

KNOWLEDGE MANAGEMENT STRATEGIES AND PROCESS IN TRADITIONAL COLLEGES: A STUDY

Sangeeta N. Dhamdhere*

Abstract *Academic Institutes are considered as “Knowledge Houses” where knowledge flows from teachers to students and new knowledge is created. The information generated is covered in different forms and sources like books, journal articles, thesis or dissertations, technical reports, fact finding reports, case studies, patents, development of test methods and standards, different scholarly communications etc. Every academic institution contributes to knowledge. All knowledge generating organizations like industries, R and D centers, and higher education academics from colleges to universities are in search of new concepts in their subject of interest and also contribute to knowledge through various means. The generated information and knowledge is to be compiled at central place and disseminated among the society for further growth. It is observed that the generated knowledge in the academic institute is not stored or captured properly It is also observed that many a times generated information or knowledge in the academic institute is not known to any one and remains as grey literature, which might be useful if proper recoding is maintained in the organization. In this paper the author discussed the knowledge management concept, importance of knowledge management in education sector especially traditional colleges in Pune City, strategies used to capture students, teachers and processes knowledge and suggested knowledge management process for traditional higher educational institute based on the survey conducted. This article will be use ful to all educational institutes who interested to practice and apply knowledge management process.*

Keyword: *Knowledge Management, KM Strategies, KM Model, Higher Education System, KM Process*

INTRODUCTION

Academic Institutes are considered as “Knowledge Houses” where knowledge flows from teachers to students and new knowledge is created. The information generated is covered in different forms and sources like books, journal articles, thesis or dissertations, technical reports, fact finding reports, case studies, patents, development of test methods and standards, different scholarly communications etc. Every academic institution contributes to knowledge. The generated information and knowledge is to be compiled at central place and disseminated among the society for further growth. It is observed that the generated knowledge in the academic institute is not stored or captured properly It is also observed that many a times generated information or knowledge in the academic institute is not known to any one and remains as grey literature, which might be useful if proper recoding is maintained in the organization. In fact academic environment is treasure of knowledge but it is not organized properly and hence utility is also lacking and cause for the repetitions of the activity.

Knowledge Management (KM) in educational institution makes good sense and a good combination of intellectual output of the academic organization if preserved well using technology. In distance or online education system knowledge building is having lots of important. Without that the teaching learning process is not possible. They need to

build knowledge repository including classroom teaching videos, online interactions, and many other databases. In traditional education too now universities are making available classroom teaching online in the form of videos so knowledge capturing techniques are taking new place in education system

This research is undertaken for creating an effective model for managing the available and past as well as knowledge within minds of people of an institute in various forms. Also study on data capture, data analysis, data categorization, data mining, data mapping, knowledge mapping, concept mapping, indexing, linking and repackaging of knowledge, tools, techniques, strategies and copyright issues in sharing this knowledge through knowledge base.

RESEARCH OBJECTIVES

The main objectives of this research are

- To create knowledge base of captured tacit and explicit knowledge of staff and students/ Institute
- To study the application of ICT and web technology for creating knowledge base
- To study the current situation and/or problems of knowledge management practices and strategies used in the selected NAAC “A” Grade academic institutes in Pune.

* Librarian, Modern College of Arts, Science and Commerce, Ganeshkhind, Pune, Maharashtra, India.
E-mail: modernlibrary.sangeeta@gmail.com

- To identify and analyze the development of knowledge management processes, strategies used including critical success factors of knowledge management.

REVIEW OF LITERATURE

What is Knowledge?

Knowledge is an important source for value creation in an organization and needs to be managed carefully-Massa and Testa (2009). It is a vibrant force in the rapidly changing global economy and society. Knowledge includes insight and wisdom of employee and could be used for decision making. It is also embedded in work processes, teams and exists in all core functions of an organization as well as its systems and infrastructure. For the Japanese, Knowledge means wisdom acquired from the perspective of the entire personality.

