GRAPH 4.18
TOTAL MEAN SCORES OF KNOWLEDGE MANAGEMENT PRACTICES RATED BY PRIMARY SCHOOL TEACHERS BELONGING TO DIFFERENT LEVELS OF KNOWLEDGE MANAGEMENT RESOURCES (TECHNOLOGIES)

CHAPTER 5
SUMMARY, MAJOR FINDINGS, CONCLUSIONS, EDUCATIONAL IMPLICATIONS, SUGGESTIONS AND RECOMMENDATION FOR FURTHER STUDIES

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Summary</td>
<td>391</td>
</tr>
</tbody>
</table>
CHAPTER 5
SUMMARY, MAJOR FINDINGS, CONCLUSIONS, EDUCATIONAL IMPLICATION, SUGGESTIONS AND RECOMMENDATION FOR FURTHER STUDIES
5.1 SUMMARY

Due to the globalization era, many organizations are becoming increasingly concerned with organizational knowledge and their use of knowledge to create and make quality products, deliver quality services, and maximize the efficiency of their internal operations. Effective knowledge management is now recognized to be 'the key driver of new knowledge and new ideas' to the innovation process, to new innovative products, services and solutions. Knowledge management provides the perspectives, approaches and the vision to put investments made in data, information, best practices, proven processes and a wealth of experiences to better use, where it is needed most in the organization.

The present study intends to study the knowledge management practices in primary schools in Thailand and to find out the source to support the effective knowledge management. The benefits of knowledge management resources may include the people (leaders and knowledge worker), process (knowledge management system and organizational culture) and technologies. Therefore, present research aims to study under the problem:

“A Study of Knowledge Management Practices of Primary Schools in relation to Certain Variables”

Objectives of the study

The present research intends to study the knowledge management practices of primary schools in relation to certain variables. The term “certain variables” refers to the knowledge management resources which are recognized to affect on the effectiveness of knowledge management
practices. In order to arrive the results of the study, the objectives are determined as follow:

(1) To study the knowledge management resources of primary schools rated by primary school teachers

(2) To study the knowledge management practices of primary schools rated by primary school teachers belonging to knowledge management resources i.e. people (leader and knowledge worker), process (knowledge management system and organization culture) and technologies

(3) To compare the mean scores of the knowledge management practices of primary schools rated by primary school teachers belonging to different levels of knowledge management resources i.e. people (leader and knowledge worker), process (knowledge management system and organization culture) and technologies.

Definition of the importance terms

In order to avoid the misunderstanding regarding the key terms of this study, it is obligatory on the part of the researcher to define the important terms which are as follow:

(1) Knowledge : Knowledge is a combination of data, information, context and experience. Knowledge can be described as a belief, values, religion, cultural, entirety of proficiency and skill that individuals use for problem solving and justified through discussion and action. Knowledge can be shared with others by exchanging information in appropriate contexts.

(2) Knowledge management : Knowledge management is a set of integrative process of coordinating infrastructures and technical and managerial tools, designed towards creating, storing, sharing, capturing, diffusing, and effectively using knowledge by individuals and groups, in
pursuit of organizational goals by providing space, time, tools, and encouragement. It is a management discipline (i.e. handle, direct, govern, control, coordinate, plan, organize, facilitate, enable and empower) that seeks to enhance organizational knowledge processing, with the purpose of contributing to the creation and maintenance of an organic, unified whole system, producing, maintaining, enhancing, acquiring, and transmitting the enterprise’s knowledge base.

(3) Knowledge management practices: Knowledge management practices refer to the knowledge management process which comprises a range of practice used by organizations to identify, create, codify, transfer or share, storage and retrieve, and apply or utilize.

In operative definition of the present study, knowledge management practices refer to the scores obtained from the scale which measures the knowledge management practices rated by primary school teachers. The knowledge management practices are divided into five process i.e. knowledge identification, knowledge creation and acquisition, knowledge codification, knowledge transfer or sharing, knowledge storage and retrieval, and knowledge application or utilization.

(3.1) Knowledge identification is to determine what knowledge has to be taken into account. There are four steps of knowledge identification: scope identification, identification of need, determination of requirements and identification of knowledge maps.

(3.2) Knowledge creation and acquisition aims to focus on the development of new skills, new products better ideas and more efficient process. Steps of creation and acquisition are identify new idea, search and select new ideas, analysis of knowledge
Management, analysis of knowledge culture, creates knowledge and establishes collaboration.

(3.3) **Knowledge codification** is an action of discerning the location and value of knowledge, restraints to knowledge flow, and opportunities to leverage the value of knowledge. It is the process of converting tacit knowledge to explicit knowledge in a usable form for the organizational members. Knowledge codification serves the pivotal role of allowing what is known in the organization to be shared and used collectively.

(3.4) **Knowledge transfer or sharing** is the activities associated with the flow of knowledge from one party or one person to another and from one source or place to another.

(3.5) **Knowledge storage and retrieval** refers to the activities which involves knowledge embedded in a variety of forms like written documentation, electronic database, expert systems, documented organization procedures. One such mechanism identified by the knowledge management community is “organizational memory”.

