

The model of KM Learning Activities Integrating into Business Management Curriculum Instruction

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Abstract: -The purpose of this study is to discuss the importance of knowledge management for enterprises and individuals and to gain abilities of knowledge management through a finance investing management activity in college business course learning. The learning activity includes designing a personal fund management chart and discussing how to develop a student's ability of knowledge management. After participating the activity, students can learn how to express and share their opinions in fund investment. The anticipated benefit of this study for students is to learn the abilities of knowledge obtaining, transformation, application, innovation, protection and so on.

Key-Words: Knowledge Management(KM) 、 Business Knowledge Management 、 Personal Knowledge Management(PKM)、 Fund Management

1 Introduction

With the arrival of the era of knowledge economy and the network development, the ways of science and technology including the type of students' study, the source of obtaining knowledge, personal knowledge management, etc. have great changes.

This study regards finance investing management activity in college business course learning as the example. The learning activity includes designing a personal fund management chart and discussing how to develop a student's ability of knowledge management. The purpose of this study is to discuss the importance of knowledge management for enterprises and individuals and to gain abilities of knowledge management through a finance investing management activity in college business course learning.

2 Backgrounds

2.1 Definition of knowledge

Knowledge is a core of knowledge management. It wants to implement the intension which should be distinguished from knowledge first in knowledge management. The definition of knowledge of Davenport & Prusak is as follows [1]:

(1) Type of knowledge attitude: Knowledge is a mixture that flows, changes and upgrades as stimulation and study at any time.

(2) Composition of knowledge: The composition of knowledge includes the experience, value, situation information and professional insight.

(3) Main function of knowledge: Knowledge can offer a structure of consultation in order to assess, combine and stimulate the information and experience, and to form the new structure and to guide decision and behavior.

(4) Subject that knowledge stores: Produce and utilization via the knowledge user's intelligence don't merely exist in the file and knowledge but also in customary job, procedure, practice and culture .

2.2 Meaning of knowledge management

[2] defines the knowledge management as follows:

(1) The activities of knowledge management are knowledge checks, assessment , supervision , plans , make , study , circulation , combines , protects , innovative activity, and treat knowledge as the assets to manage , promote the value of knowledge.

(2) The course of knowledge management is to combine internal and external knowledge and organize the knowledge internalization.

In sum, the categories of knowledge management are obtaining, searching, choosing, introducing, changing, appearing, organizing, sharing, protecting, creating, storing, using about knowledge. The meaning of knowledge management regards knowledge as the noumenonn, the individual and group are via the use for knowledge and application to promote the essence benefits of individuals or the group. It is a final goal of knowledge management.

2.3 The ability of knowledge

management to enterprises

Nowadays, we are experiencing the era of knowledge economy; every enterprise can become knowledge type business, improve the value of enterprises through knowledge management. So, knowledge management has already been turned into an important subject in business administration. It can create value and accumulate the competition advantage well by managing knowledge. The core of effective knowledge management is people that cooperate with the information system, fast accumulating and spreading the experience and information to create enterprise's unique knowledge capital.

Enterprises bring into knowledge management function by storing knowledge, standardization, file if at the same time knowledge can be spread out in enterprises, and usually adopt the following knowledge management tools: database, software of virtual group, enterprise resource planning(ERP), E-learning, virtual group operating, etc..

By the brief introduction of above-mentioned knowledge management tools, we can know that knowledge management has also already tended to the electronization, networking. So, if we manage knowledge well through information science and technology, the members will need to possess the following stated abilities at least: [3] (a) Ability to encode, (b) Ability to decode, (c) Ability to use information and knowledge, and (d) Ability to cooperate and communicate with others efficiently by integrating information.

2.4 The ability of knowledge management to individual

At present, knowledge management is in an important position because of information overloading, the power of knowledge, diverse ways of obtaining knowledge, needs of interpersonal relationship, long life learning.

In order to solve the knowledge which is needed by workers, [4] defines personal knowledge management can roughly be sorted out for five major fields: (a) Personal relationship management, (b) Personal mobile communication management, (c) Personal document database management, (d) Personal time management, (e) Personal network resource management. It proves that personal knowledge management should be contained with abilities to search and administer information, establish personal knowledge management framework, and use knowledge management tools well: information software and hardware.