With reference to the educational institute, input by teacher is the data for the student, when he understands the things given by data that is information for the student when he analyses the information it becomes knowledge aspired by him and when he applies in the field it becomes his wisdom.

Types of Knowledge

There are two types of knowledge viz. explicit knowledge and Tacit Knowledge

Explicit Knowledge: is recorded and well documented information that helps in taking action and also expressed in formal language. It is published and made available for use like primary, secondary information sources and also covers packaged, communicable, transferable, and also easily available. It can be articulated, captured, presented and codified in various forms like words, numbers, specifications, facts, rules, reports, blog post, email or other sort of printed (books and journals) and digital asset, policies and shared without need for discussion.

Tacit Knowledge: is knowledge people carry around in their head. It is embedded within the head/minds of researchers of the institution or organization or research unit etc. It covers insights, perceptions, expertise views, techniques and skills, which is unique to the person. Tacit knowledge is not communicated in written form as it is purely personal, specific to any field, and even very difficult to capture, share verbally and transfer in the society.

Author mainly focuses on the tacit knowledge that employee, teachers, students, processes, systems of academic institutes have but they have difficulty in expressing or articulating it. There are two types of tacit knowledge one is knowledge of researchers which could be shared by both individual and

groups. Another is tacit knowledge which can convert to explicit so that can be shared among the institute.

What is knowledge Management (KM)?

KM is a process of transforming information and intellectual assets in to value. Knowledge is made available to take action when user needs it. Knowledge is considered as key to generate breakthrough ideas. The real focus of knowledge management is on “doing the right thing” instead of “doing things right”. It provides a framework within which the organization views, processes as knowledge processes and all business processes, which involves creation, dissemination and application of knowledge towards organizational sustenance and survival.

Ramanujan and Kesh (2004) described KM as “an organization’s ability to gather, organize, share and analyze the knowledge of individuals and groups across the institution in ways that directly impact performance”. It is a process through which organizations generate value based on their intellectual capital. The prime motto of KM in Higher education is to unlock the hidden value of information.

IMPORTANCE OF KM IN EDUCATIONAL INSTITUTIONS

KM helps educational institutes to improve their capacity of gathering and sharing information and knowledge and apply these to problem solving and support the research and continual improvement of their work. KM of the educational system must reflect and comprise information at all levels starting from management level to student level in order to improve professional knowledge of employees, to achieve quality of lecturers and students. In all countries the government releases many funds for such activities.

Education systems are becoming market oriented from its basic democratic and decentralize system. Universities and academic institutes are considered to be responsible for students’ achievements in a democratic, contemporary and flexible educational system. In return they get certain compensation for their effort and responsibility. So student’s knowledge, skills, talents should be preserved in the knowledge base. It helps them to create new knowledge and gives platform to newly enrolled students.

In educational institute’s researchers, faculty experts, students contribute regularly to knowledge base by generating new concepts. Internationalization of higher education needs to share the organizational contribution/knowledge. Therefore Knowledge management provides techniques for capturing tacit knowledge hidden in experts/individual mind and practices and records it for future use.

At the time of gradation of the institution's educational performance all tacit and explicit knowledge of past years can make available at one place with searching facility. KM can transform organizational new levels of effectiveness, efficiency, and scope of operation, using advanced technology, data and information made available to users for effective productivity. KM is continually discovering organizational tacit knowledge. It is also useful for building knowledge, for problem solving and decision making purpose. Quality and Service improvement is also achieved.

KM PROCESS

David Skyrme mentioned that KM process comprises processes of creating, discovering knowledge, knowledge sharing and learning, and knowledge organization. Creation and discovery of knowledge is characterized by data or text mining, content analysis, processes simulation, communities of practice, review, knowledge sharing, mapping of knowledge.

Following diagram shows how KM process generally works as per below diagram.

