

ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS' RESEARCH SKILLS AT HIGHER EDUCATION LEVEL

By

Kiran Ejaz



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Kiran Ejaz

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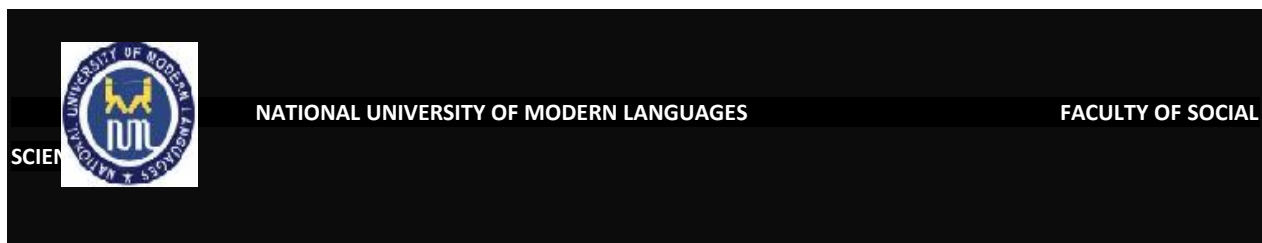
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FACULTY OF SOCIAL SCIENCES



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Submitted By: Kiran Ejaz

Registration #: 1784/MPhil/Edu/F-19

Name of Student

MASTER OF PHILOSOPHY

Degree Name in full

EDUCATION

Name of Discipline

Dr. Quratul Ain Hina

Name of Research Supervisor

Signature of Research Supervisor

Prof. Dr. Khalid Sultan

Name of Dean (FSS)

Signature of Dean (FSS)

Prof. Dr. Amir Ijaz

Name of Pro-Rector (Academics)

Signature of Pro-Rector

Date

CANDIDATE DECLARATION FORM

I **Kiran Ejaz**
Daughter of **Ejaz Hussain**
Registration # **1784/MPhil/Edu/F-19**
Discipline **Education**

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ABSTRACT

Thesis Title: Analysis of Support Mechanism for Teachers' Research Skills at Higher Education Level

The present study aimed to analyze the support mechanism for teachers' research skills at higher education level at Islamabad. The main objectives of this study were: to assess the availability of support mechanism, to examine the level of support mechanism for teachers research skills, to examine the level of teachers' research skills and to measure contribution of support mechanism in teachers research skills at higher education level. Theoretical framework of this study was based on teachers' support mechanism model by Lucas, & Oliveira (2017) and Teachers' research skills model was based on the work of Vitea (2010). This study approach was quantitative and research design was correlation. The population of the research was based on 297 university teachers serving in social sciences faculty in public and private universities of Islamabad, having three years or less than three years of teaching experience. The sample was consisted of 100% of the population, while 50 teachers were selected for pilot testing. The teachers who contributed in pilot testing were not included in final data collection. In final data collection out of 247 teachers 236 teachers returned the questionnaire thus the rate of return was 95%. The study tool was self-developed by the researcher. Teachers Support Mechanism Scale (TSMS) and Teacher's Research Skills Scale (TRSS) were used as the data collection tool. Croanbachs' Alpha reliability of support mechenism scale was calculated as 0.97. Cronbach's Alpha reliability of teachers' research skills scale was calculated as 0.90. Data was personally collected by the researcher and analyzed by using SPSS 22nd version. It was concluded that teachers were agreed that support mechanism was available in the universities. It was also found that average level of support mechanism was found among 116 teachers. It was also found that above average level of teachers' research skills was found among 116 teachers. It is recommended that through the orientation program and weekly meeting administration can inform teachers about the availability of new university facilities. It is recommended that departmental discussions may be arranged once in a month for sharing of new ideas with new teachers. Senior colleagues offer more support to less experienced teachers such as in learning new teaching skills.

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LIST OF ABBRIVATION

Abbreviation	Terms
B.A	Bachelor of Arts

df	Degree of Freedom
F	Frequency
M	Mean
M.A	Master
M. Phil	Master of Philosophy
N	Total number of population
n	Sample drawn from population
NUML	National University of Modern Languages
PhD	Doctor of Philosophy
R	Regression
R ²	R Square
RQ	Research Question
RS	Research Skills
SD	Standard Deviation
Sig	Significance (p)
SM	Support Mechanism
SPSS	Statistical Package for Social Sciences

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Kiran Ejaz

Kiran Ejaz

Dedicated

To

My beloved mother

Mukhtar Begum

My father

Ejaz Hussain

&

Dr. Quratul Ain Hina

CHAPTER 1

INTRODUCTION

1.1 Background of the study

Education helps people thinking towards learning and do work properly. Education helps people to support in finding information and use it in a good way. It was an education that transfers knowledge, skills, culture, and heritage from person to person and generation to generation. Those people that were educated can guide less educated people to be successful in their life and vice versa this process was going on. In the education system teacher is a person that teaches minors or less educated persons especially in educational institutes. A teacher help student to learn how to read and write. Traditionally teaching was a way of transferring knowledge and information to students that were sitting in a specific place in rows in front of a blackboard and the learner passively taking their notes. While the modern concept of teaching and learning was not like the traditional way of teaching. Modern teachers were facilitators and supporters of learners they support learners to learn for themselves. In modern way learners don't sit in a row they were in groups and doing different tasks practically and writing their observations.

In a support mechanism teacher helps their new to be successful in their life after learning information and skills. Therefor teaching profession was a highly complex profession and activity due to social practice that happened in a particular context. Support mechanism helps the teachers

in the process of teaching and offers support and guidance. Peterson (2016) wrote in her article and identifies mentoring as a support mechanism that number of systems and processes can be viewed as support for teaching practices by academic teaching staff, such as performance management systems, induction and orientation programs, peer observation and mentoring therefore mentoring needs to be a formal support mechanism embedded within the organization. Also she further raises a question that what was the purpose of mentoring. Was this mentoring helps those teachers who had no experience. According to many writers such as Nemser, Feiman and Sweeney (2007), support mechanism was the collective objective in the field of education. Now it seems clear that mentoring was a support mechanism. Support mechanism was necessary for school and especially for higher education novice teachers. They need support mechanism to enhance their research skills and to teach new teacher accordingly.

In the era of technology and globalization education was the most important activity of human beings. Quality of education ensures the development and growth of human beings. Academic, personal-social, demographic, student-teacher, professional, were some problems affecting research skills. Some other factors such as marital problems, less training for teachers for their research skills, and time management. In Pakistan, new teacher were interested in research skills and had positive knowledge, attention and attitude towards research skills but due to some factors, they were having problems in this field especially they were facing lack of support for research, funding problems, and time management.

Teachers need some methods, skills, and techniques and it depends on the effective use of these techniques, methods, skills, models, and strategies to be effective teaching. But all of these were only helpful when in institutes there were a support mechanism for teachers and they were efficient in research skills. In this modern era of the 21st century like every profession, teaching was also

used for communication and technology to support teachers and new teacher to collaborate in a better way (Anderson, 2004).

As modern technology and information change our lives, so it quickly changed learner demands, interest, activities and level of interest. Knowledge was not like in previous centuries now new teacher were active and have a proactive approach towards learning. Thus the support mechanism and its process changed according to the demands of the 21st century. Support mechanism change teaching styles, strategies, and methods from traditional to innovative ways. These changes only possible if support mechanism offers pieces of training and workshops. Support mechanism help in teaching strategies to conduct the teaching session in a more planned and organized way to get the desired learning outcomes with the modern age demands of active approaches to manage the classrooms effectively.

As modern teachers were facing many problems to compete with challenges for this support mechanism provide guidance and support. The best way to support and guide especially in higher education level teachers for their research skills was the support mechanism. As the higher education system was the most important stage for learners and teachers. In this stage, novice teachers need support and proper training to teach their students and they need not only information and instrumental support but also need psychosocial support at a higher level of education. Support mechanism helps in achieving high-quality personalized support and assist new teachers to practice their research skills effectively and indicate what type of support continuously showing good outcomes and effective for teacher's success professional development, personal self-reflection and for professional development. Training support community support, teachers' engagement was necessary for the form of e support mechanism.

Quality in research does not automatically produce quality in teaching. The industrial models of quality assurance involving strong central management control were inappropriate for universities. The link between research and teaching was the kinds of mechanisms that support quality. Academics already know how to support quality in their research, where standards were already high. Universities adopt all of these processes, the most important of which involves reward for excellence in teaching for both individuals and departments (Avdjieva & Wilson, 2002).

Vitea (2010) presented research skills for their teachers and staff. These skills were divided into four main categories that were written below.

1. Knowledge and intellectual abilities
2. Personal effectiveness
3. Research governance and organization
4. Engagement, influence and impact

Teachers must have knowledge and intellectual abilities in order to teach new teacher. New teacher also need to acquire research skills throughout their educations in order to obtain research skills in their field of expertise. Teacher's role, obligations, training and qualifications, rights and technology development, working conditions and philosophy especially linked to their professional development through demonstration, learning through their teaching experience, in relation to their workplace. How teachers see their role not only in determining their choices but also in understanding and interpreting them this information. To govern the management and monitoring system during the investigation, stakeholders and teachers were protected and responsibility was guaranteed. The purpose of research was to increase the scientific and ethical quality to enhance positive research governance and organization and reduce adverse events and programs to make sure lessons were learned. Teachers' engagement was a feature of organizational

support, physical administration support, awards and accreditation, procedural justice and distribution fairly.

Research skills such as knowledge and intellectual skills help in advance research area, capable teachers to find new relevant academic literature. Research skills help in methodologies and their application in research area. Research skills such as research governance help teachers in understanding their responsibilities, capable in data ownership rules understanding, capable to understand requirements for conducting a research. Research skills always keep up to date with new teaching skills.

Research skills give the ability to teacher to manage different projects on time, elaborate their skills, and identify the need of work.

Support mechanism and research skills for teachers especially in higher education was very important that seems to be ignored. In 21st century demand for education was increased day by day. Most importantly in the teachers learning process, support mechanism as a key player for teachers research skills and it has a major impact on teachers and their quality of teaching.

Relationship between variables of the topic and modal of the study was shown in figure 1. Engagement, support, training and recognition were part of support mechanism. These activities support researcher and teacher to improve reach skills such as knowledge and intellectual abilities. It also helps in research governance and personal effectiveness. Training and support activities at higher level of education also support in increasing other research skills such as engagement, influence and impact. Support mechanism had a direct relation with this study model like engagement activities support different skills that were directly involved with research of teachers that aware the teachers to know about different trending research topic, problem solving skills, methods and techniques. These skills help teachers to support their researches.

Higher education level was the most important stage of educational and professional career because after this novice teachers and students enter into professional life. Therefore, it was important to provide teachers a support mechanism for their research skills at higher level of education. In this study, researcher aim was to find the level of support mechanism for teachers' research skills at a higher level of education also find the research skills level at the higher education level. The researcher also aims to finds out the contribution of support mechanisms for teachers' research skills.

1.2 Rationale of the Study

Support mechanism is a one to one helping relationship. Support mechanism is a process between two parties with the goal of professional and personal development. The mentor is usually an experienced individual who shares knowledge, experience, and advice with a less experienced person. Support mechanism gives more experience, knowledge, and connections to enable to pass along what they have learned to a more junior individual within a certain field. The contribution of support mechanism on teachers research skills especially engagement activities, training activities, support activities, recognition activities, and community activities in teachers' research skills play a vital role in teachers research skills. Support mechanism support teachers to improve their research skills for example support in increasing knowledge, individual efficiency. Support mechanism from management also helps in academic facilities. Support mechanism refers to a hierarchical approach that offers support and guidance. Support mechanism support in personal, professional and academic skills (Fazal and Chakravarty 2021).

Kajs (2002) wrote in his conclusion that a successful support mechanism program can strengthen new teachers' competence and satisfaction, and in return increase teacher retention in the profession thus reducing the growing teacher shortage. Today, teachers were expected to develop

complex skills such as research skills while implementing new views on learning and teaching and using authentic assessment strategies. Its purpose was described as an induction, professional development, personal development, supervision and improving teachers research skills.

The common concept of support mechanism was a more skilled experienced person give support new teachers were to those teachers who were less experienced. There was a significant difference in the way these goals are achieved in mentoring as a support mechanism programs. Based on literature, a mentoring model of four zones was developed because of different concept regarding this mechanism. These zones also help in learning many aspects of teaching that addressed for the selection of new teachers, support mechanism programs and mentoring support for teachers this framework helps teachers and administration. In this article author concluded that these zone are very helpful for leader and by more articulating these supportive programs were beneficial for both mentors and mentees (West and Andrew, 2016).

A new teacher also need mutual support, collaboration, communication and effective learning. Kram and Isabella (1985) mentioned three types of peer relationships, for information sharing (Information Peer), for career strategizing and job related feedback (Collegial Peer), and for confirmation, emotional support, personal feedback and friendship (Special Peer). All these functions are important to the new member of staff at the start of their job and progressing into their institutional career.

A new teacher need support programs and strategies which implemented by higher authorities of any institute or universities to boost the research skills of teachers. These were related to teacher problems and challenges that was experienced by teachers during the work. There were many strategies and programs developed to give extra support to teachers. When this support mechanism

provides in a good way, outcomes showed teachers and students interests increase in research (Chung, Kelliher, & Smith, 2006).

Support mechanism also gives motivation to teacher. Motivation was used to give meaning, initiation, direction, firmness and moral persistence, which were considered ethical-focused behaviors. Those who were not motivated, less likely to benefit from better standards, curriculum, and teaching, otherwise their lack of motivation will be addressed (Hidayah, 2016). Makar (2007) wrote that computers and the use of technology were considered as an important part of support mechanism. Currently, teachers, of all ages and educational levels from kindergartens to universities need to improve their learning through technology. This will be possible through the use of computers and technology that help to prepare reports, assignments, projects, and other documents. At first glance, teachers may have problems finding effective technological insights. With the support of senior teachers, administration and with full practice teachers will be enable to perform their tasks organized.

World Education Services, (2020) argued that the support mechanism aim always to help new teachers make changes to improve their performance, improve their leadership qualities, improve their collaborative skills. This movement from where they are 'here' to where they want to be 'there' (Zahida, 2019).

Research skills are the ability to locate, organize and evaluate. Subject research is a form of research that is the process of detailed and specific research in a particular field of study. It involves an in-depth search, investigation, and critical analysis, often answering a specific research question or opinion. And it often involves a lot of reading. By demonstrating consistent research skills, teachers will continue to be proficient in the continuous assessment of their work, and thus gain the benefits of analyzing memorable situations in other way. Research skills empower people to

recognize a problem, gather information that can help to solve a problem, understand those resources for quality and value and comes with a constructive solution to the problem. Support required for a teacher to enhance their research skills.

In any university a new teacher always need a supporting hand. As this is a two way process and a new teacher need support of experienced teachers. Experienced teachers can share their knowledge and expertise with new teachers. This support will help a new teacher not only to enhance their skills but also they can longer stay in that particular university. In this regard they need a mechanism that support them for more familiarity, information, and connections to enable them to go through the knowledge they were going to transfer to their juniors teachers.

Support mechanism transfer significant skills, beliefs, knowledge and values from one generation to another. Support mechanism known as a process of supporting as a senior teachers or mentor, or someone who facilitates and assists another person's development. The process of support mechanism includes modeling because the mentor must be able to model the messages and suggestions being taught to the beginning teacher.

In this research, researcher tried to research on the analysis of support mechanism for teachers' research skills at higher education level at Islamabad. The researcher also tried to address the gap of research that had not been done on support mechanism and teachers' research skills at higher education level. Researcher tried to find the level of support mechanism of teachers' research skills and contribution of support mechanism on research skills. Different studies has been conducted on both of the variables separately, but there was no study found in which both variables discussed combine at higher level education. For this significant reason researcher felt the need to do research on support mechanism for teachers' research skills at higher education level. Support mechanism had a significant relation with teachers' research skills.

1.3 Statement of the Problem

Teachers are the most essential part in education system and it is important to give them a support mechanism. That support takes a position for teachers to help them in new challenging job properly and accurately in every step. There were many studies conducted on supporting teaching practice by teaching staff and management system, supporting/mentoring language teachers, induction, orientation program, mentoring and research skills. Pitton, 2006 suggested in his studies that different studies can be conducted on the analysis of mentoring as support mechanism in new teachers' skills. New teachers need to improve their research skills. A new teacher also needs a proper support from senior teachers and administration.

So keeping in view importance of support mechanism for teachers' research skills the researcher selected this area for study. This research was designed on the analysis of support mechanisms for teachers' research skills at the higher education level at Islamabad. The researcher wanted to examine the level of support mechanism and research skills at the higher education level. The researcher was interested to measure the contribution of support mechanism on teachers research skills especially engagement activities, training activities, support activities, recognition activities, and community activities in teachers' research skills such as knowledge and academic facilities, individual efficiency, investigation domination and organization, commitment, encouragement, and impression.

1.4 Research Objectives

1. To assess the availability of support mechanism provided to teachers.
2. To examine the level of support mechanism on teacher's research skills at higher education level.
3. To examine the level of teachers' research skills at higher level of education.

4. To measure contribution of support mechanism in teachers research skills at higher education level.
 - 4.1 To measure the contribution of engagement activities of support mechanism on teachers' research skills at higher education level.
 - 4.2 To measure the contribution of training activities of support mechanism on teachers' research skills at higher education level.
 - 4.3 To measure the contribution of support activities of support mechanism on teachers' research skills at higher education level.
 - 4.4 To measure the contribution of recognition activities of support mechanism on teachers' research skills at higher education level.
 - 4.5 To measure the contribution of community activities of support mechanism on teachers' research skills at higher education level.

1.5 Null Hypotheses

- H₀₁ There is no statistically significant contribution of support mechanism on teachers' research skills at higher level of education.
- H_{01a} There is no statistically significant contribution of engagement activities of support mechanism on teachers' research skills at higher education level.
- H_{01b} There is no statistically significant contribution of training activities of support mechanism on teachers' research skills at higher education level.
- H_{01c} There is no statistically significant contribution of support activities of support mechanism on teachers' research skills at higher education level.
- H_{01d} There is no statistically significant contribution of recognition activities of support mechanism on teachers' research skills at higher education level.

H_{01e} There is no statistically significant contribution of community activities of support mechanism on teachers' research skills at higher education level.

1.6 Research Questions

Q1. What support mechanism is available for teachers?

Q2. What is the level of support mechanism on teachers' research skills at higher education level?

Q3. What is the level of teachers' research skills at higher education level?

1.7 Theoretical Base

The study was based on the model presented by Ruth, John and Zeynep, (2006) in their research on institutions and organizational socialization: Integrating employees in cross border mergers and acquisitions. The model presents a clear difference between organizational socialization domain tactics and strategies according to Ruth, John and Zeynep, (2006) "socialization is the process of getting similar with the certain environment". Their model is based on the analysis and synthesis of previous research is done on organizational socialization the model was based on three sections that were organizational socialization domain, organizational tactics and organizational socialization practices or strategies. The first section of their model was based on organizational socialization strategies. According to them socialization strategies are actually the broad strategies that can be applied to regulate the socialization process in organization. In other hand it is referred to how people learn to adjust in organization. In this section they presented a list of 10 strategies that can be used to socialize the newcomers in any organization. The same strategies were also suggested by Alan M. Saks & Blake E. Ashforth, (1997). They further divided the strategies on organizational, group and individual level. Thus the organizational levels socialization studies contained four sub variables (orientation, mentoring, training and social activities). The group level socialization strategies were further based on three variables (new recruits, supervisors and co-

workers). While the individual levels socialization strategies were dealing with the proactive behavior of the employees.

In the second section while discussing about socialization domains they identified six major domains. That actually represent the content that the newcomers learn during their stay at any organization. Those six domains were work roles, history, language, people, goals and organizational politics. These domains were extracted from the research of Chao et al. (1994). The model is further presented in fig No.1

The Socialization Process

Aguilera, Dencker and Yalabik, (2006)

Socialization Strategies

Alan Saks and Ashforth, (1997)

Socialization factors

Organizational	Group	Individual
Orientation	Social	Proactive
Training	Support	strategies
Mentoring	Social Learning Process	and behavior

Socialization Domains

1. Individual Work Roles

1: Learn about how to conduct a specific Job

2. Organizational Goals and Values

2a: Formal Rules and Principals

2b: Unwritten, informal and tacit

3. People/ Personnel

3a: Learning about work characteristics of people

3b: Learning about structurally defined organizational relationships

4. Language/communication

4a: Learning professional technical language

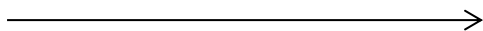
4b: Learning Slang and jargon unique to organization

5. Organizational Politics

5a: Learning about power structure of the organization

6. Organizational history

1. Onsite Orientation
2. Offsite Training
3. Mentor
4. New Recruits
5. Peers
6. Supervisor
7. Senior Coworker Relation
8. Support staff/ Secretary
9. Social/Recreational activities
10. Business Trip





Based on categorization by Louis et al. (1983)

How it is learned

Based on organization by Chao et al.(1994)

What to Learned

Fig.1 Socialization Process by Aguilera, Dencker and Yalabik, (2006)

1.8 Theoretical Framework of the Study

This theoretical framework was based on support mechanism and teachers' research skills. Teachers' support mechanism model was based on the work of Lucas & Oliveira (2017) and teachers' research skills model was based on the work of Vitea (2010). It was categorized into following sections.

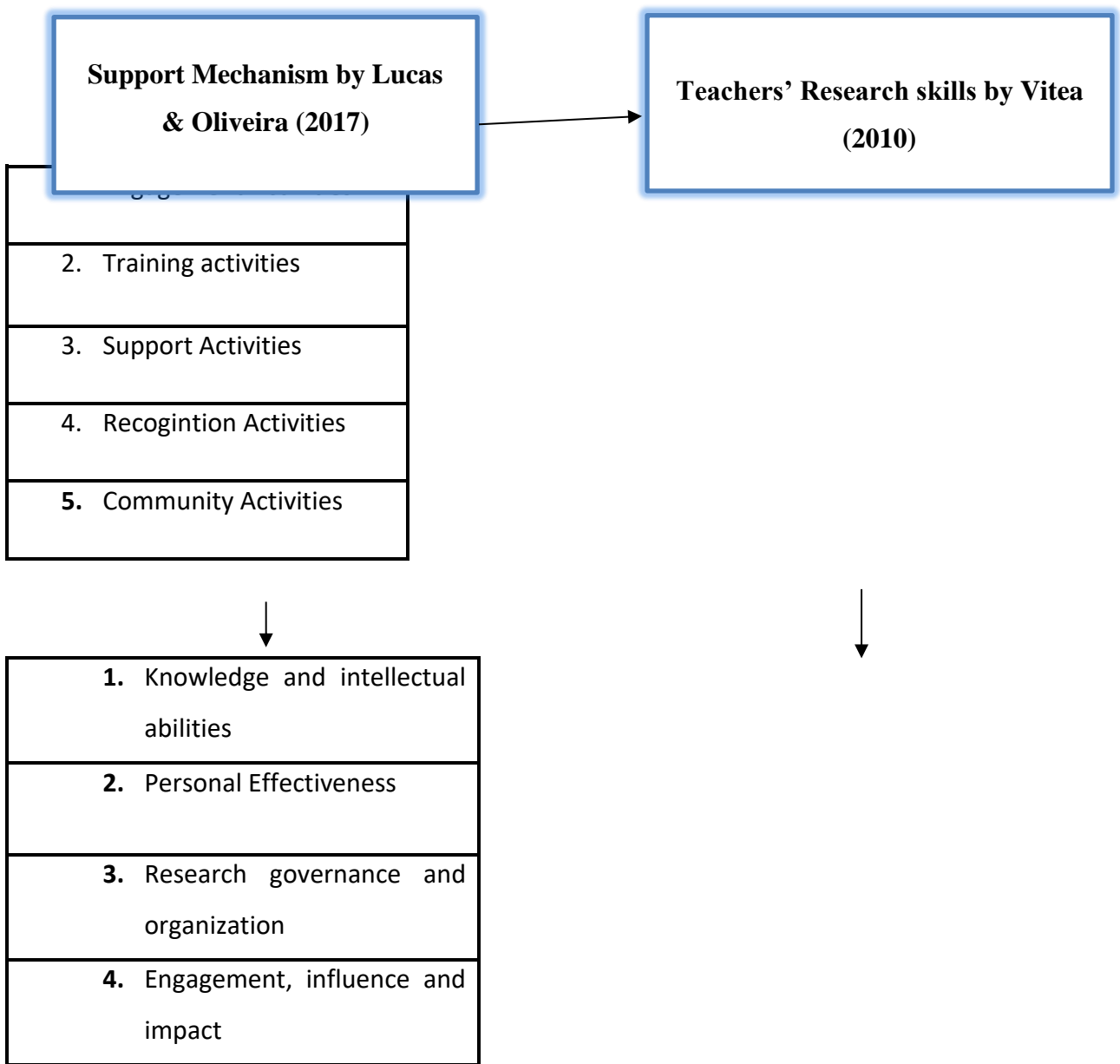


Fig.2 Theoretical framework of the study

1.8.1 Teachers' Support Mechanism Model by Lucas & Oliveria (2017)

Support mechanism is a process of providing support. Support mechanism was categorized into five categories. These were

1. Engagement Activities
2. Training activities
3. Support Activities
4. Recognition Activities
5. Community Activities

The theoretical framework of teachers' support mechanism model was developed by Lucas & Oliveira (2017). This support mechanism was designed to help researchers to learn that how to use these approaches and activities for a specific need (See Appendix A).

1.8.2 Teachers' Research Skills Model by Vitea (2010)

Research skills are the abilities to assess and examine information and to apply this information to solve actual problems faced in research area. The teachers' research skills model was based on the work of Vitea (2010). This tool was categorized into four sections.

1. Knowledge and intellectual abilities

2. Personal Effectiveness
3. Research governance and organization
4. Engagement, influence and impact

1.9 Operational Definitions

1.9.1 Engagement Activities

It includes quality teaching learning skills, ideas and best teaching practices with the help of senior members who give feedback and instructions to meet the needs of new teachers.

Engagement activities support a number of opportunities to directly involve teachers' research skills. The purpose of these support activities is to develop awareness about the current projects and work to reflect with and to gain knowledge from stakeholders. Engagement activities give teachers' a sense of ownership for using and piloting activities of research in the classroom.

1.9.2 Training Activities

A teacher training is the process of teaching and learning knowledge, attitude and skills that a teacher need in workplace. Training is the most important part of teaching for teachers' especially at the higher education level. Training accelerates and integrates teachers' learning. These support events are ensuring that all teachers' had equal opportunity to explore the benefits, approaches, models, and skills for immediate help and support provided by the concerned authorities.

1.9.3 Support Activities

The term support may refer to a wide variety of educational services, instructional methods and resources provided to teachers in the efforts to help them enhance teachers learning progress. Support activities comprised of proficient online and offline support services that give answers to teachers' queries. And support the piloting implementation efforts in the classroom or other educational support.

1.9.4 Recognition Activities

The state of being recognized by a formal and informal acknowledgement from higher authorities is known as recognition. The most integral phase of the professional development of teachers' is certification and accreditation. Keeping in mind this support and vision in mind recognition activities support to develop an efficient mechanism that ensures teacher participation, and appreciate their support at different levels.

1.9.5 Community Activities

Community activities include communication, volunteering, learning at home or society, decision making and collaboration with community. Community support is also important for teachers' support at higher level of education. Community-level and community size are best indicators for future sustainability and research skills.

1.9.6 Knowledge and intellectual abilities

Refers to the skills required to think critically, see connections between disciplines and problem solve in new or changing situations.

Knowledge and intellectual abilities refers to the skills needed to think critically, see the connection between discipline and problem-solving in new or changing situations.

1.9.7 Personal effectiveness

Personal effectiveness means how to utilize skills, talent, knowledge, abilities, and energy to achieve a goal or objectives in personal and professional life.

1.9.8 Research governess and organization

The knowledge of the standards, requirements and professional conduct that are need for the effective management of research. Research governess and organization refers towards the knowledge of the merit, essential, and professional ethics for successful research management.

1.9.9 Engagement, influence and impact

The knowledge, understanding and skills needed to engage with, influence and impact on the academic, social, cultural and economic context.

The knowledge is required to meet, effect and impression the academic, social and economic contexts.

1.10 Significance of the Study

This study will significantly contribute to the scarce literature available on the support mechanism and teachers research skills at higher education level in Pakistan. By exploring the existing models and theories of support mechanism and research skills would provide guideline for future researcher to extend the research in the area of support mechanism for application in the field of education.

This research will be productive for university administration authorities to provide support to teachers in a better way. Special trainings can be designed for teachers research skills because in 21st century competition is increasing day by day and not only the quality of research skills required in that era but also needs a support mechanism for effective learning and professional growth. Good research skills and support mechanism is the demand of present time. In this study researcher highlighted the significance of teachers' research skills and support mechanism. Teachers had a great importance in education and this research help them to know about how support in research skills helpful at workplace such as goal-oriented skills, planning, and management skills, analyzing and synthesizing skills, communication and teamwork skills. This study supports mechanism for teachers' research skills helps higher education level teachers to be successfully engaged in-class activities, classroom observation, induction, and career development. New teacher were also play important role in education as this research study help them to know more about research skills and motivate them in professional development This research was also important who work in

administration to help them to organize training for faculty, support activities engagement activities, and recognition activities. Those who have already taken support can also help new staff to learn the ropes and help them in understanding and adjusting to organizational culture.

This study is also significant not only for the individual but also for the organization. For individual support mechanism increases self-reflection, job satisfaction, and advanced professional development. Also, individuals will develop positive relations with peers, staff, and with the institution. Mentors and mentees will look at their own practice and evaluate whether they were complacent or co-dependent. For an organization, a support mechanism is significant as it develops organizational socialization, leadership capabilities, and develops research skills.

1.11 Methodology

1.11.1 Research Approach

The approach was used in this study was quantitative. In this quantitative approach, data was collected through statistical analysis. The results and the conclusions are collected and manipulated in the form of numbers in quantitative research. This help in converting data into a useable statistic. Researchers select this quantitative approach because data collected through this approach and presented in numbers will be reliable and accurate.

1.11.2 Research Design

For this study, the researcher adopted correlational research design. For analysis of support mechanism for teachers' research skills at a higher level of education, researcher correlates two variables using mathematical analysis method.