2.4 The ability of knowledge management to students

If schools are able to strengthen, train students' knowledge management ability, it will promote the study effects and expand students' vision in study. While carrying on learning course planning, integrating with knowledge management into the learning activity, will train students to be capable of suiting the international job market.

At present, some experts and scholars have invested relevant research and correlated curriculum to develop. According to Chen

Chun Qing's study [5] of "The construction of knowledge management competences for college business and management students", this study which discussed and built the ability indexes of student knowledge management is designed for the learning activity. This ability indexes include four competence categories: knowledge acquisition, conversion, application, and protection; eight competence items: knowledge selection, acquisition, learning, storage, structure, creation, dissemination, and protection management; and thirty-two knowledge management indicators. The activity in this study expects not only to train students to possess above-mentioned personal knowledge management ability, but also to be able to suit the future international job market.

3 Research method

3.1 Research framework

The research method of this study is mainly to inquire and conclude the knowledge management ability that individual needs to possess for job and life, and design an learning activity for further discuss how the school educates students to possess personal knowledge managerial ability in feasible way. Fig. 1 shows this research framework.

3.2 Research purpose

The purpose of this study is to discuss:
(1) The importance and need of knowledge management ability to enterprise and individual.
(2) The way of training students' ability of knowledge management through a learning activity.

4 Activity Design

4.1 Learning activity design

(1) Unit: Designing a personal fund management chart

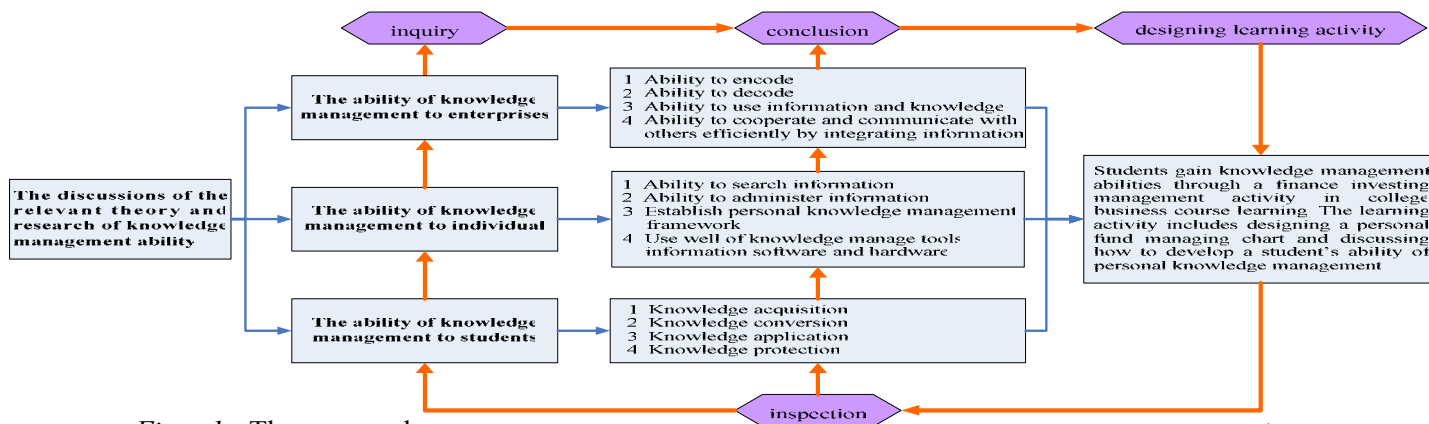


Fig. 1 The research framework in this study.

to search necessary information, (c) Can pick necessary information properly,

(2) Participation: The third grade students in business and management college.