Figure 1: Knowledge Culture in Educational Institutes



As per Author's suggestion KM process for higher education system involves knowledge acquisition in which students and teachers acquires knowledge from Library resources like books, journals, reports, projects, theses and dissertations or we can say from Primary, secondary and tertiary resource and all online resources accessed from Internet. Students and teacher can create knowledge via classroom teaching or interaction. Various kind of activities are conducted in educational institute to capture, create new knowledge and motive students to contribute to new knowledge area

by conducting various activities like classroom teaching, brainstorming sessions, various competitions, projects, assignments, etc. All newly created knowledge should be stored in explicit form like digital form. This knowledge needs to map, analyze, classify, catalogue and at last this knowledge gets ready to share and apply. Different policies needs to be design and get sanction by the management of the college related to what kind of knowledge should be capture and preserved, how long it should be preserved, how to process it, etc.

RESEARCH METHODOLOGY

Methodology adopted included the survey of Director/ Principals, Head of the Departments of Post Graduate or Research centers, Librarians and Post Graduate Students of selected NAAC "A" Colleges in Pune City as per their highest CGPA Scores. The study is also based on observations, Interviews and review of literature in the concern field.

Sample and Data

The sample of colleges is selected from the list of Accredited Colleges given on National Accreditation and Assessment Council of India website. Total top 20 "A" Grade Colleges with CGPA score 3.61 to 3.03 selected for this research.

The sample comprises Director/Principal (20), Head of the Departments (Post Graduate) (Approx 100), Librarian (20) and Post Graduate Students (200) from the selected NAAC "A" Grade Colleges in Pune city.

Findings and Observations

This project is conducted to study the current status of Knowledge Management Practices in the colleges in Pune City. Total 20 "A" Grade Colleges are selected as per their CGPA grade. 18 Colleges participated in the survey. Principal Investigator received 100% response to this survey from Library staff and Students, 72.22% from the Director/ Principals and 51.57% responses from the various PG Head of the Departments.

It is been observed that No staff were aware about Knowledge Management concept in higher education but knows it's related to Knowledge in which field they work. After understanding the concept they come to know that they are doing something in this area and find it beneficial for the organizational, personal, individual development and improvement. 1% Principals and 20% Head of the departments agreed that KM is not existence in their college. 79% colleges are involved in these kinds of activities under different heading. 20% colleges are in growth stage of managing knowledge of their institute.

Author quoted earlier the importance of KM in higher educational institutes at college level various opinions are came up like these kind of activity will help college to face various committees and provide data to university, UGC, RUSA and other funding agencies, placement agencies or institutional members. For overall development of institute including staff, students, processes it will help if we exchange the ideas and implement new one. From research point of view activities under KM will be beneficial and help to indulge habit of innovative ideas and research culture among the students and staff. For maintaining academic standard KM evaluation is necessary. For building competency among the human resource and students it is important. Teachers can evaluate students overall performance through these kind of databases. To improve quality of teaching and learning it will help. If these kinds of databases made available to all teachers and students the interaction among them will help. This is a decision making tool so for resources management it will be useful. As per everyone's opinion knowledge is asset of the institution as manpower and their knowledge takes the organization ahead.

99% faculty agreed that it is very much necessary for faculty development and quality improvement. Though college's mentions very selective activities among KM activities but there are many others they can consider and use as KM Strategies that will reflect in the suggestions in this project.

While studying various technologies used by these colleges Internet is used in all colleges' 60% colleges have intranet facility to share and store the information which can be used for KM too. A selected staff member uses Groupware's. One Commerce college uses Ecommerce software for their department. 10% college's uses database management system for managing various databases like library, office, dead stock, equipments, etc at departmental level. But Data ware housing, extranet, KM software's, Decision Support Systems are not yet implemented but looking towards it.

As all colleges are appearing for various committees and applies for various funding agencies they need to give Institutional plan and status in various areas. So it is now necessary to all college to improve knowledge culture, sharing culture and provide such healthy and friendly environment to the employee and students for giving better output. So Colleges started providing knowledge building and sharing environment. Motivation to staff and students to participate in such activities is being promoted.

