifetime learning (Australian and New Zealand Institute for Information Literacy (ANZIIL), 2004)

In addition, ALA (1989) mentioned that information literacy creates power. An information literate individual is able to discover truth by himself, and can then develop the self-learning process which leads to lifelong learning (Bundy, 2004.) Therefore, how an information literate person realizes the source of information is the concept that contributes to his self-learning ability. This can lead to utilizing knowledge or information, so that the person can adapt himself to change. In addition, the person could use the information to improve the quality of his life based upon information and facts about society such as careers, incomes, and health.

Information literacy is essential for all types of people especially in terms of an individual's education including education in the school system, non-formal education, informal education, and life-long learning. Since Information literacy stands as fundamental education which emphasizes basic skills such as reading, writing, calculating, basic thinking, communicating, and the process of continuous learning, it begins at primary level. In the Core Curriculum of Fundamental Education (2008) integrated learning is emphasized; therefore, primary level students need to develop information literacy.

Information literacy integration consists of developing skills and gaining knowledge about how information literacy is connected to the learning curriculum. According to its purposes, there is learning and evaluation; and the content of the curriculum provides students learning experiences and an ability to transfer knowledge and skills (Wallace et al., 1999). Searching and utilizing information supports many types of learning (Feldmann & Feldmann, 2000; Hartmann, 2001; Milne, 2004; Welker et al., 2005; Williams et al., 2004). By linking information literacy skills with assigning activities that correspond with learning content, teachers and librarians provide learners a faster learning process under the learning context of a certain course. From their teaching experience, Jacobson and Mark (2000) concluded that it is information literacy integration that boosts higher learning efficiency.

Currently, learning and teaching activities in primary school consist of the following 8 fundamental learning areas 1) Thai Language, 2) Mathematics, 3) Science, 4) Social Studies, Religion, and Culture, 5) Arts, 6) Health and Physical Education, 7) Careers and Technology, and 8) Foreign Languages. Ten schools ranging in size from extra large, large, medium, and small participated in activities that involved analyzing content and interviewing teachers.

The report shows that in Thailand's schools, information literacy is integrated into the eight learning areas. It is not taught as a separate subject, and it has no clear criteria for evaluation. The role of information literacy in each learning area varies depending upon the subject teacher's knowledge and ability as well as how he/she perceives the importance of information literacy. In addition, teaching methods are not yet effective enough to enhance learners' information literacy. This results in inconsistent development of students' information literacy. As such after graduating, students are often found to possess different levels of information literacy skills. Some are not able to analyze and transfer their knowledge.

Based on the reviews of Thailand's policy, National Economic and Social Development Plan, National Educational Act, and the Core Curriculum, it was found

that all promote learner centeredness to increase learners' quality and to allow them to learn at their optimal capacity. However, based on the reviews, it was found that schools' instructional conditions have not yet sufficiently been able to develop learners' information literacy, resulting in low quality of students' knowledge in this area. Students' analytic thinking and self-knowledge acquisition need to be developed. It is, therefore, important to include information literacy into school curriculum, in particular at a primary school level. According to the National Institute for Child and Family Development, Mahidol University (2011), children' learning experience during the primary years of learning life is important to the development of their skills and intellectual ability. At this age, they are eager to learn different things about the world outside their home and family. They want to experience new and exciting things and are ready to learn from their surroundings (Freud, 1969). However, based on the literature reviews, as mentioned, information literacy has not yet been included into the curriculum of Thailand's fundamental education. To effectively develop students' information literacy, it should be integrated into the curriculum, which is a method to promote learner centeredness and to increase students' analytic thinking and responsibility in their own learning (ACRL, 2000; ACTL's Institute for Information Literacy, 2003).

This phase of the research was conducted in order to study the status of information literacy integration in learning and teaching at the primary school level. The results will be applied to the design and development of information literacy teaching integration model for fourth to sixth grade primary school students in the virtual learning environment.

RESEARCH OBJECTIVE

The objective of this study is to examine the status of information literacy (IL) integration in learning and teaching of the Social Studies, Religion and Culture course at primary school level.