1. 11.3 Population of the Study

In the language of research, a population can be described as a vast group of institution, people and other things that have same characteristics. Population is explained as the whole group of people that a researcher wants to examine (Rafeedali, 2022). The population of this study includes

teachers serving in private and public sector Islamabad universities. The study population was comprised of teachers belonging from social sciences faculty. These universities are located in Islamabad and recognized by Higher Education Commission (2021). The population of the study was given below.

Table 1.1

Population of the study

Sr. No	Name of University	Status	Teachers Strength having three years or less than three years teaching experience
1	National University of Modern Languages Islamabad	Public	43
2	International Islamic University Islamabad	Public	50
3	Air University Islamabad	Public	20
4	Bahria University Islamabad	Public	21
5	Quaid-e-Azam University Islamabad	Public	24
6	National Defense University Islamabad	Public	14
7	Foundation University Islamabad	Private	14
8	Ripah University Islamabad	Private	15
9	Preston University Islamabad	Private	41
10	Iqra University Islamabad	Private	22
11	National University of Science and Technology Islamabad	Public	33
	Total		297

The table No 1.1 explains number of teachers having three years or less than three years teaching experience in public and private universities in social sciences faculty in the session 2020 to 2021 was 297 (See appendix G).

1.12 Sampling Technique and Sample

Researcher used census population method in this study in this process data was collected from all individuals of the target population. In this study total population was 297 from social sciences department of Islamabad universities having three years or less than three years teaching experience. 50 university teachers from International University Islamabad were taken for pilot testing. 40 teachers responded in pilot testing. Final study was conducted on 247 teachers. In final data collection rate of return was 236.

1.13 Research Instrument

The data was collected by using the questionnaire. The tool was designed on the Five Point Likert's Scale. Teachers Support Mechanism Scale (TSMS) was self-developed tool. This was based on the model of support mechanism presented by Lucas & Oliveira, (2017). It was categorized into five sections (See Appendix J). These are written below

1. Engagement Activities
2. Training activities
3. Support Activities
4. Recognition Activities
5. Community Activities

Teacher's Research Skills Scale (TRSS) was based on the model of Vitea (2019) and researcher self-developed teachers' research skills scale. This tool was categorized into four sections.

1. Knowledge and intellectual abilities
2. Personal Effectiveness
3. Research governance and organization
4. Engagement, influence and impact

1.14 Data Collection

The researcher personally visits and collect the data from teachers by distributing the questionnaires to the teachers serving at higher education level located in Islamabad city / territory.

1.15 Data Analysis

Data was collected through five point Likert's scale. For evaluating the collected data, the arithmetic techniques were applied accordingly such as Individual score and regression analysis were used in the research study.

Table 1.2

Data Analysis Description

Sr. No.	Objectives	Research Questions/ Hypothesis	Test
1.	To assess the availability of support mechanism provided to the teachers.	RQ1	Mean
2.	To measure the level of support mechanism on teacher's research skills at higher education level.	RQ2	Individual Score
3.	To measure the level of teacher's research skills at higher education level.	RQ3	Individual Score
4.	To measure contribution of support mechanism on teacher's research skills at higher education level.	H ₀ 1	Regression
4.1	To measure the contribution of engagement activities of support mechanism on teacher's research skills at higher education level.	H ₀ 1a	Regression
4.2	To measure the contribution of training activities of support mechanism on teachers research skills at higher education level.	H ₀ 1b	Regression

4.3	To measure the contribution of support activities of support mechanism on teacher's research skills at higher education level.	H _{01c}	Regression
4.4	To measure the contribution of recognition activities of support mechanism on teachers research skills at higher education level.	H _{01d}	Regression
4.5	To measure the contribution of community activities of support mechanism on teachers research skills at higher education level.	H _{01e}	Regression

1.16 Delimitations

As the resources and time was limited this study was delimited to:

1. Faculty of Social Science from Islamabad University considered for this research.
2. The applied research was delimited to only those teachers having three years or less than three years teaching experience overall.
3. Study was delimited to one-way correlation study.

CHAPTER 2

LITERATURE REVIEW

Chapter number two was conducting the literature review. This chapter was distributed into three sections. In 1st section general introduction of the area of research included, in section two related

models and theories of this research included while in section three reviews of related researches already done in this particular field included.

Section 1 Overall Introduction of the Research Study

2.1 Background of Teachers' Support Mechanism

Support mechanism is an important part of any institute. It consists of a variety of educational and similar activities. Support mechanism also responds to the needs of the grade level and teachers level program and activities. There is some subpart of support mechanism such as support, motivation, technology facilities. Like support services is the sub part of support mechanism was a continuous and ongoing test, which always used to improve new features in support mechanism and functions. In education system the most important objective to make sure each student were unable to get proper understanding, knowledge and skills of research. In order to fulfill these desired objectives, it was necessary that teachers had research skills along with support mechanism. Also for improvement and progress in education system of higher level of education, it is important to make provision of support mechanism for teachers' research skills at higher level of education. Effective use of support systems also can be made, in the case of management practices. When senior teachers were of the opinion that students able to use the academic support to their advantage in every way and must enrich the entire education system, then they need to ensure that their management takes place in a way ordered source (Chattopadhyay, 2014 & Kapur, 2019).

In addition, they help them to solve the problems and challenges during work. In order to use these strategies effectively, it was important that teachers had sufficient knowledge and skills, as they were, given the responsibility to ensure that learners were able to make progress in their academic performance (Dimiri, 2015).

Ancaster and Milia (2015) mentoring programs were a common source of instruction and provide motivating support for teachers. Before and after programs it allows for more time and support to complete tasks and provide opportunities for assistance. Lastly, there were online support programs; teachers can do on their own or with a little support. The implementation of these programs and strategies arouses excitement and enthusiasm for teachers. Those who feel threatened and intimidated by their studies were able to develop motivation and positive emotions. One of the most effective strategies for increasing motivation was referred as motivational dialogue. Encouraging dialogue was a compassionate, collaborative and direct behavioral strategy that works to increase motivation. Adults meet with new teacher and work to promote pride and behavior change in direction through the development of personal commitment, efficiency and internal control. One of the most effective ways to lead to increased achievement was to provide learning materials that were of high interest to them. Materials can be books, articles, essays, papers, reports and more. Learners' interest within the subject matter considered as an important factor in developing their reading and comprehension skills. Extensive reading materials make it easy to provide adequate information to learners based on the ideas they were learning (Hidayah, 2016).

The use of the internet had gained prominence, not only in increasing academic skills and in understanding concepts effectively, but people were able to use teaching and learning methods effectively. Once researcher gain an understanding of academic support, it was important to get information about learner or teachers support. Support was a way of assisting teachers to expand their learning skills. In a typical program, classroom communication, peer group interaction and library resources were learning materials. When people had access to these resources, they were able to develop their reading skills and abilities. There were many factors that occur as problems

in teachers' research skills and support mechanism (Kapur & Radika, 2019). These were written below:

1. Sensitivity within the university environment
2. Limited Access to Information and Services
3. Insufficient interaction
4. Limited access to counseling and guidance centers
5. Lack of Resources
6. Insufficient Teaching Techniques
7. Lack of Learning Materials
8. Family and Employment Responsibilities

Organizational mechanism was a tool that will help disadvantaged groups to create their own democratic economic institutions. Its purpose was to help those groups realize that various types of legal and informal organizations that can better serve the economy as well public interests (Hong, Lin, Lee, & Yang, 2020).

Effective pedagogy in social sciences mention four types of mechanism for new teacher these were connection, community, alignment and interest. These mechanisms help in identifying current practice. All of these were supported and backed by evidence and help in measuring what to do in future. Benefits of these four mechanisms were that they help in creating connection, matching result with important result, build and maintain a learning community, designing experience, which appeal learner. Combining understanding of cultural identity in learning contexts enhances the learning, teacher can also learn from the student in relationship of teaching and learning. By appreciating, valuing, and acknowledging students teacher can create a learning environment regards the facts from where new teacher belong and who they were. This was an important for

improving performance. When people and natural world contact with each other that time a cultural awareness happened. Cultural ideas and understanding of nature that can increase the chances of a sustainable future. Social support for student achievement from school environment relationship strengthens learner perception of the importance of their learning (Yanget, 2020).

A holistic approach to teaching and learning is known as "education about, within, and the environment". Holistic approach gives diversity to teachers teaching and learning types and styles that focus on skills that will help in two factors to develop learning skills. Instead of emphasizing, it seeks to empower new teacher to deal with the problems that help them to take part in future activities and roles and responsibilities. The purpose of seeing the practicality of an action help in knowing what will happen in future action considered different to acting and current thinking. About, in, and for approach emphasizes teaching, experience, and collaboration methods. For the sustainability, teachers get support through manageable way and achievable action so that they can work smoothly in support mechanism (Ibanez, 2021).

As researcher thinks about his/her next research, researcher was pleased to learn that there were already a variety of services that help professors to improve their research skills, attitude, abilities, self-assurance and dedication to practice such habits. A study conducted by Makar (2007), these 'levers' connect the teaching cycles of planning, teaching and presentation, a teachers use learning from one teaching to the next. The first trip of four teachers who had just started asking questions as they accepted to teach math's by asking. Supporting teachers in classroom help teachers to boost through inquiry method and to know and accept the approach. Following was some approaches that teachers must know and follow to enhance their research skills at higher level of education (Makar, 2007).

2.1.1 Approaches to Enhance Research Skills

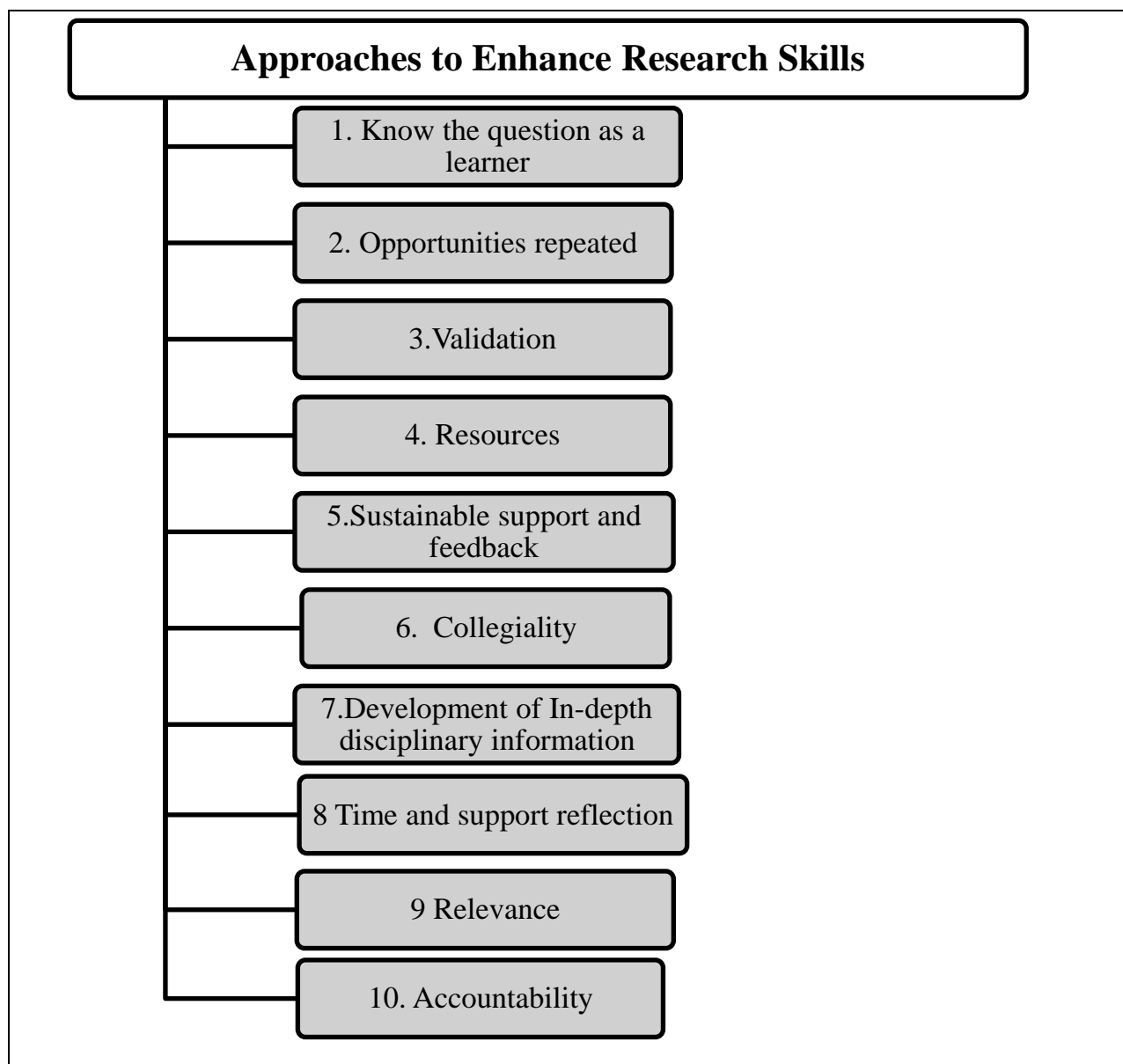


Fig 2.1 Approaches to enhance research skills by Makar, (2007)

2.1.1.1 Know the Question as a Learner

Teachers must consider themselves always as a learner or as new teacher to learn new things. In addition, adopt the approach open problem based on the investigation. A study conducted by Kapur (2007) had sample of teachers which consist of four members work collectively and outcomes showed that teachers encouraged having more accessibility and control over their skills as well as

on their new teacher to see the struggle and work incomprehensibility. The openness of the research question created opportunities for teachers to design mathematical investigative lessons that embrace these experiences for learner. In order to deal with the struggle and vagueness, teachers see the need to strengthen and organize the children first experiences through research. This would help remain the experience positive, so teachers as learner must more prepared to take risks in the future (Kapur, 2007)

2.1.1.2 Opportunities Repeated

A famous phrase practice makes a man perfect. As an activity conducted by Kapur (2019) wrote that teachers had difficulties first time in unfamiliar things, after given repeated chances to enhance their skills. Indeed, it was difficult for first year teachers at first chance but it showed improvement after one-year mathematics teaching. For the improvement of teachers' skills and confidence, it was necessary to have these repeated activities and opportunities. Teachers may think that he or she always do a thorough investigation. They may want to emphasize on a specific part of the question. For example, you may wish to provide student information to focus on concluding conclusions. For having expertise for leaner and teachers, repeated efforts were important which will help them in future to build their research skills to use in many areas of education and other field (Fluke, Connor, Strawhun, & Peterson, 2014)

2.1.1.3 Validation

Makar (2007) wrote that in education system where two-way process happened in which one was teacher and second was a learner for both validations was important in a particular process a teacher can organize an activity to learn a skill such as writing question and then teach these questions collectively so they can find out its validation. Ultimately this will help teachers to differentiate their work with other and it helped in understanding that things always not same as

they were planned. So many times it was give satisfaction other were also anxious about their work and skills were they doing well as they planned or not. Reflection of own work and skills with others gives support to know about first research chapter and support to knows about planning skills.

2.1.1.4 Resources

According to Di & Lancastar (2015) teachers use relevant resources in the first structure particularly before the investigation of any idea that how they look like. Many educational resources help teachers to enhance their research skills in research area especially. There were many resources such as internet, library, open society to discuss etc.

2.1.1.5 Sustainable support and feedback

In teachers' research skills development support and positive feedback was necessary. While working under senior or supervisors teachers can get valuable support and feedback that support them to increase their research skills at every level of education. In a teamwork suggestion also play a vital role where teachers can get support and feedback to increase the visibility of teachers.

2.1.1.6 Collegiality

Teachers relied on each other as they spent time together, sharing ideas and concerns, developing the community together. As a teacher's community, teachers share what they do in their classroom with each other knowing that others were thinking about the unit as they teach it. If a teacher can work more closely with their partner, listen and learn from each other, 'break down' ideas from each other, give and receive feedback and try new ideas with supportive, respectful and participatory collaboration (Colbeck, Massy & Wilger, 1994).

2.1.1.7 Development of In-depth disciplinary information

For the progress of research skills in depth research and reading was also important. Having in depth information boost teachers' skills and enhance critical thinking, give hint to make connection between ideas and correlate them to draw a conclusion for better understanding. These qualities and skills vice a versa emerged in their students also. In depth information increased knowledge, reading and writing skills, thinking skills, analytical skills governance skills etc.

2.1.1.8 Time and Support Reflection

Several time in a year time was specified for teacher to stop working and spend time to enhance their skills. Support each other through their experiences and discuss their skills and experience with each other. Inform the learning curve that can be explored. Stand back and think about how you can use the shared content that will enhance your practice (Makar, 2007).

2.1.1.9 Relevance

In the 21st century at national and international level skills like collaboration, creativity, thinking, communication and problem solving were emphasized especially in the field of STEM. In contribution and participation in this, increasing communication and technology there were opportunities to involve in interrogation for personal and professional development. In the Australia curriculum, mathematicians were confident while using question answer approach for teaching and self-learning. Moreover, these approaches must be appreciated and promoted at local, national and international level (Toffel, 2016).

2.1.1.10 Accountability

In the 21st century where competitions were increasing rapidly here accountability needed to keep teacher on their path and not be distracted from their path. Teacher as a learner must think

themselves as students so they will push teacher when time was needed. Scheduling a co-worker to look at their research study, for example, ensures that they teach it (Makar, 2007).

Mentoring had been identified as a way to support the teaching process, in compulsory school and higher education conditions. Informal dialogue with New Zealand institutions had received flexible plans to support the teaching practices of academic staff, with such advice operating system; but no official system was in use. For example, in the process of mentoring it include more experienced teachers dedicated their efforts as well mentoring services for those employees who were less experienced. In addition, this needed without any policy for activities to govern, no guideline and no statistical data required to gather. Creating the aim for mentoring as support mechanism can be important subsequent proposal step in teaching that support in mentoring. After reading related literature about research this initiation gives a mixture of agreement and disagreement about aim, methods and implementation were mean of supporting teachers. Because an institution that wants to use a counseling system, these things need careful consideration and clarification prior to the design of the system and its implementation. Support mechanism was given various meanings to explain its purpose, among them placement, supervision, retention of staff, inculcation of organizational values and beliefs, individual and technological advancement (Peterson, 2006).

It seems no single meaning, in fact an idea, which contains many layers of meaning, use and purpose. A text review in support mechanism finds that there was no standard definition or a coherent meaning. That is why any subsequent conversation and debate that counseling was a supportive approach to teachers use were open comprehensive detailed contradiction and interpretation. This the inclusion in this literature review was a deliberate set of ideas as well

counseling site and examples of counseling practices, with little research to prove and ideas. Many programs and procedures can be considered to support teaching methods academic members, like performance management system placement, guidance system, peer review and mentoring. Peterson (2006), wrote in his study that advisory contexts in higher education currently counseling courses were offered at a tertiary institution in New Zealand research methodology was based on critical academic teaching. In addition, author wants to know either teachers supported their teaching habits or not and mentoring require legitimate form of support mechanism immerse through organization.

It was common that new teachers mostly helped in management skills by others more skilled person. Although, other researcher extends their aim and include more items as an aid to support technology advancement with expected management of research and expectation of professional work. The role of mentor with cover effective leadership with validation to study and academic roles, responsibilities and skills. The mentor benefits to develop more classroom based approaches and research based approach framework as ground for thinking and refining their response. The theme of support mechanism for the benefit of the organization was also widespread in the literature, emphasizes the impact of institutional cultural advisory, official policy and the general life of the organization. The apparent importance of support mechanism in an organization can be made was significant and clear communication channel as well as official policy, recognition, participation and award programs. The culture of the organization that promote the idea that it accessible and give support on openness, acceptance once a sense of community support. The significant effect of advice to transfer the values and beliefs of an organization from one generation to another. Although it did not explain these were positive outcomes or not (Peterson, 2006).

Supporting a teacher was a way to support a learner. In the standard system transaction in classroom, peer-to-peer interaction and availability of library were all part of learning for teachers. In open distance learning audio-visual-aid, printing, teleconferencing on going assessments and visual experience make learner support (Chattopadhyay, 2014). The support services usually take into account the following:

1. Information support
2. Institution support
3. Learning centers support
4. Feed Back

Ancaster and Milia (2015) support for workers mean helping the workers in their job and giving the right to do their best on job. Teachers' performance and moral with job satisfaction automatically increase when they were given their due rights and needs for job. All employee support strategies must take into account the motivation of employees to perform and excel at work using the available resources available to them - tools and equipment. The most important and effective part of this that was mostly ignored that employee need psychologically, socially and morally was acknowledgment from higher authorities, colleagues and from society. So teachers support started from the behavior and attitude from manager and the acceptance that tutors were respected, essential assets that add in the development and success of the institute. Some points that manager or administration keep in mind was written below.

1. Keep staff informed. The more information you share about a business, its purpose and the responsibilities that need to be done, the employee involvement was very important.
2. Be aware about job accountabilities and liability. Help employees understand what their jobs require and what they mean for the company's extension.

3. Offer the teachers more creative and puzzling work. Significant activities and specific inclusion were key to job pleasure.
4. Offer proper apparatuses and tools for the job. Eliminate any difficulties and hurdles that stand in the way of doing the job.
5. Begin operative announcement networks. Administrators need to interconnect clearly and effectually. Make sure everyone in the group realizes the tasks they were playing and each one to avoid misunderstandings and inflated mistakes.
6. Inspire and reward initiation and innovation. Let employees show off their best work by giving them space to breathe and perform well. A little conduct killed the action.
7. Consider job relaxation. Include job rigidity in the benefits offered to employees as a sign of trust and trust. Some employees can produce more with a flexible system.
8. Applying and upholding staff supports policies not only gives a way to higher job pleasure but also lower joblessness. Accepting and helping your employees succeed in the workplace was a significant task of keeping employees successful, which needs to be enforced before it was too late

Support mechanism was also considered important and was shown to be motivating teachers to apply their knowledge and skills and provide response about their work and activities that were conducted through more efforts. Chances like swap in role for short period, acting on behalf of other teachers, working on task and projects had been shown support for teacher. It was expected from teachers to emulate required research skills and had conversation about new ideas with other teachers. Acquisition of knowledge, information and participation in planning procedure as well as in negotiations were important to learn research skills. Teachers considered their self as part of decision-making process in relation to their participation that showed that their study and

participation was appreciated. Studies show that now teachers were also part of decision-making process that not only effect teachers but also affect collectively their work in positive way. Teachers also explain the importance of learning together with colleagues that was beneficial for them and explain the importance of learning about other part of teaching to others who do it rarely work. This includes listening to the opinions of others and searching ideas from an organization's broader perspective rather than just from their knowledge (Ancaster & Di Milia, 2015).

2.1.2 Mentoring as Support Mechanism

Mentoring has been identified as a mechanism for supporting teaching practice, in the compulsory school and higher education contexts (Elliot, 2000; Feiman and Nemser, 1996). Informal dialogue with institutions across New Zealand has identified variable systems for supporting the teaching practices of academic staff, with mentoring as one such mechanism; however with no formalized system in place. At one institute, for example, past mentoring processes have involved senior teaching staff volunteering their time and assistance to mentor less experienced staff, as required, with no procedural guidelines, no policy directing this activity and no collection of statistical data. The Support mechanism concept comes from mentoring. Mentoring was considered as a support mechanism for instructors in the higher education system. There were many definitions of mentoring, and the authors describe various ways of mentoring and the role of mentee and mentors. Elliot (2000), Feiman-Nemser (1996), Petersen (2006, 2011) identified mentoring as support mechanism in their studies.

Woodd (1997) mentioned that a study held by Shelton (1982) in America and identified that those teachers who were mentored were significantly on a promotion rate than those teachers who were not mentored.

Mentoring or support mechanism means helping or supporting to a less experience person or novice teachers so they could be more productive for their organization. Its areas can differ

importantly and interpersonal features and actions are contingent on personal and background issues. As compare to other disciplines in higher education mentoring experience include substantial individuality. Support was very helpful and many mentees said it helps in psychosocial support and it helps to reduce stress. In this way relationship improved and willingness in work was vulnerable and often result in deep friendship (Shaobing, Joel , & Donald, 2018). The role of minority support program would be beneficial in organizing productive social support system in higher education mentoring program (Joi & Sara, 2015).

David, et al, (2011) conducted a study on Graduate Students' improve their methodological skills through teaching experience and they concluded that graduate students are busy in supervised research and minimize teaching obligation. Research was conducted on two groups one was with teaching and research skills both activities and another was busy only with research activities. Result indicated that first group with both activities and responsibilities had significantly better result and these students can easily generate hypothesis and design valid experiment. Result also showed that teaching has positive effects on research skills.

Another study was conducted on 21st century skills for high school older research class and that study emphasized research skills such as learning skills, material gathering services, business community and educational leaders were searching aimed at those students who were having skills of assess and analyze information and have ability to solve real world problems. This study suggested that teacher's collaboration with librarian to prepare new century students to locate reliable information and knowledge and analyze them and applied them in real world (Sullivan, & Dallas, 2010).

Marta et al. (2018) studies effect of peer assessment task in relative to university undergraduate primary research skills was writing skills and resolution was to encourage educational writing

skills one of the basic skills to get degree. As many students and teachers cannot enhance their skills at the start of careers the group assessment practice increases their low level of aptitude but not as high level. This study help in promoting strategy of learning and self-regulation also help them to know their own weaknesses and strengths (Marta , Neus , Ferran, & Toni , 2018).

In Pakistan Zahida, (2019) conducted a study on effects of supervisory on student's research skills and about 43% students' attitude towards research was influenced by supervisory and research practice. About one thirds student's response that their research skills were wasted in hands of unskillful supervisors and they don't recommend their supervisor to their junior. Majority of students give positive response towards their supervisor. Most of the research scholars disagreed that they have lots of information about literature review resources, do not have enough knowledge about sampling techniques, research instrument and relevant requirements.

Section 2 Related Models and Theories of this Research

2.2 Model of Teachers' Support Mechanism

There was some model that was related to research skills and support mechanism those were written below. Models related to support mechanism were:

1. Mentoring model
2. Workplace support model
3. Support mechanism

Models related to research skills were:

1. Teachers' research skills model
2. Research skills development model
3. Work skills development model

The Theoretical framework of this study based on two models see fig.2. Support Mechanism and Teachers' Research Skills. Model of support mechanism based on the work of (Lucas & Oliveira, 2017). It was categorized into 5 faces.

2.2.1 Mentoring Model

A mentoring relationship is a knowingly created relationship between two people that is intended to enhance the development of one or both parties. It is a process in which individuals learn new (or enhance existing) skills for adapting to the environment (Hall, 1987). The mentoring relationship is a developmental relationship that involves two roles: the mentor and the mentee. The model were proposed grounded in this belief. Thus we place the essence of the mentor mentee at the center of any model. Mentoring relationship as influenced by the culmination of the blending of the constructs of socialization, task, and lifespan. There is a three-dimensional model to depict these interactive forces which shape the mentor and mentee relationship. In model, the outer circle represents the construct of socialization. It is the largest element in the model as it embraces the environment in which task and lifespan dimensions engage. This circle of the model reminds that socialization, as a construct, occurs through three formative stages: preformative, formative and post-formative. The two elliptically within the model depict task and lifespan development. Located within the larger context of socialization (the outer ring), these are fluid, and portray the synergy of a person's life as they engage in multiple socializations. Individual evolution through task and lifespan is also articulated as a continuum as described by accepted theories such as are postulated by Erickson, Kegan, Hall, and others. Understanding what each dimension brings to the relationship and its influences helps us to understand what makes a mentoring relationship either succeed or fail. In that proposed model for viewing mentoring, it honor and integrate these three dimensions.

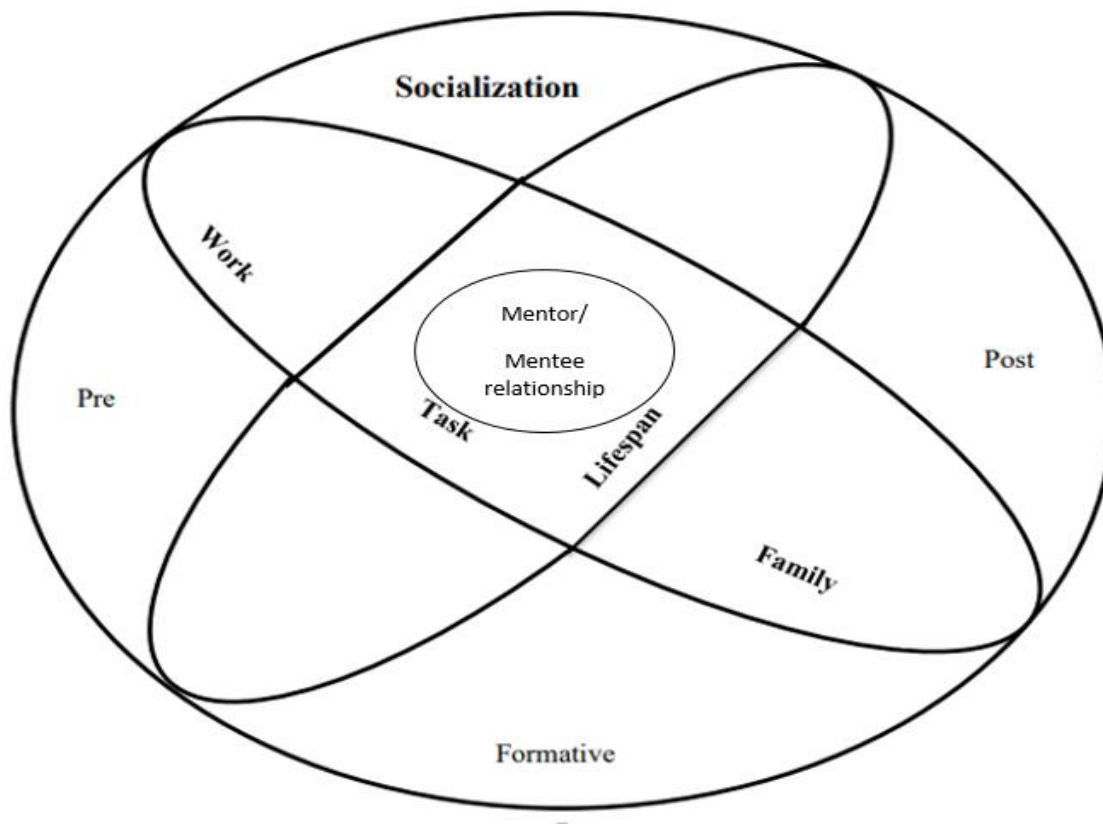


Fig 2.2 The Mentoring model by Stephanie, Johnson, Gary and Orlando (1990)

2.2.1.1 Socialization

The primary interactive dimension as represented by using the outer ring of model is assemble of socialization. Goldstein (1994) describes socialization as a learning process in which a character learns the rules of behavior precise to his/her culture. Consisting of domestic, school, church or media. This ring embraces the idea that the mentor and mentee exist within their specific socializations and that inside their Environment, those individuals are in one in every of 3 phases: pre-formative, formative and post-formative.