About who should take this responsibility of KM database so far in all colleges library is maintaining database of explicit knowledge. No separate knowledge manager post there in colleges. Various committees are formed in the colleges for various activities and record keeping they are taking care of that separately. But most of the records are maintained in hard copy. The tacit knowledge captures techniques yet

to start in the colleges. They are willing and feel important to keep these records for further reference and quality improvement but no proper guideline there. The guidelines should be provided by the university in this regard.

About the record keeping all colleges keep records in hard written and hard copy form. 21% departments maintain softcopies of project reports along with hard copies. Most of the records are like Annual reports, Committee reports, Departmental Reports, Various databases like students, Marks, Attendance, Prizes, Participants, photos and Activities etc. But no such database of actual tacit knowledge captured and stored. About 80% colleges have not yet taken any initiative in this regard. Hardly 10% departments maintains database of students and staff skills.

All colleges agreed that to strengthen the International collaboration and college-university, Sister Institute collaboration and partnership, to increase employability, faculty development KM database will help institutions.

Class room teaching activities come under knowledge capture and management are Motivating students to participate in PPT presentations, Seminars, Interactions on different topics, Sharing various ideas in their mind, Group discussions, Projects, Assignments, competitions, brainstorming sessions, Hands on training, counseling sessions, Question answer sessions and Debates. But there can be more.

The attempts made by the colleges to involve staff members to share their knowledge are organizing departmental or get-together meetings frequently, organizes seminar, workshops, conference and also been sent for the same to other national and International organization for participation or paper presentation, give motivation to undertake research and publish papers in research journals, promote them to put up new ideas, organize culture programs and events for staff to bring out talents hidden in them, assign them various roles in various committees to know their efficiency and interest. Few colleges not replied to this question.

To inculcate research interest among the students and bring out their research talents organizations provides hands on training, give freedom to do practical revisions and own experiments, appreciate their projects and practical, involves them in group projects and work together, involve them in research and projects of staff members, motivate them to take practical based, need based, common action based projects and research.

Pune University introduced Knowledge Management board two years back but many non management colleges (Staff) are not aware of that or their activities. No guidelines in this regards are provided by the university to different colleges. Colleges not yet started this because of lack of proper guidelines and its importance and discussion on this. UGC

has started content creation projects in which teaching skills are trapped in digital format and make them available to all students in the form of lecture videos, practical tutorials/videos, Demo CDs/DVDs, etc. UGC and University giving focus on digitization of documents but under different headings like institutional repository, content management software, library digital and automation software. If proper guidelines will be provided to colleges in Knowledge repository creation and capturing of tacit, explicit knowledge most of the colleges in Pune City are capable to bring it in practice as they have all resources.

The biggest hurdle in effective implementation of KM in colleges is lack of No Proper guidelines given by the authority in this direction, Lack of understanding of KM and its future benefits, Lack of time to do this activity, Lack of ICT of Software for KB creation, Lack of Manpower, No Determination of what kind of knowledge to be managed and making it available, Changing people's behavior from knowledge hoarding to knowledge sharing, Justifying the use of scarce resources for KM, Lack of top management commitment to KM, etc.

There was varied opinion on who is best person to handle this responsibility. 30% colleges feel that Librarians can do this. 10% colleges think its responsibility of placement officer, 20% think this responsibility should be go to computer science or IT department head, 3% think one of Vice principal should take this responsibility and 30% think that separate knowledge manager should be appointed who knows all procedure of KM and KB. 7% college not yet thought about this.

On website of all colleges lots of useful information already updated. Time to time the information is revised. But annual reports, IQAC reports, staff list, achievements, various notices, etc are updated. But the back database folder is maintained by the website designer. Hard copies of all these information maintained in the college. This attempt is started recently after NAAC accreditation process introduced in the colleges. They need to keep updated and also previous years information and knowledge. About knowledge database of tacit knowledge not yet accessible or maintained on websites or intranet.