RESEARCH METHODOLOGY

This study was survey research. A questionnaire was used to collect the data to examine the sample group's opinions on the integration of information literacy at a primary school level by focusing on the learning area of Social Studies, Religion, and Culture. The questionnaire was checked for accuracy and content validity by using Index of Congruency (IOC), which stands at .093. The questionnaire was then piloted with subject teachers and experts who were not included in the sample group of the study. The Cronbach's Alpha Coefficient showed a high reliability index of the questionnaire of 0.98.

The data was collected between August 16, 2012 and November 30, 2012. The questionnaire was sent to the sample group of the selected 385 primary schools under the supervision of Basic Educational Service Area Office via a postal mail. The informants were teachers responsible to teach the learning area of Social Studies, Religion, and Culture. The return rate was 85.45 percent (329 schools). The data was analyzed by using percentage. The following were the steps for the random selection of the participants.

1. Identify the scope for the study: This included 12,573 primary schools under the supervision of Basic Educational Service Area Office located in the Northeastern Region of Thailand.
2. Select the sample group adopting Yamane's table and technique: Based on Yamane's table, for the population of 12,573, with the accepted error of 5 percent, the size of the sample group was 385 schools.
3. Select the sample by categorizing the 12,573 schools into four groups based on their sizes (i.e., small, medium, large, and extra large): Based on the rule of four and the ratio of school in this service area, 385 schools were selected.

LITERATURE REVIEW

A study of the information literacy integration in learning and teaching of the Social Studies, Religion and Cultures courses at primary schools level was conducted based on an analysis of expected primary student learning outcomes and the information literacy integration. The details were as follows;

1. Expected students' learning outcome. Information literacy is a set of abilities requiring individuals to recognize when information is needed and to have the ability to locate, evaluate, and use the needed information effectively (ACRL, 2000). It is important skills for lifelong learning in 21st century. In this study, expected student learning outcome were developed based on Thailand National Education Standard, expected competency for student in basic education core curriculum, and Information Literacy Standard for primary education in Thailand. The details were as follows:

1.1 Thailand National Education Standard aimed at enhancing the quality of life and creating a society with balanced and harmonious integration of wisdom, morality and culture is, in fact, lifelong education for the benefit of all Thai people. It is aimed at providing children with a sound foundation; instilling in them attributes of desirable members of society right from the basic education level; and enabling them to acquire knowledge and competence required for work of quality. Therefore, 3 standards and 11 indicators have been set. The first standard is the desirable characteristics of Thai people, as both citizens of the country and members of the world community; the second standard is guidelines for educational provision; and the third standard is guidelines for creating learning society or knowledge society. (Office of the National Education Council, Ministry of Education, 2004).

1.2 Expected competency for student in basic education core curriculum

The basic education core curriculum (2008) determined the learning standards for expected capacities for student relating information literacy

development; 1) students should be creative and have passion for learning, reading and searching and 2) students should have universal knowledge; scientific and technological literacy, management skills and potentials, and self-adaptation (Ministry of Education, Thailand , 2008). These are to develop five competencies for Thai students:

- 1) Communication competency
- 2) Thinking competency
- 3) Problem solving competency
- 4) Competency for applying Life skills
- 5) Competency for technological application

1.3 Information literacy competency standard for Thai students.

Information literacy competency standard for Thai students identifies six standards (Sacchanand, 2011) are as follows;

Standard one: The information literate student recognizes the importance and necessity of information.

Standard two: The information literate student accesses need information and information tools.

Standard three: The information literate student analyzes, evaluates and selects information related to personal interests.

Standard four: The information literate student collects, classifies and synthesize the new information

Standard five: The information literate student uses and creates information effectively to accomplish a specific purpose.

Standard six: The information literate student respects, ethics and social responsibility issues related to information.

2. Integrated Information Literacy in instruction. From the study of information literacy integration concept and theories, the integration of information literacy to instruction is about creating the instruction which enables students to

develop skills to learn independently and to carry on learning. The previous research revealed that is the most effective way of providing information literacy skills for students. According to Wang (2011), there are three key elements of the information literacy integration, i.e. what, who and how. The details are as follows;

What: the information literacy guidelines in the intended instruction. These Graduate attributes and graduate requirements or teaching strategies can be used as guidelines. The guideline states the importance of information literacy and what information literate students should be like. In this study, Thailand national information literacy policies for primary education requirements were guide-lined required.