(3.6) **Knowledge application or utilization** refers to the process of using of knowledge that has been has been captured or created and put or stored in organization or knowledge management cycle.

(4) **Knowledge management resources** : Knowledge management resources are the sources for enhancing the knowledge management practices. In this study, knowledge management resources refer to three sources i.e. people, process and technologies.

(4.1) **People** are the human in the context of knowledge management who relay past experience and generate new ideas. People play
the central role with identification, gaining, creation, saving, structuring, transferring and utilizing knowledge. Managing knowledge involves two groups of people: leader or manager and knowledge worker.

In the present study, leader refers to primary school administrator in the southern part of Thailand and knowledge worker refers to the primary school members i.e. school administrators, teachers, students, parents and all of the stakeholders who play a role in the handling of knowledge management practices in their schools.

(4.2) Process in knowledge management refers to the methods and systems for generating, gathering, analyzing, organizing, disseminating and applying experiences, information and understanding for the benefit of an organization or society. In order to create, sharing, codifying, storage, retrieving, utilizing knowledge, knowledge process and culture in an organization, two important processes i.e. Knowledge Management System (KMS) and encouragement of organizational culture are considered to be affected on knowledge management practices in organization.

In the present study, the technology refers to the tools, machine and collection of techniques, desire products, method, skills, processes and raw materials including the computer, internet and all concerned to the information and Communication Technologies (ICT) in education.

In operation definition of the present study, knowledge management resources refer to the scores obtained from the scale which measures the performance of leader and knowledge worker in knowledge management practices as well as the activities or provisions of Knowledge Management System (KMS), organizational culture and technologies in primary schools. The scores obtained from the scale which measures the knowledge management resources are calculated in order to determine the
levels of knowledge management resources of primary schools and used to be the independent variable of the study.

Variables of the study

There are two types of variables in this study: independent variable and dependent variable.

(1) Independent variables

Knowledge management resources are the independent variables of the study. Knowledge management resources are divided into five aspects i.e. leader, knowledge worker, of Knowledge Management System (KMS), organizational culture and technologies. Each aspect of knowledge management resources is divided into three levels according to the scores obtained from the scale which measures the knowledge management resources i.e. high level, medium level and low level.

(2) Dependent variables

Knowledge management practices of primary schools are the dependent variables of the study. It comprises of six aspects:

(2.1) Knowledge identification
(2.2) Knowledge creation and acquisition
(2.3) Knowledge codification
(2.4) Knowledge transfer or sharing
(2.5) Knowledge storage and retrieval
(2.6) Knowledge application or utilization

Research questions
There were two major research questions to be answered.

1. What is the level of knowledge management resources in total score and classified into five aspects i.e. leader, knowledge worker, Knowledge Management System (KMS), organizational culture and technologies?

2. What is the level of knowledge management practices of primary schools in total score and in different aspects?

3. What is the level of knowledge management practices (in total score and in different aspects) rated by primary school teachers belonging to different levels of knowledge management resources (i.e. leader, knowledge worker, Knowledge Management System (KMS), organizational culture and technologies)?

Hypotheses of the study

Based on the objectives and the research questions; the major hypothesis can be determined. It was that there will be no significant difference between mean scores of knowledge management practices in total score and in different aspects (i.e. Knowledge identification, Knowledge creation and acquisition, Knowledge codification, Knowledge transfer or sharing, Knowledge storage and retrieval, and Knowledge application or utilization) of primary schools belonging to different levels of knowledge management resources (i.e. leader, knowledge worker, Knowledge Management System (KMS), organizational culture and technologies).

Limitation of the study

Six aspects of knowledge management processes are limited to use for knowledge management practices. They are: knowledge identification, knowledge creation and acquisition, knowledge codification, knowledge transfer or sharing, knowledge storage and retrieval, and knowledge application or utilization.

The certain variables in this study is referred to the knowledge management resources i.e. people (leader and knowledge worker), process (knowledge management system and organizational culture), and technologies.
The study is further delimited to the data which collected in academic year 2010 - 2011.

**Importance of the study**

In competitiveness in the marketplace, knowledge management is essential for survival of an organization. Knowledge management practices have become evident that it must be generated and integrated within an organization. Such an approach of knowledge management practices, knowledge management resources, such as people (leader and knowledge worker), process (knowledge management system and organizational culture), and technologies, are the important factors to contribute the accomplishment.

The results of the study will be the sources of information to guide or lead for increasing the effectiveness of knowledge management practices in schools and other educational institutions. This study hopes to support the school leaders in implementing the educational reforms by identifying specific leaders, knowledge worker, knowledge management system, organizational culture, and technologies that increase the high degree of knowledge management practices in schools and have a positive influence on the school effectiveness and students' learning outcomes.

**Research design**

In the present study, descriptive research was selected to be the research method. According to this type of research method, this study aims to find out the knowledge management practices of primary schools in relations to certain variables (i.e. knowledge management resources). The description is used for frequencies, averages, standard deviation, t-test and F-test statistical calculations.

As the present study was mainly interested in finding out the level of the knowledge management practices of primary schools in relations to knowledge management resources, the researcher decided to make use of descriptive research
design (survey method) which was considered appropriate design for obtaining specific information about the research situation.