(3) Teaching material analysis:

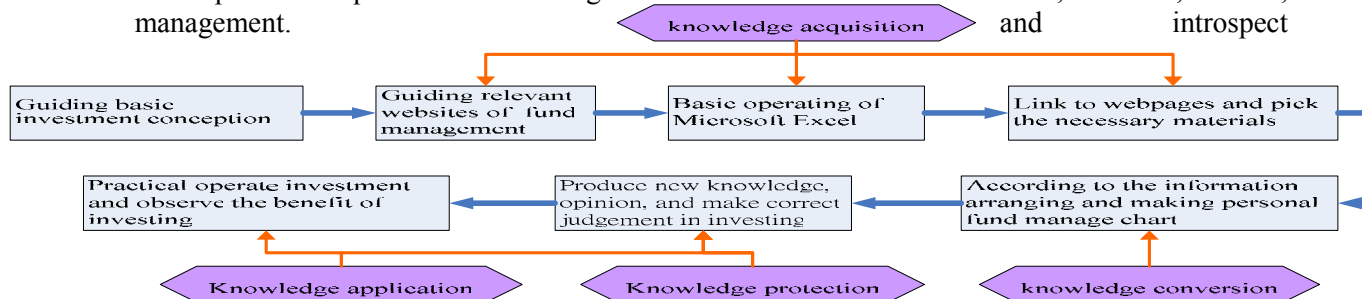
With the arrival of knowledge management times, no matter accumulating individual's profession, working knowledge or making the investment, knowledge management plays an important role. Knowledge becomes the important ability in work, and benefits personal life and finance investment. Theory of E-learning mentioned by "Learning theories and the design of E-learning environments" [6], advocating the interdisciplinary approach to enhance students' ability of problem solving like an expert who can easily retrieve relevant information to solve the problem at hand. This activity integrates finance, computer teaching, and knowledge management theory, in order to train up students' multiple abilities. Designing personal fund management chart and making investment in fund in this learning activity help students possess the ability to solve problem and can be applied to the study, life, job market, and share their innovative opinion. All above-mentioned are the spirit of personal knowledge management.

Fig. 2 The activity design of this study.

(d) Can operate Microsoft Excel basic function, (e) Can make the fund management chart according to the personal demand, (f) Can transform the information into personal knowledge from fund management chart, and (g) Can use the knowledge to the investment activity in fund.

(4) The assessment of activity: (a) Whether students could finish the chart successfully, (b) Whether students can transform, apply the knowledge and participate in making decision to invest, and (c) Observe the course of student's judge, decision and investment effect.

(5) Expected benefit: (a) Students search, discuss, observe, reason, and introspect



(4) Unit goal: (a) Understand the basic investment conception, (b) Can use webpages

voluntarily to build and construct the personal knowledge management system. (b) Making

the best of major information, digital tools to solve the problem. (c) Train personal knowledge management ability, apply to actual life, and become the financing sage.

(6) Activity procedures: according to Chen ChunQing's study [5] of "The construction of knowledge management competences for college business and management students", and the expected benefit, the activity of designing a personal fund management chart is shown in Fig. 2.

4.2 Teaching strategy

[6] According to theory of E-learning mentioned in "Learning theories and the design of E-learning environments", it indicates the interdisciplinary approach is the appropriate method to enhance students' ability of problem solving like an expert. This study adopts interdisciplinary ways of educational planning, students investigate activity, problem solving leading learning, and heuristic method, and integrates finance, computer teaching, and knowledge management theory to train up students' multiple abilities.

4.3 Research range and limit

(1) Research range:

(a) Participation: The third grade students in business and management college

(b) Research tools: Microsoft Excel,
Fund DJ webpage
<http://www.funddj.com>,
GOGOFUND.COM

<http://www.gogofund.com>,
Yahoo finance

<http://tw.money.yahoo.com>,
Yahoo stocks
<http://tw.stock.yahoo.com>

(2) Research limit:

(a) Participation: This activity is designed for knowledge management course, and the participants are the third grade students in business and management college, who tend to participate the activity and to possess about equal ability background.

(b) Investment target: Observing the investing benefit by market-timing

investment after a semester.

5. Education Knowledge Management Website

Take a broad view of the educational reform in recent years, that shows the teaching activities become flexible and emphasizes on team work.

For institutional support, originating from the guidance of Education Bureau of Kao. city, the website "Smart Creative teachers net, Sctnet, <http://sctnet.edu.tw>" was established. It is a network community for teachers to discuss and share instruction knowledge and experiences. It is managed by certain educators. From the start, the network was expected to be a teacher's professional networks.

Using information technology would let the members have professional dialogue without limit, make knowledge fast, clarify their ideas, share experiences, innovative teaching methods and make teaching activities more lively. The intension of this interdynamic course is the motive of this research. According to the net statistics, there are about 497 times of visit to the website [12].