Who: people are involved in the information literacy integration such as key stakeholders, school administration, teachers, or librarians. The model below suggested that librarians play a proactive role in the curricular integration of information literacy. However, the bottom-up approach to integrating information literacy will only happen when teachers are aware of the importance of information literacy and are willing to have it integrated into their course curriculum.

How: procedures of information literacy integration include how information literacy can be integrated across the instructional. For examples, learning theories, curriculum, expected learning outcomes, content, learning activities and learning evaluation.

In the present study, the researcher applied the concept of Who, based on Wang's (2011) integration information literacy model, and the expected student's learning outcome for Thai students. This provided the framework for the study in seven areas: the expected students' learning outcomes; expected students' IL skills; Teachers and librarians' cooperation; Teaching methods; Learning activities; Learning resources utilization; and Learning assessment and evaluation.

RESEARCH FINDINGS

1. General information of sampling

The total number of questionnaires collected was 329. Of the teachers surveyed 196 were females (59.57%), 241 (73.25%) of the population held Bachelor's degrees and 224 of the population held academic positions. Of the population, 224 (68.09%) were teachers with special expertise. Three hundred twenty nine schools covering 19 provinces of the Northeastern region of Thailand in the fundamental educational service area participated in this study. One hundred fifty six schools were medium-sized (47.42%) Of the teachers, 234 (71.12%) taught sixth grade primary school students. There were 176 teachers (53.50%) who had over 20 years of experience in the teaching profession.

2. Status of IL integration in learning and teaching of the Social Studies, Religion and Culture courses

The study of status of IL integration in learning and teaching of the Social Studies, Religion, and Culture courses at the primary school level comprised of 7 aspects including: 1) Expected students' learning outcomes; 2) Expected students' information literacy skills; 3) Teachers and librarians cooperation; 4) Teaching methods; 5) Learning activities; 6) Learning resources utilization; and 7) Learning assessment and evaluation. (Table 1)

Table 1 Numbers and percentages of primary school teachers responding on the status of IL integration in learning and teaching of the Social Studies, Religion and Culture courses

Aspects of IL Integration in Learning and Teaching	Respondents	
	Total	Percentage
1. Expected students' learning outcomes		
1) Development of morality, values, and self-esteem	318	96.66
2) Development of life skills	289	87.84
3) Development of problems solving skills	256	77.81
2. Expected students' IL skills		
1) Ability to identify of the information needs which relevant to their study problems or topics of interest	275	83.59
	231	70.21
2) Ability to identify the information sources and resources	220	66.87
3) Ability to select the information in accordance to their needs		
3. Teachers and librarians cooperation		
1) Assigning learning activities	212	64.44
2) Designing the teaching plan	201	61.09
3) Preparing the exercises and assignments	196	59.57
4. Teaching methods		
1) Lectures	290	88.15
2) Field trips	246	74.77
3) Self study	225	68.39
5. Learning activities		
1) Self study	261	79.33
2) Exercise and assignments	258	78.42
3) Small group works	229	69.60
6. Learning resources utilization		
1) Books (mostly available at the School's Social Studies Department)	310	94.22
2) External resources	266	80.85
3) Media	219	66.57
7. Learning assessment and evaluation		
1) Performance on doing exercises and assignments	308	93.62
2) Performance on answering questions of each lesson	284	86.32
3) Final examination	270	82.07

2.1 Expected Students' Learning Outcomes

Of the respondents, 318 teachers (96.66%) set course objectives to develop morality, proper values, and self-esteem of the students, and 289 teachers (87.84%) set course objectives for the learners to gain life skills. Also, 256 teachers or 77.81% set course objective for their students to gain problem-solving skills. Other skills including thinking skills, analytic skills, creative thinking skills, communication skills and life-long learning skills were also expected.