**Tools used in the study**

The researcher desired to make use of the tools in form of the Likert scale. These scales were to measure the opinions of primary school teachers regarding the knowledge management practices and knowledge management resources. These scales were constructed by the researcher and consisted of 60 statements in each scale. Each statement has five levels of teachers’ opinion regarding the knowledge management practices and knowledge management resources i.e. "the most" or “much” or “moderate” or “less” or "the least".

The *Item-Test Correlation* ($r_{xy}$) was applied for establishment of validity of the scales. The knowledge management practices scale indicated the validity index ($r_{xy}$ value) between 0.63 - 0.84 whereas knowledge management resources scale indicated the validity index ($r_{xy}$ value) between 0.60-0.82 which were at excellence level.

$t - test$ was used to establish the discrimination index of the scales. It was found that the statement in the knowledge management practices scale and knowledge management resources scale obtained the $t - value$ greater than 1.96 which given statements differentiated between upper group and lower group.

Test-retest method (Pearson Product Moment Co-efficient Correlation: $r_{xy}$) was used to establish the reliability of the scales. The knowledge management practices scale and knowledge management resources scale were found the correlation efficient ($r_{xy}$) = 0.90 and 0.91 respectively

**Population and Sample of the study**

The population of the present study was the primary school teachers in the Southern part of Thailand. 900 primary school teachers were selected by stratified random sampling method to be the sample of the study.
Technique of analysis of data

The data collected by the tool was analyzed according to the hypothesis.

In order to determine the level of the knowledge management practices and knowledge management resources in total score and in different aspects, mean (\(\bar{X}\)) and standard deviation (S.D.) was calculated. The analysis of variance (ANOVA) was used to test the significance of difference between mean scores of the knowledge management practice in total score and in different aspects rated by primary school teachers belonging to different groups of knowledge management resources in total score and in different aspects.

5.2 MAJOR FINDINGS

There are 14 provinces included in the Southern part of Thailand, such as Krabi, Chumphon, Trang, Nakhonsri-thammarat, Narathivas, Pattanee, Pang-nga, Pattalung, Phuket, Yala, Ranong, Songkla, Satun, and Suratthanee. 50% of the total number of provinces (7 provinces) was selected by random sampling. 50% of the total number of district of each selected province was selected by random sampling. Therefore, 30 districts would be the sample of the study. Two schools were selected to be the sample of the study. Thus, 60 schools were selected. The population of teachers (1399 teachers) is included in 60 selected schools. In order to identify the size of sample, the researcher took the help of table of size of sample suggested by Krejcie and Morgan (1970)\(^{32}\). The total number of population in each province was converted into the number of size of sample which was 900. Each primary school was evaluated to find out the level of knowledge management resources. The results
of the analysis were found as follow:

(1) There were 17 primary schools obtained the mean scores of knowledge management resources (total score) at high level whereas the other 42 and 1 primary school obtained the mean scores of knowledge management resources (total score) at moderate and low level respectively. There were 15 teachers selected from each primary school to be the sample of the study. Therefore, out of 900 teachers, 255 teachers (28.33%) are having high level of the knowledge management resources (total score) whereas the other 630 teachers (70.00%) and 15 teachers (1.67%) are having moderate and low level knowledge management resources (total score).

(2) There were 21 primary schools obtained the mean scores of knowledge management resources (leader) at high level whereas the other 28 and 11 primary schools obtained the mean scores of knowledge management resources (leader) at moderate and low level respectively. There were 15 teachers selected from each primary school to be the sample of the study. Therefore, out of 900 teachers, 315 teachers (35.00%) are having high level of the knowledge management resources (leader) whereas the other 420 teachers (46.67%) and 165 teachers (18.33%) are having moderate and low level knowledge management resources (leader).

(3) There were 9 primary schools obtained the mean scores of knowledge management resources (knowledge worker) at high level whereas the other 31 and 20 primary schools obtained the mean scores of knowledge management resources (knowledge worker) at moderate and low level respectively. Therefore, out of 900 teachers, 135 teachers (15.00%) are having high level of the knowledge management resources (knowledge worker) whereas the other 465 teachers (51.67%) and 300 teachers (33.33%) are having moderate and low level knowledge management resources (knowledge worker).

(4) There were 20 primary schools obtained the mean scores of knowledge management resources (Knowledge Management System) at high level whereas the other 27 and 13 primary schools obtained the mean scores of knowledge management resources (Knowledge Management System) at moderate and low level respectively. There were 15 teachers selected from each primary school to be the sample of the study. Therefore, out of 900 teachers, 300 teachers (33.33%) are having high level of
the knowledge management resources (knowledge management system) whereas the other 405 teachers (45.00%) and 195 teachers (21.67%) are having moderate and low level knowledge management resources (knowledge management system).

(5) There were 12 primary schools obtained the mean scores of knowledge management resources (organizational culture) at high level whereas the other 34 and 14 primary schools obtained the mean scores of knowledge management resources (organizational culture) at moderate and low level respectively. There were 15 teachers selected from each primary school to be the sample of the study. Therefore, out of 900 teachers, 180 teachers (20.00%) are having high level of the knowledge management resources (organizational culture) whereas the other 510 teachers (56.67%) and 210 teachers (23.33%) are having moderate and low level knowledge management resources (organizational culture).