This study attempts to analyze the intension of the network platform, to understand what the educators concern about, and the knowledge management of teachers.

6. The Sctnet

SCTNet means 'Smart, Creative and Teachers'. It was hoped to establish an educational academic community, let teachers become lively and creative [12].



Fig1. The sctnet website, resource from <http://sctnet.edu.tw/>

The net offers teaching materials, test questions, sharing of teaching activities, education forum, electronic bulletin board, special interest group (SIG), chatroom, and E-mail. The workshop members can share their knowledge, experiences, gains and ideas online. Then they can achieve further purpose on resource-sharing.

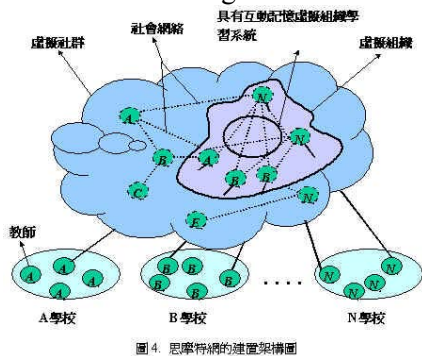


Fig2. The structure of Sctnet, resource from <http://sctnet.edu.tw,2008,01,20>.

SCTNet is a virtual organization, its main purpose is to help teachers share their professional knowledge and experience mutually, then to set up a teacher's professional social network, and to promote the sharing of teaching experiences across schools and districts. The potential of such organization will be unlimited if it can combine the teachers of various specialities.

Sctnet is divided into 10 major parts including 1865 workshops which offer interactive discussion for teachers with interest in different fields.

The function in the workshops includes school community, interest field, classmate, teaching application, education training, study support, administration coordinate, ect. However, the workshops with function of teaching skills are concerned the best. Among them, the purpose of some workshops is to transmit administrative matters or manage administrative communication. The members of those workshops are mainly administrative persons from schools. For example, the workshops named : Administrative sky of

school, secret base of general affairs, practice workshop of consistent course in nine years, the consistent administrative work workshop, health workshop etc.

All administrative matters can be put on discussion board or the message board for members' discussion. In addition, members can receive relative messages through their E-mail.

The function of the workshop offers resources-sharing, discussion board and message board. Discussion board provides members to create issues for discussing, and list all didcussion contets on-line. All members can see every issue here. We can understand how the teachers are interested in different issues and their response to them.



Fig3. The function of workshop

7 Literature Review

7.1 Knowledge Management is a Trend

Knowledge management is about using the brain power of a systematic and organized organization in a to achieve efficiencies, ensure competitive advantage, and spur innovation[23].

The tacit knowledge possessed by individuals is crucial and instrumental to an organization's operation and survival. However, reaching the point where employees willingly share what they know is tough. But IT has made it relatively easy to organize, post, and transfer certain types of information[23].In other words, knowledge sharing is far more important in the process of knowledge management is.

The application in education of knowledge management has been a trend that can't be ignored. Professional dialogue is an important type for knowledge management. The combination of information science and

technology can gather various communication from the platform into a database. The database is a base for receiving, understanding, storing, and innovating of educational knowledge.

7.2 Knowledge Management Process

Knowledge management is a complex process that must be supported by a strong foundation of enablers. The enablers for KM are strategy and leadership, culture, measurement, and technology. Each of these must be designed and managed in alignment with others in support of the process. The process usually involves several of following stages or subprocesses in the use of knowledge: receiving, **identifying**, application and creation[11].

7.2.1 Knowledge Receiving

For example, knowledge can be received from five ways: merchandise, the relationship with other companies, study cooperation, institutes of educational training and the flow of members. Moreover, while the receiving of knowledge is organized, the obtaining of its goal should be paid attention to. And the interaction between different sources and information must be managed properly.

7.2.2 Knowledge Identify

The research about knowledge identify management is focused on the precise, degree deepening and understanding of knowledge inside the organization, and discusses on diversity of knowledge. Such as traditional manufacturing industry, service trade and Hi-Tech industry, there is much difference between the knowledge models they own and use. Thus, effective confirmation on knowledge is the main step to precise and deepen the knowledge in organization. Educators should have the ability to identify the professional knowledge.