It can be seen that the course objective for developing the students' learning outcomes is not only to develop their abilities to gain knowledge and skills, but also it is connected to the National Education Standards and Fundamental Education Standards. These standards focus upon the morality of the learners, proper values, working skills, their fondness for work, and their teamwork skills. It provides learners with analytic skills, synthesis thinking skills, good judgment, creativity, consideration, vision, and a good attitude towards honest careers (Office of the Education Council, 2005.) The advantages of character development comply with the policy of The Ministry of Education in terms of National Youth Development for 21st century. The policy focuses on learners' morality, Thainess, analytic skills, synthesis thinking skills, creativity, technological skills, and the ability to work and live peacefully with others in the society (Ministry of Education, 2008.) The Fundamental Education Core Curriculum of 2008 placed emphasis on learning standards leading to 5 major potentials for learners: 1) communication ability, 2) thinking ability, 3) problem-solving ability, 4) life skills, and 5) technological skills (Fundamental Education Core Curriculum of 2008)

2.2 Expected Students' IL Skills

Of the teachers surveyed, 275 teachers (83.59%) set course objective on IL skills for the ability to identify of the information needs relevant to their study problems or topics of interest. Two hundred thirty one teachers (70.21%)

expected for the ability to identify the information sources and resources. And two hundred twenty teachers (66.87%) expected for the ability to select the information in accordance to their needs. Other course objectives on IL skills include information summarizing, analyzing, and synthesizing skills, use of information morally and legally skills, and researching report and citation writing skills.

The findings revealed that the course objective on IL skills development is conformed to the standards for IL developed by American Library Association (ALA, 1989) and the Association of Educational Communications and Technology. These standards stimulate academic institutions to become aware of the importance information literacy skills development and to put the IL integration in course learning and teaching practices.

In terms of Thailand, the research findings conformed to the standards of information literacy for Thai students developed by Sacchanand (2011.) The three information literacy skills teachers placed major emphasis on 1) the study of problems or topics that the students were interested in, 2) information source study, and 3) the selection of information in accordance with the learners' satisfaction. These 3 skills complied with the educational policies of the National Education Act of 1999 which set goals for students to use information literacy skills in the processes of analyzing, self learning, decision making, problem solving, study planning, working, and developing themselves to be life-long learners (Office of the National Education Commission, 1999.)

2.3 Teachers and Librarians Cooperation

Two hundred twelve teachers (64.44%) have cooperated with librarians to assign activities, and 201 teachers (61.09%) selected to design teaching plans, while 196 teachers (59.57%) chose exercise preparation and task assignments. Other types of cooperation included determining learning objectives and learning purposes, preparing learning sources, and collecting them, respectively.

According to the results, teachers and librarians have cooperated in learning and teaching in many aspects; however it was considered to be a lower level priority when it was compared to other issues that had been researched. Buzzeo (2002) found that the factors to success in information literacy teaching are cooperation between teachers and librarians in developing a teaching plan to create activities and learning opportunities for learners to reach the source of information. This statement complies with Gibson (2002). Information literacy teaching integration curriculum should be managed with cooperation between teachers and librarians, and the academic performance of the students should be assessed. Group discussions and advisory interactions are recommended. However, Bailey (2005) found that cooperation between teachers and librarians in teaching information literacy occurred less than 60%. Therefore, teachers, librarians and executives should manage greater chances for further cooperation. From Kolencik's study (2001), the concept study of supporting school libraries and information literacy of secondary schools in Western Pennsylvania indicated that librarians were not aware of their teaching roles. They had negative attitudes, and had a lack of understanding about teaching assistant roles. Hence, in information literacy teaching integration, cooperation between teachers and librarians stands as an important issue in contributing to the effective information literacy skills of learners.

2.4 Teaching Methods

Two hundred ninety teachers (88.15%) used the lecturing method, and 246 teachers (74.77%) applied the field trip teaching methodology. Self study techniques were used by 225 teachers (68.39%), while other types of teaching methods utilized were project-based teaching, small group learning, brainstorming, and problem-based learning or case studies.

The results showed that teachers applied a number of teaching methods. Nevertheless, they aimed for teaching and learning that focused on information literacy development. Information based knowledge development is a pattern used in teaching information literacy (Sheehy, 2001), and it corresponds to research by Siriporn Taveechat (2002) which mentioned that teaching and learning by the information based concept supports information literacy development in terms of information comprehension, and information utilization. Therefore, information based teaching should be applied.

