

**EFFECT OF TIME MANAGEMENT SKILLS ON
QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL**

BY

Aniqa Rasheed



NATIONAL UNIVERSITY OF MODERN LANGUAGES

ISLAMABAD

JULY, 2023

**EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF
RESEARCH AMONG NOVICE TEACHERS AT UNIVERSITY
LEVEL**

By

Aniqa Rasheed

B.Ed. (Hons), Government Girls College of Education Bagh AJK, 2018

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF

MASTER OF PHILOSOPHY

In Education

To

DEPARTMENT OF EDUCATIONAL SCIENCES

FACULTY OF SOCIAL SCIENCES



NATIONAL UNIVERSITY OF MODERN LANGUAGES, ISLAMABAD

© Aniqa Rasheed, 2023



NATIONAL UNIVERSITY OF MODERN LANGUAGES

FACULTY OF SOCIAL SCIENCES

THESIS AND DEFENSE APPROVAL FORM

The undersigned certify that they have read the following thesis, examined the defense, are satisfied with the overall exam performance, and recommend the thesis to the Faculty of Social Sciences for acceptance.

Thesis Title: Effect of Time Management Skills on Quality of Research among Novice Teachers

at University Level

Submitted by: Aniq Rasheed

Registration #: 01-M.Phil/Edu/S-20

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)

Dated

AUTHOR'S DECLARATION

I Aniqa Rasheed
 Daughter of Rasheed Hussain Butt
 Registration # 01-MPhil/Edu/S-20
 Discipline Education

Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis "**Effect Of Time Management Skills On Quality Of Research Among Novice Teachers At University Level**" submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

I also understand that if evidence of plagiarism is found in my thesis/dissertation at any stage, even after the award of a degree, the work may be cancelled, and the degree revoked.

Signature of Candidate

Name of Candidate

Date

ABSTRACT

Title: Effect of Time Management Skills on Quality of Research among Novice Teachers at University Level

The study was conducted to assess the level of time management skills of novice teachers, to identify the level of quality of research of novice teachers, and to measure the effect of time management skills on quality of research among novice teachers at university level. The conceptual framework of study was the combination of two models. The time management skills model having five sub-dimensions and was presented by the Editorial Team (2007) while Research quality assessment model was having seven sub-dimensions and was presented by Oluka, Nie, and Sun (2014). The approach of this study was quantitative and its design was correlational. The population of study was consisted on 276 novice teachers who were serving in all social sciences departments of the six public sector universities of Islamabad during session (2021-2022). In this research census sampling technique was used because the number of target population was small and contained only 276 novice teachers. From 276 novice teachers 40 were selected for pilot trial and remaining 236 for final data collection. Out of 236 respondents 227 returned questionnaires with complete response. So, the rate of return was 96%. The researcher adapted two sets of scales for assessing time management skills and quality of research in the light of conceptual framework. To check the reliability of scales researcher conducted pilot trial and used Cronbach's Alpha Reliability, Item-total Correlation, and Inter-section Correlation. The reliability scores of the final scales were .92 and .96. The data was analyzed by using Individual score, and Linear Regression analysis. The study results showed that majority (63%) of novice teachers scored at above average level of having good time management skills. Results also declared that maximum (65%) of novice teachers scored at above average level of producing quality research. There was statistically significant and positive effect of time management skills on quality of research among novice teachers. Thus, it is recommended that departmental discourse may be organized on monthly basis for the sharing of latest time management strategies by the senior teachers for novice teachers' grooming. Novice teachers may utilize digital project management soft wares like Monday.com, web based etc in order to keep control on all research tasks and to increase the quality of their research studies. The novice teachers may produce worthy studies by setting clear and achievable goals and answerable questions.