For Instance, a new teacher or someone entering a brand new environment, inclusive of college, work, non-secular or social, is to begin with in a pre-formative level. The person is having a new experience that is rich in learning approaches to adapt to the brand new environment. In an

environment that has a formative structure, the Individual may additionally come upon less preference and commonly the agency will assign a mentor to the teacher. Whereas, in a post-formative environment, the individual studies Extra choice in deciding on developmental relationships. In this level, human beings internal Locus of manipulate provides momentum and they have a tendency to be masters of their own ship. Traditionally a mentoring relationship is among a senior colleague and a junior colleague. Each of these individuals may be engaged in different socialization systems simultaneously. It is essential to understand that the new teacher may be in a single or more of the 3 tiers at a given time. One may also be nicely mounted and influential within the institute (post-formative) while getting into new paintings surroundings (pre-formative). In Kram's (1985) had a look at of mentoring relationships she observed that the career environments of both people effect the mentor and new teacher relationship. In examining the career histories of the topics, it was found that expertise of which levels the mentor and teacher are in greater the understanding of the mentoring relationship.

2.2.1.2 Task Development

The next dimension that impacts the relationship of mentoring was task development. Hall (1987) recognized the two central components that occupy teachers life structure as work and family. We incorporate work skill development and family skill development as major facets of task development. Again, an awareness of which task (work or family) the mentor and mentee is important to understanding the relationship.

Work skill development was the first domain we can cope with. Work talent development is described as a sure set of proficiencies needed to compete for and reap pleasure within the work surroundings. Work skill improvement strictly to the role of maturing in one's work environment.

Kram (1985), in research of mentoring relationships, identifies wide classes that surround the mentor courting. These two categories are career functions and psychosocial capabilities.

The second one domain was circle of family skill development. It was different from work skill development in several elements. The content material of what encompasses family abilities was great. Illustrations of some circle of family skill techniques are coping with alternate, resolving private conflict, coping with pressure, flexibility, communication, and balancing work and family lifestyles. Cultural traits play a first-rate position in the teaching and learning of circle of relatives talents and might also have a primary impact on the mentor relationship. Triandis (1994) provides a few highlights of differences in cultures. It was how humans in all cultures use the identical cognitive tactics but what was different in their classes and values used in the methods. Some other difference was the importance of a particular norm in cultures. Values were the humans' ideals about a way of existence that was suited for themselves.

Again, the distinction amongst cultures can be tested by the individualistic culture that values pride, range and excitement in evaluation to a collectivist tradition. That values subculture, elders and protection. Two duties work and own family will have apparent effect on each differently. In examining how circle of relative's responsibilities impact work obligations.

Some ladies commenced the pattern very early in their lives while others have been much older, expecting their youngsters to go away home. The understanding of these patterns was essential to the mentor. Traditionally, the mentor was the man or woman with extra enjoy helping develop an individual in the learner level. The fulfillment of the relationship was determined in both parties' awareness of the mentee and mentor's role in venture talent development (work and own family).

2.2.1.3 Life Span Development

The lifespan dimension examines the change and growth across an individual's lifetime. We now entering into a dimension that was internal and personalized to the individual. The look at of lifespan development may be checked out via many lenses inclusive of physical, cognitive, social and personality. Their lifestyles improvement levels or distinctive. For example, in a traditional representation of mentoring the mentor was older and in Erickson's stage of generativity the focal point was on organizing and guiding the subsequent technology" (Gormly, 1997, p. 530).

2.2.2 Workplace Support Model

Support at the place of work means those actions, behavior and work procedures that were outlined to support staff members' wellbeing and effectiveness. Supervisors of an organization and coworkers can provide support to new teachers and workers (Connor, Pollard, Roche, Skinner, & Todd, 2005). Workplace support had two main functions that were shown in below fig.2.3.

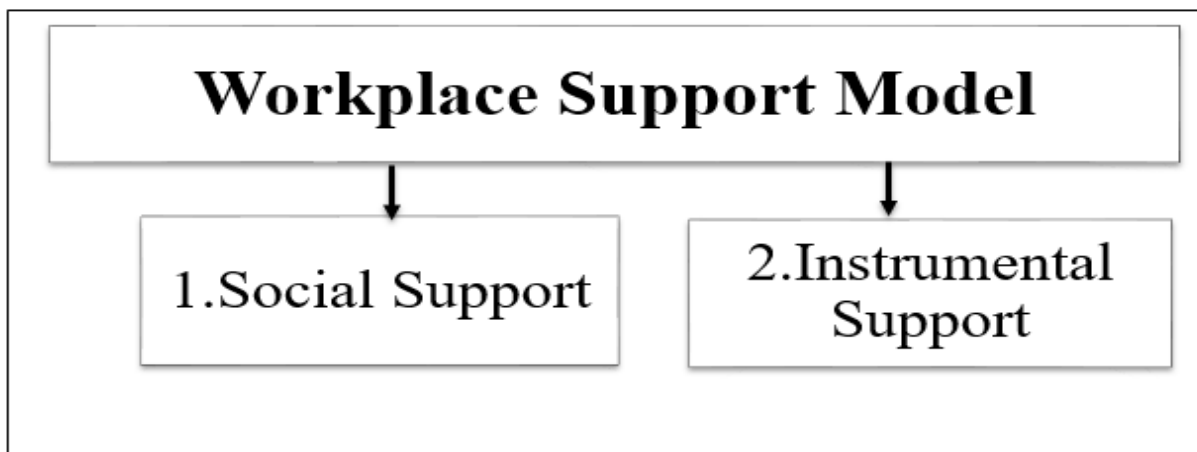


Fig.2.3 Workplace Support model by Skinner, (2005)

2.2.2.1 Social or emotional support

Skinner et al. (2005) this was first key function of support mechanism. Social support means a support that emphasized on needs of workers which meet teachers values, help for workers, care, respect and being valued by all. This support needed to be taken care carefully especially when

there was a lot of work and demands for staff and they had a lot of pressure about work. Most successful support communicates special needs and situations of team and individual workers and staff. That is why the most important and effective support mechanism and strategies were those that were designed with the collaboration and discussion of workers of that particular institute, industry or university. Social support sometimes increase stress in teachers when:

1. There were barriers in communication and problems arises without any resolution
2. There were barriers in communication with supervisors and higher authorities' behavior creating contradiction in teachers

2.2.2.2 Instrumental support

This was second key function of support mechanism. Instrumental support was the support that gives workers practical support and assistance in term of their task, roles and responsibilities.

Instrumental support was mostly effective for staff member's performance and welfare:

1. When it was provided to workers not forced on them
2. When it was organized by discussion with staff and higher authorities
3. When it was needed that all members actually need support and assistance

The effects of instrumental support in organization enhance on the spot impacts and ensure that all members of organization had the needed resources and they were not facing any level of discomfort and stress at work. The thinking that any organizational values their participation and wellbeing. In addition, that had a powerful impact on workers' behavior and commitment towards the institute or organization (Skinner et al., 2005).

2.2.3 Teachers' Support Mechanism Model

Lucas & Oliveria (2017) wrote that support mechanism was a process of providing support.

Support mechanism was catagorized into five catagories. These were written below:

1. Engagement Activities
2. Training activities
3. Support Activities
4. Recognition Activities
5. Community Activities

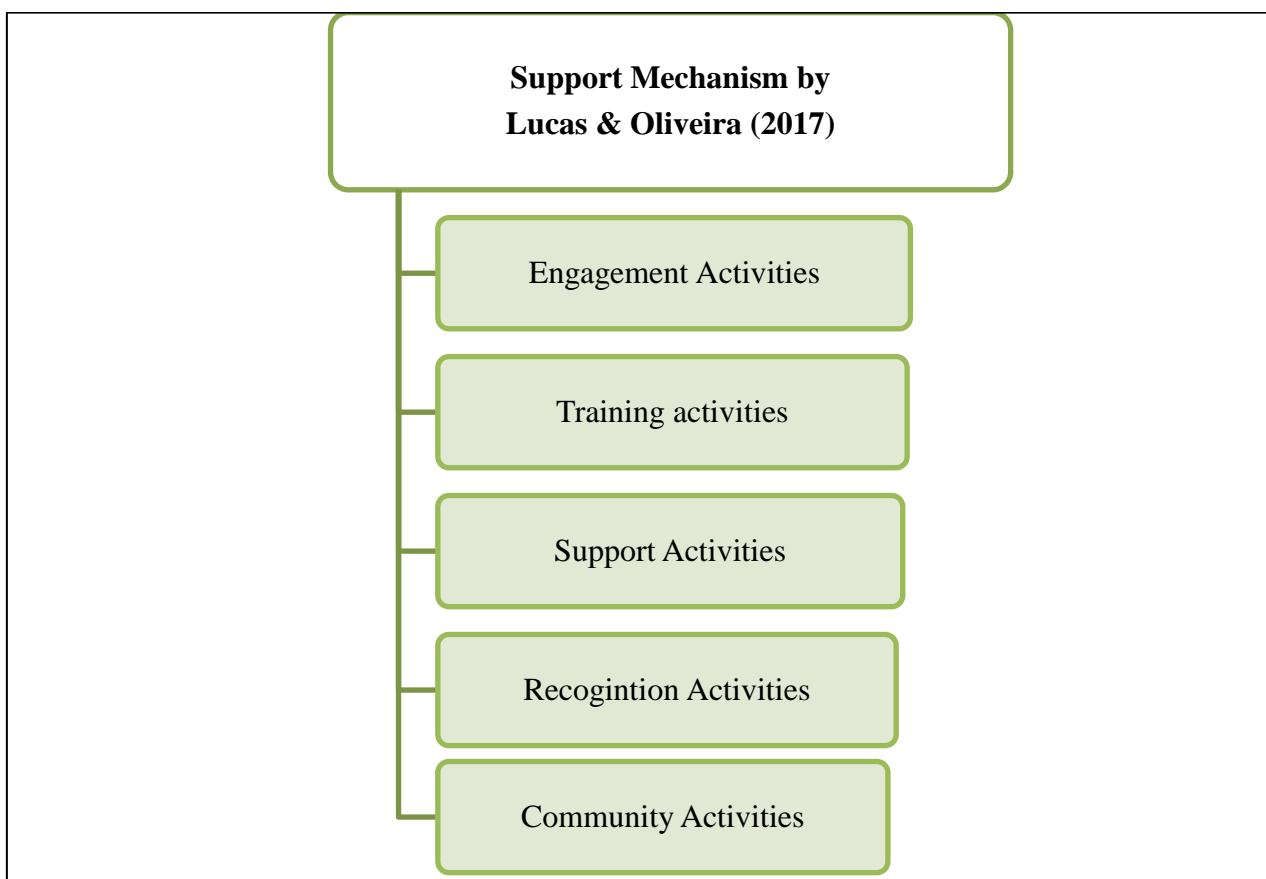


Fig. 2.4 Support Mechanism Model by Lucas & Oliveira, 2017

2.2.3.1 Engagement Activities

Engagement was known as employee relationship with work. Engagement activities were part of support mechanism in which opportunities were given to teachers in which they can involve themselves. Basically different from employee commitment, satisfaction at work through activities. And it mostly focus on teachers energy and engagement activities. Recent work

motivation ideas emphasize the important aspects of energy and participation in the end note that involvement was strong, not static, with potential fluctuations from day by day and week by week, even from work to work. Researchers and policymakers had begun to focus on teachers' engagement for at least three reasons. First, by looking at the convincing evidence of that teacher, good performance was a critical factor in driving student success that such interactions were linked to teacher performance. Researchers, and policymakers were willing to understand that teacher engagement increase teacher performance. Second, engage teachers were believed to be less prone to obesity and related health problems thus link the level of non-compliance to attract teachers. Third, engagement in the workplace was linked to production and the work environment participation, which means that committed teachers often contribute to university life and performing other activities outside the classroom. Improvement a better understanding of teacher involvement in the workplace can lead to an understanding of development strategies teacher well-being and building teacher performance in the classroom (Kalassen et al., 2012).

Learning in the workplace involves being organized and organized on time activities that lead to the building of the new skills needed for effective. Informal learning in the workstation was a piece of on-the-job learning that directly occupies those learning activities that employees initiate at site of work that leads to towards organize work (Cofer, 2000 & Lohman, 2000). That learning made a number-experiences and incorporates a process of action and reflection

2.2.3.2 Training activities

One of the most important thing to keep effective support mechanism system in any setup or institute create clear criteria for teachers selection that had ongoing training and commitment was clearly included. There were many plan, beliefs and program written in literature about the mentor training and show that there was need of more training for teachers. Sequence of training program

for teachers was as important as it was for any other employee. Training must address current needs and keep continue teachers personal and professional development. It must be affordable and reachable for teachers. Successful support mechanism programs were reliant upon the excellence of teaching afforded to the teachers. Where counselors' training was reflected in the literature, there was much further support mentor training. First training activities must give chances for individual communication, consultant and developing supportive relationships. Teachers training were regarded as an important benefit for the development for knowledgeable teachers that show the opportunity for development based on being a mentor how they treat and how they give training to others. Training must focus on teachers problems and it must be according to current technology programs. The aim of training was to enable the teachers to deepen when examining process take place with the monitor during interactivity. There was a belief that on spot training model help trainer changes their focus on supporting beginning teachers to adopt curriculum new technology progress, especially in the implementation for teachers and students' development strategies and assessment. When focusing on teachers the research need allocated support that training was not seen as important role a trainer plays on developing others professionally (Peterson, 2006).

2.2.3.3 Support Activities

Support activities especilly in support mechanism for teachers at higher level was very important. Support from university included suppotive environment, personal assistance, resource support, program support, system assistance support and support from home also important for teachers at all level.

Marshal (2015) in his study asked participants to rate the excellence of provision that they expected in five areas: teaching resources, combined support given by their school or university supervision,

human help given to coworkers, parents help also contribution in his or her classes, as well as community support provided to their families. Accessibility of assets, as well as support from parents, was two main sources of support related to teachers' sense of efficiency. Because of the traditional segregation of teaching, as well as hunger with a sensible response from management on the traditional practice of governance, perhaps that does not pay attention to these as the main origin of information for their successful career decisions. Senior teachers were develop their faith on ability that influence new teachers gaining knowledge whether it was from the colleagues or managers were available or not. Similarly, public support had never been culturally viable for teachers, whether teachers were doing well or not, so teachers obviously didn't look there again as a logical indication of their ability to influence students learning (Tschannen & Woolfolk, 2006).

2.2.3.4 Recognition Activities

Lucas et al. (2017) wrote that for all teachers up to their level recognition, prestige and salary must be accessible to their best level. As a good teacher was worth it become a necessity already in an academic was presented as a safe station. Promotions for the first time for teachers must need to be very good. What it means to be 'talented' and 'very good' well-defined and new methods of competency testing will need to be developed but there were many well-designed models could learn from. In the development of teaching on higher levels promotion was required that include leadership. Just like promotion for research reasons including evidence of research leadership so leadership in teaching was required to be involved proof of being a front-runner in origination change and that had totally changed lessons that include many others, and a mean that you were known as a leader in the development of personal discipline instruction. This will definitely involve teaching research, publishing teaching, engaging with professional communities about studies (at least) at the national level, and so on. It does not had to be this way it was often

encouraged to be a good teacher but a good person was like teacher. People were required to be able to see the whole process of work within teaching. There will also need to be official events for corresponding specialized events as well as associates contradictory affirm (Gibbas, 1995).

Amongst the teachers who left their jobs due to displeasure, earnings and working conditions as insufficient organizational help, run neck and neck as motives for notification. The equal value of these factors varies according to the working conditions of the teachers themselves. For example, teachers who leave low-paying schools when working conditions were often stressful, while salaries were often talked about by teachers who leave well-to-do schools (Hammond, 2000) often talk about poor administrative support.

2.2.3.5 Community Activities

The teaching method important for arousing students' interest throughout the learning process also the content of the lessons must not be overlooked. Science content in school curriculum ought to focus the importance of knowledge of the topic as well as give importance to the curriculum support problems of daily life that society faces. Community helping teachers and students to develop strong social and constructive relationships commitment to working as active citizens. Teachers can apply their knowlwdge and skills on community to solve problems. Teachers must get suupport towards civic participation. Community not only support teachers in learning skills but it also increse their interest and needs to focus on learning. Community support in education inceresed learning deply and interdisciplinary manner and create a conection between teachers and their skills. Teachers must be supported to go out of institutional walls and interact with community where they can enagge themselves. There they can apply their skills and knowledge. Through community they can get appriciation about their work and skills especilly in reseach areas (Lucas et al., 2017)

2.2.4 Teachers' Research Skills Model

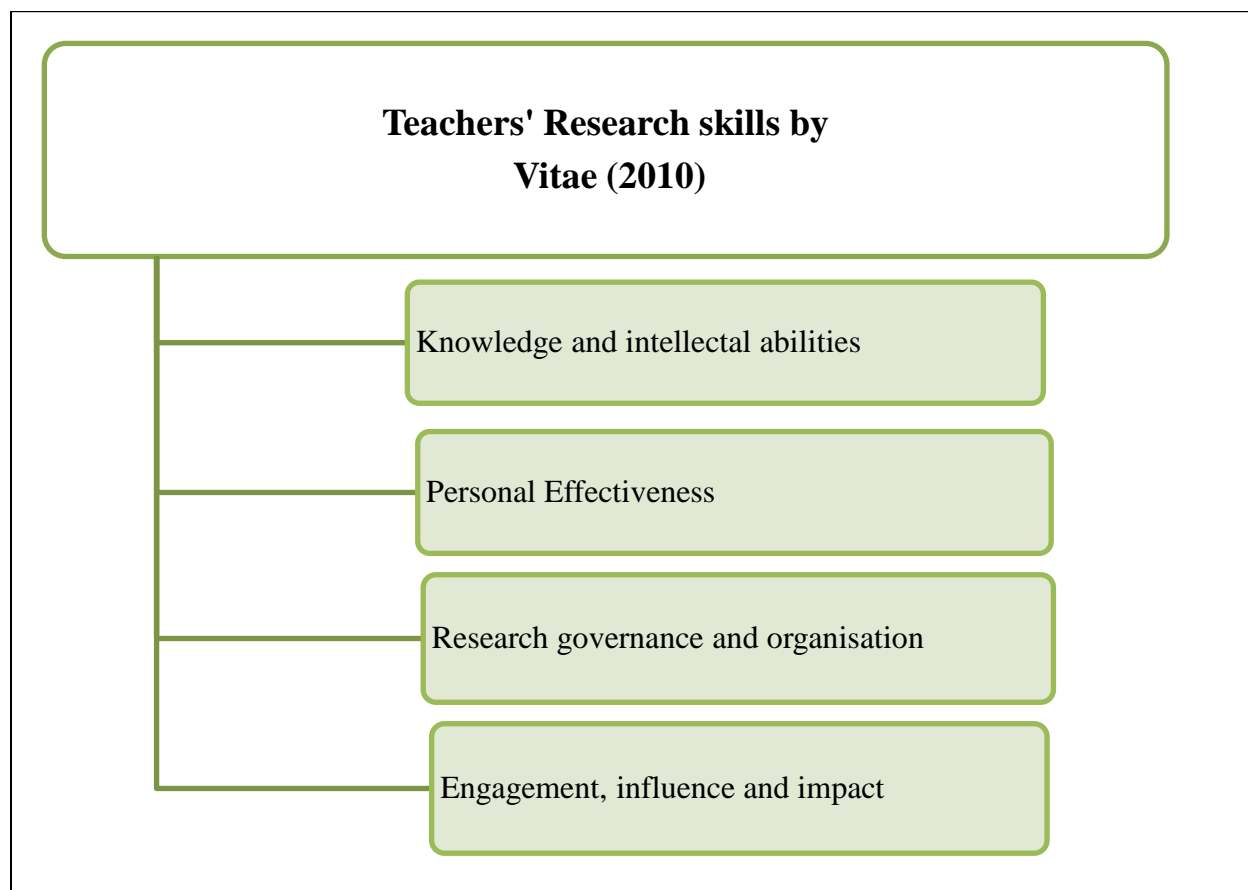


Fig. 2.5 Teachers' Research Skills Model by Vitae, (2010)

Vitae (2010) presented research skills for their teachers and staff. These skills were divided into four main categories that were written below.

1. Knowledge and intellectual abilities
2. Personal effectiveness
3. Research governance and organization
4. Engagement, influence and impact

2.2.4.1 Knowledge and Intellectual Abilities

Teachers must have knowledge and intellectual abilities in order to teach students. Students also need to acquire research skills throughout their educations in order to obtain research skills in their

field of expertise. Before conducting, any research or writing any paper teachers was required to have intellectual abilities and research skills. These skills also needed for study in development of undergraduate research skills conducting research. A quality research skill that were considered important by the members of the faculty. Teachers and students were able to manage information because of access to information and development in information technology.

Universities these days need computer courses to seek information and compulsory subjects in research how to work so that researcher can benefit from and understand the research. Universities had put in place great resources as well staff to help teachers obtain research abilities and prepare them for future. Universities must had information based staff. Studies had shown that learning consequences of methods as well other research related subjects were not readily available in related department. Skills were not readily available. Some had reported serious difficulties in this file research method. The culture that conducts research was important for the country for economic and social purposes. For research work, but not quality, qualified teachers, students and doctors, was especially important when one was doing research or working in professional preparation (Adedokun, , Bessenbacher, & Parker, 2013; Kardash, 2000).

2.2.4.2 Personal Effectiveness

Basic teacher qualifications related to their views on their role, obligations, training and qualifications, rights and technology development, working conditions and philosophy and especially linked to their professional development through demonstration, learning through their teaching experience, in relation to their workplace. How teachers see their role not only in determining their choices but also in understanding and interpreting this information. In conclusion, the qualities that can ensure a teacher's performance were not the number of knowledge, but rather the connection between the different types of information he or she had.

These types of information do not just stay together they must form a complete, inseparable part of knowledge. These different types of knowledge distinguish a skilled teacher from the most important one, as a skilled person the teacher was able to praise these forms in part, while the skilled teacher uses the information based on each different field with great success. This includes the attitude and beliefs of the teacher about teaching, learning, teacher role, everything that affects approach selects, evaluates and understands information obtained, and how it benefits from this information in fact, as the same practice was formed by that knowledge. Teachers' attitude affects their level of dedication and engagement to his or her work, the way they teach again manage their students, and how they perceive their growth in the workplace (Chen & Rovegno, 2000; Hammod, 2000).

Another feature that contributes to teacher performance is a sense of commitment to close work and interest in the private life of students and their families (Harslett et al., 2000; Liakopoulou, 2011). Lastly, self-awareness too thinking was worth saying, because they were showing that they were thinking carefully and about their actions (Liakopoulou, 2017).

2.2.4.3 Research Governance and Organization

Personal Effectiveness is the ability to demonstrate respect, dignity and integrity in interpersonal relationships and to demonstrate positive personal coping and wellness strategies. This is a list of specific behavior descriptions for this competency, intended to support performance management and development. Each behavior is described according to the expectation for each job phase. Not all descriptors are required, nor applicable, for each job.

To govern the management and monitoring system during the investigation, stakeholders and teachers were protected and responsibility was guaranteed. Dominance not the issuance of individual institute although directing the basis was that everybody job. So it was not amazing that

disagreement exist, within a region country or union performance codes laws and standard of technology, norms and values. In United Kingdom, the basic point was reference was research health and community care management. The purpose of research was to increase the scientific and ethical quality to enhance positive research governance and organization and reduce adverse events and programs to make sure lessons were learned. Shaw and Greenhalgh., 2005 wrote that in European union framework regulations were imposed on those people and organization who were involved in research studies including Sponsors, researchers and universities that hire these researchers and goes the other way to eliminate the constant view of research management as something different from research science (Boynton, Shaw, & Greenhalgh, 2005).

2.2.4.4 Engagement, Influence and Impact

Mostly teachers' engagement was known as level of commitment and involvement of teachers in any university or institute and it was principal. When a teacher was on work, he or she must know his or her roles and responsibilities along with duties also motivate coworkers side by side and it was very effective for universities. Teachers emotional wellbeing was shown when teachers attitude positively shown at workplace and they valued the system. Teachers' engagement was a feature of organizational support, physical administration support, awards and accreditation, procedural justice and distribution fairly. On the other side studies showed that job satisfaction, organizational support and commitment and work ethics in many studies gives the suggestion that existence of higher level of teacher's engagement significantly reduce the aim of profit. A successful team and the necessary collaborative relationships were essential for improved engagement. Factors that include capacity, group environment, shared superiority, obligation, leadership, purpose, announcement, constant development, and group atmosphere and team incorporation play a key role in structure the most effective teams. These factors require special

attention on the part of employers to improve team relations and partners. It was therefore important for the organization to facilitate improved employee relationships and provide an environment in which the relationship will thrive (Anitha, 2014).

2.2.5 Research Skills Development Model

In 2015, George Anderson developed the Research Skills Development Framework that had six faces further. These faces were shown in Figure 2.6.

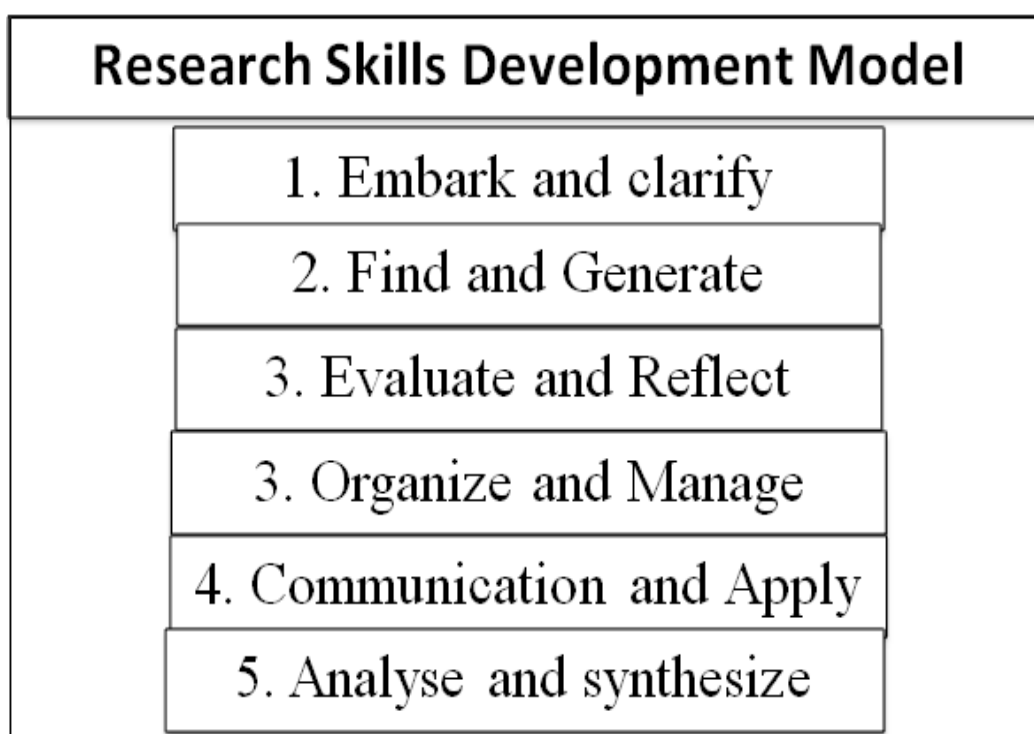


Fig.2.6 Research skills development model by Anderson, (2015)

2.2.5.1 Embark and Clarify

It was the first face of the Research Skills Development model and teacher as researcher was able to response or take step towards research and researcher was clear about the research terms, questions, hypothesis, expectations and requirements. Embark and clarify enable a teacher to make questions from close inquiries.

2.2.5.2 Find and Generate

This was the second face of Research Skills Development and researcher, teacher or learner was firm required information and data while using suitable methodology.

2.2.5.3 Evaluate and Reflect

This was the third face of Research Skills Development. Teachers, researcher and learner must have a judgmental personality. They had to find out and analyze the data by using criteria regards aims of research. Through evaluate and reflect skills teachers showed deep understanding of system used.

2.2.5.4 Organize and Manage

Organize and manage was the fourth face of Research Skills Development framework. Teachers were able to manage data systematically or in order according to the requirements of research.

2.2.5.5 Analyze and synthesize

This was the fifth face of Research Skills Development framework. Teachers as researchers were able to examine in order to define and interpret it into new defined format. Analyze and synthesize enable teachers to be creative and ask relevant questions.

2.2.5.6 Communicate and apply

This was the last and sixth face of Research Skills Development framework model. Teachers as researcher using their research skills can easily communicate in all possible ways it was either verbal or written. Can easily write and present their work. Can easily show their projects demonstrate as a lecturer to audience and can apply same thing as knowledge developed in different context (Anderson et al., 2015).

2.2.6 Work Skills Development Model

This framework of research skills development was also known as theoretical framework of two dimensions. This includes work skills and students freedom making connection between self-

observation, learning and teaching in search of employability. Mentoring and assessing participant participation was one of its strength that supports level of autonomy around each facet skill. It focuses on critical self-reflection strength. On the other side, this framework of Work Skills Development mirroring Research skills development model. It was modeled with research skills needed that support at workplace and critical self-reflection of teachers (Bandaranaike & Suniti, 2018).