(6) There were 11 primary schools obtained the mean scores of knowledge management resources (technologies) at high level whereas the other 31 and 18 primary schools obtained the mean scores of knowledge management resources (technologies) at moderate and low level respectively. There were 15 teachers selected from each primary school to be the sample of the study. Therefore, out of 900 teachers, 165 teachers (18.33%) are having high level of the knowledge management resources (technologies) whereas the other 465 teachers (51.67%) and 270 teachers (30.00%) are having moderate and low level knowledge management resources (technologies).

(7) The knowledge management practices of primary schools in total score and in different aspects were found at moderate level.

(8) Overall knowledge management practices of primary schools in total score and in different aspect was found at moderate level.

(9) There was the significant difference between mean scores of knowledge management practices of primary schools in total score and in different aspects (i.e. knowledge identification, knowledge creation and acquisition, knowledge codification, knowledge transfer or sharing, knowledge storage and retrieval, and knowledge application or utilization) rated by primary school teachers belonging to different levels of knowledge management resources (total score).
Thus, schools having high level of knowledge management resources were significantly higher than moderate level and low level on knowledge management practices (total score). Schools having moderate level of knowledge management resources were significantly higher than low level on knowledge management practices (total score).

(10) There was the significant difference between mean scores of knowledge management practices of primary schools in total score and in different aspects (i.e. knowledge identification, knowledge creation and acquisition, knowledge codification, knowledge transfer or sharing, knowledge storage and retrieval, and knowledge application or utilization) rated by primary school teachers belonging to different levels of knowledge management resources (leader).

Thus, schools having high level of knowledge management resources were significantly higher than moderate level and low level on knowledge management practices (leader). Schools having moderate level of knowledge management resources were significantly higher than low level on knowledge management practices (leader).

(11) There was the significant difference between mean scores of knowledge management practices of primary schools in total score and in different aspects (i.e. knowledge identification, knowledge creation and acquisition, knowledge codification, knowledge transfer or sharing, knowledge storage and retrieval, and knowledge application or utilization) rated by primary school teachers belonging to different levels of knowledge management resources (knowledge worker).

Thus, schools having high level of knowledge management resources were significantly higher than moderate level and low level on knowledge management practices (knowledge worker). Schools having moderate level of knowledge management resources were significantly higher than low level on knowledge management practices (knowledge worker).

(12) There was the significant difference between mean scores of knowledge management practices of primary schools in total score and in different aspects (i.e. knowledge identification, knowledge creation and acquisition, knowledge codification, knowledge transfer or sharing, knowledge storage and retrieval, and knowledge application or utilization) rated by primary school teachers belonging to
different levels of knowledge management resources (Knowledge Management System).

Thus, schools having high level of knowledge management resources were significantly higher than moderate level and low level on knowledge management practices (knowledge management system). Schools having moderate level of knowledge management resources were significantly higher than low level on knowledge management practices (knowledge management system).

(13) There was the significant difference between mean scores of knowledge management practices of primary schools in total score and in different aspects (i.e. knowledge identification, knowledge creation and acquisition, knowledge codification, knowledge transfer or sharing, knowledge storage and retrieval, and knowledge application or utilization) rated by primary school teachers belonging to different levels of knowledge management resources (organization culture).

Thus, schools having high level of knowledge management resources were significantly higher than moderate level and low level on knowledge management practices (organizational culture). Schools having moderate level of knowledge management resources were significantly higher than low level on knowledge management practices (organizational culture).

(14) There was the significant difference between mean scores of knowledge management practices of primary schools in total score and in different aspects (i.e. knowledge identification, knowledge creation and acquisition, knowledge codification, knowledge transfer or sharing, knowledge storage and retrieval, and knowledge application or utilization) rated by primary school teachers belonging to different levels of knowledge management resources (technologies).

Thus, schools having high level of knowledge management resources were significantly higher than moderate level and low level on knowledge management practices (technologies). Schools having moderate level of knowledge management resources were significantly higher than low level on knowledge management practices (technologies).
The mean score of knowledge management practices in total score and in different aspects rated by primary school teachers having lower level of knowledge management resources in total score and in different aspects (i.e. leader, knowledge worker, Knowledge Management System, organizational culture, and technologies) has smaller value than that of the mean score of knowledge management practices in total score and in different aspects rated by primary school teachers having higher level of the knowledge management resources in total score and in different aspects (i.e. leader, knowledge worker, Knowledge Management System, organizational culture, and technologies). The difference between the mean scores of the pairs mentioned above is significant at 0.05 and 0.01 level of confidence.

5.3 CONCLUSIONS

From the results of the study, it can be concluded that the knowledge management resources of 60 primary schools were varies from high to low level. The knowledge management practices of primary schools rated by primary school teachers in total score and in different aspects were at moderate level.

The primary schools which obtained high level of knowledge management resources in total scores and in different aspects also obtained high level of mean score of knowledge management practices. The primary schools which obtained moderate level of knowledge management resources in total scores and in different aspects also obtained moderate level of mean score of knowledge management practices. The primary schools which obtained low level of knowledge management resources in total scores and in different aspects also obtained low level of mean score of knowledge management practices.