So the degree of the contents of professional dialogues to knowledge identify is one of the intension to be analyzed in this study, it's also the process to confirm if the workshop reach the target of knowledge management.

7.2.3 Knowledge Application

The focal point of knowledge applicat managing the orientation of knowledge application is here emphatically: Through

which ways and course knowledge is, achieve the goal of sharing with the real example. Such as as for dynamic view, should organize knowledge from social knowledge, external knowledge, combine knowledge to flow to four procedures of inside knowledge, and then reach the diffusion of knowledge, finish the sharing of knowledge. In addition, tacit knowledge and outside show the transformation between knowledge and diffusion relation inside, is one of the course that this kind of research orientation pays attention to.

Purpose, workshop lie in knowledge of workshop person share, how be workshop person in latent knowledge inside that workplace produce, transform into outside where the workshop can be shared and show knowledge, impel other members to apply to the job market of the job, get the result of real example.

7.2.4 Knowledge Innovation

Knowledge innovation management focuses on the value after application. For example, to manage and use the knowledge and experience of an organization systematically can add appropriate practice for action value.

Whether workshop members look for, understand, and use knowledge with the systematized method, and then create the education value is also an intension to be researched and analyzed.

8 Study Method

There are 672 issues and 13233 dialogue contents for analysing. Before data analyzed, The team pre-analyzed for several times, and discussed the regularities. Two researchers participated the analysis, the other two members did double check.

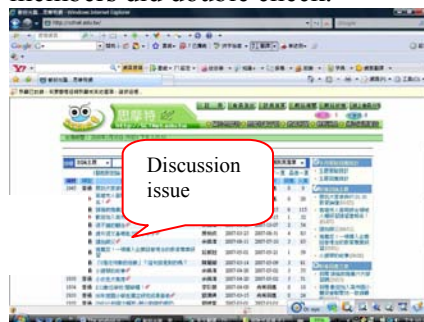


Fig4. Discussion board

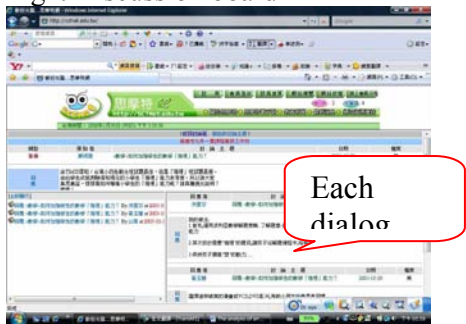


Fig 5. Contents of dialog

The main shafts of analysis are knowledge receiving, knowledge identify, knowledge application and knowledge innovation. The times and percentage of those shafts are counted by different learning fields, see figure6. The meanings of different numbers are:

0 :means inprofessional dialog

	inprofessional	knowledge receiving	knowledge identify	knowledge application	knowledge create
language	30.36%	10.40%	27.24%	31.33%	0.58%
math	44.66%	7%	41.44%	4.97%	1.93%
social	54.96%	21.28%	11.16%	11.57%	1.03%
science	50.20%	38.09%	6.43%	4.94%	0.34%
life	26.50%	43.55%	19.35%	10.37%	0.23%
art	47.83%	26.45%	19.77%	5.47%	0.48%
health & physical	40.21%	28.52%	24.74%	5.84 %	0.69%
activity	55.46%	13.38%	24.96%	3.75%	2.45%

- 1 : means knowledge obtained
- 2 : means knowledge Identify
- 3 : means knowledge Application
- 4 : means knowledge create

Fig 6. Science field dialog definition chart

9 Findings and Discussion

9.1 Findings

(1)According to the percentage chart, we found that the unprofessional dialog was

42.46%, knowledge receiving was 21%, knowledge identify 22%, knowledge application 13% and knowledge Innovation 1%.

