Why competency mapping is required in academic institutions?
- A literature review

[1] V. Lakshmi   [2]Dr. K. C. Prashanth
[1]Research Scholar, Department of Studies in Business Administration Vijayanagara Sri Krishnadevaraya University, Ballari.
[2]Associate Professor, Department of Studies in Business Administration Vijayanagara Sri Krishnadevaraya University, Ballari.

Abstract: *"Education is the most powerful weapon which you can use to change the world"*
-   Dr. Abdul Kalam

Teachers are given prominent position in the society. Teachers have the power to mold raw materials into finished goods i.e., from student to professional. The importance given to education sector is more compared to the other sectors. Since decades teachers are given high privilege and respect. The changes in education system have an impact on teachers as well as students. One among such changes is introducing internet that has brought tremendous ups and downs in education system. Such changes have given scope to teachers to update themselves to develop their interpersonal skills, knowledge, behavior, attitude. These changes have also given scope to identify the SWOT and work on it. To know the gist of competency mapping few questions to be raised such as what exactly competency is? How should the teachers focus on developing competency? How can mapping been done? What are its significant? where exactly the teachers are unable to perform better. For all such questions competency mapping justify the answer and highlights the need and requirement of competency. These questions even tend to know the impact of competency in education institution. The study of competency mapping is limited to few competencies such as Pedagogy, Leadership, Managerial, Social and Behavioral of only academic institutions.

Key Words: *Competency mapping, Pedagogy, Leadership, Managerial, Social and Behavioral.*

1. INTRODUCTION:

[1](Maryam Ilanlou, Maryam Zand 2011) There has been a lot of discussions about educational reforms and improving the educational quality of schools in recent years. [2](Mclagan, 1980) In 1980's, Patricia Mchagan introduced competency model as a key to all the management system like planning, organizing and developing. [3](Ms.Mallika worlikar, Dr. Astee aggrawal) competency mapping was first used in UK for handling growth of work related standard performance. [4](Robyn A.Mcnamar) A concept of mapping is a diagram that shows ideas represented by boxes and their relationships represented by arrows.

1.1. Theoretical backdrop of competency mapping.

[5](Bharathy et al.,2013) competency is persons personality for performing a better job. [6](Sugumari & S.Roopa alias Andal) competency mapping is a process of identifying the gap of an individual's performance (or) job related skills. Competency mapping is frequently done in order to test the competency levels of employees using chi-square. [7](Dr.Y.Nagaraju and V.Sathyanarayana Gowda, 2009) Competency mapping is an advanced organization practices tool that illustrates employee competency mapping in such advance practices that is widely been used by organizations. Spencer & Spencer defines competencies as underlaying characteristics of an individual. Underlying characteristics means the competencies that is fairly deep and enduring part of a person's personality. [8](Dr.Shivkumar V, Ms.Sunitha V, Karthika S V, Jayakrishna A R, Lokeshwaran K, 2021) Competency mapping is the process to identify and describe the competency that are more crucial to get succeeded at work place. [9](Chan, 2010) grouped competency in 2 major categories: 1. The teacher's mental ability, skills, understanding psychology, education principles, knowledge of general and specific subject. 2. Those qualities streaming from the teacher's personality, interest, attitudes and beliefs, behavior in working relationship with pupils and other individuals.

Considering above detailed framework of different authors, the study tends to identify the importance of mapping the competency of teacher under academic institutions. As the trends and system of education has taken a drastic change and a view of results has moved on from students output to teacher's output. This has given scope to

understand comprehensively the need of competency mapping and impact on quality education. The article is focused towards a limited competency such as Pedagogy, Leadership, Managerial, Social and Behavioral. Therefore, the article tries to explore the due competencies and mapping them to know the necessity and their impact on providing quality education.

1.2. Objectives of the study:
1. To study the need of competency in academic institutions.
2. To know the impact of competency on academic institutions.

1.3. Problem statement:
In the era of modern technology, the methodology of teaching has a vast difference from past few decades to till date. This changes in teaching have given enumerate scope to improve the knowledge and skills by teachers. The generation has changed from students- centric to teachers-centric.
Will this situation create the thrust of competency? How does this impact on academic institutions? This highlights to know the quality of teaching of academic institutions.

1.4. Limitations of the study:
Comprehensive study is limited to academic institutions with limited competencies such as Pedagogy, Leadership, Managerial, Social and Behavioral.