Knowledge management resources i.e. leader, knowledge worker, Knowledge Management System, organizational culture, and technologies did effect on the mean scores of knowledge management practices of primary schools either in total score or in different aspects.
Knowledge management is a process through which an organization generates the value, has become the imperative of modern organization. Knowledge management should be seen as a set of critical issues of schools in order to create potentials of organizational members. Taking into account the fact, the knowledge management resources are the basis contribution of knowledge management practices. For providing valuable knowledge management practices (i.e. Knowledge identification, Knowledge creation and acquisition, Knowledge codification, Knowledge transfer or sharing, Knowledge storage and retrieval, and Knowledge application or utilization), knowledge management resource (i.e. leader, knowledge worker, of Knowledge Management System (KMS), organizational culture and technologies) should be improved for its capabilities.

Knowledge Management (KM) is emerging from the business sector, which has influenced many fields of study including education. The current study sought to shed a light for better understanding about knowledge management practices and knowledge management resources and its implications for education, the researcher employed the descriptive method approach, using the KMP scale and KMR scale for data collection from primary school teachers.

The knowledge management can lead to improve in sharing knowledge - both explicit and tacit - and subsequently benefit the organization as a whole. Sustainable competitive advantage in 21st century, among other things, can be attained through efficient and effective knowledge
management. The essence of knowledge management lies in executing certain processes and activities of an enterprise with the aim of creating capabilities that will improve effectiveness of creating and efficiency of exploiting knowledge, increasing competitiveness and value on the market. Knowledge management can be thought of as a framework or an approach that enables school members to develop a set of practices systematically to collect information and share what they know (e.g. skills, experiences, beliefs, values, ideas, etc.), leading to action that improves services and outcomes. Knowledge management has several application areas in education, such as in curriculum development process, pedagogy and assessment techniques, teaching-learning process, student evaluations, etc. Knowledge management practices helps the primary schools to find, select, organize, disseminate, and transfer important information and expertise necessary for activities such as problem solving, dynamic learning, strategic planning, and decision-making. The challenges of knowledge management lie in making information productive, in handling the uncertainty of knowledge in a globalize world and in coming to terms with the growing importance of consumers and their individual needs.

The findings indicate that the knowledge management practices are becoming progressively more useful because knowledge management resources (i.e. people, process, and technologies) are taking accountable value. The findings also highlight a need for greater value of knowledge management resources in improving knowledge management practices. This implies the need for primary schools to increase the quality of knowledge management resources (i.e. people, process, and technologies).

Based on the findings of this study, a lack of knowledge management resources quality, the knowledge management practices cannot be achieved. The schools having high level of knowledge management resources were significantly higher
than moderate level and low level on knowledge management practices. Schools having
moderate level of knowledge management resources were significantly higher than low
level on knowledge management practices. Thus, the primary schools not only need to
provide the knowledge and understanding about knowledge management practices for
school members but they need to provide the knowledge management resources for
contribution of effective knowledge management practices.

5.5 SUGGESTIONS

Knowledge is increasingly recognized to underlie the success of all enterprises. It is
the agent that generates visions, the ingredient that drives people’s reasoning, and the capability that leads to intelligent behaviour. Knowledge is the factor that creates value for the organization and it is judged to be the most valuable asset of an organization.

From the results of the present study, it was proved that knowledge management resources did effect on the level of knowledge management practices of schools. In order to drive the best value from knowledge and to ensure the best success for schools, schools need to manage the knowledge.

The typically resources for effective knowledge management practices include three factors i.e. people (leader and knowledge worker, process (Knowledge Management System and organizational culture), and technologies. Benefits of knowledge management resources utilization may include increased wealth, achievement, meeting needs or wants, proper functioning of a system, or enhanced well being. Therefore, the continuous improvement of knowledge management resources is an essential for effective knowledge management. A continuous improvement approach to knowledge management practices will enable the school to improve its competitive position either by increasing its quality. Various techniques for improvement of knowledge management resources are suggested as follow:
(1) Schools should provide their school members with better knowledge and insights into what knowledge is and give them better understanding of thinking about knowledge management practices. These capabilities help individuals and organizations alike and can lead to:

- Improved learning and ability to stay ahead of competition and changes in the world.
- Better problem solving and decision-making.
- More innovation and greater creativity.
- Higher quality knowledge work.
- Improved knowledge embedded in products and services.
- More effective networking and collaboration.
- Greater vigilance and energetic behaviour. (Wiig, 1993)

(2) School should encourage people to take advantage of other people’s knowledge. Different types of software solutions might be useful in connecting people to others with the appropriate expertise.

- Interest Group E-mail Lists. E-mail is a powerful and affordable tool. Setting up e-mail lists for specific groups – using either through e-mail software like outlook, or external list tools like Google Groups or Listserve e-mail lists – can allow those interested in particular topics to share relevant information or to ask each other questions.