In the data analysis paragraphs the opinion of the sample colleges regarding what role KM practices can play in educational institutes are discussed. The future plan of colleges in this regards are they are going to set up a committee under Knowledge Management committee, the committee will spread awareness among staff and students about importance of KM and how to maintain the records and access them, Procure software for managing the knowledge base, motivate staff and students to add contents to KB, Promote access to the contents uploaded by the staff and students to all in college at initial stage, provide necessary

equipments, infrastructure along with training to staff and students, Involve IT or computer staff members to look at this activity.

While discussing future benefits many good points from staff came up like from the point of institutions for generating academic experts database, for improving results by doing previous years result analysis through result database, for getting recognition to institute at various levels, to get various grants, to improve administrative services, to contribute social corporate and loyal services by studying areas and earlier contribution of the institute in this direction, to have better industry-university-academia-college interaction and collaboration in the form of resources and knowledge sharing, etc. From the point of faculties view for faculty development, adding new faculty, improving performance of existing faculty, improve service capability of faculty and staff, to improve teaching methodologies used by them, to introducing new technologies for innovative teaching practices, improve their responsiveness, giving opportunities for leadership in various activities of college, to give them recognition in society and web, and many other discussed earlier.

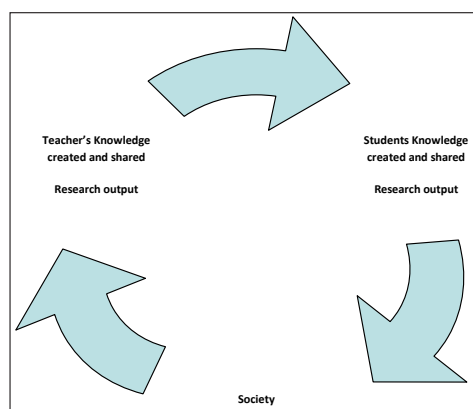
From students point of view KM will be beneficial to improve services offered to them, to develop soft skills, research skills, confidence building, to give them exposure to e-tools, laboratories, to give them opportunities to learn from guest faculties invited, to give them recognition, to improve their learning capacity, to improve their responsiveness towards institutes.

SUGGESTIONS

The main three functions of higher educational/ academic institutes are Knowledge creation, knowledge spreading among the staff and students, academic service to the society and environment in which process of transferring this knowledge to society including the economy. Through this function academic institute should bridge gap between the research results and possible implications of those results on economy of society as a whole.

Author has created one model to show this research or knowledge management process. It shows Teachers gives knowledge to students. Student and teachers interact and share knowledge amongst them. They create new knowledge in the form of research project, articles, patents, activities, results etc. which finally shared with society. Students implement their knowledge at their work place and from society again this knowledge reaches to education system. This cycle continues. This is continuous teaching and learning, knowledge building process.

Figure 2. Knowledge Management Process in Higher Education Institute



SUGGESTED KNOWLEDGE MANAGEMENT TECHNIQUES AND STRATEGIES

Suggested techniques for Student's Knowledge Management:

Class room teaching: Teachers can find out talents of students while teaching the lessons and interacting with them in the class. Selected lectures and interactions can be recorded and can add in the knowledge base for evaluation and analysis.