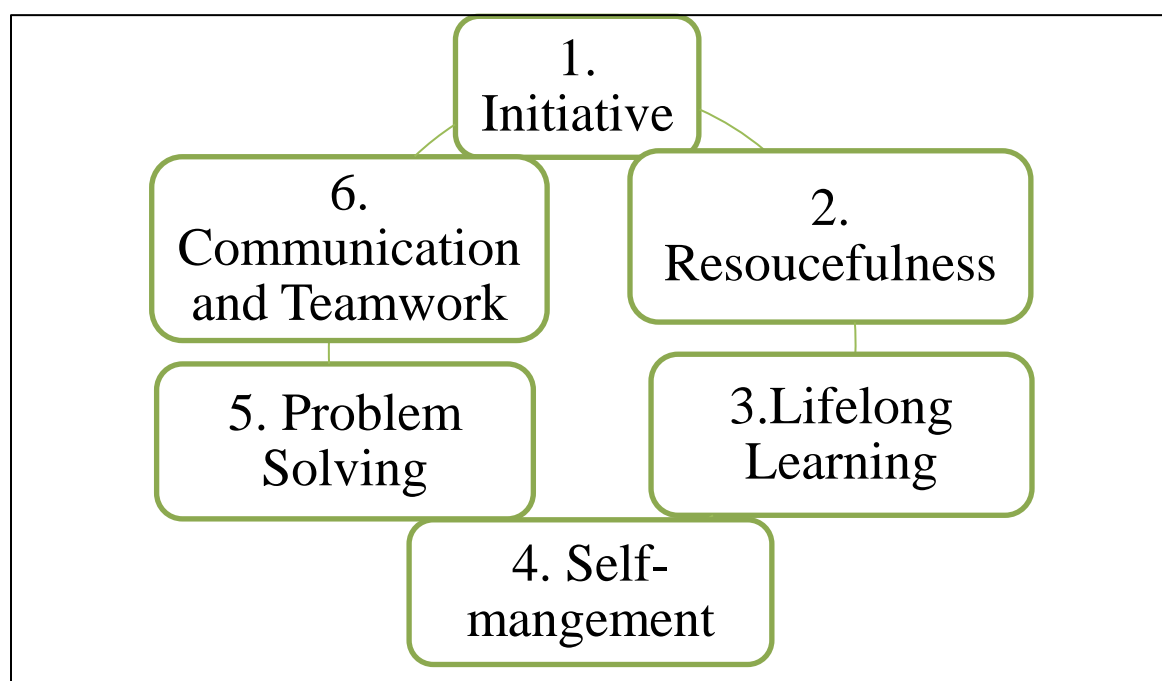


Fig. 2.7 Work skills development model by Bandaranaike, (2018)

Section 3

2.3 Review of Related Researches

Hanaysha (2016) building the most important factor in making sure function of universities was the institute dedication and faithfulness between the teachers. It was because dedicated teachers can give better organizational and institutional output. From literature review, it was evident that

there were limited details about the organization's commitment to the field of education. In Malaysian context a study conducted by (Bedarkar & Pandita, 2014) to know the effects in three areas such as empowerment, training and collaboration of employees. Achieving some goals data were collected through online survey from 242 workers at higher education level. After collection of data, it was analyzed through SPSS and structural equation modeling. Results show that on organizational commitment staff empowerment had positive impacts. The result was positive and statistically significant. At last, result commitment in organizations confirmed that training and support mechanism had positive effects on staff. These results give beneficial feedback to managers and administration on the organizational commitment. Also these results advantages were for higher education level teachers and staff to improve training, support activities, engagement and commitment among employee. Staff engagement was a concept that had gained great prominence over the past decade. The organization today uses the employees involved as a tool for smart business partners. The concept of employee involvement had now gained a great deal of importance, as more and more drivers had been identified, which affects the performance of employees and their well-being at work. As industry companies strive to survive and thrive beyond tough competition, the physical and mental well-being of employees will be one of the most important factors human resource managers need to focus on. Therefore, the participation of workers today was considered to be an influential cause of reasonable benefit in times of disaster. The study searches the thought of worker participation and sheds light on the main drivers of employee appointment by positively examining three different variables, namely communication, employee health balance and leadership. The study will also analyze how these drivers affect employee performance and well-being in the workplace. Documents available from the active drivers' drivers indicate that there was a shortage of books for these three drivers and their impact

on employee involvement. Therefore, we focused on these three specific and well-researched drivers (Bedarkar & Pandita, 2014).

Support for beginning teachers were categorized into six faces. These were help with curriculum and instruction, personal support and emotional support, support in material and resources, support in classroom discipline and management, support in dealing with community and parents.

The result showed that there was a strong relationship between total and principal support and these two play a vital role in this area. Teachers must get direct support from principal in their early year of teaching especially and principal must encourage their colleagues (Andrew & Quinn, 2004).

The main objective of that particular study to know the problems of teachers in teaching practice. From three cities, ten teachers were selected in study. Teachers come across many difficulties in result how much they get help in this was important. Although many teachers had less social skills, and the purpose was to know collectively its effects on teachers. The finding showed that teachers were involved in activities like curricular and extracurricular activities course activities of their subject. All of these activities can be performed excellent with support mechanism. The contribution of teachers in current era, global and consumerist age was growing more difficult and challenging. Teachers who work a lot in curriculum issues instruction and tutorials get it better equipped for the real state of classroom activities. Therefore, sharing function had an important role in effective learning and teaching skills. The most qualified teacher in today's teaching program depends on how teachers work with others. Also collaborative work, teachers find support for more practice effective decision-making as the ability to support access to additional information and skills. Some teachers face management problems in class especially in the first phase of their teaching career. Although support to assist teachers to grow and succeed but still

having a lot of problems such as feeling about less support from senior teachers and colleagues also from administration and community. Working collaboratively or cohesively breaks class divisions and give work recognition and day-by-day satisfaction. In the real school environment, mostly teachers, particularly young professors, do efforts towards work without seeing and hearing each other, planning and preparing their own lessons and teaching. Novice teachers work on their own to resolve teaching, academic and management problems. Teachers faced many problems during teaching for example different student's population with lack of support. Dealing with the number of students of different cultures was a work environment that can add to the pressure of work and the loading of the work of teachers. Under the status quo of Malaysia as a multicultural society, emerging teachers lack the skills to communicate and communicate with their peers. Researchers therefore wonder if new teachers interact well in school environment with other staff members that had led the researchers to take a closer look about what they want at work area. Good teaching habits can be an intimidating task for emerging teachers as they can use resources in a more productive way and create a conducive learning environment for all students in universities learning areas. Mostly teachers face problems were encountering the teaching habits of emerging teachers align with his or her realities dealing with learner with different background and languages barrier in research. That was why researchers like to test either the current collaborative work that takes place at a university will be able to support teachers to lessen their challenges (Hong, Lin, Lee, & Yang, 2020).

New teachers were immediately attacked by a variety of unexpected problems and situations such as adapting to reality; experiencing difficulties in handling different student domains and acting, they do not acquire entertainment skills when dealing with colleagues. It was a major challenge for new teachers to provide good education that encourage effectual education to ensure that the

classroom teaching methods were tailored to the needs of individual learning. A way was needed to help new teachers to support them work collaboratively in integrated cultures, different sizes, tasks and methods of co-operation occur and vary in universities and schools. The different issues facing especially new teachers were beyond any doubt reality. The main purpose of the joint venture was therefore to build emerging teachers with independent skills that prioritize challenging aspects of teaching. It was a collaborative approach that emphasizes emerging teachers getting input from participating in collaborative activities that also produce a good product that helps to develop effective teaching practices that make the effort valuable (Ngang, Hong, & Chanya, 2014).

Professional development refers to a wide range of human-related education work. Teachers and educators often participate in technology development programs to learn and apply new skills and information that support their performance during teaching. In education system literature found that quality of teaching and leadership were censorious to improve achievement. In order for teachers and the school to work as hard as they can, they were constantly expanding their knowledge and skills to use the best teaching methods. Teachers learn how to help students reach higher levels. Most people may not be aware of the local school's methods for improving student teaching and learning. Technological advancement was the only strategy that ought to strengthen teacher performance standards. Professional development was also the only way teachers can learn to improve their performance and increase student achievement. When people use the term technological advancement, they often refer to a formal process such as a conference, seminar, or workplace; collaboration between team members. However, professional development was also possible in informal settings such as job interviews colleagues, independent research and research, partner work recognition, or other studies. Increased student learning, as teachers were involved in career development focus on the skills you need teachers to deal with the great learning

challenges of students. Head teachers help create great students. In fact, a motivating and knowledgeable teacher was very important in institute related matters that contribute to student success, so it was important that you take great care of teachers to train and support new and experienced teachers (Lucas et al., 2018).

A notable first finding was the discovery of three major supporting conditions that contribute to the development of teacher-based teaching of science-based teaching, namely, external domain, collaborative background and practice domains. The collaborative learning-based learning environment presented in this study (Hong et al., 2020).

Governments, education systems, and the public were looking for effective teachers what were the co-operative programs of the university and schools that help and facilitate the preparation of teachers to start teaching. For example, technical experience provides a link between university studies and an advanced school experience for conservation teachers before reaching their first year of teaching. Except for pre-working teachers to appreciate the ideas of teaching and practice, closing theory-practice gap was a problem for beginning teachers, as evidenced by the views of new teachers at their university preparation. As a university teacher begin teaching with roles and responsibilities with previous experience of the university or any other institute. However this was also known as new teachers require more support at the start of the job. Those early years in a way that looks like a "sink or swimming" from many universities. Focuses on helping to start teachers through teaching rather than self-examination in these years of educational learning, some important activities had been created by education system to focus on university environment as well as infrastructure. There was little evidence of the effect the teaching and learning of the teacher had employment levels include required levels of support, advisory collaboration with advisors, and how the whole university system can help the teacher. Everything in an education

system may be required where other staff may donate to their facilities technology, especially as some relationship partners may break or become invisible. This seems to be clear that beginner teachers will earn through their full role and responsibility to teach. However, there was unpredictability in support system like teaching standard result showed that teachers may feel lonely and unsupported and in teaching profession they grow the feeling of dissatisfaction. A community of professional learners indicated that support for teachers not just only teachers like their colleagues but also a list of other staff member working in that particular university. They can support teachers by purposeful leadership to make sure effective similarity in the field of teaching. Specifically, it was suggested that emerging teachers be taught strong research skills and related program. The retention of emerging teachers must focus on building positive ideas for technology while increasing teachers' self-confidence in the first working and teaching of their youth facilities. Meanwhile asked teachers to describe their biggest achievement, six out of ten teachers mention ethical management on their administration. The basic focus of teachers was on attaining good behavior of administrator who were responsible for individual and small group of management (Garvis, Keogh, & Pendergast, 2010).

Some teachers stated that better standards of conduct for certain students within the classroom while participant six linked ethical management of survival. Come to have a moral hand of administrator was trying to figure out how to be taught. This was starting time of development relationships with new teachers and facilitator independently, that were also related to effectual behavior system. The ten teachers say that their biggest achievement was love educating and developing good educator-student association: they were motivated and had connection with students while listening their need. It was emphasized the ability to create an appropriate learning environment by providing light a motivating class that students like to attend, they know they were

welcome to enter and discuss anything with teachers. New teachers pay attention on different features of teaching as well as learning but there was a lot of discussion about the school environment and infrastructure. Comprehensive and clear teaching methods develop likened to a new educational environment, noted in other subjects including classroom management and resource availability. It seems that the most important issues for beginner teachers were focused on student management ethics and creating a balance in their life. In that strategies need to be a part of their life at job for teachers progress and success (Keogh et al., 2010; Hudson, 2012), other difficulties solution strategies included methods for managing people at the workplace (Castro, Kelly, & Shih, 2010).

Construction of effort lifetime stability may be problematic for fresh teachers therefore their operative accountability needs to be careful. Balance at the job or as in professional life may be problem for teachers there for that operational responsibility needs to be considered. Knowledgeable and expert teachers give the techniques and methods that they had developed to build the balance to ensure their level participant in the workplace ends at a high level and new teachers do not start feeling overworked and little fun reduce their stresses (Hudson, 2012). Leading further research on community support over the past decade can be considered as the extension of the previous social norms of social work function (House, Umberson, & Landis, 1988).

A large amount of literature was found in recommending that points to the fact that the counseling process benefits the organization as well as counselors and mentors in a variety of ways. The effects of specific counseling on mentor or only mentees. Counseling was regarded as an important tool for staff development and a tool empowerment in organizations improves staff skills, helps to communicate with the employee in a new work environment and improves subsequent results.

Many investigators had found a positive relationship between counseling and job results for trustees such as salaries, promotions, job satisfaction, and opposing development ideas, to name a few. There were also studies that highlight the link between career counseling services and positive employee outcomes in consolidating corporate commitment (AOC), employee involvement and reducing profit. A study highlighted improved understanding of other areas of the company's workplace, increased communication opportunities, better understanding of their methods, and improved their skills and satisfaction. Research on counseling at Sun Microsystems had shown that mentoring had a much higher impact on sixty percent less players than the top 40 percent. Psychosocial and psychological aspects of mentoring play an important role. Psychological counseling represents deeper communication and often depends more on the quality of the relationship than the performance of the task (Allen et al., 2004).

Researchers also point out that in both public and private organizations, psychosocial support and psychotherapy were linked achieving positive protective effects, including teachers' satisfaction, commitment, and lowering the purpose of employee benefits. It can enhance a person's ability and performance, helped to reduce work-related stress transformed it into a strong emotional bond between counselor and protector, and into a positive and trustworthy partnership found that people with high levels of involvement in the workplace often find interesting career counseling and seek that relationship. Ten years ago, most of the community and NGOs in India started counseling programs to help and developing new staff, which produced mixed answers. It was seen by experts in the mentoring procedure that their effectiveness of the mentor involved largely in their relationship the mentor. It was very important, however, to understand the view of counselors and authorities regarding the process of counseling, results and effective counseling as they affect the relationship between counselors and teacher. (Buddhapriya, 2017).

Professional support was considered a form of mentoring. Mentoring had appeared as a famous employee successful plan around the world. It had become an integral part of the recruitment and continuous improvement of staff in various types of organization, including teaching, nursing, business, psychology, social sciences, science and medicine. Over time, counseling had taken part in teachers' professional development, technology development and at the beginning of the world. Henson (2001) wrote in his paper and discusses the quality in research that it had no effect on teaching automatically. Research quality model had strong management regulation system, which was centralized and not good for universities (Hidayah, 2016). Quality gets support from research and teaching in the shape of method and technique. Research scholars were aware about the support in quality how to get it and when its level was increased. In research process there was a complete and comprehensive process that supports quality in teaching. All universities must focus on all of these processes to enhance research in teaching. In universities the most valuable process and activity that support mechanism process was reward for excellence. It had been given to either individual or departments. There were many joint debate about quality research in teaching at universities level. Occasionally it mentioned that universities were research oriented and that quality comes straight from research. It was noted that within particular research disciplines, qualities can be transferred and it was in same flow. And the efforts had done by centralized management system and measure quality it only makes uncomfortable and disturbance on their academic functions. Some universities were not well informed about this requirement of research in teaching, also much good research is found that researches were failed and incompetent to improve quality of teaching for research skills and observe as unacceptable ground.

The culture of competitive research professionals competes with financial publishing and competition. In addition, those who wish to create new teaching methods must compete for

funding. Those universities that had been in the process of bidding for development studies for several years saw quantum overcrowding .play University budgets show that more than renovation and classroom things budgets spend on research equipment on large basis. Moreover, most importantly a criticism done by students' community in research which support the national teaching, for many students' staff improvement and development plans was related to the effective quality of foundation like acoustics overcrowding in halls and classrooms and ventilation system(Gibbs, Jenkins, & Alan, 1992).

Some examples of complete institutional plans to enhance as nicely redesign the best of coaching and getting to know area however they appear to be very important due to the fact they have been different (Gibbs, 1995). Apart from the Quality Assurance of coaching, additionally it is a focal point on coaching institutions, each costs and expectancies have been low as compared to analyze institutes. In this plan every branch will decide the stability of value for every task in schooling, to start with the belief that perhaps forty five percentage of coaching, forty five percentage studies and ten percentage manage, and negotiate with every trainer from there relying on the scale of outside grants, want for brand new courses, coaching commitment, profession class and so on. Then there has been the once a year peer evaluate, which changed into performed in studies businesses, with the aid of using colleges out of five on common in every of those three areas. Spreadsheet used to degree weight of rankings consistent with the negotiated stability of the essentials. Finally, a precise of this peer evaluate contributes to promotional selections, making sure that selections have been overall primarily based totally on what teachers had surely performed greater than studies. The massive trouble with the studies perspective, however, changed into that the superb rewards generally tend to do excellent studies to persuade everyone without a sturdy preference to train tension with the aid of using taking best coaching seriously. In

the UK, studies performed with the aid of using The Oxford Center for Staff Development had proven that coaching talents have been now no longer constantly taken for granted, in particular while making appointments, and have been hardly ever taken into consideration in promotional selections (Gibbs, 1995). Many scholars will deal with it, so research will suffer. It could be earth profit even, at the political level, in the attainment of each university, to try to achieve but it was not always clear that it was the interests of departments. In United Kingdom there was discrimination can be seen as some researcher get more reward and money who had great research skills as compare to those researchers who had less research skills. In addition, there was no reward for those teachers who teachers research very well. Recommendation showed that money can be allocated to multiple students who were facing difficulties in research and real threat to universities and education system, and the results were not good. Support mechanism increased and pays attention on teachers how to train them and make them an expert in their own each field.

Teachers said that availability of purposeful development for teaching profession was most important. Commonly for teachers' professional development, there was different type of courses such as short term, long-term programs, seminars and services from external experts. For long-term class control decisions and participation in education system teachers and different researchers were making efforts to change developmental methods and strategies to make them effective. This study was very purposeful and meaningful in professional development of teachers and give motivation to teachers and administration at higher level of education. Participatory instructor studies became a collaborative procedure wherein instructors themselves cautiously compare their classrooms, expand and put in force academic interventions, and compare the effectiveness of these interventions. These sports permit instructors to take part with inside the improvement of sensible expertise approximately teaching. There was not only need of teaching

technology and technological development but also need of self-regulatory development and motivational approaches and methods that will support them to gain learning outcomes they needed. Teachers positive behavior and students' achievement show that teachers were hardworking and trying their level best.

Given the want for self-regulatory, expert instructors and the hyperlink among coaching overall performance and dynamic overall performance, a few researchers cognizance at the consequences of expert improvement and instructional interventions on trainer overall performance. In addition, teachers had also argued for ways to support teacher empowerment are the opportunity for more group different teachers to make decisions. In teaching teachers, need power and independence. In teaching profession like researcher teacher take actions some time, impact on teachers' research skills and strategies and it was fruitful for teachers empowerment and performance. In research, skills do support in interaction and relation with other colleagues, staff and society, critical decision-making, strategically movement planning for classroom was included. Teaches doing efforts to enhance their research skills in teaching profession such as knowledge and intellectual abilities. These development efforts improve collaboration, enhance teachers' motivation and empowerment in research, and enhance their research skills. As teachers, research activities authentic outcomes of teachers' research activities on effectiveness and empowerment of teachers were increasing. Each teacher had their own research and teaching skills and own expertise as well as personality that had growth and decline of feeling anger or bitterness and segregation. These results were normal results from teacher research participation. It was collaboration, which strengthen research work that reinforces commitment in teachers. Teacher behavior regarding research hard work was connected to student's improvement and achievement. Moreover, teachers' skills show positive interaction with students that increased continuously. In this case

students or scholars also improve their research strategies and management skills. Group differences between 233 teacher and 100 study participants, Teacher's reporters also said more prominent effect on listening skills. Teachers get assurance about research facilities through collaboration interaction between teacher and student, interest and professional growth and hard work. Model used in that study was greatly participative and used by teachers and researchers, which support functional skills. In addition, teacher's research model capitalized for people of society for support of good experience and strengthens beliefs confidence and excellence in research governance and organization (Henson, 2001).

A prominent effect on teachers teaching had been seen through professional development programs in a long term way. Students can only learn and people can increase their knowledge only when teachers were performing in real world research environment. Real world research environment also supports learner knowledge and skills. This activity of real world research support scientific teaching and gives a variety of different concepts along with motivation for students. Adequate time support for teachers very essential in practical world of knowledge for professional and organizational development. This also support in accurate scientific knowledge and teachers were also feeling happy as working with researchers that contribute in acquiring field projects and ultimately support in classroom. Collegiality was a desirable result of technological advancement that ought to promote. Teacher and scientist and teacher networks can help save the initial commitment made by participants to incorporate new teaching strategies. While certain knowledge during technology development was supported by these informal networks, the results can be far greater than the skills of teacher development. It can lead to the widespread use of science-based research and real-time environmental research projects in schools (Dresner & Worley, 2006).

Many instruments measure teaching skills, some of which were eliminated from the outside view. Some instruments require students to test the skills of their teachers. For example, college students often complete a summary of their teachers' performance tests. What teachers report to the performance of their teaching, the constructive aspect is called teacher performance. Effective teaching tools measure the same teaching skills as full instrument spectators in other countries. However, they often include measures outside of teachers, such as the socio-economic status of students predicting learning outcomes. GSTARS was designed to include content only by the teacher, such as their location information. Few studies were being conducted that test researchers for developmental skills that were critical however; some work in this area was available.

For under graduate student skills, Powers and Enright (1987) made a test according to student skills qualification and research abilities. In addition, the people who took their test were faculty members. At university level, there were many tests that help to analyze scholars' development in their research skills fields. Research students were extremely important. They said their skills development needs both teaching and research skills for every hypothesis of a major product. Engagement and influence were skills all teachers must had for development. Research and techniques were related to each other. If they focus on their activities, then it will prevent them from skills development. For this, they suggest teaching research. It will save time. In addition, they can grow and enhance their experience in teaching and research. This way, there will be a connection in the future between their research skills and teaching. If researchers compared graduate and PHD scholars' research, then graduate students were much more interested and serious in showing their skills in research and measuring (Marsh & Hau., 2003).

The support mechanism was very helpful for teachers in methods and techniques. The research team found that senior and advanced resource scholars were more efficient and confident while

interested in other teachers facility members related to their field. This literary device was created to connect and develop relationship between monsters and higher degree scholars for better performance engagement training (Switzer, 2009).

There was significant development of research skills in academic year, which include many other skills development like communication, personal productivity, research skills, governors and Organization's. Communication was very useful which was being used as second language at a large scale of English student bound. Meaningful information was also noted. Getting useful information for research was great ability in new teachers. Getting boundary ideas was necessary development for other important skills research will notified why they gain the ability to engage in learning and adjust instrument in time of need was unknown (Tshannen & Moran et al., 1998). Research teacher who had experience were well known and becoming part of baccalaureate educational stem courses, undergraduate research series helping to participate to develop clarity about work research communication and critical thinking. Undergraduate research series had great impact on the reader skills and capabilities to perform research related process such as data entry analysis undergraduate research series had well managed the data to prove the system result. There was a positive response regarding students' performance their research communication and critical thinking skills. The most and basic impact on student was their skills and capabilities which was related to research performance such as data entry accuracy, communication and analysis. Undergraduate research series testing and Research continuous working research linked amount of three dimensional learning outcomes.

1. Presenting research
2. Professional life skills
3. Moral education

Adedokun (2012) conducted equality study to analyses whether undergraduate research series had effects and control about career decision their study let out three important process lifting up awareness for professional and educational networking and relationship and community support.

Their look at found out three critical processes:

1. Raising attention of employee alternatives for expert and academic networking and relationships, and network support.
2. Specification of desired profession paths prompted with the aid of using advantages to analyze self-assurance and improvement of studies identity.
3. Learner development the authenticity of the era bobbing up from the studies presentation, implementation possibilities and, awards / relationships and letters of recommendation from technical advisors. Adedokun (2012), again recommended to colleagues that additional studies use advanced mathematical methods, in particular modeling of structural measurements to clarify the relationship between undergraduate research education series results, and processes where available.

The reason of this have a look at became to look at the connection among the three key results of studies skills, work ethic and aspirations for research activities use modeling of building dimensions. In mild of the theoretical proposals for cognitive function, the examine checked out the tough paintings of STEM scholar studies as a mediator of interpersonal relationships their studies abilities and their aspirations for studies activities. Overall, the findings support (Berkes, 2007) and (Strayhorn, 2010) paintings at the significance and alertness of public information theoretical paintings revel in of graduate studies revel in, in particular, powerful proposals abilities that expect powerful ideals, which expect activity aspirations. The findings suggests that the studies abilities and studies ideals they use expect undergraduate research education series

participant's aspirations for studies activities; however, the predictor impact of custom designed studies skills become in component through the mediation effects of diligent studies. The findings have been regular states college students' perspectives on their abilities and their self-belief in riding studies become a crucial hyperlink among their acquisition of studies abilities and knowledge, and what exercise with those abilities, which include their aspirations for studies activities. Although the findings of this examine have been important, we interpret the effects with a few caution. First, studies statistics become restrained to college students of the unmarried undergraduate research education series application on one campus.

In addition, as with maximum undergraduate research education series studies and testing, our statistics comes from a particular pattern of very a success college students (minimal GPA of 3.0) who have been probable to had excessive stages of self-employment

Prior to collaborating on this application, so there have been limits to the arrival of content material of effects. Second, with inside the creation of a building's equation, the preservation does now no longer usually imply that causation, in particular while the information have been separated. For example, even supposing we have been aware about the high quality impact of studies abilities on tough studies become now no longer a particular chance factor, however rather, a sure indication of the union. A legitimate reason version might also additionally require long-time period statistics to discover if this dating becomes the actual reason. For example, version can take a look at whether or not studies abilities have been measured in 1 time; it become a mirrored image of the effectiveness of studies and paintings dreams measured at time 2. Thirdly, there have been possibilities for different varieties of the relationships that exist among those variables restrict to all varieties of measurement. Also, our version protected best 3 effects for URE and did now no longer encompass all feasible effects for URE reports encompass information studies processes,

elevating attention of studies options, Clarification of studies activities, blessings associated with counseling through graduate scholar`s counselors, and the strength of social interplay in scholar studies labs - all that topics variables which could impact college students `profession aspirations. While the statistics set analyzes those examine-contained steps for a number of the alternative effects of URE, we couldn't take a look at greater a huge or complicated version that carries extra variables because of the small cutting-edge pattern size (Adedokun, Bessenbacher, Parker, & Kirkham, 2013).

In mild of the theoretical proposals for cognitive function, the observe checked out the difficult paintings of STEM studies as a mediator of interpersonal relationships their studies abilities and their aspirations for studies activities. Overall, the findings support (Berkes, 2007) and (Strayhorn, 2010) paintings at the significance and alertness of public expertise theoretical paintings enjoy of graduate studies enjoy, in particular, powerful proposals abilities that are expecting powerful ideals, which are expecting activity aspirations. The findings suggests that the studies abilities and studies ideals they use are expecting URE participant`s aspirations for studies activities; however, the predictor impact of custom designed studies competencies became in element with the aid of using the mediation effects of diligent studies. The findings had been constant states college students` perspectives on their abilities and their self-assurance in using studies became an important hyperlink among their acquisition of studies abilities and expertise, and what exercise with those abilities, which includes their aspirations for studies activities. Although the findings of this observe had been vital, we interpret the consequences with a few caution. First, studies information became confined to college students of the unmarried URE application on one campus.

In addition, as with maximum URE studies and testing, our information comes from a particular pattern of very a hit college students (minimal GPA of 3.0) who had been in all likelihood to had excessive tiers of self-employment.

Traditionally the doctorate application became furnished with the aid of using `studies` in particular in education. One purpose we won't provide otherwise, the observe hobby and rationalization mode became due to the fact the massive range of college students in every data became very small and it became now no longer reasonable to try this application. Another viable purpose became the dearth of ability to offer many publications. Every year the range of candidates have been progressively growing. Some of those college students had been absolutely funded with the aid of using the government. Teachers make up the big majority of these in search of doctoral tiers in education. Unsupported college students regularly join as element-time college students. Despite the supply of latest applications for plenty college students coming into scientific school, the range of doctoral college students who entire 3 years in their research became confined. It became vital to recognize that decided on scientific college students do thoroughly and had the ability to come to be destiny leaders of their field. Part of the scholars who take longer to graduate. There had been numerous elements worried in the difficulty of entirety time. One of the maximum vital matters to record on this case became the imbalance of guidance with inside the doctoral observe applications. The files display that maximum applicants entered the machine with the weakest preceding expertise and abilities in carrying out studies. Instructor administrators regularly count on that undergraduates will had a diploma the capacity to do studies while enrolling of their PhD via studies applications. The pastor anticipated that when efficiently finishing their undergraduate and postgraduate research which includes attending studies publications as properly while confronted with a survey, those applicants had the strength to behavior studies. They ought

to be capable of seek data and use of the library or different web-primarily based totally data centers. Work enjoy also can be had it helped. A evaluate of the literature guidance record had found out quite a few required data as properly abilities you may collect to do and write studies. This became due to the fact college students on the cease in their research ought to post their studies proposals earlier than the organization gives them a PhD. A thesis became the gathering of college students with inside the first observe to expose that the pupil had carried out as an expert researcher (Meerah et al., 2012).

It was necessary to diagnose new teacher' failure to prepare them for the study in order to have a smooth approach to graduate education. So, this A study was conducted to develop a tool for assessing students' needs for conducting research (Murtonen, 2005; Meerah, 2005; Dodani & Laporte, 2008).

The teaching of teaching was incompatible with the corresponding science teaching a particular subject requires familiarity with scientific knowledge. How each science field was approach and study were strongly defined by the activity and activities described in the job description. With some clarity like that understanding scientific knowledge as a means of teaching, familiarity with science and its scope it was necessary. The classification of the vastness of scientific knowledge was as follows:

1. Science content. It was related to the "facts" and "principles" of the science taught, from the teacher receives appropriate examples, pictures, etc. for instruction;
2. Relationships, order and the composition of the content of the science article. This information on the topic describes how it was presented new teacher, questions that will convey information in a better way, etc.

3. Research methodology in the field of science. This methodology helps to make the best choice by the teacher of ways to use the topic, tests, questions, etc.
4. Procedures and methods that contribute to the proliferation of "truth" had been tested in all fields of science and now allowed (syntactic information). In addition, the teacher must be able to observe the lesson being taught with specific questions, such as what social norms were linked to the topic, how they relate to social issues and their value in everyday life.