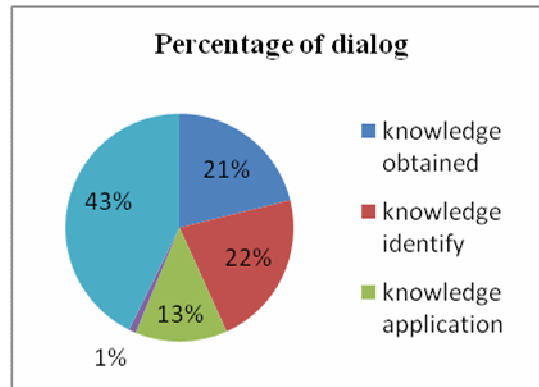
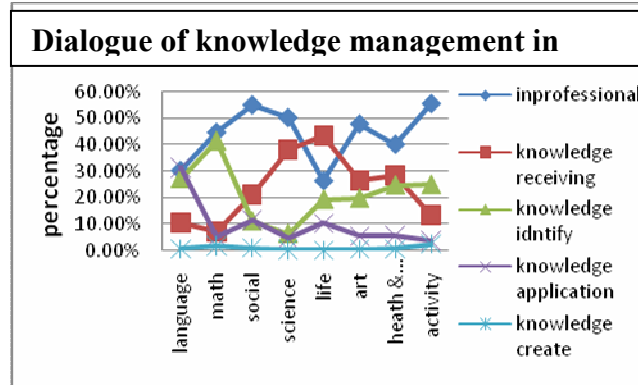


Fig7. Percentage of dialog

(2) Difference appears in the percentage of knowledge management from the dialogue of different learning fields.

Table 1. Knowledge management dialog in leaning field



It concentrates mainly on Chinese, mathematics, nature, science and technology field of life. However, there are no relevant proportions in the dialogue content and knowledge management. There is a phenomenon on the high side except life field. But for knowledge innovation, there is not much difference among different fields. For knowledge receiving, life and science fields takes higher percentage, mathematics field takes the lowest percentage; for knowledge identify, mathematics is the highest, nature field; for knowledge application, Chinese is

the highest and activities is the lowest,; for knowledge innovation, activities is the highest and life field is the lowest.

9.2 Discussion

So, there are different levels on constructing knowledge. The dialogue content on the discussion board of this workshop takes 43% about the interaction of knowledge receiving and identify. The dialogue has performed the elementary benefit of knowledge management on network platform. Dialogue of this level provides the basic information and opportunity of identifying for related knowledge constructor for various curriculum. Higher level about application and innovation 14% only.

Besides, administrative transmitting, emotional communication, and interactive encouragement take 42.6%. Nothing to do with knowledge constructing, members here interact with each other a lot. The dialogue not related to knowledge constructing has great influence and is necessary to the running of this workshop. Because that is the value of using the network platform to talk freely.

10 Conclusion

The workshop provides instant communication on different fields for members, and identifies the knowledge received through on-line discussion. Identifying knowledge is the basis of knowledge application. The results members get from the curriculum workshop (question, talk, react) can confirm and identify the knowledge sources, also improve the curriculum development and teaching quality by applying knowledge.

For knowledge management, the hardest goal to be reached is knowledge innovation. It means to use knowledge to create action and value.

The dialogue about human concern promotes the interaction, which is the value of using the network platform to take freely and the attraction to promote members' interaction. And, the promotion of higher interactive website about administrative matters is

another way worthy of being considered by E-government.

Knowledge management plays an important role to enterprises and individuals day by day, and individuals must have and acknowledge digital information management as modern indispensable basic ability to adapt the modern life and employed market

10.1 Personal knowledge management to enterprise and individual

- (1) Ability of constructing the information search system.
- (2) Ability of organizing and encoding information.
- (3) Ability of understanding, transforming, and applying information.
- (4) Ability that transforms information into knowledge and can be spread.
- (5) Use knowledge to interact with others, communicate effectively, and produce new knowledge or the ability of the original idea.
- (6) Make the best of the information, ability of promoting the efficiency of management of knowledge by digital tool.

10.2 The way to train students' ability of knowledge management

In order to let students make good preparations for obtaining employment and promoting the personal competitiveness, according to the characteristic of knowledge management theory and the basis of E-learning theory, the learning activity in this study designs personal fund management chart. The adopted teaching strategies include: (a) Interdisciplinary planning, (b) Regard student as the core of investigate learning, (c) Enlighten teaching model to incorporate topical activity, and enhance knowledge management ability to students.

To sum up, successful knowledge management should include the clear performance goal, perfect individual and searching system combined with proper tools and methods, so the school must have systematic planning and policy of knowledge management course for this target. With the

systematized learning activity, students can be capable to trend of the day and possess the key ability to the life.

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