- Organizing guests lecture for students: Guests lectures can be arrange on variety of topics including social, cultural, political and scientific. Guest lectures can be recorded and add in the knowledge database of public lectures with keywords like topic, speaker's name, and other details. Feed back or pole can be collected from the students that also can be added in the knowledge database. From the feedback too one can study the interest of student, their analysis which can help teachers too to give grades to students. Students can get practice of knowledge gaining and critical thinking on the topic, analysis of speaker, also will able to distribute knowledge via reports
- Writing Seminar Papers and Reports: This is good practice to convert tacit knowledge of students in explicit recorded knowledge. Students are given various topic of their interest to work on and present the paper. Best papers can be selected and store in knowledge database for the future reference of new students. It helps new students to see previously presented paper and accordingly write better papers and reports.
- Various competitions and extracurricular activities, photos and reports along with winners list can be maintain separately.
- Posters competitions. Posters photos can be maintain in the database.
- Practicals of some experiments carried out by the students can be recorded for reference and motivation of other students.
- Digitization of herbarium and other assignments can be done and store in database. Making compulsory to all students to submit their assignments and project in softcopy will also save time of digitization. The softcopy helps to locate the files.
- The presentations of seminar can be saved in the form of PPTs in the knowledge database.
- The papers presented and published by students can be stored in the database PDF form. These are important resources to the college.
- The feedback of students about various services, teachers can be collected online via survey monkey or other tools which saves the data on virtual server also gives analysis reports.
- Notification of availability of new knowledge should be made available to students for their reference which enables them to create new knowledge.
- Brainstorming: is an unstructured approach to generate ideas about a problem for a creative solution. Students articulate their own thoughts and beliefs and make their own conclusions and form standpoint on the questions and problems asked by the teachers in brainstorming sessions. E.g.: group discussions, meetings. The hoardings of these sessions can be entered in knowledge base. Through the brainstorming sessions and debates or discussions students can enrich their vocabulary and the speech culture. They can inspire each others.
- Media data update or news update: Students can be asked to collect the media news and current updates of any current affair and ask them to organize and analysis the data collected. As now all news are available online and on internet they can motivate to prepare softcopy of their update of last few months and this can be store in knowledge database.
- Team work of students in teaching process: Assigning tasks in different groups to perform separately choosing different methods helps in transferring knowledge, development and improvement of students social performances also their willingness to actively participate in the groups.
- Giving them action based, need based, social problem related and participatory projects enables them to go on site and do onsite observation. Field visits give the knowledge to the students within the working world of the expert, in the form of visuals and live exposures. Selected video shooting of such field work can be added to the knowledge database. Such video clips can be useful while presenting various activities of college.

- Students should ask to submit their project reports in softcopy form so that it will be accessible to all users for reference through knowledge base.
 - To solve some difficult problems students can be encourage using Delphi method which is survey of experts. They can conduct survey of experts and solve the problems or get answers to their difficult questions.
 - Question banks can be circulated to them and the sample good answered papers can be keep in answer banks for the reference purpose.
 - Teacher relation with students should be very friendly so that they can discuss their ideas and problems with the teachers and teachers can give them guidance and counsel properly.
 - The merit list of students of every year should be made available through knowledge base.
 - Attendance record of students can also be store in knowledge database for particular time. It can help teachers while evaluating students.
 - Organization of training programs, field visits, seminars, conferences, cultural and other social activities conducted for students will help them to gain knowledge and later to create new knowledge. The video clips of such activities will work as ideal or motivation to newly enrolled students.
 - The annual report gives overall performance of college and various departments. Same way if annual report of each class created containing every students performance (curricular and extracurricular) in whole year will help him to improve next year.
 - Now Government has made mandatory to mention the donation of body parts should be mention on the I-Card. So such database will help to the needy patients who need blood or bone marrow, etc. Also in any emergency this database will help to treat the students too. College can provide the details to hospital.
- meeting also helps in decision making. So there should be separate database of minutes of various meetings conducted in the college for various purposes.
- By sharing knowledge with students or colleagues teachers can prove that they are knowledgeable and also can get new opportunities in the field.
 - Teachers must be motivated time to time to present papers in various conferences and seminars along with reputed journals. Softcopies of all these papers can be store in knowledge base. Even the video clippings of such presentations can also be a good source for knowledge base.
 - Allotting different responsibilities or changing roles will help organization to judge the staff ability and interest.
 - Various departments conduct various activities so the record of those activities should be maintained in digital form.
 - Online feedback forms of students on class room teaching will be helpful to the organization to judge the quality of teacher and give them improvement chance.
 - The teachers diaries in digital form can be maintain which helps for next year planning of various activities, allotment of subjects etc.
 - The new teaching techniques used by the teachers in classroom should be discuss and keep record of that.
 - New ICT and web technologies used for teaching and communication with students can be maintained in the college by giving them college ids for education purpose.
 - All teachers PhD theses and project reports, various proposals sent for various funding agencies like UGC, University, HRD, Government of India, should be made available to all staff through knowledge base. This will help and give guidelines to other teachers in preparing new proposals.
 - In many foreign universities the lectures of teachers and guest faculty are recorded and CDs are maintained in the library. But this is not possible in Indian scenario. But few of regular faculty and guest faculties lectures can be recorded and keep them for access through knowledge base. This can be helpful to new students to see how a different teacher teaches the same subject differently. Now UGC Inlibnet has initiated calling lectures recording or tutorials on all topics for different classes and they are storing the lectures for all. So students can see those lectures too while preparing.
 - In zoology labs now animals are banned for dissection in this case the videos of practicals will be beneficial. Now many colleges are buying such CDs and working on preparing such animated media or live demo CDs. These can also be kept in knowledge database for reference.