2. DISCUSSIONS:
2.1 The need of competency in academic institutions.
[10](Albert.W.M.Hoogveld, Ferd-Paas, Wim G.M Jochems 2005) Competency aims at providing students with knowledge, skills, attitudes, problem solving. The major task of any teacher is to translate the lecture into meaningful sequences. The study describes the competency mapping by considering few core competencies such as Pedagogy, Leadership, Managerial, Communication, Technology, Social and Behavioral. Main characteristics of all these competencies is Motives, traits, self-concepts or self-image, knowledge, skills. Skills examines 2 areas i.e., Emotional intelligence and human strength in areas such as team building, leadership and decision making.

2.1.1 NAAC has stated few significances of competency, 2003:
a) Teacher must be motivated to perform better in both personal and professional development and be effective in providing standard education.
b) Importance should be given for specific needs and challenges of teachers and trainers.
c) Teachers should be supported in their important role as creator and facilitators in the learning environment.
d) Teachers should work at their satisfactory levels, provide sufficient knowledge, ability and motive to meet the needs and requirements of a satisfactory teaching profession.

2.1.2. The need of competency for teaching profession is identified here as follows:
a) To understand teachers required skills, knowledge and ability.
b) To understand modern class room teaching with technology.
c) Teachers need to develop comprehensive list of skills such as teaching and thinking, management & management, information- personal and students.

2.1.3 To understand competency in detail the following steps can be used to map the competencies:
a) Identify the department where competency mapping needs to be conducted.
b) Identify structure of organization with grades and levels.
c) Conduct job analysis and prepare job roles and their description.
d) Collect data about core competencies required for teachers.
e) Classify the obtained data into required skills sets with immediate supervisors and heads of other departments.
f) Prepare competency calendars.
g) Map the competency.

2.1.4. Crucial elements of competency that considered to map:
(Robyn A.McNamara) Mapping is the diagram that shows ideas and relationship among boxes and arrows . Mapping is done at the end of the semester using cluster analysis and multi-dimensional scale. Few elements of competencies are:
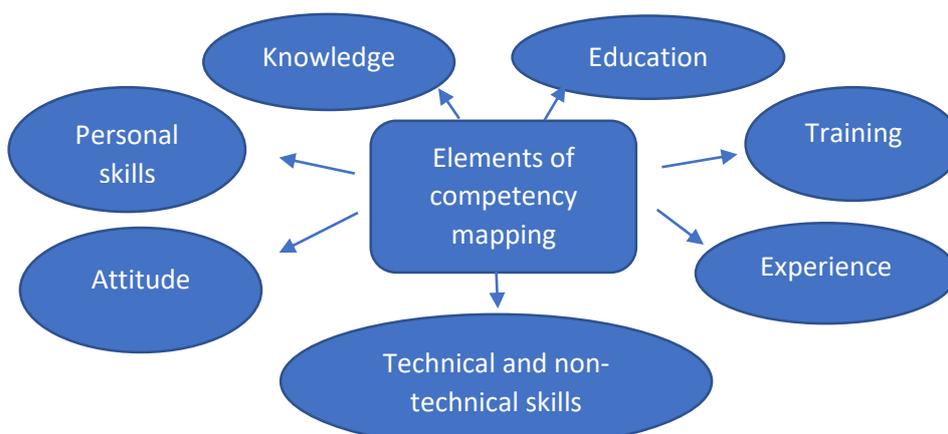
Fig: 01

As the study is limited to 5 core competencies viz., Pedagogical, leadership, managerial, social, behavior. Above mentioned elements cover under all these competencies and these elements plays a crucial role in mapping the competencies of teaching fraternity.

2.1.5 Techniques of competency mapping:
A few techniques used to map such elements of competencies are:
1. Assessment centers
2. Critical incident techniques
3. Interview techniques
4. Questionnaires
5. Psychometric test.