2.5 Learning Activities

The data showed that 261 teachers (79.33%) ran their classes by self study, and 258 teachers (78.42%) used exercise lessons and task assignments. Small group work was also used by 229 teachers (69.60%) when asking and answering questions on learning topics techniques, summarizing documents and topics of interest, and when orientations or guided library tours were organized, respectively.

The results showed that teachers managed various activities together. Teaching and learning activities were applied when teachers included activities that supported information literacy, for example, using books to encourage students, answering questions, organizing exhibitions, and storytelling. These are all activities that support information literacy, and they needed to be conducted generally and continuously (Chavalit, 2005; IFLA, 2000).

2.6 Learning Resources Utilization

Three hundred and ten teachers (94.22%) used the books from the Social Studies Department curriculum as their learning sources, and 266 teachers (80.85%) chose off-site sources relating to the department, while 219 teachers (66.57%) picked visual aids. Websites were another learning source that

was applied with the assistance of a teacher and included contents, learning exercises, and questionnaires. The websites provoked further searches for information and answering questions by searching for further information. Other learning sources were online information sources, which related to the content of the course, or to study topics and lesson programs.

The study indicated that most teachers used the books according to the curriculum of the department as the main source. However, from previous studies, edited curriculum showed a lack of various information sources (Naulla-or Ponrugsa, 2004). The evaluation results of fundamental curriculum used by pilot and network schools showed that the instructional media, documents, books, research books, and technological media applied in schools were out of date, irrelevant, inefficient, and scarce to be applied (Office of the National Education Commission, 2003). Hence, schools need to provide self study, continuous life-long learning, creative hobbies, and a variety of information sources (Ministry of Education, 2001.) Levinson (2006) also stated that public library needs to have roles in supporting and raising the concept of accessibility, in evaluating and utilizing information for the current society, raising awareness of information literacy, and promoting life-long learning ability.

2.7 Learning Assessment and Evaluation

Three hundred and eight teachers (93.62%) assessed learning outcomes by using exercises and assigned tasks, and 284 teachers (86.32%) used the exercise at the end of each chapter of the book, while 270 teachers (82.07%) chose examinations as their assessment tool. Other evaluation and assessment instruments were self study reports, small group work and discussion, and the exchange of ideas.

The results showed that evaluation and assessment measured the efficiency of learning according to learning purpose of the department, but

assessment and evaluation in activities regarding attendance were not assessed in practice causing the inability to measure information literacy. Irving (1985) defined that learning process requires assessment from work which is an assigned project or task. Fitzwater, et al. (2003) also mentioned that information literacy integration requires a standard of evaluation according to developed information literacy integration. Elderedge (2004); Johnson, Lindsay & Ursin (2004); Williams, Blowers & Goldberg (2004) and Bowler & Street (2008) showed that reports/projects need to be assessed by teachers, peers, learners, group members, and classmates in terms of information source selection, presentation, writing, and referencing. Therefore, evaluation and assessment of information literacy is to be conducted in teaching and learning information literacy.

CONCLUSION AND DISCUSSION

The results of the study revealed that information literacy and library literacy were not taught as separate courses in primary schools which are under the supervision of Basic Education Service Office. Information literacy and library literacy were integrated in instructional activities. For example, students were assigned topics for researching, asked to examine information resources, select information meeting students' needs, do reports, and so on. The learning outcomes were found to be in line with key knowledge, ability, and skills prescribed in the schools' curriculum as well as by the National Education Standards and the Fundamental Education Standards, which give an emphasis on the development of learners' desired moral, ethics, and values, working skills, job satisfaction, teamwork skills, good attitudes toward honest careers, analytic thinking skills, synthesis thinking skills, good judgment, creativity, careful thinking, and vision (Office of the Education Council, 2005). The instructional activities also complied with the policy of the Ministry of Education, which focused on the development of learners' morality, Thainess, analytic thinking skills, creativity, technological skills,

and ability to live peacefully in the world society (Ministry of Education, 2008), and with the Fundamental Education Core Curriculum of 2008 emphasizing the development of learners' five competence: 1) communication ability, 2) thinking ability, 3) problem-solving ability, 4) life skills, and 5) technological skills (Fundamental Education Core Curriculum, 2008)

Based on the results of the study, in Thailand, three main skills were aimed to develop in primary school students: 1) skills related to identifying problems or topics for researching, 2) skills to select information and information sources, and 3) skills to select information that meet learners' needs. These three were selected based on the fact that teachers perceived that these three skills were important and necessary for primary school students. It was found that these objectives conformed to information literacy standards of other countries such as those of the American Library Association (ALA, 1989), the American Association of School Libraries, the Association of Educational Communications and Technology, and Council of Australian Libraries (2006) aiming at enhancing learner autonomy.