TABLE OF CONTENTS

Chapter	Page
THESIS AND DEFENSE APPROVAL FORM.....	ii
AUTHOR’S DECLARATION.....	iii
ABSTRACT	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	vii
LIST OF FIGURES	ix
LIST OF ABBREVIATION.....	x
LIST OF APPENDICES.....	xi
ACKNOWLEDGEMENTS.....	xii
DEDICATION.....	xiii
1. INTRODUCTION	
1.1 Background of the study.....	01
1.2 Rationale of the Study.....	03
1.3 Statement of the Problem.....	06
1.4 Research Objectives.....	07
1.5 Null Hypotheses.....	08
1.6 Conceptual Framework.....	10
1.7 Significance of the Study.....	16
1.8 Methodology.....	18
1.9 Operational definitions.....	25
1.10 Delimitations.....	29
2. REVIEW OF THE RELATED LITERATURE	
Section 1 General Introduction of Research Variables	30
2.1 Meaning and Importance of (TMS)	30
2.2 Time Management Techniques	34
2.3 General Concept of Quality.....	49
2.4 Concept of Quality in Research.....	51
2.5 Principles of Quality Research.....	53
Section 2 Related Theories/Models of Study Variables	56
2.6 Models and Theories of (TMS)	58
2.7 Models and Theories of Quality Research.....	66
Section 3 Related Research of Study Area	72
2.8 Related Researchers	72
2.9 Summary.....	78

3. RESEARCH METHODOLOGY	81
3.1 Research Approach.....	82
3.2 Research Design.....	82
3.3 Description of Study Variables.....	84
3.4 Population.....	85
3.5 Sampling.....	86
3.6 Tool Construction.....	88
3.7 Pilot Testing.....	94
3.8 Reliability of the Instruments.....	95
3.9 Scoring of the Research Tools.....	103
3.10 Data Collection.....	105
3.11 Data Analysis.....	105
3.12 Research Ethics.....	107
4. ANALYSIS AND INTERPRETATION OF THE DATA	109
4.1 Summary of the data analysis.....	110
4.2 Instrument Reliability.....	112
4.3 Item total correlation.....	114
4.4 Inter-section correlation.....	117
4.5 Level of (TMS).....	119
4.6 Level of (RQAS).....	124
4.7 Effect of (TMS) on (RQ).....	130
4.8 Effect of goal setting on (RQAS).....	131
4.9 Effect of prioritizing on (RQAS).....	132
4.10 Effect of scheduling on (RQAS).....	133
4.11 Effect of interruption management on (RQAS).....	134
4.12 Effect of procrastination on (RQAS).....	135
5. SUMMARY, FINDINGS, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS	135
5.1 Summary.....	135
5.2 Findings.....	137
5.3 Discussions.....	141
5.4 Conclusions.....	145
5.5 Recommendations.....	146
5.6 Limitations.....	148
References	152-163
Appendices	164-196

LIST OF TABLES

Table	Title	Page No
Table 1.1	Population of the study	19
Table 1.2	Sample of the study	21
Table 1.3	Description of time management skills assessment scale	22
Table 1.4	Description of Research quality assessment scale	23
Table 1.5	Tests for data analysis	25
Table 2.1	Four quadrants of ABC model	59
Table 2.2	Pareto principle of time management	61
Table 2.3	Covey's time management Grid	62
Table 3.1	Description of Research Variables	82
Table.3.2	List of novice teachers in 6 public universities	83
Table. 3.3	Description of division of Sample	85
Table. 3.4	(TMS) assessment Scale before Pilot trial	87
Table. 3.5	(RQAS) Scale before Pilot trial	89
Table. 3.6	Experts Suggestions in Tool Validation	90
Table. 3.7	Reliability Analyses of (TMS)	92
Table. 3.8	Reliability Analyses of (RQAS)	94
Table. 3.9	Item Total Correlation of (TMS)	95
Table. 3.10	Inter-section Correlation of (TMS)	96
Table. 3.11	Item Total Correlation of (RQAS)	97
Table. 3.12	Inter-section Correlation of (RQAS)	98
Table. 3.13	Final tool of (TMS)	99
Table. 3.14	Final tool of (RQAS)	99
Table. 3.15	Scoring of (TMS)	101
Table. 3.16	Scoring of (RQAS)	102
Table. 3.17	Tests used for Data Analysis	104
Table. 4.1	Final reliability analyses of (TMS)	112
Table. 4.2	Final reliability analyses of (RQAS)	113
Table. 4.3	Final item total correlation of (TMS)	115