- Blogs or Wikis. Ask school members with knowledge in a particular area to manage a wiki or a blog to share information and resources with the rest of the members. Check out WordPress, TypePad, or Blogger for easy-to-use and inexpensive blog tools. Consider MediaWiki, JotSpot, and Wikispaces as wiki options.
Virtual group collaboration tools. Collaboration tools can help bring geographically separated people together. Working teams or interest groups could hold meetings via a conference call, online chat, or online meeting tools (such as Webex or ReadyTalk). Or they could work together using wikis (such as those above), collaborative management tools (such as phpGroupware or Zimbra), or online word processors (like Writely).

Expertise repositories. This can also explicitly track expertise and allow people to search through it. For instance, leader could ask school members to fill out a survey which itemizes their areas of expertise, and then surface that information online or in a database.

(3) School should ensure that everyone can find the documents and other resources useful to them. This is one of the most common reasons that school members investigate “knowledge management systems”: People can’t find the documents or resources they need. Or worse, they don’t what exists and proceed to reinvent things.

Several types of software might be useful to school that wants to make their existing resources more findable.

Enterprise search. School should have useful information and resources scattered among different file servers, intranets, school website, and more. A number of vendors (such as Google and Microsoft) offer search solutions that allow keyword searching across a multitude of sources and formats.

Tagging solutions. School should ask school members to “tag” documents with keywords, and then allow others to browse by those keywords can be an affordable way to surface key documents.

Intranets and shared document spaces. School should provide areas where teams or experts can upload resources for others to use. These
areas might take the form of school intranet or shared document spaces in a group collaboration tool.

(4) School should help the school members to answer common questions more easily. Making it easy to find this frequently requested information can have a big impact on productivity all by itself. School should ask school members what information they frequently look for and what questions they are frequently asked to identify the core questions. Many types of solutions might be useful in helping school members to find the most commonly requested information.

- Create and distribute FAQs. The most obvious – and often very effective way to address this goal would be to itemize the most common questions, answer them in a document, and then distribute the document to school members.

- Intranets. For many organizations, the list of FAQs becomes large enough that it’s difficult to manage in a document. The answers can instead be organized into a website viewable by the internal staff.

- Knowledge base. A system that carefully organizes answers to common questions, make them searchable, and allows cross-references is frequently called a “knowledge base.” This type of system can be particularly useful for people, such as like hotline or call center staff, who spend a lot of their time answering questions.

- Expert systems. Expert system can be used for the knowledge base. The term “expert system” defines a knowledge base that includes logic to help diagnose problems. These systems are most frequently used to help with complex questions that are asked over and over, and are typically built from scratch.
(5) School should ensure senior school members to have the right information to make decisions. A good knowledge management practices should do more than allow people to find the knowledge that exists. It needs to ensure that the right people can easily use that accumulated knowledge to make decisions. In practice, this often means pulling together information from a number of different sources to provide a quick overview. Many types of solutions might be useful in quickly conveying key organizational information.

- Consolidated status e-mails or documents. At a basic level, it can be helpful to ask the key school members to provide periodic status reports that include the key metrics and information they’ve defined. These reports could be weekly, monthly, or quarterly. They might be in the form of an e-mail or a document saved to a central location. Perhaps a school member could consolidate the status updates into a summary sheet of key metrics.

- Online dashboards. If leader automatically create an online version of the summary sheet described above, it’s called a dashboard. These dashboards typically pull information from a number of different sources and provide an overview via charts, tables, and indicators. This type of dashboard can be constructed using a portal software, or it could be more cost effective to build it from scratch.

(6) School should focus on development of Knowledge management strategies. Developing a knowledge management strategy, schools should begin with revisiting the school’s vision and mission and the associated strategic plans (Salisbury, 2003). Knowledge management should form the basis of a “roadmap” for the establishment of a knowledge management strategy. The school’s strategy should help to identify the performance gap between the current workflow and the optimal workflow required to achieve strategic objectives. In order to develop knowledge
management, a solid knowledge management infrastructure must be improved. The components of knowledge management infrastructure include: organizational culture, organizational structure, communities of practice, information technology (IT) infrastructure, common knowledge and physical environment (Becerra-Fernandez et al, 2004).

Organizational Culture: Organizational culture embodies the norms and beliefs that guide the behaviour of the organizational members and is an important enabler of knowledge management in an organization. Creating and supporting a culture helps motivate school members to understand the benefits of knowledge management at all levels and encourages knowledge sharing (Becerra-Fernandez et al, 2004). People and the way they are managed are at the centre of the knowledge-based working process (Ellis, 2005). A culture of support plays a vital role in satisfaction and ongoing success of KM strategy. The school members’ commitment is needed for a deeper form of attachment which leads to knowledge sharing. Individual commitment is linked to motivation, dedication and involvement in organizational processes. Rewards and incentives which promote school member's interaction will encourage knowledge sharing and creation. Direct mechanisms aimed at establishing a culture of knowledge sharing and learning include: regular organizational seminars, across business unit brainstorming sessions, tutorials lead by organizational experts (Suresh & Mahesh, 2006).