SUGGESTED TECHNIQUES FOR TEACHER'S KNOWLEDGE MANAGEMENT:

Suppose if any staff Principal or Head of the Department or Teaching faculty who is doing very well leaves the college many times its loss of college. So knowledge management of staff is also necessary which helps for quality improvement, policy making, decision making etc.

- Teacher's can gain knowledge through the library resources both print and online through various databases, social networks, research groups, discussions, seminar, conferences, workshops, webinars, etc.
- By organizing meetings on various topics or current issue in the college teacher's skills or talents or interests can be identify. The record of minutes of the

- The PPTs prepared by teachers for teaching different topics in classroom can be added in the knowledge database for students. It will help them to recollect the classroom teaching on that topic. Teachers can edit the ppt next year for same if wish.
- Teachers can be motivated to do M.Phil, PhD and Post Doc in their respective area which can add new knowledge to institutional knowledge base.
- Cultural programs can be arranged for teachers to bring out their hidden talents.
- Brainstorming sessions, debates, discussions, meetings can be recorded using digital pen and diary. These instruments are now famous of recording discussions and minutes on the spot in digital form.
- Same subject teachers can make a group and discuss new arrivals, research going on, new publications in the field and what they can do together on specific topic. Team work is good in Mutual research and projects.
- Motivate junior staff to take new projects, new assignments or opportunities in the field.
- If individual teacher is working as chairman of specific committee they should maintain their work progress and all minutes in softcopy form. If any teacher is working with NGO or International or Social organization the details of all those organization should be maintain separately in knowledge base. The tie ups and collaborative agencies database can be maintain separately.
- Inviting guests or experts in the field to train the teachers will help them to know new in the field.
- Presentation of best practices followed by the teachers in various works should be organized and keep record of those presentations for references in knowledge base.
- Departments should maintain their various notices database separately which they can reuse by just editing. It saves time and manpower.
- Practical manuals and set up can be maintained as a file in knowledge base.
- Every teacher should add the result analysis report of his or her own subject year wise in the knowledge base.
- Teachers health related problem, blood group or willingness to donate his body or body parts after death such database can be maintain which helps to themselves as well as others.

SUGGESTED TECHNIQUES FOR ORGANIZATIONAL KNOWLEDGE MANAGEMENT

- Decision Making: By analyzing alternative solutions by discussing among staff on specific problems

decisions can be made.