They must also be in a position to obtain incorrect interpretation of the information provided by students also fully understand the required processes for accessing connected information and skills in that subject taught. An additional requirement for teachers would be knowledge in all subjects in the grade curriculum he teaches, as this allows him to use a variety of information, i.e. using pictures, analogies and information acquired by new teacher in other subjects. Finally, Knowledge of the subject being taught was related to the teacher's beliefs. Research had shown that teacher performance was strongly influenced by the views teachers had on the subject they were teaching. In addition, teachers had a "perfect" perspective on the subjects they teach they often work better. The school curriculum was a tool, which, in a way, determines the teacher's choice accordingly. Teachers must therefore be aware of the curriculum, textbooks, rules and regulations of the curriculum, and, overall, the role of the state in education. At the same time, however, the needs of society today require a critical approach to the curriculum and adapt it to contextual-based needs. This field was concerned with classroom planning, mobilization and retention student attention, integration of resources, learning ideas, and teaching theories. Shulman refers to "the principles and management of classroom and planning strategies, beyond the knowledge of certain subjects". This type of information was welcome, however, as it confirms

the framework of the Theoretical presentations needed to understand and interpret the school classroom. In addition, this information was very important in curriculum planning, as it guides the teacher's teaching decision (Liakopoulou, 2011).

Belle et al (2007) described the roots and meaning of Mentoring. Early perspective of mentoring described as a relation between an older experienced mentor and a young less experienced mentee. Now a day this term was used as a support mechanism. Collins (2021) defines support mechanism as a method or a formal system which gives support or assistance.

Mentor help in career function and psychosocial function. New perspective of mentoring recognizes the consequence of support mechanism as a significant form of socialization that deviations counselors and protégés in organic, mental, emotional, and perhaps even psychic ways. Kajs (2002) wrote in his deduction that a positive support mechanism program can reinforce beginner teachers skillful and satisfied, and in turn increase teacher retaining in the occupation, thus, dropping the increasing teacher shortage. Today, instructors have been anticipated to broaden complicated skills, inclusive of RS, of their college students whilst knowing new perspectives on getting to know and coaching and the usage of dependable valuation techniques. About those new evaluation techniques there may be a whole lot debate and instructors are susceptible in the usage of them (Stoking, 2004). Its reason turned into defined as an induction, expert development, non-public development, supervision and personnel retention. There are many system and studies can be seen for supporting teachers practice but based on this literature review it is under review in higher education context. In this literature mentoring is reviewed .The main purpose of this study weather mentoring for teacher was supportive or not. A recent research examined how much research evidence was available mostly research focus only on new teachers. Many writers gave suggestions about the support system had no similarity according to the objective of support

mechanism. That introduces a new question “is the purpose of mentoring to mainly support new inexperienced teachers?” Feiman and many other authors were agreeing with this common purpose of mentoring is providing support mechanism. It is obvious that this research on mentoring was not enough it was only initial data. Need of research was not confined to one or two areas. This need an evidence based research for teaching practice in higher education context. On many different countries such as Australia, New Zealand and UK and US this concept of mentoring and support mechanism used widely and multiple disciplines. “The widest term of mentoring creating confusion in its meaning further interchangeable term such as coaching, supervision, facilitation, and apprenticeship. Whilst example from business were included to corroborate the mentoring without the larger organizational structure” (Peterson, 2011)

The needs of both employer and employee fulfilled if the relationship was positive and long lived. It was also social exchange process. In this process employee loyalty and dedication is most concerned while employer caring and responsible behavior keeping their promise is valued by employee. Eisenberger (2004) adopt the foundation of theory of social exchange and give his view about perceived organizational support (POS) and organizational support theory, and this organizational support theory gives the concept that employee adopt perceived organizational support (POS). It was a worldwide view that each organization had positive or negative orientations towards employees. Benefits of POS it enhanced the sense and responsibility of desire and obligation to reciprocate to the organization. POS also satisfy employee socio emotional needs, social identity role status and organizational membership. So the benefit of this was that it helps in not only enhanced the task performance but also enhance role behavior in shape of helping other employee. The purpose given study wise to observe the association between counselors’ POS or mentoring purposes charges obtain. A 2nd purpose of our study is to examine the mediating role

of support mechanism functions in the relationship between mentors' POS and protégés' POS. Perceived organizational support was a psychological mechanism that tells how SM works and result show positive consequences for mentees. It highlights the positive role of support mechanism and creates a positive cycle of support mechanism. This theory of organizational support plays a vital role in the social exchange process between employees and their organization. Organization give support to employees in return they show gratitude, valued them and make sure this relationship will be sustained (Eisenberger & Stinglhamber, 2011). According to the author two most important types of support are career and psychosocial support that will help protégés in personal and professional development also positive attitude and work behavior. Results showed that high and low Perceived Organizational support have their high and low effects on portages (Hu, wang, Yang, & Wu, 2014).

Another study was conducted on struggle of first year teach and support mechanism investigation. This study showed that elementary, middle and high schools principals have authority and power under them. These powerful authorities make the environment of the institutes and effects teachers feeling who work under their authority. Today critical issue was shortage of new teachers and lack of standard based education thus new teachers need special support to become a highly qualified teacher instead of teacher's attritions. The purpose of this study to measure support received by first year teachers from their authorities as they believed they received total amount of support actually. Although study was conducted and their opinion was collected as they may be beneficial for principal to support their novice teachers. These comments were related to the following points:

1. Assistance with preparation and curriculum
2. Personal and/or emotional aid
3. Access to materials, supplies, and sources

4. Information approximately college and college district processes and rules
5. Help with school room control and field
6. Suggestions for handling dad and mom

In this have a look at operational definitions had been used for variables to carry out statistical procedure. One is fundamental aid and 2nd is overall aid. The aid changed into assigned to reply from one to ten, one takes few or no aid and ten take most aid.

Total useful resource 6 component Likert's scale modified into sum of twenty who response the questionnaire. These rankings have a possible sort of 20 to a hundred twenty, with a score of 20 representing the least amount of common useful resource perceived and a score of a hundred twenty indicating the excellent amount of common useful resource perceived received. This look at of first year`s instructors concluded an effective courting among general assist and foremost assist as an effective reminder for foremost for his or her position. Teachers need to get an exemplary direct assist from foremost and foremost need to recommendation their personnel to act and act same. Principal need to prepare right and ok induction activities. Principal position become maximum critical as that they'd many jobs and duties and foremost conduct assist lots in keeping ne instructors (Quinn, & Andrews, 2004). The common concept of support mechanism was a more skilled experienced person give support new teachers were to those teachers who were less experienced. There was a significant difference in the way these goals are achieved in mentoring as a support mechanism programs. Based on literature, a mentoring model was developed because of different concept regarding this mechanism. This model helps in categorizing in one of four zones to the teaching program. These four zones written below:

1. Zone 1 Few Aspects/Traditional Approach
2. Zone 2 Few Aspects/Reform-Minded Approach

3. Zone 3 Many Aspects/Traditional Approach
4. Zone 4 Many Aspects/Reform-Minded Approach

These zones also help in learning many aspects of teaching that addressed for the selection of novice teachers, support mechanism programs and mentoring support for teachers this framework helps principal and administration. In this article author concluded that these zone are very helpful for leader and by more articulating these supportive programs were beneficial for both mentors and mentees (West & Andrew, 2016).

House (1988) study the relation between health and social support and their relation with already existing theory related to social network and integration by emphasizing on the needs of the structure and process for better understanding author identify some important direction for future theoretical work. This process affects the relationship of human wellbeing and health. Social integration and social network were two elements of social support structure. Three Social process structures also viewed in this study this social support that mean emotionally persistent quality of social support relationship, second was relationship conflicts and demand, which had a negative effect on social relationship, third, was social control that was controlling quality of social relationship. This article also studies social as psychological and biological relationship level and structure (House, Umberson & Landis 1988). Marsh & Farrell (2015) stated in their article how leaders support teachers in decision making that in many countries data in education field used, this enhanced the accountability of learning system, and demand for evidence based learning for new teacher. When teachers given support by administrators, leaders and staff because they know the needs and demands of teachers and help them in understanding and responding data than there is theoretical research on data driven decision making to mentor and guide them. After reviewing by author different recent studies author develop a framework for teacher to use data especially

about administrators practice, data driven decision making process to do practice and to know the support mechanism to increase teacher's knowledge, skills and activities. Now administrators face problems due to world economic changes such as for supporting data how to use and spend scarce resources how to maintain them and gain benefits and what are the needs capabilities supports which were removed. (Marshall & Farrell, 2015). A devoted social platform will be developed to support the process of support mechanism, to facilitate the sharing of ideas and project and to map the schools' development. In North America and Europe different discussion was held and policy documents explain the word inquiry in sense of teaching and learning and told five E instructional models to be followed.

Engaging mean to lead new teacher to formulate scientific hypothesis and topic. Explore mean collect data to solve these raised questions. Explain mean give detailed answer of raised questions through gathered evidence. Extend mean for extra activities new teacher develop better understanding. Last evaluate mean show their finding and results and reflects scientific understanding.

Nurul (2016) wrote in her article novice teachers that already get support help a lot new teachers in their personal and professional development. Author explored three types of support mechanism which are interrelated first institutional support, second professional learning support and third is personal support.

2.3.1 Three Types of Support Mechanism

2.3.1.1 Professional learning support

The first purpose to increase knowledge and knowledge expansion as viewed in many studies role of mentor and mentees and mentors support professionally and collaborate with mentee, do planning with mentee, cooperate with mentee to enhance teaching capacity for professional

development of teachers, also described two sub-supports for teachers that was collaborative teaching and collaborative planning.

2.3.1.2 Personal support

Many studies showed that teachers also need professional growth so they can increase their capacity as professionals. For socialization teachers need peer support, personal support, professional support, psychological support.

2.3.1.3 Institutional support

Many factors affect the achievement of mentoring relationship and programs it is also comprise of institutional support. Different studies focus on the integrated support of institutions. First preparation for support mechanism and then implementation rises as a prominent factor in these activities of mentoring and support mechanism. Institutional support was the most significant and important for teachers at any level of education it not only prepares both mentor and mentee but also support them multifaceted mentoring engagements.

It is further sectioned into four types of support these are support mechanism preparation, selecting mentors and mentees, matching, training facilities and support. It is not easy to accurate the skills and disposition in academic. In teaching profession teachers must be active and productive to fulfill academic needs. Mostly students take benefits from their senior teacher's expertise and experiences.

CHAPTER 3

METHODS AND PROCEDURES

3.1 Research Approach

The approach was used in this study was quantitative. In this quantitative approach, data was collected through statistical analysis. The results and the conclusions are collected and manipulated in the form of numbers in quantitative research. This help in converting data into a useable statistic. Researcher select this quantitative approach because data collected through this approach and presented in numbers will be reliable and accurate.

3.2 Research Design

The research design was used in this study was correlational. For analysis of support mechanism for teacher's research skills at a higher level of education, researcher correlates two variables using mathematical analysis method. This study was correlational the researcher analyzes support mechanism and teachers' research skills at higher level of education.

3.3 Population

In the language of research, a population can be described as a vast group of institution, people and other things that have same characteristics. These characteristics are the interest of any researcher. A group can share qualities that distant them from further organization, individuals and items (Rafeedali, 2022). This study population was comprised of 297 teachers belonging from social sciences faculty. These teachers were from universities located in Islamabad and recognized by Higher Education Commission, (2021).

Table 3.1

Teacher's Population or the Study Population

Sr. No	Name of University	Status	Teachers' Strength having three years or
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			less than three years teaching experience
1	National University of Modern Languages Islamabad	Public	43
2	International Islamic University Islamabad	Public	50
3	Air University Islamabad	Public	20
4	Bahria University Islamabad	Public	21
5	Quaid-e-Azam University Islamabad	Public	24
6	National Defense University Islamabad	Public	14
7	Foundation University Islamabad	Private	14
8	Ripah University Islamabad	Private	15
9	Preston University Islamabad	Private	41
10	Iqra University Islamabad	Private	22
11	National University of Science and Technology Islamabad	Public	33
Total			297

The table No 3.1 showed the number of teachers having three years or less than three years teaching experience in public and private universities in social sciences faculty in the session 2020 to 2021 that was 297 (See appendix G).

3.4 Pilot Testing

Sample was a group of individuals that represents the features of a large group of population. Sample was drawn from population of the study. As total number of teachers were 297 and for pilot testing 50 teachers from International Islamic University were selected in that 40 respondent teachers responded. Remaining number of teachers for sampling was 247 and rate of return was

236 (95%) teachers. Since the population of this study was small, so the researcher great efforts made to target the maximum population. Census population method was used to gather data.

3.5 Tool Construction

In this research, researcher prepared self-developed scale for her research study (See Appendix I). These tools were named as Teachers' Support Mechanism Scale (TSMS) and Teachers' Research Skill Scale (TRSS). For data collection copies of tool was distributed to gather information. Questionnaire was designed on Five Point Likert's Scale. Teachers' Support Mechanism Scale (TSMS) was self-developed. The tool TSMS was consist of close-ended items. This was based on the model of support mechanism presented by Lucas & Oliveira (2017).It was catagoriz into five sub sections. These sections were wrtitten below.

1. Engagement Activities
2. Training activities
3. Support Activities
4. Recognition Activities
5. Community Activities

For the availability of teachers' training at university level for teachers a checklist with yes or no was also used in this study. Checklist consist of following items.

1. Induction training
2. Professional development training
3. Ongoing training
4. Soft skills training
5. Effective teaching strategies training
6. Formal training

7. Informal training
8. Onsite training
9. Offsite training
10. Workshops
11. Seminars
12. Micro training sessions
13. Job assignment
14. Formal presentation

Teacher's Research Skills Scale (TRSS) was based on the model of Vitea (2010) and researcher self-developed teachers' research skills tool. This tool was divided into four sub section.

1. Personal Effectiveness
2. Research governance and organization
3. Engagement, influence and impact
4. Knowledge and intellectual abilities

3.6 Scoring of Teachers' Support Mechanism Scale

Tool was consisted of total five sections and twenty-seven items. First section consisted of number 1 to 06 (06 items) items second section consisted of number 07 to 11 items (05 items) third section consisted of number 12 to 17 items (6 items) fourth section consisted of number 18 to 21 items (04 items) fifth section consisted of number 22 to 27 items (06 items). So there was total 27 items in teachers' support mechanism scale. Researcher multiplied 27 items because researcher used five point Likert's scales that is why it was multiplied with five. Now answer was 5 ($27*5=135 -27=108$).In this study researcher used three score level above average, average and below average so

now 108 was divided with three ($108 \div 3 = 36$). Now $27 + 36$ is equal to 63, $64 + 36$ is equal to 100 and $101 + 36$ is equal to 137.

Table 3.2

Level of Teachers' Support Mechanism Scale (n=236)

Sr. No	Level of Teachers' Support Mechanism	Score
1	Above Average	101-137
2	Average	64-100
3	Below Average	27-63

Table No 3.2 showed level of support mechanism of teachers' research skills at higher education level received by teachers from seniors on second objective of this study. It was categorized into three levels i.e. above average (101-137), average (64-100) and below average (27-63) level of support mechanism.

Above average level of support mechanism were found among 93 (39.40%) teachers, average level of support mechanism was found among 116 (49.15%) teachers and below average of support mechanism were found among 27 (11.45%) teachers.

3.7 Scoring of Teachers' Research Skills Scale

Tool was consisted of total four sections and twenty-five items. First section consisted of number 1 to 06 (06 items) items second section consisted of number 07 to 13 items (07 items) third section consisted of number 14 to 19 items (6 items) fourth section consisted of number 20 to 25 items (05 items). So there was total 25 items in teachers' research skills scale. Researcher multiplied 25 items with because researcher used five point Likert's scales that is why it was multiplied with five. Now answer was ($25 \times 5 = 125$). In this study researcher used three score level above average,

average and below average so now 101 was divided with three ($100 \div 3 = 34$). Now $25 + 34$ is equal to 59, $60 + 34$ is equal to 94 and $95 + 34$ is equal to 129.

Table 3.3

Level of Teachers' Research Skills Scale (n=236)

Sr. No	Level of Teachers' Research Skills	Score
1	Above Average	95-129
2	Average	60-94
3	Below Average	25-59

Table No 3.3 showed level of teachers' research skills at higher education level on third objective of this study. It was categorized into three levels i.e. above average (95-129), average (60-94) and below average (25-59) level of teachers' research skills.

Above average level of teachers' research skills were found among 116 (49.15%) teachers, average level of teachers' research skills was found among 100 (42.37%) teachers and below average of teachers' research skills were found among 20 (8.48%) teachers' research skills scale.

3.8 Validation of Research Tool

The tool developed by the researcher was gone through the process of validation by experts from the field of education. Teachers' Sport Mechanism Scale (TSMS) and Teachers' Research Skills Scale (TRSS) was given to 4 specialist of Education Department at National University of modern languages Islamabad (NUML), and one expert from Quaid-e-Azam University Islamabad. Questionnaire provided with copies of validity certificate, cover letter and a copy of synopsis by the researcher to expert. In the light of objectives, research tool examined carefully by those experts. In the light of valuable suggestions that was provided by experts researcher made some improvement in the tool (See appendix F).

At the time of tool validation experts give valuable suggestion such as use of appropriate tense, correction of sentence structure, use of apostrophe, use of appropriate vocabulary with accuracy, some questions removed and some questions statement was changed.

3.9 Pilot Testing

A pilot study helps the researcher to know the reliability of research tool. Pilot testing give the opportunity to highlight those question that are sensitive and unable to understand. Initially 50 copies of instruments were distributed among respondent teachers' of Social Sciences department of International Islamic University Islamabad among 50 responded only 40 respondent response back with complete information and the rest of the information of instruments were not returned back by the respondent to the researcher.

3.9.1 Reliability of Research Tool

In the pilot-study, data is collected and showed through the tables to know the strength of tool of the instrument. After that improvement tool was analyzed through Cronbach's Alpha Reliability Test, Item- Total Correlation and Inter-Section Correlation Test applied through SPSS.

Table 3.4

Reliability of Teachers' Support Mechanism Scale Pilot Test (n=40)

Sr. No	Scale	Sections	Items	Cronbach's Alpha Reliability
	Teachers Support Mechanism Scale		35	0.839
		1a.Engagement Activity	07	0.695
		1c. Training	07	0.726

activities		
1d. Support Activities	07	0.694
1e. Recognition Activity	07	0.600
1f. Community Activity	07	0.643

Table No 3.4 showed that the reliability of teachers' support mechanism scale was 0.839, this tool had total 35 items. The Teacher Support Mechanism Scale further divided into five sub sections. These sub sections or sub faces are Engagement, Training, Support, Recognition and Community. There was seven items in each subscale and reliability test was applied on each if the sub scale. Training activity had the highest reliability that was 0.726. Engagement activity had second highest reliability that was 0.695. Third highest reliability support activity that was 0.694. Fourth highest reliability had community activity that was 0.643. On fifth number, recognition activity reliability was 0.600.

Table 3.5

Reliability of Teachers Research Skills Scale Pilot Test (n=40)

Sr. No	Scale	Sections	Items	Cronbach's Alpha Reliability

1	Teachers Research Skills Scale	28	0.848
1.a	Knowledge and intellectual abilities	07	0.642
1.b	Research governance and organization	07	0.755
1.c	Engagement, influence and impact	07	0.683
1.d	Personal Effectiveness	07	0.678

Table No 3.5 showed item total reliability score of research tool named Teachers Research Skills Scale. This scale consist of four sections namely Knowledge and intellectual abilities, Research governance and organization, engagement influence and impact and Personal effectiveness. In this study, teachers research skills scale ha total 28 items and its item total reliability score was .848. In other Sub sections, highest item total reliability score was 0.755 of the section named as research governance and organization. Second highest reliability score was 0.683 of the section related to the engagement influence and impact. Section knowledge and intellectual abilities had third highest reliability score that was 0.642. In this research tool lowest reliability score was 0.551 that was related to personal effectiveness.

3.9.2 Item Total Correlation

Below table showed the item total correlation score that was tested through SPSS on the sample of 40 teachers.

Table 3.6

Item Total Correlation Teachers' Support Mechanism Scale Pilot Test (n=40)

Items	Correlation	Items	Correlation
EA1	.540**	RA1	.209
EA2	.580**	RA2	.467**
EA3	.687**	RA3	.573**
EA4	.580**	RA4	-.068
EA5	.261	RA5	-.398*
EA6	.313*	RA6	.310*
EA7	.687**	RA7	.546**
EA1	.540**	CA1	.513**
EA2	.580**	CA2	.687**
EA3	.687**	CA3	.313*
EA4	.580**	CA4	.261
EA5	.261	CA5	.619**
EA6	.313*	CA6	.650**
EA7	.687**	CA7	.513**
SA1	.313*	RA1	.209
SA2	.687**	RA2	.467**
SA3	.167	RA3	.573**
SA4	.619**	RA4	-.068
SA5	.650**	RA5	-.398*
SA6	.687**	RA6	.310*
SA7	.580**	RA7	.546**

** . Correlation is significant at the 0.01 level (2-tailed).

Table No 3.6 showed item total correlation on the research tool named as teachers support mechanism scale. This table showed most items had significant correlation while some had low significant correlation that was less than 0.30. Those items were EA5, TA1, TA3, SA3, RA1, RA4, and CA4. These are seven items in number with less than .30 correlation scale. These items were removed from final scale.

Table 3.7

Item total Correlation Teachers' Research Skills Scale Pilot Test (n=40)

Items	Correlation	Items	Correlation
--------------	--------------------	--------------	--------------------

KIA1	.553**	EII1	.613**
KIA2	.501**	EII2	.429**
KIA3	.486**	EII3	.613**
KIA4	.492**	EII4	.429**
KIA5	.531**	EII5	.517**
KIA6	.158	EII6	.349*
KIA7	.445**	EII7	.258
RGO1	.673**	PE1	.486**
RGO2	.661**	PE2	.522**
RGO3	.365*	PE3	.258
RGO4	.662**	PE4	.486**
RGO5	.349*	PE5	.258
RGO6	.694**	PE6	.555**
RGO7	.355*	PE7	.550**

** . Correlation is significant at the 0.01 level (2-tailed).

Table No 3.7 showed item total correlation on the research tool named as teachers research skills scale. This table showed most items had significant correlation while four items had low significant correlation that was less than 0.30. Those four items were KIA6, EII7, PE3 and PE5. These items were removed from final scale.

Table 3.8

Inter-section wise Correlation Teachers' Support Mechanism Scale Pilot Test (n=40)

Section	Engagement	Training	Support	Recognition	Community	TSMS
Engagement	1					
Training	.929**	1				
Support	.852**	.702**	1			
Recognition	.357*	.257	.362*	1		
Community	.608**	.442**	.613**	.384*	1	
TSMS	.884**	.820**	.906**	.484**	.647**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Table No 3.8 showed Inter-section wise correlation of Teacher Support Mechanism Scale. This table showed the highest correlation between the training and engagement that was .929** and the lowest correlation score between recognition and training that was .257.

Table 3.9

Inter-section wise Correlation Teachers' Research Skills Scale Pilot Test (n=40)

Section	Research Knowledge	Engagement Governance	Personal Effectiveness	TRSS	
Knowledge	1				
Research Governance	.607**	1			
Engagement	.488**	.539**	1		
Personal Effectiveness	.625**	.653**	.617**	1	
TRSS	.812**	.857**	.793**	.862**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Table No 3.9 showed Inter-section wise correlation of Teacher Research Skills Scale. This table showed the highest correlation between the personal effectiveness and research governance that was .653** and the lowest correlation score between engagement, influence and impact and knowledge and intellectual abilities that was .488**.

3.10 Finalization of Scale

After the pilot testing some of the items has less than 0.30 correlation that was mentioned on page number 70 and 71 were deleted. That is why tool was finalized again below on table number 3.10 and 3.11. In this study, research tool was based on Teachers Support Mechanism Scale based on the model presented by Lucas & Oliveria (2017). Teachers Research Skills Scale based on the model presented by Vitea (2010). First section in this research tool based on demographic that

consist of gender, name of university, academic qualification, professional qualification, age and teaching experience. Second section based on teachers support mechanism scale that was further divided into five section. Each section consists of seven items that was total in number 49. In this section a checklist consist of 14 items also included that check teachers training availability and non-availability. Third section included teachers' research skills that consist of four sections. In each section seven items were included that total in number were 28. Research tool based on five point Likert's scale 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 for strongly agree. Improvements were made in table 3.10 and table 3.11 after Cronbach's Alpha, item total correlation and intersection correlation test.

Table 3.10

Teachers' Support Mechanism Scale Pilot Test (n=40)

Sr. No	Section	Items Retained	No. of Items Removed	No. of Items Remained
1		Teacher Support Mechanism	07	27
1a	Engagement Activity	EA1,EA2,EA3,EA4,EA5,EA6,	01	06
1b	Traning activities	TA1,TA2,TA3,TA4,TA5,	02	05
1c	Support Activities	SA1,SA2,SA3,SA4,SA5,SA6,S	01	06
1d	Recognition Activity	RA1,RA2,RA3,RA4,	02	04
1e	Community Activity	CA1,CA2,CA3,CA4,CA5,CA6,	01	06

Table No 3.10 showed teachers support mechanism scale. These are seven items in number with less than .30 correlation scale. These items were removed from final scale.

Total number of items was 34. After removing 7 items 27 items were left in the final scale.

Table 3.11

Teachers' Research skill Scale Pilot Test (n=40)

Sr. No	Section	Items Retained	No. of Items Removed	No. of Items Remained
1		Teachers' Research Skills Scale	03	25
1a	Knowledge and intellectual abilities	KIA1,KIA2,KAI3,KIA4,KIA5, KIA6	01	06
1b	Research governance and organization	RGO1,RGO2,RGO3,RGO4,RG O5,RGO7	-	07
1c	Engagement, influence and impact	EII1,EII2,EII3,EII4,EII4,EII5,E II6	01	06
1d	Personal Effectiveness	PE1,PE2,PE3,PE4,PE5,PE5, PE6	01	06

Table No 3.11 showed teachers research skills scale. These are three items in number with less than .30 correlation scale. These items were removed from final scale. Total numbers of items were 28. After removing 3 items 25 items were left in the final scale.

3.11 Data Collection

Data Collection was a procedure of gathering information or data from all possible related sources as data collection was the major task in the research work. The researcher collected data from Social Sciences department of universities of Islamabad universities. In pilot testing data collected from 50 respondents of total population final data collected from the rest of the respondent teachers.

Researcher collected data personally from respondent. Researcher first took permission from the department of Education from National University of Modern Languages Islamabad (NUML) in the form of reference letter. Researcher showed reference letter to the concerned authorities of the public and private Universities and took permission to collect data through questionnaire for research work. These universities allowed researcher to collect data from the teachers. The researcher distributed 50 copies of questionnaires in university teachers. Those respondents took three to four days to fill the questionnaire only 40 respondent returns the questionnaire with full information.

3.12 Data Analysis

Through Teacher Research Skills Scales (TRSS) and Teachers Support Mechanism Scale (TSMS) data was collected. After the collection of data it was coded and then researcher inter into statistical package for Social Sciences. To get the answer of objective and hypothesis data analyzed through statistical techniques. These statistical techniques were reliability test, mean, mode and regression analysis. Below Table Number 3.12 showed objective with statistical techniques.

Table 3.12

Data Analysis Description

Sr. No	Research Objectives	Statistical Test
---------------	----------------------------	-------------------------

1	To assess the availability of support mechanism provided to the teachers.	Mean
2	To examine the level of support mechanism on teachers' research skills at higher education level.	Individual Score
3	To examine the level of teachers' research skills at higher education level.	Individual Score
4	To measure contribution of support mechanism on teachers' research skills at higher education level.	Regression
4.1	To measure the contribution of engagement activities of support mechanism on teachers' research skills at higher education level.	Regression
4.2	To measure the contribution of training activities of support mechanism on teachers' research skills at higher education level.	Regression
4.3	To measure the contribution of support activities of support mechanism on teachers' research skills at higher education level.	Regression
4.4	To measure the contribution of recognition activities of support mechanism on teachers' research skills at higher education level.	Regression
4.5	To measure the contribution of community activities of support mechanism on teachers research skills at higher education level.	Regression

Above mentioned table 3.12 showed through different statistical techniques, data was analyzed. The first objective was to assess the availability of support mechanism provided to the teachers mean score used for calculation. The second objective was to examine the level of support mechanism on teachers' research skills at higher education level for this Independent score test used. The third objective was to examine the level of teachers' research skills at higher education level for this Independent score test applied. The fourth objective was to measure contribution of support mechanism on teachers' research skills at higher education level regression analysis was used to measure the relationship between support mechanism and teachers research skills at higher level of education. The fifth objective was to measure the contribution of engagement activities of support mechanism on teachers' research skills at higher education level regression analysis was also used. The sixth objective was to measure the contribution of training activities of support mechanism on teachers' research skills at higher education level and regression analysis was also used. The seventh objective was to measure the contribution of support activities of support mechanism on teacher's research skills at higher education level and regression analysis was also used. The eighth objective was to measure the contribution of recognition activities of support mechanism on teachers' research skills at higher education level and regression analysis was applied. The ninth objective was to measure the contribution of community activities of support mechanism on teachers' research skills at higher education level and regression analysis was used to measure the relationship between support mechanism and teachers research skills at higher level of education.

3.13 Ethical consideration

In this study researcher considering research ethical consideration conduct the study. Researcher knows that participants not be bullied in any-way and respect for the nobility of research participants was a first priority. Agreement from respondent obtained prior to the study. The privacy of study participants must be guaranteed. Researcher ensures the respondent teachers not forced to participate. Respondents were free to fill the questionnaire and it ensured that data collected in the form of information was kept confidential and not shared with anyone in any case. Their responses were only used for research purpose of this study.

CHAPTER 4

ANALYSIS AND INTERPRETAION OF THE DATA

Fourth chapter comprise of information gathered in final data analysis and its interpretation. This study is comprised of teachers' research skills at higher level of education. In this study there is two variables first independent variable 'Support Mechanism' and second is dependent variable Teachers' Research Skills'. For final data researcher gathered information through questionnaire. The tool consists of five point Likert's scale. The population of research is social sciences faculty university teachers' of Islamabad. For this purpose researcher gathered data from male and female teachers has less than three years' experience.

4.1 Summary of Analysis

Chapter four is based on the detailed analysis of research tool, objectives, tool, gathered information, test applied on those information and its interpretation. It is based on the following sections.

Section 1 Availability of Support Mechanism (Objective No 1)

Section 2 of this chapter include first objective. To achieve objective number 1 that is to assess the availability of support mechanism provided to the teachers mean test score is applied.