Organizational structure: Organizational structure characterized by a strong hierarchy can dictate and limit interaction and set barriers for knowledge transfer, especially between leadership, management and units within an organization (Becerra-Fernandez et al, 2004). It can also promote knowledge hoarding as individuals realize the personal benefit they
can draw from withholding knowledge. A decentralized, flatter structure with limited layers places more responsibility on each individual. It allows for emphasis to be placed on leadership promotion and not top-down management. Good leadership can promote creativity, increase individual motivation and lead to innovation. Organizational structure is closely linked to the culture of an organization. Strong hierarchies where knowledge hoarding is seen as vital to moving up in the school will promote disempowerment and dissatisfaction resulting in decreased motivation, efficiency and productivity. (Becerra-Fernandez et al 2004)⁸.

- **Communities of Practice**: According to Wenger, McDermott and Snyder (2002)⁹ informal groups known as communities of practice is the latest technique for getting employees to share what they know. New members bring in new interests and may pull the focus of the community in different directions. Changes in the organization influence the relative importance of the community and place new demands on it. School that allows development of communities of practice will encourage knowledge sharing and capture. Communities of practice are organic, self organized groups of individuals, who are dispersed, but communicate regularly to discuss issues of mutual interest (Becerra-Fernandez et al, 2004)¹⁰. Knowledge sharing within communities of practice can be achieved in a number of ways. Knowledge can be leveraged by developing existing communities in a natural informal way. Formalizing communities of knowledge can reduce the groups to repeating the official “company line”, abandon natural curiosity and energy which people share. Empowering communities of practice to decide what and how to share with the rest of the organization allows for the communities to feel ownership of their knowledge which helps to facilitate its organization and maintenance (Ahmed et al, 2002)¹¹. The success of communities of practice in sharing
knowledge across an organization will be largely dependent on a supportive an encouraging culture, as well as an organizational structure which promotes open, trust based communication between all members of the irrespective of status. Support in the form of resources, time and effort will ensure long term survival of communities of practice. It is important to link and integrate communities of practice into the work-flow of the organization. A number of techniques can be used for increasing the Communities Practices.

- **Talk rooms and knowledge fairs**: Evidence of such efforts can be done, where “talk rooms” are deliberately established in which school members meet to converse when and how they wish as well as in “knowledge fairs”. (Nonaka & Konno, 1998)

- **Mentoring**: Mentors serve as informal teachers, and knowledge is being transferred by means of internalization and externalization processes. In recent years, the concept of mentoring has been extended to include peer-to-peer help and mentor learning.

- **Stories and storytelling**: Swap and Leonard (2001) define an organizational story as “A detailed narrative of past management actions, school members’ interactions, or other intra- or extra-organizational events that are communicated informally within the organization.” Story telling helps school members to discover new knowledge and help them to share the story to develop a common outlook.

- **Breakfast chatting**: Seely and DuGuid (2000) found that a quick breakfast could be worth hours of training. School members talk about work and talk about it continually, while eating and gossiping. According to Seely and DuGuid, school members pose questions, raise problems, offer solutions, construct answers, laugh at mistakes and discuss changes in their work and customer relations. Both directly and indirectly, they keep one another
up to date about what they know, what they have learned and what they were doing. The group breakfast demonstrates that a job that seems highly independent on paper is in reality remarkably social. School members get together not only during official meetings but also in their own time for breakfast, lunch, coffee or the end of the day - and sometimes at all those times. This sociability is not just a retreat from the loneliness of an isolating job but the constant chatting is similar to the background updating that goes on all the time in any ordinary work situation.

- **Suggestion schemes:** According to Dunn and Lloyd (cited in Cooley, Helbling and Fuller, 2001) a suggestion scheme is “a formal mechanism, which encourages employees to contribute constructive ideas for improving their organization”. Suggestion schemes draw out suggestions from school members, classify them and send them to “experts” to evaluate them. Suggestions can then either be adopted or rejected by the experts. Suggestion schemes rely on employees to make their tacit knowledge explicit by posting suggestions in a “suggestion box” or by entering it in a database. The suggestion schemes as they are currently used can play a distinctive role in a knowledge management strategy because they are often based on either an intimate knowledge of detailed procedures.

- **Face-to-face conversations:** Turning to a technique that is so common as to go unnoticed, namely conversation concludes the review of practical techniques for supporting a socially informed approach to knowledge management. Conversation is viewed as essential. It is used as a medium for decision-making and it is through conversation that we create, develop, validate and share knowledge. According to Clark (1996) the vital characteristic of conversation is that it is a deeply interactive intellectual process as well as a superb method for eliciting, unpacking, articulating, and applying knowledge.
Externalization, the process of converting tacit knowledge into explicit concepts can be triggered by conversation. During face-to-face conversations school members share the same physical environment, are visible to each other, communicating by speaking and the receiver receives the message at roughly the same time as when the sender produces it. The result is that knowledge is immediately available to everybody involved in the conversation.

- IT Infrastructure: IT infrastructure should be developed to support the organization's information systems such as data storage and processing (Becerra-Fernandez et al., 2004). IT plays a vital role in capturing and sharing explicit knowledge of an organization by providing shared common access to information such as; procedural manuals, client and organizational contact databases. IT infrastructure should aim to promote communication especially between parts of the organization that are physically separated from each other. The type and extend of IT support in an organization will be depended on the size and type of organization. Small organizations with units which are not separated physically will have much less of a need for IT communication support and will need to focus more on storage and processing of data. The role of IT infrastructure will also be dictated by the type of relationship an organization has with its clients. A small community organization which provides one of face to face advice will not relay as heavily on IT systems to capture information as a telephone based marketing organization.