The integration of information literacy in schools was based on the cooperation between teachers and librarians (i.e., curriculum design, objective establishment, instructional methods, activities, and assessment). However, based on the results of the study, the cooperation was at a low level compared against other aspects of information literacy investigated. According to Buzzeo (2002), the major factor contributing to successful instruction of information literacy was the cooperation between teachers and librarians. The two counterparts need to cooperatively plan the lesson to create activities and optimal opportunities for learners to access a variety of learning resources. Likewise, Gibson (2002) stated that information integration curriculum must be performed under the cooperation of teachers and librarians. It must evaluate learners' information literacy and provide group consultants. It is important to note that according to Bailey (2005), the cooperation between teachers and librarian was not often found (less than 60%).

As such, teachers, librarians, and involved administrators should promote higher cooperation between the two major contributors. As it was evidenced in Kolencik's (2001) study of supporting factors of library and information literacy in high school in Pennsylvania, librarian teachers did not realize about their teaching roles; moreover, they lacked understanding of their roles as co-teachers and had negative attitudes towards it.

In regards to teaching methods, it was found that lecture and giving examples were mainly adopted. However, according to Sheerhy (2001), to foster information literacy skills, the teaching method that should be used is resource-based learning. This is in line with Taqwechart's (2002) study which showed that resource-based learning could effectively enhance learners' information literacy in terms of understanding of the information, use of information, and responsibility to the use of information. In addition, the study also showed some other effective methods, which include the use of various instructional in-class activities and outside-class activities (e.g., promotion of book use, electronic media, and reading; exhibition, contest, story-telling). Different types of activities should be used and they should be practiced constantly and regularly (Chavalit, 2005; IFLA, 2000).

Moreover, it was found that the informants mainly used textbooks designed based on the prescribed curriculum as major instructional resources, as such the learners lacked opportunity to access different resources and instructional media. This was in line with the results of the evaluation of the fundamental education curriculum use in pilot schools and partner schools in 2003, which revealed that there were only a few instructional media, documents, textbooks, and instructional materials, book resources, and technological media, and that they were old, outdated, did not reflect the objectives of the course, and ineffective. The evaluation results also showed that there were no media and resources for some learning strands. This conformed to the results of the studies of Ponrugsa (2004) and

Kanchaiyaphume (1995), which showed that primary education lacked learning resources and schools should provide various learning resources, both inside and outside classrooms, to promote learner autonomy, lifelong learning, and creative use of free time, so that learners can learn at any place and time from different learning resources, not limited in only classroom. Likewise, Levinson (2006) stated that public libraries should play a role as a leader in promoting and fostering the concept of information access, evaluation, and use in new society in order that everybody is aware of information use and is equipped with lifelong learning skills.

In regards to assessment and evaluation, there was no clear and concrete evaluation of students' knowledge and use of information. As such, it was not possible to determine students' information literacy level. As mentioned, information literacy was not given as a separate course, but mainly based on teachers' knowledge and skills. Irving (1985) suggested that learners' knowledge can be assessed using projects or assignments. Similarly, Elderedge (2004), Johnson, Lindsay and Ursin (2004), Williams, Blowers and Goldberg (2004), and Bowler and Street (2008) stated that to evaluate students' information literacy, projects or reports can be used as assignments, which can be evaluated through teacher-evaluation, self-evaluation, and peer-evaluation in regards to resource selection, information use, presentation, written reports, and citations. In information-integrated curriculum, learners' knowledge and skills must be evaluated based on the information literacy criteria of the developed curriculum (Fitzwater et al., 2003).

Notes: This research was a survey study and its main purpose was to obtain important basic information for the development of information-integrated simulation lessons, as such inferential statistics were not used, but they will be tested in the next phase of the study.

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