Section 2 Level of Support Mechanism (Objective No 2)

Section 3 of this chapter include second objective. To achieve objective number 2 that is to examine the level of support mechanism on teachers' research skills at higher education level at Islamabad individual score test is applied.

Section 3 Level of teachers' Research Skills (Objective No 3)

Section 4 of this chapter include third objective. To achieve objective number 3 that is to examine the level of teachers' research skills at higher education level at Islamabad individual score test is applied.

Section 4 Contribution of Support Mechanism (Objective No 4)

Section 5 of this chapter include fourth objective. To achieve objective number 4 that is to measure contribution of support mechanism on teachers' research skills at higher education level regression test is applied.

Section 1

4.2 Availability of Support Mechanism

Objective No.1: To assess the availability of support mechanism provided to the teachers at higher education level.

Table 4.1

Availability of Support Mechanism for Teachers (n=236)

Sr. No	Indicators	Sub Indicators	n	Mean of Mean	Status
1	Availability of support mechanism		236	4.24	Agree
	1a	Engagement Activities	236	3.51	Agree
	1b	Training Activities	236	3.75	Agree
	1c	Support Activities	236	3.50	Agree
	1d	Recognition Activities	236	3.57	Agree

1e	Community Activities	236	3.38	Neutral
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Table No 4.1 showed the availability of support mechanism for teachers at higher education level at Islamabad. Availability of support mechanism for teacher's mean of mean was 4.24. Engagement activity mean of mean was 3.51. Training activity mean of mean was 3.75. Support activity mean of mean was 3.50. Recognition activity mean of mean was 3.57. Community activity mean of mean was 3.38.

The results showed that practice regarding engagement activities of respondents was agreed. The practice regarding seniors colleagues frequently help in learning teaching skills, senior colleagues giving opportunity to participate in research activities with them, senior colleagues encouragement in professional development, senior colleagues empowerment in updating about emerging trends in research, senior colleagues sharing ideas for improving research skills and senior colleagues involve in departmental meeting on research skills are agree. The results showed that practice regarding training activities was agreed. The practice includes activities such as professional development trainings help to increase research skills, effective teachings strategies skills training were helpful in research work, senior colleagues guide in soft skills that they had learned as a researcher, various research activities organized by administration that were helpful in research skills, senior colleagues guide in some unwritten rules that they had learned as a researcher.

These results showed that practice regarding recognition activities was agreed. This practice includes activities such as in university, cash rewards are more helpful in research skills work, Provision of certification was helpful in research skills development, appreciation by senior colleagues for good research skills, senior colleagues appreciate in research work in front of other.

These results showed that practice regarding community activities was neutral. The practice includes activities such as senior colleagues always provide information that aware teacher about latest journal, senior colleagues help teachers to develop link for publications, senior colleagues help teachers in conference preparation, senior colleagues represent teachers at meeting, senior colleagues helps teachers in comparing article with other researcher articles and senior colleagues co-author teachers in their articles.

Section 2

4.3 Level of Support Mechanism

Objective No.2: To examine the level of support mechanism on teachers' research skills at higher education level.

Table 4.2

Level of Teachers' Support Mechanism Scale (n=236)

Sr. No	Level of Teachers' Support Mechanism	Score	n	Percentage %
1	Above Average	101-137	93	39.40%
2	Average	64-100	116	49.15%
3	Below Average	27-63	27	11.45%

Table No 4.2 showed level of support mechanism of teachers' research skills at higher education level. It was categorize into three levels i.e. above average (101-137), average (64-100) and below average (27-63) level of support mechanism.

Result indicated that majority 116 teachers fell in average category. Result indicated that 93 teachers fell in above average category and 27 teachers fell in below category.

Section 3

4.4 Level of Teachers' Research Skills

Objective No.3: To examine the level of teachers' research skills at higher education level.

Table 4.3

Level of Teachers' Research Skills Scale (n=236)

Sr. No	Level of Teachers' Research Skills	n	Percentage %
1	Above Average	116	49.15%
2	Average	100	42.37%
3	Below Average	20	8.48%

Table No 4.3 showed level of teachers' research skills at higher education level. It is categorize into three levels i.e. above average (95-125), average (60-94) and below average (25-59) level of teachers' research skills

Above average level of teachers' research skills were found among 116 teachers. Average level of teachers' research skills were found among 100 teachers. Below average of teachers' research skills were found among 20 teachers.

Section 4

4.5 Contribution of Support Mechanism

Objective No.4: To measure contribution of support mechanism on teachers' research skills at higher education level.

Ho1: There is no statistically significant contribution of support mechanism on teachers' research skills at higher education level.

Table 4.4

Contribution of Support Mechanism of Teachers' Research Skills (n=236)

Independent Variable	Dependent Variable	R ²	β	t	Sig.
Support Mechanism	Research Skills	.313	.481	10.33	0.00

a. Independent Variable: Support Mechanism

b. Dependent Variable: Research Skills

**p<0.01, * <0.05

Table No 4.4 showed contribution of support mechanism on teachers' research skills. It showed support mechanism had 31.3% ($R^2=0.313$) variation on teachers' research skills and rest was due to some other factors. The beta value ($\beta = .481$) showed that this contribution was positive and statistically significant at 0.01 level of significance. Thus the hypothesis No H⁰1 showed that there was no statistically significance contribution of support mechanism on teachers' research skills at higher level of education was failed to accept.

4.5.1 Contribution of Engagement Activity

Objective No.4.1: To measure the contribution of engagement activities of support mechanism on teachers' research skills at higher education level.

H₀1a: There is no statistically significant contribution of engagement activities of support mechanism on teachers' research skills at higher education level.

Table 4.5

Contribution of Engagement Activities of Support Mechanism of Teachers' Research Skills (n=236)

Independent Variable	Dependent Variable	R²	β	t	Sig.
Engagement Activities	Research Skills	.051	.554	3.544	0.00

a. Independent Variable: Engagement Activities

b. Dependent Variable: Research Skills

**p<0.01, * <0.05

Table No 4.5 showed contribution of Engagement Activities of support mechanism on teachers' research skills. It showed that engagement activities have 5.1% ($R^2=0.051$) variation in teachers' research skills and rest was due to some other factors. The Beta value ($\beta =.554$) showed that this contribution was positive and statistically significant at 0.01 level of significance. Thus the hypothesis No H⁰1a showed that there was no statistically significance contribution of Engagement Activities of support mechanism on teachers' research skills at higher level of education was failed to accept.

4.5.2 Contribution of Training Activity

Objective No.4.2: To measure the contribution of training activities of support mechanism on teachers' research skills at higher education level.

H01b: There is no statistically significant contribution of training activities of support mechanism on teachers' research skills at higher education level.

Table 4.6

Contribution of Training Activities of Support Mechanism of Teachers' Research Skills (n=236)

Independent Variable	Dependent Variable	R²	β	t	Sig.
Training Activities	Teachers' Research Skills	.094	.846	4.922	0.00

a. Independent Variable: Training Activities

b. Dependent Variable: Research Skills

**p<0.01, * <0.05

Table No 4.6 showed contribution of training activities of support mechanism on teachers' research skills. It showed that training activities had 9.4% ($R^2=0.094$) variation in teachers' research skills and rest was due to some other factors. The Beta value ($\beta =.846$) showed that this contribution was positive and statistically significant at 0.01 level of significance. Thus the hypothesis No H⁰1b showed that there was no statistically significance contribution of training activities of support mechanism on teachers' research skills at higher level of education was failed to accept.

4.5.3 Contribution of Support Activity

Objective No.4.3: To measure the contribution of support activities of support mechanism on teachers' research skills at higher education level.

Ho1c: There is no statistically significant contribution of support activities of support mechanism on teachers' research skills at higher education level.

Table 4.7

Contribution of Support Activities of Support Mechanism of Teachers' Research Skills (n=236)

Independent Variable	Dependent Variable	R ²	β	t	Sig.
Support Activities	Research Skills	.292	1.836	9.829	0.00

a. Independent Variable: Support Activities

b. Dependent Variable: Research Skills

**p<0.01, * <0.05

Table No 4.7 showed contribution of support activities of support mechanism on teachers' research skills. It showed that support activities have 29.2% ($R^2=0.292$) variation in teachers' research skills and rest was due to some other factors. The Beta value ($\beta = 1.836$) showed that this contribution was positive and statistically significant at 0.01 level of significance. Thus the hypothesis No H⁰1c showed that there was no statistically significance contribution of support activities of support mechanism on teachers' research skills at higher level of education was failed to accept.

4.5.4 Contribution of Recognition Activity

Objective No.4.4: To measure the contribution of recognition activities of support mechanism on teachers' research skills at higher education level.

Ho1d: There is no statistically significant contribution of recognition activities of support mechanism on teachers' research skills at higher education level.

Table 4.8

Contribution of Recognition Activities of Support Mechanism of Teachers' Research Skills
(n=236)

Independent Variable	Dependent Variable	R ²	β	t	Sig.
Recognition Activities	Research Skills	.417	3.566	12.926	0.00

a. Independent Variable: Recognition Activities

b. Dependent Variable: Research Skills

**p<0.01, * <0.05

Table No 4.8 showed contribution of recognition activities of support mechanism on teachers' research skills. It showed that recognition activities have 41.7% (R²=0.417) variation in teachers' research skills and rest was due to some other factors. The Beta value (β =3.566) showed that this contribution was positive and statistically significant at 0.01 level of significance. Thus the hypothesis No H⁰1d showed that there was no statistically significance contribution of recognition activities of support mechanism on teachers' research skills at higher level of education was failed to accept.

4.5.5 Contribution of Community Activity

Objective No.4.5: To measure the contribution of community activities of support mechanism on teachers' research skills at higher education level.

H₀1e: There is no statistically significant contribution of community activities of support mechanism on teachers' research skills at higher education level.

Table 4.9

Contribution of Community Activities of Support Mechanism of Teachers' Research Skills (n=236)

Independent Variable	Dependent Variable	R²	β	t	Sig.
Community Activities	Research Skills	.298	1.722	9.966	0.00

a. Independent Variable: Community Activities

b. Dependent Variable: Research Skills

**p<0.01, * <0.05

Table No 4.19 showed contribution of community activities of support mechanism on teachers' research skills. It showed that community activities have 29.8% ($R^2=0.298$) variation in teachers' research skills and rest is due to some other factors. The Beta value ($\beta =1.722$) showed that this contribution was positive and statistically significant at 0.01 level of significance. Thus the hypothesis No H₀1e showed that there was no statistically significance contribution of community activities of support mechanism on teachers' research skills at higher level of education was failed to accept.

Section 5

4.6 Checklist for Teachers Training

Table 4.10

Frequencies of availability of teachers' training higher education level (n=236)

Sr. No	Availability of teachers' training	Yes		No	
		1	2	1	2
		n	%	n	%
1	Induction training	224	94.9	12	5.1
2	Professional development trainings	224	94.9	12	5.1
3	Ongoing training	213	90.3	23	9.7
4	Soft skills training	174	73.7	62	26.3
5	Effective teachings strategies training	236	100	-	-
6	Formal training	215	91.1	21	8.9
7	Informal training	226	95.8	10	4.2
8	Onsite training	124	52.5	112	47.5
9	Offsite training	188	79.7	48	20.3
10	Workshops	200	84.7	36	15.3
11	Seminars	226	95.8	10	4.2
12	Micro training sessions	200	84.7	36	15.3
13	Job assignment	214	90.7	22	9.3
14	Formal presentations	198	83.9	38	16.1

Table 4.10 showed the frequencies of availability of teachers training at higher education level. This checklist showed number and percentage with Yes and No. There was total fourteen items showed different trainings at higher education level. After the calculation through SPSS overall responses shows that maximum facilities are available to teachers. Highest frequencies showed in effective teaching strategies training that were 100%. Lowest frequencies showed in onsite training that was 52.5%.

CHAPTER 5

SUMMARY, FINDING, DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Summary

In this chapter explanation of findings was included. This study was conducted for the analysis of support mechanism for teachers' research skills at higher level of education. Main objectives of the study are written below:

First was to assess the availability of support mechanism provided to teachers. Second was to examine the level of support mechanism on teachers' research skills at higher education level. Third was to examine the level of teachers' research skills at higher level of education. Fourth was to measure contribution of support mechanism and teachers' research skills at higher education level. Other sub objective of fourth was to measure the contribution of engagement activities of support mechanism on teachers' research skills at higher education level. To measure the contribution of training activities of support mechanism on teachers' research skills at higher education level. To measure the contribution of support activities of support mechanism on teachers' research skills at higher education level. To measure the contribution of recognition activities of support mechanism on teachers' research skills at higher education level. To measure the contribution of community activities of support mechanism on teachers' research skills at higher education level.

The Theoretical framework of this work is based on support mechanism and teachers' research skills. Support mechanism based on the work of Lucas & Oliveira, (2017) and research skills model was based on the work of Vitea (2010). Support mechanism based on five sections which were engagement activities, training activities, support activities, recognition activities and community activities. Research skills was based on four sections which are knowledge and intellectual abilities, personal effectiveness, research governance and organization and engagement, influence and impact.

From the field of education of education four expert were consulted for the validation of research tool. Experts gave their valuable suggestions and comments. Keeping in mind those suggestions and comments researchers improved research tool with minor changes. After this for the determination of reliability of tool support mechanism and teachers research skills a pilot study was conducted on 50 respondents teachers and 40 respondents responded at higher education level. The population of the study included teachers having three years or less than three years teaching experience serving at higher education level universities at Islamabad. Record of university having social science faculty was taken from Higher Education Commission (HEC), (2021) website (See appendix G). According to available data on each university website there were total 297 teachers serving in the session of (2021-2022) at higher education level with three years or less than three years teaching experience overall at Islamabad universities. On 50 teachers pilot study was conducted.

After pilot study data was analyzed through SPSS 20th and research tool was finalized. Final study was conducted on remaining 247 teachers. Due to less number of teachers whole population was taken as sample in data collection for current study. In final data collection 236 respondents

responded. For data analysis suitable statistical techniques were applied such as reliability, mean, individual score and regression test were applied under the supervision of supervisor.

5.2 Finding

1. Most of the recorded responses were positive from the teachers about the overall availability of support mechanism and the teachers were also agreed about the availability of subsections of support mechanism included engagement activities, training activities, support activities, recognition activities. Teachers responses were recorded neutral about the subsection community activities.
2. Teachers were aware of support mechanism and observed the practices of engagement activities, training activities, support activities, recognition activities at higher education level. It inferred that university teachers know about research skills and observed the practices of knowledge and intellectual abilities, personal effectiveness, research governess and organizational engagement, influence and impact
3. Three level were recoded as below average, average and above average. These levels showed that most of the teachers had average level of support mechanism that was 49 percent. (Table No 4.2).
4. Level of teachers' research skills at higher education level was categorize into three levels i.e. above average, average and below average. Level of teachers' research skills. Above average level of teacher's research skills are found among 116 teachers, average level of teachers' research skills was found among 100 teachers and below average of teachers' research skills are found among 20 teachers' research skills scale (Table No 4.3).

5. Contribution of support mechanism in teachers' research has 31.3% variation in research skills and reset was due to some other factors. The beta value ($\beta = .481$) showed that this contribution was positive and statistically significant at 0.01 level of significance. (Table No 4.3).
6. Contribution of engagement activities of support mechanism in teachers' research skills have 5.1% ($R^2=0.051$) variation in research skills and reset was due to some other factors. The Beta value ($\beta =.554$) showed that this contribution was positive and statistically significant at 0.01 level of significance. (Table No 4.4).
7. Contribution of training activities of support mechanism in teachers' research have 9.4% variation in research skills and reset was due to some other factors. The Beta value ($\beta =.846$) showed that this contribution was positive and statistically significant at 0.01 level of significance. Table No 4.5).
8. Contribution of support activities of support mechanism in teachers' research skills have 2.92% variation in research skills and reset was due to some other factors. The Beta value ($\beta =1.836$) showed that this contribution was positive and statistically significant at 0.01 level of significance. (Table No 4.6).
9. Contribution of recognition activities of support mechanism in teachers' research skills have 4.17% variation in research skills and reset was due to some other factors. The Beta value ($\beta =3.566$) showed that this contribution was positive and statistically significant at 0.01 level of significance. (Table No 4.7).
10. Contribution of community activities of support mechanism in teachers' research skills have 2.98% variation in research skills and reset was due to some other factors. The Beta

value ($\beta = 1.722$) showed that this contribution was positive and statistically significant at 0.01 level of significance (Table No 4.8).

1.2.1 Finding of the availability of teachers' training

Finding of availability of teachers training on the checklist had 14 items that were written below.

1. Induction training: 224 (94.9%) respondents respondent with yes and 12(5.1%) were responded with no.
2. Professional development trainings: 224 (94.9%) respondents respondent with yes and 12(5.1%) were responded with no.
3. Ongoing training: 213 (90.3%) respondents respondent with yes and 23(9.7%) were responded with no.
4. Soft skills training: 174 (73.7 %) respondents respondent with yes and 62(26.3 %) were responded with no.
5. Effective teachings strategies training: 236(100 %) respondents respondent with yes
6. Formal training: 215 (91.1 %) respondents respondent with yes and 21(8.9%) were responded with no.
7. Informal training: 226(95.8%) respondents respondent with yes and 10.4.2(%) were responded with no.
8. Onsite training: 124(52.5 %) respondents respondent with yes and 112(47.5%) were responded with no.
9. Offsite training: 188(79.7%) respondents respondent with yes and 48(20.3%) were responded with no.

10. Workshops: 200(84.7%) respondents responded with yes and 36(15.3%) were responded with no.
11. Seminars: 226(95.8%) respondents responded with yes and 10(4.2%) were responded with no.
12. Micro training sessions: 200(84.7%) respondents responded with yes and 36(15.3%) were responded with no.
13. Job assignment: 214(90.7%) respondents responded with yes and 22(38%) were responded with no.
14. Formal presentations: 198(83.9%) respondents responded with yes and 38(16.1 %) were responded with no.

5.3 Discussion

The first objective of the study was to assess the availability of support mechanism for teachers' research skills. It was found that mostly teachers were agreed about the availability of support mechanism. This finding is supported by finding of Peterson (2011), Buddhapriya (2017), Posner, B. (2021). Couture, Gerke and Kinevel (2020), Heyns and Nixon (2020) Reported about the availability of support mechanism. Peterson (2011) conducted study in a New Zealand higher education institution using action research methodology and found the availability of support mechanism for teachers. Gerke & Knievel (2020) wrote in their article about the availability of support mechanism.

Second objective was to found the level of support mechanism for teachers at higher education level. It was found that mostly teachers had average level of support at their university. As the support was average level so there was a need to increase the level of support mechanism for teachers. Teachers feel that support from senior colleagues help teachers to develop their research

skills. Support mechanisms help teachers to enhance their research skills such as goal-oriented skills, planning, and management skills, analyzing and synthesizing skills, communication and teamwork skills. This finding is supported by finding of Given, Partridge, & Howard (2022), Heyns and Nixon (2020), Chattopadhyay (2014), Demirtas (2010), Stephens, Sare, Kimball, Foster and Kitchens (2011).

As an activity conducted by Kapur (2019) wrote that teachers had difficulties first time in unfamiliar things, after given repeated chances to enhance their skills. Indeed, it was difficult for first year teachers at first chance but it showed improvement after one-year teaching. For the improvement of teachers skills and confidence it is necessary to have these repeated activities and opportunities. Teachers may think that he or she always do a thorough investigation. They may want to emphasize on a specific part of the question. For having expertise teachers, repeated efforts were important which will help them in future to build their research skills to use in many areas of education and other field (Fluke, Connor, Strawhun, & Peterson, 2014).

Third objective was to found the level of teachers' research skills at higher education level. It was found that teachers had above average level of research skills at higher education level. This finding is supported by finding of Fluke, Connore, Strawhun and Peterson (2014), Meerah and Arsad (2010), Wilen (1991), Lovat and Davies and Plotnikoff (1995) and Morris (2006).

Fourth major objective of this study was to measure contribution of support mechanism on teachers' research skills at higher education level. It was found that this contribution was positive and statistically significant at 0.01 level of significance. Support mechanism had a positive impact on teachers' research skills. This finding is supported by finding of Ingersoll and Kralik (2004), Smith and Ingersoll (2004), Yang (2020), Osif (2008) and Lorenzetti and Powelson (2015). Support from senior colleagues helps new teachers to stay at current working place and enhance

their research skills (Smith and Ingersoll 2004). This study results showed that a strong and effective support mechanism was very important for their professional development and teachers' engagement (Yang et al., 2020).

Objective number 4.1 of this study was to measure contribution of engagement on teachers' research skills at higher education level. It was found that this contribution was positive and statistically significant at 0.01 level of significance. This finding is supported by finding of Anitha (2014), Bedarkar and Pandita (2014), Klassen, , Aldhafri, Mansfield, Purwanto, and Siu (2012), Alwafi, Downey and Kinchin (2020),

Objective number 4.2 of this study was to measure contribution of training on teachers' research skills at higher education level. It was found that this contribution was positive and statistically significant at 0.01 level of significance. This finding is supported by finding of Dodani and LaPorte (2008), Hanaysha (2016), Hidayah (2016), Jez and Luneta (2018).

One of the most important thing to keep effective support mechanism system in any setup or institute create clear criteria for teachers' selection that had ongoing training and commitment was clearly included (Peterson, 2006).

Objective number 4.3 of this study was to measure contribution of support on teachers' research skills at higher education level. It was found that this contribution was positive and statistically significant at 0.01 level of significance. This finding is supported by finding of Ancaster, S., & Di Milia, L. (2015), Chattopadhyay. (2014), Chung, M., Kelliher, M., & Smith, W. (2006), Di, M. L., & Lancaster, S. (2015), Eisenberger, R., & Stinglhamber, F. (2011), Fantili and McDougall (2009), Fluke, Connor, Strawhun and Peterson. (2014), Hong, Lin, Lee and Yang (2020), Hong, Lin, Lee and Yang (2020). Marshal (2015) in his study asked participants to appraise supports quality that they get in five areas such as teaching resources, joint support impart to them from

school management, human support provided by colleagues, parental support and participation in their classes, as well as community support provided to their families (Tschannen & Woolfolk, 2006). Support activities especially in support mechanism for teachers at higher level was very important. Support from university included supportive environment, personal assistance, resource support, program support, system assistance support and support from home also important for teachers at all level.

Objective number 4.4 of this study was to measure contribution of recognition on teachers' research skills at higher education level. It was found that this contribution was positive and statistically significant at 0.01 level of significance. This finding is supported by finding of Zeb, Jamal and Ali (2015), Rowbotham (2021), Kaur (2019) and Thomm, Salzer, Prenzel and Bauer, (2021).

Objective number 4.5 of this study was to measure contribution of community on teachers' research skills at higher education level. It was found that this contribution was positive and statistically significant at 0.01 level of significance. This finding is supported by finding of Yang (2020), Kelly, Russell, Kickbusch, Barros, Dawes and Rasmussen (2018), Guillen and Zeichner (2018) and Epstein (2018).

Community support in education increased learning deeply and interdisciplinary manner and create a connection between teachers and their skills. Teachers must be supported to go out of institutional walls and interact with community where they can engage themselves. There they can apply their skills and knowledge. Through community they can get appreciation about their work and skills especially in research areas (Lucas et al., 2017).

5.4 Conclusion

Thus Objective No.1 was to assess the availability of support mechanism for teachers' research skills at higher education level. It had been concluded from finding of objective number one that mostly teachers were agree about the availability of Support Mechanism overall. Teachers were agreed about the availability of the subsection of subparts mechanism those were engagement activities, training activities, support activities, recognition activities. Teachers were neutral about the availability of subsection community activities. It inferred that university teachers knows about support mechanism and observed the practice of engagement activities, training activities, support activities, recognition activities at higher education level. It inferred that a university teacher knows about research skills and observed the practice of knowledge and intellectual abilities, personal effectiveness, reseach governess and organization; and engement,influence and impact.

The second objective was to examine the level of support mechanism for teachers at higher education level. It had been concluded from finding of objective number two that mostly teachers had average level of support at their university. As the support was average level so there was a need to increase the level of support mechanism for teachers. Teachers feel that support from senior colleagues help teachers to develop their research skills.

Third objective was to examine the level of teachers' research skills at higher education level. It was concluded that teachers had above average level of research skills at higher education level.

Fourth major objective of this study was to measure contribution of support mechanism on teachers' research skills at higher education level. It was concluded that this contribution was positive and statistically significant at 0.01 level of significance. Support mechanism had a positive impact on teachers' research skills.

Objective number 4.1 of this study was to measure contribution of engagement on teachers' research skills at higher education level. It was concluded that this contribution was positive and statistically significant effect on teachers' research skills.

Objective number 4.2 of this study was to measure contribution of training on teachers' research skills at higher education level. It was concluded that this contribution was positive and statistically significant effect on teachers' research skills.

Objective number 4.3 of this study was to measure contribution of support on teachers' research skills at higher education level. It was concluded that this contribution was positive and statistically significant effect on teachers' research skills.

Objective number 4.4 of this study was to measure contribution of recognition on teachers' research skills at higher education level. It was concluded that this contribution was positive and statistically significant effect on teachers' research skills.

Objective number 4.5 of this study was to measure contribution of community on teachers' research skills at higher education level. It was concluded that this contribution was positive and statistically significant effect on teachers' research skills.

It was concluded from objective four that support mechanism had positive and having statistically significant effect on teachers' research skills. It was concluded that engagement activities had positive and having statistically significant effect on teachers' research skills. It was concluded that training activities had positive and having statistically significant effect on teachers' research skills. It was concluded that support activities had positive and having statistically significant effect on teachers' research skills. It was concluded that recognition activities had positive and having statistically significant effect on teachers' research skills. It was concluded that community activities had positive and having statistically significant effect on teachers' research skills.

Teachers' training was also important part of mechanism supporting teachers and onsite training need to be increased.

5.5 Recommendation for Teachers

1. It was found from the conclusion of objective number 1 that teachers agreed about the availability of support mechanism. It is recommended that through the orientation program and weekly meeting administration can inform teachers about the availability of new university facilities.
2. It was found from the conclusion of objective number 2 that the majority of the teachers had an average level of support mechanism thus it is recommended that a proper system of formal support mechanism may be introduced. It is also suggested that University management may nominate two to three senior teachers from each department according to the department size for 3 to 6 months for the support of new teachers.
3. It was found from the conclusion of objective number 3 that most teachers had above average level of research skills. It is recommended that interaction with other university faculty members may also support teachers to enhance their research skills.
4. It was concluded from objective number 4 that the support mechanism had a significant contribution on teachers' research skills. It is recommended that bio monthly workshops may be arranged for new teachers to introduce them to essential research skills.
5. It was concluded from objective number 4. 1 that engagement had a significant contribution on teachers' research skills it is recommended that senior colleagues may engage new teachers in educational research debates to improve their skills. It is also recommended that time by time the management of the university needs to organize a meeting with teachers to know about the difficulties faced by teachers.

6. It was concluded from objective 4.2 that training had a significant contribution on teachers' research skills. It is recommended that after hiring new teachers in the university may arrange a training program for teachers such as on-site training, professional development training, and soft skills training. It is also recommended that senior teachers can train or guide new teachers.
7. It is concluded from objective 4.3 that support activities had a significant contribution on teachers' research skills. It is recommended that senior colleagues may support in article writing, co_supervision, and research paper review that can accelerate less experienced teachers' research skills.
8. It is concluded from objective 4. 4 that recognition had a significant contribution on teachers' research skills. It is recommended that the university administration may acknowledge teachers through formal and informal recognition such as certificates, appreciation letters, teacher of the month, teacher of the year, and sometimes cash rewards may increase their moral level.
9. It is concluded from objective 4.5 that community and significant contribution on teachers' research skills. It is recommended that for community activities university management or department may arrange community activities such as annual day, orientation, informal meetings and entertainment clubs to formalize the new teachers with members of the other departments and universities. Teachers may develop community activities through social networking.

5.6 Recommendation for Future Researcher

1. It is suggested for future researcher that they further expend this study to analyze the practice of support mechanism for teachers' research skills.

2. It is recommended for future researcher that they may further assess the awareness of support mechanism at other faculties.
3. It is proposed for future researcher that they may further extend this study in different universities of Pakistan as this study was just conducted on Islamabad universities.

5.8 Alignment Table

Table 5.1

Alignment table of Objectives, Hypothesis, Techniques and Recommendation (n=236)

Sr. No	Objectives	Hypothesis/ Question	Statistical Techniques	Conclusion	Recommendation
1	To assess the availability of support mechanism provided to teachers.	What Support Mechanism was available for teachers?	Mean	Objective No.1 was targeted to explore the availability of support mechanism for teachers. It had been concluded from finding number 1 that mostly teachers were agree about the availability	It is recommended that through the orientation program and weekly meeting administration can inform teachers about the availability of new university facilities.

				of Support Mechanism overall.	
2	To examine the level of support mechanism on teachers' research skills at higher education level.	What was the level of Support Mechanism on teachers' research skills at higher education level?	Individual Score	Three level were recoded as below average, average and above average. These levels showed that most of the teachers had average level of support mechanism.	It is recommended that a proper system of formal support mechanism may be introduced. It is also suggested that University management may nominate two to three senior teachers from each department according to the department size for 3 to 6 months for the support of new teachers.
3	To examine the level of teachers' research skills at higher education.	What was the level of teacher's research skills at higher education level?	Individual Score	It was also categorize into three levels. Most of the teachers had above average level of teacher's	It is recommended that interaction with other university faculty members may also support teachers to enhance their research skills.