These techniques highlight the effectiveness of competencies of teachers. Medley's, 1982 has structured teaching effectiveness that directly linked with competency of teachers. This below figure shows the insights of pre and post characteristics of teachers.
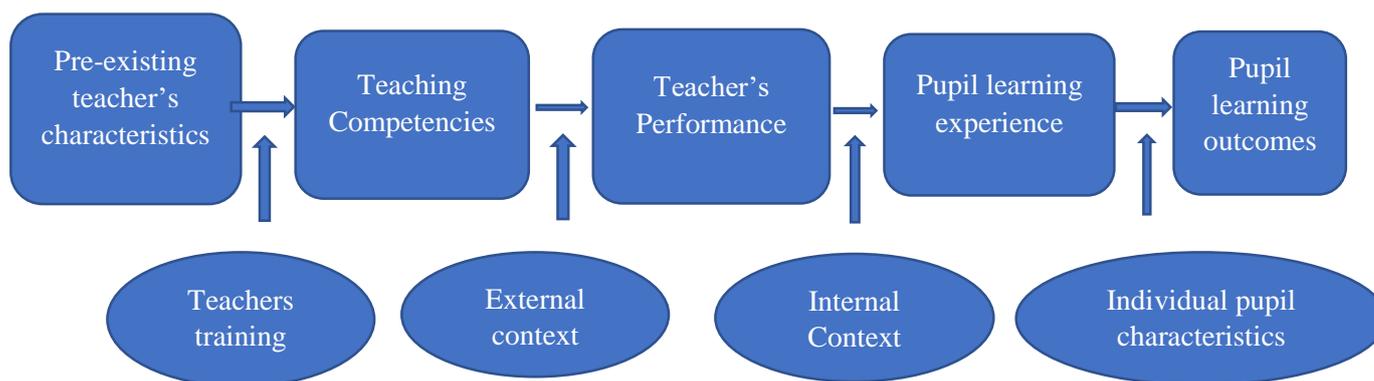

Figure 2

The above figure determines the characteristics of teacher before and after the concept competency came into the existence. A teacher with a minimum experience does have less competencies comparatively with experienced. The experience makes the teacher to learn at every stage and considered to be a continues process. The journey of gaining the experiences, leds to understand what kind of skills, knowledge, attitude and behavior to developed. Focusing on such competencies, this gains the better performance of the teachers. Therefore, the Medley's discovers, the result of such performance can be justified by students learning outcomes.

2.2 The impact of competency on academic institutions.
To study the impact of competencies its necessary to understand the problems and challenges to be faced by teacher in the institutions. Here are few problems and challenges:

2.2.1 Problems of competencies: It is even necessary to have an eye on problems and challenges faced by teachers that directly or indirectly impact on competency levels.

Few of them are:
1. Low qualification of teachers and lecturers.
2. Low application of technology
3. Limited availability of resources
4. Lack of infrastructure facilities
5. Education system
6. Lack of organizing co-curriculum activities
7. No scope for creativity and innovation.

2.2.2. Challenges faced by teachers: Apart from these its necessary to understand the major challenges faced by teachers while teaching, few such are:
1. Environment
2. Different learning
3. Interactions
4. Motivation
5. Student's attention
6. Practical knowledge
7. Levels of understanding
8. Institutional support
9. Technology
10. Background.

1.2 **A few factors limited to this study and determinants under them are framed to understand how the mapping can be done and to know the impact of such competencies:**

Sl.no	Factors	Determinants
1	Pedagogy	Conceptual knowledge, practical knowledge, case study analysis, discussions, critical thing, continuous assessment, balancing learning ability.
2	Leadership	Mentoring, counselling, team building, time management, self- reflection, conflicts resolutions, delegating responsibility, supervising.
3	Managerial	Stress tolerance, organizing activities, Planning, problem solving, effective communicator, Equality, Conscientious, ability to take right decision.
4	Social	Positive attitude, transparency, extroversion, good communication, agreeableness.
5	Behavioral	Follow the cultural norms, follow ethics, directness, self-reflection, mutual relationship, adjusting to situations

In order to map the competencies few factors under each construct to be consider to get actual outcome of competency mapping. The above chart gives clarity of how best we can map the teacher by considering few relevant competencies using different scales or techniques. This helps to better understand to what levels the teacher has competencies and identify the gap where this can be improved.

Competency mapping can be explained by giving one example:

Independent Variable: Pedagogy

Dependent Variable:
Conceptual knowledge
practical knowledge
case study analysis
discussions
critical thing
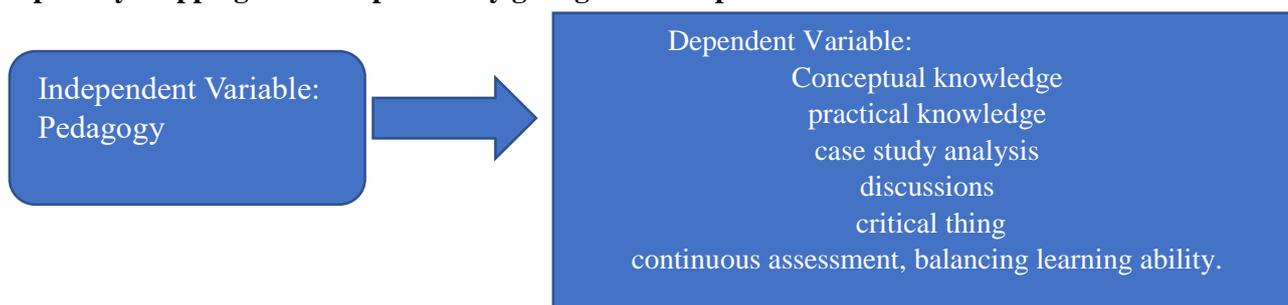continuous assessment, balancing learning ability.