- Common Knowledge: Common knowledge formed through cumulative experiences provides unity, a shared language and norms to members of an organization. Common knowledge adds the value of individual expert knowledge by placing it within the context of the knowledge of others in the organization (Becerra-Fernandez et al., 2004). Common knowledge of a
given organization is endemic to it and resists transfer or leakage to other organization. As such common knowledge support knowledge transfer in the organizations it belongs to. Recognizing and facilitating transfer of common knowledge is facilitated through organizational routines and informal ways of “doing things” which are unconsciously understood by members of the organization.

- Physical Environment: The design of the physical environment from workplace office layout, provision of meeting rooms and spaces for informal knowledge sharing and transfer such as coffee rooms is a vital component which can facilitate human interaction and thus enable knowledge sharing and creation (Becerra-Fernandez et al, 2004). Too often office design can group teams together and segregate them from other units of the organization.

(7) School should find out a better “Knowledge Management System”. Knowledge Management Systems is a method used to improve the performance of knowledge management practices. The effective “Knowledge Management System” can be suggested as follow:

- First step is to quickly assess school or team’s orientation and readiness for knowledge management. By taking around 15 minutes to complete the questions, the school situations can be identified for improvement of knowledge management.

- Second step is to provide knowledge management education ranging from a 30 minute streamed 'Introduction to Knowledge Management' to “Effective Knowledge Management Practices”.

- Third step is to encourage the school members to learn how to conduct a Knowledge Management consulting.
Fourth step is to identify and implement the new Knowledge Management Roles and Responsibilities.

Fifth step is to focus on the evaluating, piloting, designing, improving and implementing improved knowledge driven work practices, processes, methods, tools and techniques. This step provides a directory of Knowledge Management Practices, tools and techniques.

Sixth step is to develop and manage the new knowledge competencies to be able to perform the new Knowledge Management roles and responsibilities, perform the new Knowledge Management Practices, and to use the new tools and knowledge technologies. This step provides a complete online Knowledge Competencies development and management system.

Seventh step is to develop the effective Knowledge Networks and Communities of Practice to be able to better surface and share the most valuable tacit knowledge that often gets locked away in the heads of individuals. This step provides a growing international Community of Knowledge Management Practitioners for school members to join and share knowledge and experiences.

Eighth step is to develop and implement the new hardware and software technologies, such as Knowledge Portals, Knowledge Servers, Knowledge Bases and Collaborative work spaces to support the new Knowledge Management Practices, Methods and Tools.

Ninth step is to measure the effectiveness of implementing Knowledge Management and the school benefits derived.

From the above suggestions, it can be said that successful knowledge management can lead to a number of positive impacts within the organization. Knowledge becomes a resource that can be stored and reused
by employees at any time and anywhere. Each individual then becomes empowered with the total knowledge of that organization, and that has an impact on the organization as a whole.

5.6 RECOMMENDATION FOR FURTHER STUDIES

On the basis of this research work carried out by the present researcher, the recommendations for further research study would be as follow:

(1) There should be a study of impact of knowledge management practices in improving student learning outcomes.

(2) There should be a study of the uniqueness of knowledge management in primary and secondary schools: An empirical study about the managing knowledge as an strategy for lifelong learning.

(3) There should be a study of factors influencing knowledge management practices of school in different levels i.e. primary school, secondary school and higher education.

(4) There should be a study of the relationship between knowledge management practices and academic performance.

(5) There should be a study of the relationship between organizational learning and knowledge management practices.

(6) There should be a study of the impacts of knowledge management practices
on the school context and school effectiveness.

(7) There should be a study of the relationship between knowledge management practices and information and communication technologies.

(8) There should be a study of the key challenges for the effective knowledge management practices.

(9) There should be a study of the effective model for knowledge management in different school levels.

5.7 OVERALL SUMMARY

At the end, one can say that the globalization has brought many modern trends and enormous changes in every enterprise including in education. Schools have the task to adapt them as quickly, easily and painlessly they can in order to survive in the competitive market. The vital strategic resource today is the knowledge – individual and organizational. By realizing the major value of intellectual resources, schools have to manage the knowledge rationally and effectively. Hence the importance of knowledge management as a concept of individual and organizational knowledge, aimed at effective application of knowledge to make quality decisions. The success of schools largely depends on the effective knowledge management practices. The biggest challenges behind knowledge management practices are the knowledge management resources i.e. people, process and technologies. The result of the present study has shown that the knowledge management resources i.e. people, process and technologies did effect on the knowledge management practices of primary schools. It can be said that knowledge management resources i.e. people, process and technologies has a positive impact on the knowledge management practices. This study can
lead to the improvements in the knowledge management resources i.e. people, process and technologies in order to raise the knowledge management practices. With the improvement of the knowledge management practices, the students’ achievement and educational goals could be very beneficial.

REFERENCES

4. Ibid.
   London: Chandos Publishing.
   Lessons in Economy. London: Chandos Publishing
8. Ibid.
   Base Organizations Dedicated to Networking, Benchmarking and Sharing Best  


18. Ibid.

19. Ibid.