- research skills.
- 4 To measure contribution of support mechanism in teachers research skills at higher education level. **H01** There was no statistically significant contribution of support mechanism on teachers' research skills at higher level of education. Regression (one-way relation) It was concluded from objective four that support mechanism had positive and having statistically significant effect on teachers' research skills. It is recommended that bio monthly workshops may be arranged for new teachers to introduce them to essential research skills.
- 5 To measure the contribution of engagement activities of support mechanism on teacher's research skills at higher education level. **H01a** There was no statistically significant contribution of engagement activities of support mechanism on teachers' research skills at higher education level. Regression (one-way relation) It was concluded that engagement activities had positive and having statistically significant effect on teachers' research skills. It is recommended that senior colleagues may engage new teachers in educational research debates to improve their skills. It is also recommended that time by time the management of the university needs to organize

- education level.
- a meeting with teachers to know about the difficulties faced by teachers.
- 6** To measure the contribution of training activities of support mechanism on teachers' research skills at higher education level. **Ho1b** There was no statistically significant contribution of training activities of support mechanism on teachers' research skills at higher education level. Regression (one-way relation) It was concluded that training activities had positive and having statistically significant effect on teachers' research skills. It is recommended that after hiring new teachers in the university may arrange a training program for teachers such as on-site training, professional development training, and soft skills training. It is also recommended that senior teachers can train or guide new teachers.
- 7** To measure the contribution of support activities of support mechanism on teachers' research skills at higher education level. **Ho1c** There was no statistically significant contribution of support activities of support mechanism Regression (one-way relation) It was concluded that support activities had positive and having statistically significant effect on senior colleagues may support in article writing, co_supervision, and research paper review that can accelerate less

		on teachers' research skills at higher education level.		teachers' research skills	experienced teachers' research skills.
8	To measure the contribution of recognition activities of support mechanism on teachers' research skills at higher education level.	Ho1d There was no statistically significant contribution of recognition activities of support mechanism on teachers' research skills at higher education level.	Regression (one-way relation)	It was concluded that recognition activities had positive and having statistically significant effect on teachers' research skills.	It is recommended that the university administration may acknowledge teachers through formal and informal recognition such as certificates, appreciation letters, teacher of the month, teacher of the year.
9	To measure the contribution of community activities of support mechanism on teachers' research skills at higher education level.	Ho1e There was no statistically significant contribution of community activities of	Regression (one-way relation)	It was concluded that community activities had positive and having statistically	It is recommended for community activities university management or department may arrange

support
mechanism
on teachers'
research
skills at
higher
education
level.

significant community
effect on activities such as
teachers' annual day,
research orientation,
skills. informal meetings
and entertainment
clubs to formalize
the new teachers
with members of
the other
departments and
universities.

5.9 Limitation

1. Firstly due to limitation of time and cost study was limited to Islamabad only.
2. Secondly the study population was small so this study can only be generalized to those universities located in Islamabad.

References

- Adedokun, O. A., Bessenbacher, A. B., & Parker, L. C. (2013). Research skills and STEM undergraduate research students' aspirations for research careers: Mediating effects of research self-efficacy. *Journal of Research in Science Teaching*, 50(8), 940-951. Retrieved on September, 10, 2021
- Adedokun, O. A., Bessenbacher, A. B., Parker, L. C., & Kirkham, L. L. (2013). Research skills and STEM undergraduate research students' aspirations for research careers: Mediating effects of research self-efficacy. *Journal of Research in Science Teaching*, 50(8), 940-951.
- Allen, T. D., Eby, L. T., Poteet, M. L., & Lentz, E. (2004). Career Benefits Associated with Mentoring for Protégés: A Meta-analysis". *Journal of Applied Psychology*, 89(01), 127–36.
- Allison, B., Hilton, A., O'Sullivan, T., & Owen, A. (2016). Research skills for students. *Routledge*.
- Ancaster, S., & Di Milia, L. (2015). Developing a supportive learning environment in a newly formed organisation. *Journal of Workplace Learning*.
- Alwafi, E. M., Downey, C., & Kinchin, G. (2020). Promoting pre-service teachers' engagement in an online professional learning community: Support from practitioners. *Journal of Professional Capital and Community*.
- Anderson, Bowels, Daddey, & Ruttan, S. (2015). *JIBC Student Research Skills Development Framework*. Justice Institute of British Columbia.
- Anderson, G., Bowles, R., Daddey, F., & Ruttan, S. (2015). JIBC Student Research Skills Development Framework. British Columbia, Canada: *Justice Institute of British Columbia*.
- Anderson, T. (2004). *Towards a theory of online learning*. *Theory and practice of online learning*, 2.
- Andrew, B., & Quinn, R. J. (2004). The struggles of first-year teachers: Investigating support mechanisms. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 77(04), 164-168.
- Anitha, J. (2014). Determinants of employee engagement and their impact on employee performance. *International journal of productivity and performance management*.
- Avdjieva, M., & Wilson, M. (2002). Exploring the development of quality in higher education. *Managing Service Quality: An International Journal*.

- Bandaranaike, & Suniti. (2018). From Research Skill Development to Work Skill Development,. *Journal of University Teaching & Learning Practice*, 15(4).
- Bedarkar, M., & Pandita, D. (2014). A study on the drivers of employee engagement impacting employee performance. *Procedia-Social and Behavioral Sciences*(133), 106-115.
- Berkes, F. (2007). Innovating through commons use: community-based enterprises. *International Journal of the Commons*,. 4(1).
- Bound, J., Turner, S., & Walsh, P. (2009). Internationalization of US doctorate education (No. w14792). *National Bureau of Economic Research*.
- Boyd, G. (2005). Mechanisms for organisation that best serve the poor. Power Tools Series. London, IIED. www.policy-power-tools.org.
- Boynton, P. M., Shaw, S., & Greenhalgh, T. (2005). Research governance: where did it come from, what does it mean?.98(11),. *Journal of the Royal Society of Medicine*,, 496-502.
- Brown, Geesa, & McConnel. (2020.). Creating, Implementing, and Redefining a Conceptual Framework for Mentoring Pathways for Education Doctorate Students. 10(3), 3.
- Brown, R. D. ((2020)). Creating, Implementing, and Redefining a Conceptual Framework for Mentoring Pathways for Education Doctorate Students. , . 10(2).
- Buddhapriya, S. (2017). Mentoring experiences: a study of Indian public sector professionals. *Indian Journal of Industrial Relations*,, 52(04), 689-705.
- Castro, A. J., Kelly, J., & Shih, M. (2010). Resilience strategies for new teachers in high-needs areas. *Teaching and Teacher Education*,, 26(3), 622-629.
- Chang, M. C., Shaeffer, S., Al-Samarrai, S., Ragatz, A. B., De, R. J., & Stevenson, R. (2013). Teacher reform in Indonesia The role of politics and evidence in policy making. *The World Bank*.
- Chattopadhyay. (2014). Learner support services in open distance learning system: case study on IGNOU.
- Chen , W., & Rovegno, L. (2000). Examination of expert and novice teachers' constructivist-oriented teaching practice using a movement approach to elementary physical education, *Research Quarterly for Exercise and Sport*, 71,. 357-372.

- Chung, M., Kelliher, M., & Smith, W. (2006). Managing academic support for international students: The appropriateness of a learning support unit in an Australian tertiary institution. *ISANA International Education Association Inc.*, 1-27.
- Claudia, A. (2016). *researchgate*. Retrieved 09 09, 2021, from *researchgate*: <https://www.researchgate.net/post/What-conditions-justify-studying-the-entire-population-instead-of-selecting-a-sample>
- Colbeck, C., Massy, W., & Wilger, A. K. (1994). Departmental cultures and teaching quality: Overcoming “hollowed” collegiality. *Change: The Magazine of Higher Learning*, 26(4), 11-20.
- collins. (2020). Retrieved 02 06, 2021, from <https://www.collinsdictionary.com/dictionary/english/support-mechanism>
- Connor, J. O., Pollard, Y., Roche, A. M., Skinner, N., & Todd, C. (2005). Workforce Development TIPS (Theory Into Practice Strategies): A Resource Kit for the Alcohol and Other. *National Centre for Education and Training on Addiction (NCETA), Flinders University*.
- Couture, Gerke , & Knievel. (2020). Getting into the club: existence and availability of mentoring for tenured librarians in academic Libraries. *College & Research Libraries*, 81(4), 676.
- Crawford, Randolph, & Yob. (2014). Theoretical development, factorial validity, and reliability of the online graduate mentoring scale. *Mentoring & Tutoring: Partnership in Learning*, 22(1), 20-37.
- Cuckle, P., & Clarke, S. (2002). Mentoring student-teachers in schools: views, practices and access to ICT. *Journal of Computer assisted learning*, 18(3), 330-340.
- Darling-Hammond, L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational leadership*, 60(8), 6-13.
- David, F. F., James, P., Briana, E. T., Michelle , A. M., Melissa , H., Denise, S., et al. (2011). Graduate Students' Teaching Experiences Improve Their Methodological Research Skills. *science*, 333(6045), 1037-1039. Demirtas (2010). Teachers’ job satisfaction levels. *Procedia-Social and Behavioral Sciences*, 9, 1069-1073.
- Devine, T. G. (1987). Teaching study skills. A guide for teachers. Allyn and Bacon, Longwood Division, 7 Wells Avenue, Newton, MA 02159

- Di, M. L., & Lancaster, S. (2015). Developing a supportive learning environment in a newly formed organisation. *Journal of Workplace Learning*.
- Dimiri, A. K. (2015). Mechanism of F2F student support in open and distance learning system. *Indian experience. Turkish Online Journal of Distance Education*, 16(3), 61-73.
- Dodani, S., & LaPorte, R. (2008). Ways to strengthen research capacity in developing countries: Effectiveness of a research training workshop in Pakistan, Public Health. 122,. *Journal of the Royal Institute of Public Health*,, 122, 578 – 587.
- Dresner, M., & Worley, E. (2006). Teacher research experiences, partnerships with scientists, and teacher networks sustaining factors from professional development, 17(1),. *Journal of Science Teacher Education*, 17(1), 1-14.
- Eisenberger, R., & Stinglhamber, F. (2011). *Perceived organizational support: Fostering enthusiastic and productive employees*. American Psychological Association.
- Elliott, T.A. (2000). Guidelines for mentor teacher programmes for beginning and experienced teachers. Richmond, VA: Division of Teacher Education and Licensure, Department of Education
- Erkens, G., Jaspers, J., Schaaf, M., & Stokking, k. (2004). Teachers' assessment of students' research skills. *British Educational Research Journal*, 30(1), 93-116.
- Epstein, J. L. (2018). School, family, and community partnerships in teachers' professional work. *Journal of Education for Teaching*, 44(3), 397-406
- Given, Partridge, & Howard (2022). Supporting collaborative research in information science: The RADAR program as a model for academic-practitioner team engagement. *Library & Information Science Research*, 44(2), 101152
- Evans, I. M., Harvey, S. T., Buckley, L., & Yan, E. (2009). Differentiating classroom climate concepts: Academic, management, and emotional environments. *New Zealand Journal of Social Sciences Online*,.
- Fantili, R. D., & McDougall, D. E. (2009). .A study of novice teachers: Challenges and supports in the first years. *Teaching and Teacher Education*, 25, 814–825.
- Farooq, M. S. (2011). Factors affecting students' quality of academic performance: a case of secondary school level. *Journal of quality and technology management*,, 7(2), 1-14.

- Feiman-Nemser, S., Schwille, S., Carver, C., & Yus. (1996). *A Conceptual Review of Literature on New Teacher Induction*. Retrieved 06 06, 2021, from https://scholar.google.com/scholar_
- Fluke, S., Connor, O. A., Strawhun, J., & Peterson. (2014). Academic Supports and Tutoring, Strategy Brief.
- Galway. (2021). NUI Galway., Reading and Research Skills, <https://www.nuigalway.ie/academic-skills/readingandresearch/>.
- Ganser, T. (2006). A status report on teacher mentoring programmes in the United States. *Mentoring in education: An international perspective*, 33-55.
- Garvis, S., Keogh, J., & Pendergast, D. (2010). Plugging the leaky bucket: The need to develop resilience in novice middle years teachers. *Primary & Middle Years Educator*, 8(2), 17-26.
- Gibbas. (1995). The relationship between quality in research and quality in teaching. *Quality in Higher Education*, 1(2), 145-157.
- Gibbs, G. (1995). The relationship between quality in research and quality in teaching. *Quality in Higher Education*, 1(2), 147-157.
- Gibbs, G., Jenkins, A., & Alan, J. (1992). *Teaching large classes in higher education: How to maintain quality with reduced resources*. Psychology Press.
- Gilmore, J., & Feldon, D. (2010). Measuring Graduate Students' Teaching and Research Skills through Self-Report: Descriptive Findings and Validity Evidence.
- Guillen, L., & Zeichner, K. (2018). A university-community partnership in teacher education from the perspectives of community-based teacher educators. *Journal of Teacher Education*, 69(2), 140-153
- Hammod, D. (2000). Teacher quality and student achievement: a review of state policy evidence. *Educational Policy Analysis Archive*, 8(1).
- Hanaysha, J. (2016). Examining the effects of employee empowerment, teamwork, and employee training on organizational commitment. *Procedia-Social and Behavioral Sciences*, 298-306.
- Harslett, M., Harrison, B., Godfrey, J., Partington, G., & Richer, K. (2000). Teacher perceptions of the characteristics of effective teachers of Aboriginal middle school students. *Australian Journal of Teacher Education*, 25(2), 4.

- Henson, R. K. (2001). The effects of participation in teacher research on teacher efficacy. *Teaching and Teacher education*, 17(7), 819-836.
- Heyns and Nixon (2020) Designing a mentoring program for faculty librarians. *IFLA journal*, 46(3), 197-206
- Hidayah, S. N. (2016). Mentoring novice secondary teachers as an alternative training program: a case study of a secondary school in Indonesia,. *Doctor of Education thesis, School of Education, University of Wollongong, .*
- Hidayah, S. N. (2016). Mentoring novice secondary teachers as an alternative training program: a case study of a secondary school in Indonesia,.
- Hidayah, S. N. (2016). Mentoring novice secondary teachers as an alternative training program: a case study of a secondary school in Indonesia,.
- Holt, L. C. (2006). *Instructional patterns: Strategies for maximizing student learning*. Sage.
- Hong, Z. R., Lin, H. S., Lee, L. ., & Yang, . K. (2020). Supportive conditions and mechanisms of teachers' professional development on inquiry-based science teaching through a learning community. *Research in Science & Technological Education*, 1-22.
- House, J. S., Umberson, D., & Landis, K. S. (1988). . Structures and processes of social support. *Annual review of sociology*, 14(1), 293-318.
- House, J. S., Umberson, D., & Landis, K. R. (1988). Structures and processes of social support. *Annual review of sociology*. 14(1), 293-318.
- Hu, c., wang, s., Yang, C. C., & Wu, T. Y. (2014). When mentors feel supported: Relationships with mentoring functions and protégés' perceived organizational support. 1(35), 22-37.
- Hudson, P. (2012). How can schools support beginning teachers? A call for timely induction and mentoring for effective teaching. *Australian Journal of Teacher Education*, 37(7), 6.
- Ibáñez , G. A., Gallego , Á. T., García, R. M., Guillén , M. V., Tomé , M. D., & Castro Zamudio, S. (2020.). University Mentoring Programmes for Gifted High School Students. *Satisfaction of Workshops. Sustainability*, 12(13), 52-82.
- Ibáñez García, A. G. (2020). University Mentoring Programmes for Gifted High School Students. *Satisfaction of Workshops. Sustainability*, 12(13), 52-82.

- Independent-and-dependent-variable. (2021, 05 25). Retrieved 05 25, 2021, from <https://www.scribbr.com/methodology/independent-and-dependent-variables/#:~:text=In%20research%2C%20variables%20are%20any,one%20variable%20on%20another%20one.>
- Ingersoll, R. R., & Kralik, J. M. (2004). The impact of mentoring on teacher retention: What the research says.
- Jacobi, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of educational research*, 61(4), 505-532.
- Joi, L. M., & Sara, A. M. (2015). Social Community: A Mechanism to Explain the Success of STEM Minority Mentoring Programs, *Mentoring & Tutoring: Partnership in Learning*,.
- Jez, R. J., & Luneta, K. (2018). Effective teacher training on inclusive practices: Using needs and interests to design professional development and follow-up support in South Africa. *Asian Journal of Inclusive Education*, 6(1), 22-47.
- Kram, K. and Isabella, L. (1985), "Alternatives to mentoring", *Academy of Management Journal*, Vol. 28 No. 1
- Kapur, & Radika. (2019). Management of Academic Support Mechanism.
- Kardash, C. (2000). Evaluation of an under graduated research experience: Perceptions of undergraduate interns and their faculty mentors. . *Journal of Educational Psychology*,, 92(1), 191 – 201.
- Kelly, N., Russell, N., Kickbusch, S., Barros, A., Dawes, L., & Rasmussen, R. (2018). Online communities of teachers to support situational knowledge: A design-based study. *Australasian Journal of Educational Technology*, 34(5).
- Khasawneh, M. A. S. (2021). The level of morale among teachers of learning disabilities in English language in Irbid, Jordan. *Science and Education*, 2(10), 266-275.
- Kaur, S. (2019). Appraisal mechanism of B. Ed. Colleges of Panjab University: An analysis. *Asian Journal of Multidimensional Research (AJMR)*, 8(2), 372-385
- Klassen, , Aldhafri, Mansfield, Purwanto , Siu, Wong, et al. (2012). Teachers' engagement at work: An international validation study. . *The Journal of Experimental Education*, , 80(04), 317-337.

- Koballa, T. R., Bradbury, L. U., Glynn, S. M., & Deaton, C. M. (2008). Conceptions of science teacher mentoring and mentoring practice in an alternative certification program. *Journal of Science Teacher Education, 19*(4).
- Kuyper-Rushing, L. (2001). A formal mentoring program in a university library: Components of a successful experiment. *The Journal of Academic Librarianship, 27*(6), 440-446.
- Ladd, H. F. (2007). Teacher labour markets in developed countries. ,. *The Future of Children, 17*(1), 201–217.
- Liakopoulou, M. (2011). The Professional Competence of Teachers: Which qualities, attitudes, skills and knowledge contribute to a teacher's effectiveness. *International Journal of Humanities and Social Science, 1*(21), 66-78.
- Liakopoulou, M. (2011). The Professional Competence of Teachers: Which qualities, attitudes, skills and knowledge contribute to a teacher's effectiveness. *International Journal of Humanities and Social Science,, 1*(21), 66-78.
- Liakopoulou, M. (2011). The Professional Competence of Teachers: Which qualities, attitudes, skills and knowledge contribute to a teacher's effectiveness. *International Journal of Humanities and Social Science,, 66-78.*
- Lorenzetti, D. L., & Powelson, S. E. (2015). A scoping review of mentoring programs for academic librarians. *The Journal of Academic Librarianship, 41*(2), 186-196.
- Lovat, Davies , & Plotnikoff. (1995). Integrating research skills development in teacher education. *Australian Journal of Teacher Education, 20*(1), 4.
- Lucas, S., Oliveira, I., & Oliveira, G. (2017). Support Mechanism. <https://scholar.google.com/scholar.com>
- Makar. (2007). 'Connection levers': Developing teachers expertise with mathematical inquiry. *Mathematics Education Research Group of Australasia (MERGA). Mathematics.*
- Marsh, H. W., & Hau, K. T. (2003). Big-Fish--Little-Pond effect on academic self-concept: A cross-cultural (26-country) test of the negative effects of academically selective schools. *merican psychologist, , 58*(4), 364.

- Marshal, & Farrell. (2015). How leaders can support teachers with data-driven decision making: A framework for understanding capacity building. *Educational Management Administration & Leadership*, 43(2), 269-289.
- Marta , R. C., Neus , N., Ferran, P., & Toni , C. (2018). The different impact of a structured peer-assessment task in relation to university. *Assessment & Evaluation in Higher Education*.
- Mathsinquiry.(2021). Retrieved from <https://www.mathsinquiry.com/research/connection-levers-support-mechanisms-for-teachers-teaching-mathematics-through-inquiry>
- Meerah. (2012). Developing an instrument to measure research skills. *Procedia-Social and Behavioral Sciences*, 60, 630-636.
- Meerah, T. S. M., & Arsad, N. M. (2010). Developing research skills at secondary school. *Procedia-Social and Behavioral Sciences*, 9, 512-516.
- Meerah, T. S., Osman, K., Zakaria, E., khsan, Z. H., Krish, Lian, et al. (2012). Measuring graduate students research skills. *Procedia-Social and Behavioral Sciences*, 626-629.
- Mentoring-definitions. (2020). Retrieved 11 17, 2020, from <https://www.trainingjournal.com/blog/16-mentoring-definitions>.
- Mensah, R. O., Agyemang, F., Acquah, A., Babah, P. A., & Dontoh, J. (2020). Discourses on Conceptual and Theoretical Frameworks in Research: Meaning and Implications for Researchers. *Journal of African Interdisciplinary Studies*, 4(5), 53-64
- Messiou, K., & Azaola, M. C. (2018). A peer-mentoring scheme for immigrant students in English secondary schools: a support mechanism for promoting inclusion? *International Journal of Inclusive Education*, 22(2), 142-157
- Morris, A. K. (2006). Assessing pre-service teachers' skills for analyzing teaching. *Journal of Mathematics Teacher Education*, 9(5), 471-505
- Murtonen. (2005). University student's research orientations: Do negative attitudes exist toward quantitative methods? *Scandinavian Journal of Educational Research*, 49(3), 263 – 280.
- Murtonen, M., & Lehtinen, E. (2005). Conceptions of research and methodology learning.
- Ngang, T. K., Hong, C. S., & Chanya, A. (2014). Collective work of novice teachers in changing teaching practices. 116,. *Procedia-Social and Behavioral Sciences*,(116), 536-540.
- Nankivell, C., & Shoolbred, M. (1997). Mentoring in library and information services: A literature review and report on recent research.

- O'Sullivan, M. K. (2010). A collaborative approach to implementing 21st century skills in a high school senior research class.,. *Education Libraries*, 33(1), 3-9.
- Osif, B. A. (2008). Successful mentoring programs: Examples from within and without the academy. *Journal of Business & Finance Librarianship*, 13(3), 335-347
- Petersen, L. K. (2006). Mentoring as a support mechanism for teaching practice by teachers in Higher Education.
- Petersen, L. K. (2006). Mentoring as a support mechanism for teaching practice by teachers in Higher Education.
- Petersen, L. K. (2011). Implementing a support mechanism through mentoring for teaching practice by academic teaching staff in the higher education context .
- Petersen, L. K. (January 1996). MENTORING AS A SUPPORT MECHANISM FOR TEACHING PRACTICE BY TEACHERS IN HIGHER EDUCATION.
- Peterson.L, K. (2007). Mentoring as a support mechanism for teaching practice by teachers in higher education. *In Australian Association of Research in Education (AARE) Conference* , (pp. 25-29). Fremantle.
- Poom, V. K. (2014). Novice teachers' professional development during the induction year. *Procedia-Social and Behavioral Sciences*,, 764-774.
- Powers, D. E., & Enright, M. K. (1987). Analytical reasoning skills in graduate study: Perceptions of faculty in six fields. *The Journal of Higher Education*, 58(06), 658-682.
- Posner, B. (2021). Mentoring in the Library. *Biblioteka i Edukacja*, (20), 15-21
- Pitton, D. E. (2006). *Mentoring novice teachers* (2nd ed.). Thousand Oaks, CA: Corwin Press
- Prosourcing. (2021, 05 25). Retrieved 05 25, 2021, from <https://prosourcing.co.za/how-to-support-employees-in-the-workplace/>
- Protogerou, C., & Hagger, M. S. (2020). A checklist to assess the quality of survey studies in psychology. *Methods in Psychology*, 3, 100031.
- Questionpro. (2021, 05 25). Retrieved 05 25, 2021, from <https://www.questionpro.com/blog/research-design/>
- Quinn,, J. R., & Andrews, B. A. (2004). The struggles of first-year teachers: Investigating support mechanisms. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*. 77(4), 164-168.

- Raffedali, (2021), Retrieved 5 12, 2022, from <https://tophat.com/catalog/social-science/education/course-notes/oer-research-population-and-sample-dr-rafeedalie/1196/preview/58b0f527-2b97-5d4a-9915-9ff8c3b405ca/>
- Rudduck, J. (1985). Teacher research and research-based teacher education. *Journal of education for teaching*. 11, 281-289.
- Rowbotham, J. I. L. L. (2021). Recognition for university teachers takes a \$600 k federal budget cut. *The Australian*. Retrieved September, 10, 2021
- Salinitri, F. D., Lobkovich, A. M., Crabtree, B. L., & Wilhelm, S. M. (2019). Reliability and validity of a checklist to evaluate student performance in a problem-based learning group. *American journal of pharmaceutical education*, 83(8)
- Seniorsecondary. (2021). Retrieved 04 01, 2021, from <https://seniorsecondary.tki.org.nz/Social-sciences/Education-for-sustainability/Pedagogy/Four-mechanisms-learning-in-the-social-sciences 01/04/2021>
- Sequeira, A. H. (2012, september). Introduction to concepts of teaching and learning.
- Shaobing, L., Joel , R. M., & Donald, G. H. (2018). Mentoring supports and mentoring across difference: insights from mentees, *Mentoring & Tutoring: Partnership in Learning*.
- Shelton, C.K. (1982), "The relationship of mentoring and behavioral style to selected job success variables", unpublished doctoral dissertation, Northern Illinois
- Stephanie, Johnson, Gary and Orlando (1990), The mentoring model theory: dimensions mentoring protocols", *Career Development International*, Vol. 4 Iss 7 pp. 384 - 391
- Stephens, J., Sare, L., Kimball, R., Foster, M., & Kitchens, J. (2011). Tenure support mechanisms provided by the Faculty Research Committee at Texas A&M University Libraries: A model for academic libraries. *Library Management*
- Stokking , Schaaf, J. Jaspers, & G. Erkens. (2004). Teachers' assessment of students' research skills. *British Educational Research Journal*,, 30(1), 93-116.
- Strayhorn, T. L. (2010). Undergraduate research participation and STEM graduate degree aspirations among students of color. *New Directions for Institutional Research*,, 2010(148), 85-93.

- Stephanie K. Johnson Gary D. Geroy Orlando V. Griego, (1999), "The mentoring model theory: dimensions in mentoring protocols", *Career Development International*, Vol. 4 Iss 7 pp. 384 - 391
- Sullivan, M. K., & Dallas, K. B. (2010). A collaborative approach to implementing 21st century skills in a high school senior research class. *Education Libraries*, 33(1), 3-9.
- Sweeney. (1992, 1 15). Realizing the full potential of mentoring. *The mentoring leadership and resource network*.
- Sweitzer, V. (2009). Towards a theory of doctoral student professional identity development: A developmental networks approach. *The Journal of Higher Education*, 80(1), 1-33.
- Thomm, E., Sälzer, C., Prenzel, M., & Bauer, J. (2021). Predictors of teachers' appreciation of evidence-based practice and educational research findings. *Zeitschrift für Pädagogische Psychologie*, 35(2-3), 173-184
- Toffel, M. W. (2016). Enhancing the practical relevance of research. *Production and Operations Management*, 25(9), 1493-1505.
- Tophat. (2021). Retrieved from <https://tophat.com/marketplace/social-science/education/course-notes/oer-research-population-and-sample-dr-afeedalie/1196/#:~:text=In%20research%20terminology%20the%20Population,instituti ons%2C%20objects%20and%20so%20forth>.
- Tschannen, M. M., & Woolfolk Hoy, A. (2006). The influence of resources and support on teachers' efficacy beliefs. *American Educational Research Association, New Orleans, LA*.
- Tschannen-Moran, Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of educational research*, 68(2), 202-248.
- University, M. (2020, 11 17). *Monash University Library*. Retrieved from <https://www.monash.edu/library/skills/rsd>. retrieved on
- Vitae (2010). Researcher Development Framework, the Careers Research and Advisory Centre (CRAC). <http://www.vitae.ac.uk/CMS/files/upload/Vitae-Researcher-Development-Framework.pdf>
- Wang, J., Odell, S. J., & Schwille, S. A. (2008). Effects of teacher induction on beginning teachers' teaching: A critical review of the literature. *Journal of teacher education*, 59(2), 132-152.