- Protocol Analysis: Sometimes the experts may or may not be able to deliver the knowledge to satisfy the knowledge seeker; in this case the best method is to adopt the alternative ways like observations and practical methods.
- Decision making techniques: It identifies and selects a course of action to deal with a specific problem. Many organizations conduct conferences and seminars on the topics on which they are searching solutions. The papers from different parts and institutes help them to analyze and find solutions.
- By observing other institutions functioning and new attempts organizations can adopt new ideas and implement in the institutes.
- All the processes should be recorded. While working on new procedures or application of new methodology or technology the steps or user manuals should be prepared and share among the group or all users as per security level. It helps the users and workers if role changes
- The various notices/ notifications issued by the office or departments should be store in knowledge database. Every year many times same kind of notices displays in the colleges so if such database will be available it will be easy to edit and take prints. It saves lots of time and rework.

Suggested Knowledge Management Process

As we discussed earlier the basic process of KM is Knowledge gathering or acquisition, Knowledge creation/capture, Knowledge storage and organization, Knowledge distribution and then Knowledge application. In educational institute's teachers and students can gather the knowledge through various resources like library reading material, databases, internet, newspapers, classroom teaching and learning, etc. New knowledge can be created and captured by using techniques and strategies are discussed above. The next step is knowledge organization and storage. Here in this process as every institute have thousands of students, hundreds of teachers. Managing knowledge of all these people by an individual person or group of person is difficult task and the data size will be very huge. So here the principal investigator suggests that in academic institute role of every individual or contributor is important. Everyone is manager of their own knowledge. KM in educational institute is team work with different roles. There should be multiuse software of KM or content management or ERP in the institute to manage the KB.

The training and proper guidelines should be circulated among the staff and students. There should be separate sessions on KM to people playing different roles in this

process. Each individual in the academic institute which is actually knowledge house is a knowledge acquirer and creators. After acquiring the knowledge he or she creates new ideas and knowledge in various forms. As discussed above through various projects, activities, competitions, brainstorming sessions, debates, discussions, practical etc knowledge creates which has to be recorded properly in digital form using scanners, recorders, computers, cameras, social networks, LCD projectors, digital pen, diary. It is every staff and student's duty to store or represent their tacit as well as explicit knowledge in communicable form. In the software there should be separate platform under separate heading for different category of people like HODs, Teachers, Administrators, Students etc to store or add knowledge to knowledge base. There might be different databases like article database, picture database, videos database, notices database, activities database, question bank, answer bank, result database, students' database, teachers' database, talent database, specialization database, etc. All these databases are created by staff and students. They can upload their knowledge in the form of files. This can be done at departmental level too.

Once the recorded knowledge is added in the database it is necessary to classify each and every file. If the database is maintained department wise then one person in each department has to train in classifying the records. After classifying each record needs to be indexed with keywords to make it searchable. Proper training of classification and indexing should be given to the concern staff of that department. That staff will scrutinize uploads or newly added data and will have rights to add to main knowledge base and can assign the accessibility (Departmental level, individual level, intranet, internet, etc) this person will verify the copyright issue of that document. So the person from every department who is administrator of Knowledge database of that department needs training on software implementation, database management, classification, indexing and copyright issues. The administrators can be individual class teachers who will maintain the knowledge base of their class.

At Departmental level Head of the department will look after their departmental teachers' knowledge base. Individual Teachers can manage (classify and indexed) their own knowledge in the knowledge database. Class teachers can check the knowledge database of students.

CONCLUSION

Higher education is a center of knowledge creating, delivering, and learning for society. On international level too knowledge sharing policies between two and more countries are going on. For the development of nation it is must. Discussions and exchange of information is very

common among staff, students and scholars now a day. This is the base for the generation of innovative concepts. Through open access movement everyone is able to access the information through internet. But at local and institutional level attempts are required for capturing tacit knowledge of individuals and sharing for new vision. Open Access initiative is boon to researchers and if at every organizational level the better management, use and sharing of available resources/knowledge both explicit and tacit occur it leads to overall development of educational system and nation at fast speed. Knowledge plays a crucial role in the progression of institutions. The process of knowledge sharing plays a significant role in determining the outcomes of knowledge management in institution. Universities and colleges are the core producers of new science. So at every organizational level such attempt has to be made for the benefit of working team and society.

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