Fig: 03

In the above figure, if all the dependent variables are fulfilled by one teacher the rating of competency will reach to high or say 5 rating. The same mapping will continue with the other teacher to know the performance of only leadership skills. The same will be continued with another competency. As of now, the article describes understanding the significance, steps, techniques, problems and challenges of competencies of teacher, let's have a look on how competency is followed in the academic institutions. For this we have considered few competencies such as Pedagogy, Leadership, Managerial, Social and Behavioral. Focusing on both the objective, developing competency mapping model can be described in better way to understand the need of competency mapping. [11](Olga Nessipbayeva) Teacher's education and performance of job are 2 contexts where the term competency is used. Teacher's education includes knowledge, skills and values such competencies are observable and measurable. [12](Su-Chin, Jui-Shinlin, Hung-Chunlee 2012) Competency mapping can be measured and observed by identifying hard and soft skills of teachers. Hard skills involve strength, fitness, enduring, planning, organizing, designing, describing, problem solving, attitude. Whereas soft skills are related to Emotional quotient, behavior, interpersonal communication. Hard skills are treated as visible competency and soft skills are treated as hidden competency. [13](Dr. Manodip Ray Chaudhuri, Sekh Raunak Mondal 2022) Mapping tends to analyze the ability to teach and communicate in the best possible way using regional languages if required, classroom preparation and session planning, conducting FDP's, maintain a good and disciplined working environment, a good listener and a good speaker, effective usage of technology, monitoring, counselling. This also find a way to improve the skills of teachers if the result of mapping is not as expected. Few such skills are:

- Hold private meeting with appropriate notice by head.
- Provide healthy and comfortable working environment.
- Allocate sufficient time to complete syllabus.
- A competent teacher should separate personal life and professional life in order to achieve career growth.
- Conduct FDPs to teachers in order to increase the effective teaching skills.

3. FINDINGS:

- The teachers have to update themselves with all the aspects such as pedagogy, managerial, leadership, being social.
- Students visiting library has completely low, as they depend on the online notes. This impact on teacher's pedagogy competencies.
- The focus of institutions towards teachers is less compared to student's development.
- The 21st century teachers should consist of connectivity, creativity, corporation.
- A few important points to be constantly improved by teachers such as technology, counselling, monitoring, knowledge expert, assessor, researcher.
- Give at most important to personality trait that are needed for teaching effectiveness like conscientiousness, emotional stability, agreeableness, extraversion, openness to experience.
- Organizing or participating of teachers in FDPs, Workshops, Webinars and attended conferences are supportive tools for improving the competencies.
- Develop competency-based education programs to face the challenges and meet the opportunities in different areas.
- A certain factor such as social, nature of work, environment, institution structure, duties and responsibilities, superior subordinate relationship highly influence on the performance levels of teacher's that impact on their quality of competency in turn this impact on performance levels of teachers.
- The key competencies like knowledge, skills and attitude are not enough to identify the competencies of teachers.
- Management concepts such as planning, organizing, controlling, coordinating place a vital role in competing the competencies of teachers.

4. CONCLUSION:

Competencies are based on their own job specification. To develop the quality and performance levels its necessary to identify the gap from learning and understanding. This gives scope to improve the Epistemological and Ideological aspects such as knowledge of theory, distinction between justified beliefs and options, ideas relating to system. Due to advance changes in technology, the knowledge of educational system has created awareness among parents and children to identify the best colleges and universities. The trend has changed from students to teacher competence. Teachers are held responsible for overall development of students. In such cases the term competency

places a prominent role in framing goals and actions of management, leadership, directing subordinates, interpersonal communication, knowledge management, team work, self-control, critical thinking, time management. This evaluates the need of competency in overall development of not only student's performance in fact in overall development of teachers also. Therefore, the need and impact of competency results in improving internal and external personality of an individuals. This also contributes for a betterment and development of self as well as student's competency.

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