- West, & Andrew. (2016). A Framework for Conceptualizing Models of Mentoring in Educational Settings ., *International Journal of Leadership and Change*, 4(1).
- Wilten, W. W. (1991). Questioning skills, for teachers. What research says to the teacher?Willison , D. J. (2018). Research skill development spanning higher education: critiques, curricula and connections. *Journal of University Teaching & Learning Practice*,, 15(4), 1.
- Willison, J., & O'Regan, K. (2007). Commonly known, commonly not known, totally unknown: a framework for students becoming researchers. *Higher Education Research & Development* , 26(4), 393-409.
- Woodd, M. (1997), "Mentoring in further and higher education: learning from the literature", *Education + Training*, Vol. 39 No. 9, pp. 333-343. <https://doi.org/10.1108/00400919710192368>
- Yang.K., K. Z. (2020). . "Supportive conditions and mechanisms of teachers' professional development on inquiry-based science teaching through a learning community. " *Research in Science & Technological Education*, 1-22.
- Zahida. (2019). *Effect of Supervisory practices on attitude academic satisfaction, and research skills of the students*.
- Zeb, A., Jamal, W., & Ali, M. (2015). Reward and Recognition Priorities of Public Sector Universities' Teachers for their Motivation and Job Satisfaction. *Journal of Managerial Sciences*, 9(2)

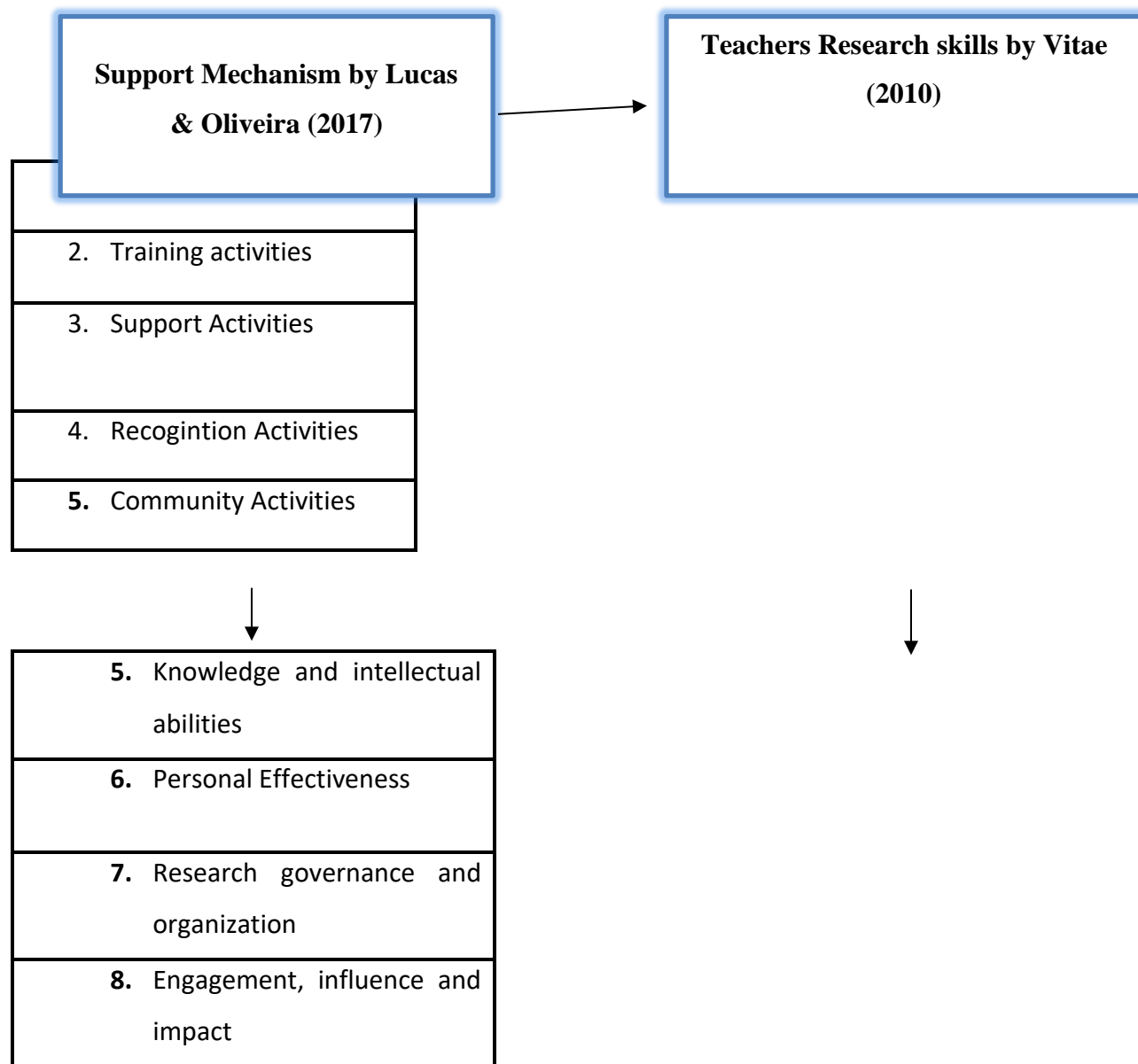
Appendices**Theoretical Framework**

Fig. 1 Theoretical Framework of Study

Appendix B



NATIONAL UNIVERSITY OF MODERN LANGUAGES
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF EDUCATION

M.L.1-3/Edu/2021

Dated: 02-07-2021

To: Kiran Ijaz,
1784/MPhil/Edu/F-19

Subject: **APPROVAL OF M.PHIL THESIS TOPIC, AND SUPERVISOR**

1. Reference to Letter No, M.L.1-3/Edu/2021/, dated 16-02-2021, the Higher Authority has approved the topic and supervisor on the recommendation of Faculty Board of Studies vide its meeting held on 11 February 2021 & Board of Advanced Studies and Research dated 02-05-2021

a. **Supervisor's Name & Designation**

Dr. Qurat Ul Ain Hina,
Assistant Professor,
Department of Education NUML, Islamabad.

b. **Topic of Thesis**

Analysis of Support Mechanism for Teachers' Research Skills at Higher Education Level

2. You may carry out research on the given topic under the guidance of your Supervisor and submitted the thesis for further evaluation within the stipulated time. It is to inform you that your thesis should be submitted within described period by 31st July 2022 positively for further necessary action please.

3. As per policy of NUML, all MPhil/PhD Thesis is to be run on turnitin by QEC of NUML before being sent for evaluation. The university shall not take any responsibility for high similarity resulting due to thesis run from own sources.

4. Thesis is to be prepared strictly on NUML's format that can be taken from Coordinator, Department of Education

Telephone No: 051-9265100-110 Ext: 2090

E-mail: hod-edu@numl.edu.pk

[Signature]
Dr. Wajeeha Shahid

Head,
Department of Education

CC:

Dr. Qurat Ul Ain Hina

Ms. Kiran Ijaz



DEPARTMENT OF EDUCATION
FACULTY OF SOCIAL SCIENCES
National University of Modern Languages
Sector H-9, Islamabad
Tel.No: 051-9265100 Ext: 2090

ML1-5/2017-Edu

Dated: 14-09-2021

WHOM SO EVER IT MAY CONCERN

Ms. Kiran Ejaz D/O Ejaz Hussain, student of M.Phil (Edu) Department of Education
National University of Modern Languages Islamabad is engaged in project of Research Work.

She may please be allowed to visit your Institution to obtain the required information for
her Research Work.

This information shall not be divulged to any unauthorized person or agency. It shall be
kept confidential.

EDU 828



Dr Wajeeda Shahid
Head,
Department of Education.

~~kept confidential~~
Dr. Sumariya Chughtai
Students Advisor
Female Campus
International Islamic University
Islamabad

Received with a request to
facilitate the study.

- Chairperson Psychology
- Chairperson Anthropology
- Chairperson Education
- Chairperson Sociology
- Chairperson History
- Chairperson IR & Political Science
- Chairperson Media & Communication

Cover Letter for Validity Certificate
Analysis of Support Mechanism for Teachers' Research Skills at Higher
Education Level



Subject: Request for validity certificate

Respected Sir/Madam

I have attached my questionnaire self-developed for the purpose of research titled as “Analysis of support mechanism for teachers’ research skills at higher education level of education”. The Teachers Support Mechanism Scale (TSMS) is based on the model of support mechanism presented by Lucas, Oliveira, Oliveira, (2017). It is categorized into Engagement Activities, Training activities, Support Activities, Recognition Activities, Community Activities. The Teacher’s Research Skills Scale (TRSS) is based on the framework of Vitea (2010). It is categorized into Knowledge and intellectual abilities, Personal Effectiveness, Research governance and organization, Engagement, influence and impact.

Kindly check my questionnaires its content and face validity. Provided your valuable suggestion for its improvement and certify its validity by filling the certificate attached at the end of the document.

Kiran Ejaz

M.Phil Scholar, Department of Educational Sciences,

National University of Modern Languages,

Islamabad Pakistan

CERTIFICATE FOR TOOL VALIDATION



Teachers' Support Mechanism Scale (TSMS)

For The Research Entitled As

ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS' RESEARCH SKILLS AT
HIGHER EDUCATION LEVEL

By

Miss. Kiran Ejaz

M.Phil Scholar, Department of Educational Sciences, Faculty of Social Sciences, National
University of Modern Languages (NUML), H-9, Islamabad, Pakistan

This is certifying that the questionnaire developed by the scholar towards her thesis has been assessed by me and in find it that has been designed adequately to assess the teacher support mechanism scale based on five section i.e. engagement activities, traning activities, support activities , recogintion activities, community activities.

It is considered that the research instrument, developed for research for analysis of support mechanism for teachers' research skills at higher education level is according to the objectives of the research, assure adequate face and content validity according to the purpose of research, and can be used for data collection by the researcher with fair amount of confidence.

Name _____

Designation _____

Institute _____

Signature _____

Date _____

CERTIFICATE FOR TOOL VALIDATION



TEACHERS' RESEARCH SKILLS SCALE (TRSS)

For The Research Entitled As

ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS' RESEARCH SKILLS AT
HIGHER EDUCATION LEVEL

By

Miss. Kiran Ejaz

M.Phil Scholar, Department of Educational Sciences, Faculty of Social Sciences, National
University of Modern Languages (NUML), H-9, Islamabad, Pakistan

This is certifying that the questionnaire developed by the scholar towards her thesis has been assessed by me and in find it that has been designed adequately to assess the teacher support mechanism scale based on four section i.e. knowledge and intellectual abilities, personal effectiveness, research governance and organization and engagement, influence and impact.

It is considered that the research instrument, developed for research for analysis of support mechanism for teachers' research skills at higher education level is according to the objectives of the research, assure adequate face and content validity according to the purpose of research, and can be used for data collection by the researcher with fair amount of confidence.

Name _____

Designation _____

Institute _____

Signature _____

Date _____

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Teachers Support Mechanism Scale (TSMS)

For The Research Entitled As
ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS' RESEARCH SKILLS AT
HIGHER EDUCATION LEVEL

By

Miss. Kiran Ejaz

M.Phil Scholar, Department of Education, Faculty of Social Sciences, National University of
Modern Languages (NUML), H-9, Islamabad, Pakistan

This is certifying that the questionnaire developed by the scholar towards her thesis has been assessed by me and find it that has been designed adequately to assess the teacher support mechanism scale based on five section i.e. engagement activities, training activities, support activities, recognition activities, community activities.

It is considered that the research instrument, developed for research for the analysis of support mechanism at higher education level is according to the objectives of the research; assure adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name DR. SHAZIA ZAMIR

Designation Assistant Professor

Institute NUML

Signature Shazia

Date 3-11-21

CERTIFICATE FOR TOOL VALIDATION



TEACHERS' RESEACH SKILLS SCALE (TRSS)

For The Research Entitled As
ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS' RESEARCH SKILLS AT
HIGHER EDUCATION LEVEL

By

Miss. Kiran Ejaz

M.Phil Scholar, Department of Education, Faculty of Social Sciences, National University of
Modern Languages (NUML), H-9, Islamabad, Pakistan

This is certifying that the questionnaire developed by the scholar towards her thesis has been assessed by me and find it that has been designed adequately to assess the teacher support mechanism scale based on four section i.e. knowledge and intellectual abilities, personal effectiveness, research governance and organization and engagement, influence and impact. It is considered that the research instrument, developed for research of the analysis of teachers' research skills at higher education level is according to the objectives of the research; assure adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name DR. SHAZIA ZAMIR

Designation Assistant Professor

Institute NUML

Signature Shazia

Date 3-11-21

CERTIFICATE FOR TOOL VALIDATION



Teachers Support Mechanism Scale (TSMS)

For The Research Entitled As
ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS' RESEARCH SKILLS AT
HIGHER EDUCATION LEVEL

pBy

Miss. Kiran Ejaz

M.Phil Scholar, Department of Education, Faculty of Social Sciences, National University of
Modern Languages (NUML), H-9, Islamabad, Pakistan

This is certifying that the questionnaire developed by the scholar towards her thesis has been assessed by me and in find it that has been designed adequately to assess the teacher support mechanism scale based on five section i.e. engagement activities, traning activities, support activities , recogintion activities, community activities.

It is considered that the research instrument, developed for research for analysis of support mechanism for teachers' research skills at higher education level is according to the objectives of the research, assure adequate construct and content validity according to the purpose of research, and can be used for data collection by the researcher with fair amount of confidence.

Name Dr. Saira Nudrat

Designation AP

Institute NUML

Signature *[Signature]*

Date 14-09-2021

CERTIFICATE FOR TOOL VALIDATION



TEACHERS' RESEARCH SKILLS SCALE (TRSS)

For The Research Entitled As
ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS' RESEARCH SKILLS AT
HIGHER EDUCATION LEVEL

By

Miss. Kiran Ejaz

M.Phil Scholar, Department of Education, Faculty of Social Sciences, National University of
Modern Languages (NUML), H-9, Islamabad, Pakistan

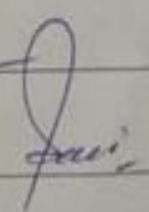
This is certifying that the questionnaire developed by the scholar towards her thesis has been assessed by me and find it that has been designed adequately to assess the teacher support mechanism scale based on four section i.e. knowledge and intellectual abilities; personal effectiveness, research governance and organization and engagement, influence and impact.

It is considered that the research instrument, developed for research of the analysis of teachers' research skills at higher education level is according to the objectives of the research; assure adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name Dr. Sara Nudrat

Designation AP

Institute NUML

Signature 

Date 14-09-2021

CERTIFICATE OF VALIDITY

Teachers Support Mechanism Scale (TSMS) & Teacher's Research Skills Scale (TRSS)



Analysis of Support Mechanism for Teachers' Research Skills at Higher Education Level

By Miss. Kiran Ejaz

M.Phil Scholar, Department of Education, Faculty of Social Sciences

National University of Modern Languages (NUML), H-9, Islamabad, Pakistan

This is certifying that the questionnaire developed by the scholar towards her thesis has been assessed by me and I find it to have been designed adequately for analysis of support mechanism for teachers' research skills at higher education level based on two scale one is support mechanism for teachers based on Engagement Activities, Training activities, Support Activities, Recognition Activities, Community Activities. Second tool based on Knowledge and intellectual abilities, Personal Effectiveness, Research governance and organisation, Engagement, influence and impact.

Responses thus collected will aid treatment of the subject in a scientific manner. It is considered that the research instrument, developed for research above-titled, is according to the objectives and hypothesis of the research, assume adequate construct and content validity according to the purpose of research, and can be used for data collection by the researcher with fair amount of confidence.

Name Dr. Farukhander Tabassum
 Designation Assistant Professor
 Institute NUML Islamabad
 Signature Farukhander
 Date 11/07/21

CERTIFICATE OF VALIDITY

Teachers Support Mechanism Scale (TSMS) & Teacher's Research Skills Scale (TRSS)



Analysis of Support Mechanism for Teachers' Research Skills at Higher Education Level

By Miss. Kiran Ejaz

M.Phil Scholar, Department of Education, Faculty of Social Sciences

National University of Modern Languages (NUML), H-9, Islamabad, Pakistan

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Name Dr. Inam BadshahDesignation Assistant ProfessorInstitute Quaid-i-Azam University, IslamabadSignature [Handwritten Signature]Date 26-07-2021

VALIDITY CERTIFICATE

This Survey based Questionnaire is designed for research titled ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS RESEACH SKILLS AT HIGHER EDUCATION LEVEL, it is certified that instrument is valid and can be used for the conduction of study mentioned with minor changes.



Name: Dr. Nisbat Ali Malik

Designation: Assistant Professor (MS)

Institution: National University of Modern Languages

List of Experts for Tool Validation

Name Of Expert	University
Dr.Shazia Zamir	Department of Educational Sciences, NUML Islamabad
Dr.Sira Nudrat	Department of Educational Sciences, NUML Islamabad
Dr.Farkhanda	Department of Educational Sciences, NUML Islamabad
Dr.Ikram Badshah	Quaid Azam University
Dr.Nisbat Ali Malik	Education Department, NUML Islamabad

List of Universities

HEC Recognized Universities and Degree Awarding Institutions in Islamabad

Name	Sector	Chartered By	Discipline	Province	City
Air University	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Allama Iqbal Open University	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Bahria University	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
COMSATS Institute of Information Technology	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Federal Urdu University of Arts, Sciences & Technology	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Institute of Space Technology	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
International Islamic University	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
National Defense University	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
National University of Modern Languages	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
National University of Sciences & Technology	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
National University of Technology (NUTECH), Islamabad	Public	Government of Pakistan	Engineering & Technology	Islamabad Capital Territory	Islamabad
Pakistan Institute of Development Economics (PIDE)	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Pakistan Institute of Engineering & Applied Sciences	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Quaid-i-Azam University	Public	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Shaheed Zulfqar Ali Bhutto Medical University	Public	Government of Pakistan	Medical	Islamabad Capital Territory	Islamabad

Capital University of Science & Technology	Private	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Foundation University, Islamabad	Private	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Muslim Youth University	Private	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
National University of Computer & Emerging Sciences	Private	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Riphah International University	Private	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Shifa Tameer-e-Millat University	Private	Government of Pakistan	General	Islamabad Capital Territory	Islamabad
Sir Syed (CASE) Institute of Technology, Islamabad	Private	Government of Pakistan	General	Islamabad Capital Territory	Islamabad

Faculty of NUST Social Science

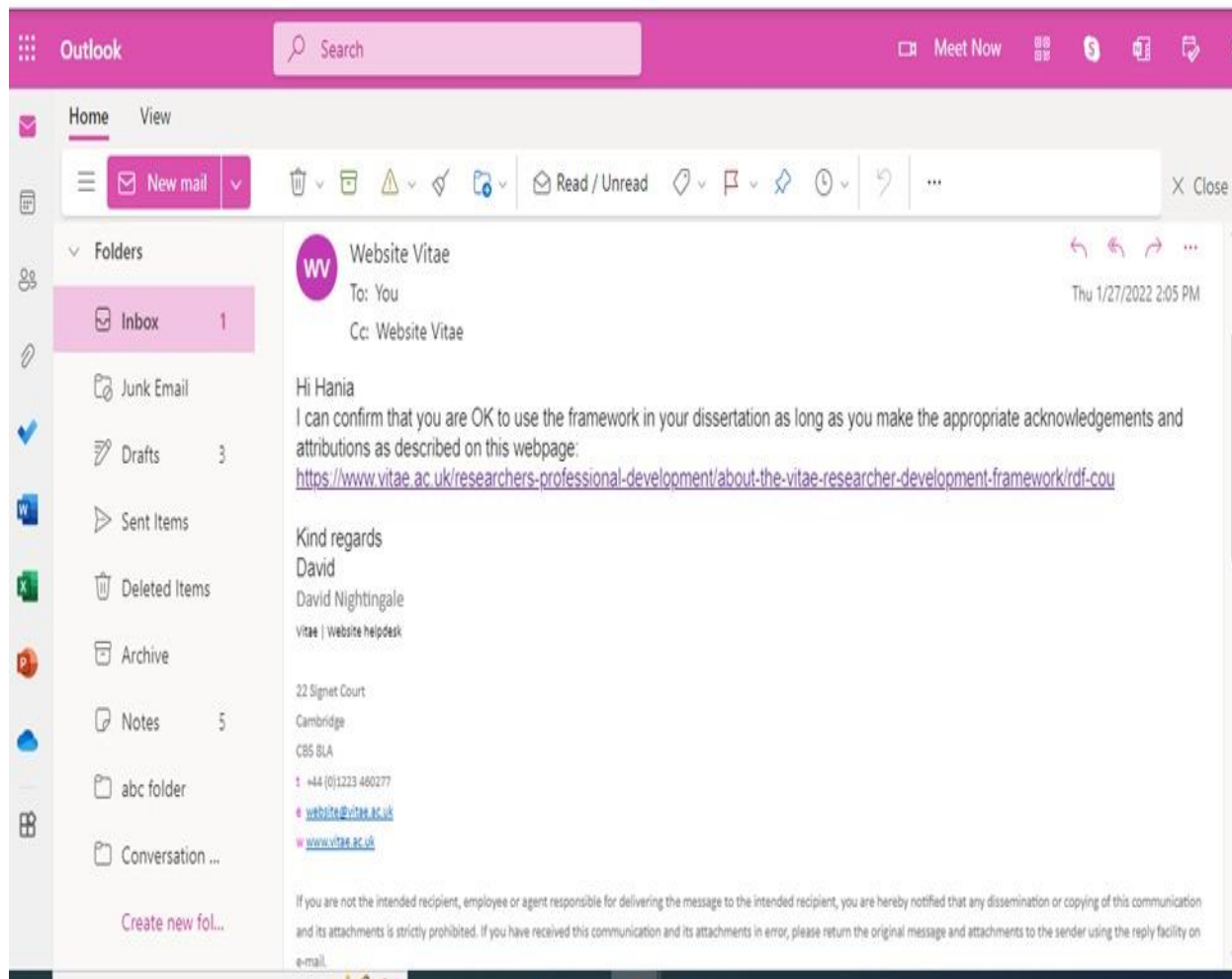
The screenshot shows the website for the Faculty of NUST Social Science. The browser address bar displays 's3h.nust.edu.pk'. The navigation menu includes 'ABOUT', 'EVENTS', 'NEWS', 'ACADEMIC PROGRAMMES', 'DEPARTMENTS', 'DOWNLOADS', 'GALLERY', and 'CONTACT US'. A search bar is present with the text 'Search in NUST'. The main content area features two columns:

- PRINCIPAL MESSAGE:** Accompanied by a photo of Dr. Ashfaque Hasan Khan. The text states: "The social sciences are important because of the diverse disciplines cover a wide array of complex issues from a number of different frames of reference. These help us understand the function of different aspects of society, individual behavior and social actions, and to evaluate social problems and their effects locally, regionally and globally. The social sciences provide an understanding of the world for informed decision making and policy, ensuring the maintenance and functioning of a stable society through an understanding of governance and institutions of civil society."
- DEAN MESSAGE:** Accompanied by a photo of Prof. Salma Siddiqui. The text states: "The field of social sciences and humanities teaches us to ground in the realities of life, encountering both challenges and opportunities. Like the river which gushes more fiercely when blocked by a boulder, and traverses calmly on clear path, the social sciences demand both strength and compassion to achieve the desired destination. The School of Social and Humanities at NUST is one of the thriving schools both in terms of the range of academic programs offered and student's strength. The focus of academics is on imparting knowledge and skills to our students which can help them succeed in the changing times."

The screenshot shows the website for the National University of Sciences & Technology (NUST). The browser address bar displays 'nust.edu.pk/institutions/'. The navigation menu includes 'ABOUT', 'INSTITUTIONS', 'ADMISSIONS', 'ACADEMICS', 'RESEARCH & INNOVATION', 'INTERNATIONAL', and 'CAMPUS LIFE'. A search bar is present with the text 'Search in NUST'. The main content area features two large images:

- NUST INSTITUTE OF PEACE & CONFLICT STUDIES:** A photograph showing a group of people, including military personnel in uniform, standing in a hallway.
- SCHOOL OF SOCIAL SCIENCES & HUMANITIES:** A photograph of a professional video camera with a monitor displaying a news broadcast.

Appendix I



**ANALYSIS OF SUPPORT MECHANISM FOR TEACHERS' RESEARCH SKILLS
AT HIGHER EDUCATION LEVEL**

Respected Respondents,

I am M. Phil scholar (Education) working on my research work on the above-mentioned topic you are requested to contribute your precious time to fill in the questionnaire attached. The first part of the questionnaire consists of demographic information. There are two questionnaire attached. First questionnaire deal with the support mechanism for teachers'. Second questionnaire deal with the research skills at higher education level. Thank you so much for your cooperation.

Kiran Ejaz

M.Phil Scholar (Education)

Department of Educational Sciences
National University of Modern Languages,
Islamabad, Pakistan

DEMOGRAPHICS:

a. Gender	Male 1	Female 2		
b. Name of University	National University of Modern Languages Islamabad 1			
	International Islamic University Islamabad 2			
	Air University Islamabad 3			
	Bahria University Islamabad 4			
	Quaid-e-Azam University Islamabad 5			
	Foundation University Islamabad 6			
	National Defense University Islamabad 7			
	Ripah University Islamabad 8			
	Preston University Islamabad 9			
	Iqra University Islamabad 10			
	National University of Science and Technology Islamabad 11			
c. Academic Qualification	B.Sc. 1	M.Sc. 2	M.Phil 3	Ph. D 4

d.	sional Qualification	B.Ed. 1	M.Ed. 2	B.S.Ed. 3	MS. Ed 4	Any-other specify 5
e.		20-25yr 1	26-30yr 2	31-35yr 3	36-40yr 4	41yrs + 5

1. Teachers' Support Mechanism Scale

Instructions for Respondents

Please tick and rate yourself honestly based on what you actually do given the statement using the following scales.

1 Strongly Disagree (**SD**), **2** Disagree (**D**), **3** Neutral (**N**), **4** Agree (**A**),

5 Strongly Agree (**SA**).

Sr. No	Code	1. Engagement Activities It includes quality teaching learning skills, ideas and best teaching practices with the help of senior members who give feedback and instructions to meet the needs of new teachers.	SD	D	N	A	SA
			1	2	3	4	5
01	EA1	My seniors' colleagues frequently help me in learning teaching skills.	1	2	3	4	5
02	EA2	My senior colleagues give me opportunity to participate in research activities with them.	1	2	3	4	5
03	EA3	My senior colleagues encourage me for my professional development.	1	2	3	4	5
04	EA4	My senior colleagues empowered me by updating me on emerging trends in the research.	1	2	3	4	5
05	EA5	My senior colleagues mostly share their ideas for improving my research skills.	1	2	3	4	5
06	EA6	My senior colleagues involve me in departmental meeting on research skills.	1	2	3	4	5
Check list for traning availability							

<ul style="list-style-type: none"> Kindly tick yes or no Are the following trainings activities available at your university?	Yes	No			
1. Induction training	Yes 1	No 2			
2. Professional development trainings	Yes 1	No 2			
3. Ongoing training	Yes 1	No 2			
4. Soft skills training	Yes 1	No 2			
5. Effective teachings strategies training	Yes 1	No 2			
6. Formal training	Yes 1	No 2			
7. Informal training	Yes 1	No 2			
8. Onsite training	Yes 1	No 2			
9. Offsite training	Yes 1	No 2			
10. Workshops	Yes 1	No 2			
11. Seminars	Yes	No			
12. Micro training sessions	Yes 1	No 2			
13. Job assignment	Yes 1	No 2			
14. Formal presentations	Yes 1	No 2			
2. Training activities	SD	D	N	A	SA

Teacher training is the process of teaching <i>or</i> learning the knowledge, skills, and attitudes you need to be a teacher in an educational setting.							
07	TA1	Professional development trainings help me to increase my research skills.	1	2	3	4	5
08	TA2	Effective teachings strategies skills training are helpful in my research work.	1	2	3	4	5
09	TA3	My senior colleagues guide me soft skills that they have learned as a researcher.	1	2	3	4	5
10	TA4	Various research activities organized by my administration that are helpful in research skills.	1	2	3	4	5
11	TA5	My senior colleagues guide me some unwritten rules that they have learned as a researcher.	1	2	3	4	5
3. Support Activities							
The term support may refer to a wide variety of instructional methods, educational services, or resources provided to teachers in the effort to help them accelerate their learning progress			SD	D	N	A	SA
12	SA1	I am learning article writing with the help of my senior colleagues.	1	2	3	4	5
13	SA2	In my university, my senior colleagues help me in co supervision.	1	2	3	4	5
14	SA3	In my university, my senior colleagues' moral support increases my interest in research work.	1	2	3	4	5
15	SA4	In my university, senior colleagues support me in research paper review.	1	2	3	4	5
16	SA5	My senior colleague helps me to get presentation resources require to do my work properly.	1	2	3	4	5
17	SA6	In my university my senior colleagues suggests me books that are helpful in research skills.	1	2	3	4	5

4. Recognition Activities			SD	D	N	A	SA
The state of being recognized such as formal and informal acknowledgment from higher authorities.							
18	RA1	In my university, cash rewards are more helpful in research skills work.	1	2	3	4	5
19	RA2	Provision of certification is helpful in research skills development.	1	2	3	4	5
20	RA3	I am appreciated by senior colleagues due to my good research skills.	1	2	3	4	5
21	RA4	My senior colleagues appreciate my research work in front of other.	1	2	3	4	5
5. Community Activities			SD	D	N	A	SA
These include parenting, communicating, volunteering, learning at home, decision-making, and collaboration with the community.							
22	CA1	My senior colleagues always provide me information that aware me about latest journal.	1	2	3	4	5
23	CA2	My senior colleagues help me to develop link for publications.	1	2	3	4	5
24	CA3	My senior colleagues help me in conference preparation.	1	2	3	4	5
25	CA4	My senior colleagues represent me at meeting.	1	2	3	4	5
26	CA5	My senior colleagues helps me in comparing my article with other researcher articles.	1	2	3	4	5
27	CA6	My senior colleagues co-author me in their articles.	1	2	3	4	5

2. Teachers Research Skills Scale

Instructions for Respondents

Please tick and rate yourself honestly based on what you actually do given the statement using the following scales.

- 1** Strongly Disagree (**SD**), **2** Disagree (**D**), **3** Neutral (**N**), **4** Agree (**A**),
5 Strongly Agree (**SA**).

1. Knowledge and Intellectual Abilities			SD	D	N	A	SA
Refers to the skills required to think critically, see connections between disciplines and problem solve in new or changing situations							
01	KIA1	I understand recent advances in research area.	1	2	3	4	5
02	KIA2	I am capable of developing target search strategies to draw out only the relevant academic literature	1	2	3	4	5
03	KIA3	I am capable of justifying methods designed specifically for an investigation in a flexible manner.	1	2	3	4	5
04	KIA4	I understand relevant research methodologies and their appropriate application in research area.	1	2	3	4	5
05	KIA5	I am capable of evaluating the outcomes of my own research activities.	1	2	3	4	5
06	KIA6	I am capable to understand recent advances in research area.	1	2	3	4	5
2. Research Governance and Organization			SD	D	N	A	SA
The knowledge of the standards, requirements and professional conduct that are need for the effective management of research.							
07	RG01	I understand my responsibilities as a teacher.	1	2	3	4	5
08	RG02	I have knowledge of funding processes available for research.	1	2	3	4	5
09	RG03	I am capable of managing and taking responsibility for health and safety within department.	1	2	3	4	5
10	RG04	I have basic understanding of data ownership rules as they apply to own research.	1	2	3	4	5
11	RG05	I am capable to understand requirements for conducting a research.	1	2	3	4	5
12	RG6	I am capable to use different project management strategies.	1	2	3	4	5

13	RG7	I have knowledge of required financial management system.	1	2	3	4	5
3. Engagement, Influence and Impact							
The knowledge, understanding and skills needed to engage with, influence and impact on the academic, social, cultural and economic context.			SD	D	N	A	SA
14	EII1	I am capable to engage myself with my peers to get the feedback of my research work.	1	2	3	4	5
15	EII2	My senior colleagues guide me in my research work.	1	2	3	4	5
16	EII3	My senior colleagues always appreciate me for my contribution in social work.	1	2	3	4	5
17	EII4	I am capable to do work in diverse environment.	1	2	3	4	5
18	EII 5	I always keep up to date myself with new teaching skills.	1	2	3	4	5
19	EII6	I am capable to keep up to date myself with research policies and procedures.	1	2	3	4	5
4. Personal Effectiveness							
A general rule, personal effectiveness means to utilize all of your skills, talent, and energy to reach a goal or set of goals in your life.			SD	D	N	A	SA
20	PE1	I always cooperate with my colleagues.	1	2	3	4	5
21	PE2	I am capable of develop networks with the wider research community	1	2	3	4	5
22	PE3	I am capable to manage different projects on time.	1	2	3	4	5
23	PE4	I like to demonstrate my research skills.	1	2	3	4	5
24	PE5	I am capable to recognizes the need for passion in own work	1	2	3	4	5
25	PE6	I am capable to make a cooperative working relationship with my colleagues.	1	2	3	4	5

Thank You for your cooperation.