Table. 4.4	Final item total correlation of (RQAS)	116
Table. 4.5	Final inter-section correlation of (TMS)	117
Table. 4.6	Final inter-section correlation of (RQAS)	118
Table. 4.7	Scoring level of (TMS)	119
Table. 4.8	Scoring level of goal setting skills	120
Table. 4.9	Scoring level of prioritizing	121
Table. 4.10	Scoring level of scheduling	122
Table. 4.11	Scoring level of interruptions management	123
Table. 4.12	Scoring level of procrastination	123
Table. 4.13	Scoring level of (RQAS)	124
Table. 4.14	Scoring level of setting clear aim	125
Table. 4.15	Scoring level of design and methodology	125
Table. 4.16	Scoring level of data collection procedure	126
Table. 4.17	Scoring level of study content	126
Table. 4.18	Scoring level of data analysis	127
Table. 4.19	Scoring level of results and aims relevancy	128
Table. 4.20	Scoring level of ethical approval	128
Table. 4.21	Effect of (TMS) on Quality of research	129
Table. 4.22	Effect of goal setting on Quality of research	130
Table. 4.23	Effect of prioritizing on Quality of research	131
Table. 4.24	Effect of scheduling on Quality of research	132
Table. 4.25	Effect of interruptions management on research Quality	133
Table. 4.26	Effect of procrastination on Quality of research	134
Table. 5.1	Alignment Table	149

LIST OF FIGURES

Figure. No	Title	Page No
Figure. 1	Conceptual frame work	11
Figure. 2	Time management skills Model	14
Figure. 3	Research Quality Assessment Model	16
Figure. 4	Theory of Planned Behaviour	56
Figure. 5	Three fundamental Ideas of (ABC) Model	58
Figure. 6	(ALPEN) Model	60
Figure. 7	Time Management Model by Curiel	63
Figure. 8	Effective Time Management Model by Curiel	63
Figure. 9	Categories of Tasks by Eisenhower	64
Figure. 10	Pickle Jar Theory	65
Figure. 11	Research Quality Model by Martensson et al	68
Figure. 12	Research Quality Assessment Model by Coughlan et al	71
Figure. 13	Demographic Characteristic of Gender	117
Figure. 14	Characteristic of university's names	117
Figure. 15	Characteristic of academic qualification	118
Figure. 16	Characteristic of professional qualification	118

LIST OF ABBREVIATIONS

TMS	Time Management Skills
RQAS	Research quality Assessment Scale
SPSS	Statistical Product and Service Solutions
ABC	Awareness, Believe, Continuation
ALPEN	Activities, Length, Planning, Establishing, Next Day
HEC	Higher Education Commission
NUML	National University of Modern Languages
IIUI	International Islamic University Islamabad
AIOU	Allama Iqbal Open University Islamabad
Sig	Significance
QR	Quality Research
SMART	Specific, Measurable, Achievable, Relevant, Time-Bound

LIST OF APPENDICES

Appendix A	Conceptual Framework
Appendix B	Reference of Mindtools Editorial Team
Appendix C	Topic Approval Letter
Appendix D	Data Collection Reference Letter
Appendix E	Cover Letter for Validity Certificate
Appendix F	Sample of Validity Certificates
Appendix G	List of Experts for Tool Validation
Appendix H	Research Instrument Validity Certificates
Appendix I	List of HEC Recognized Universities and Degree Awarding Institutions
Appendix J	List of Universities Included in Population
Appendix K	List of Social Sciences Disciplines
Appendix L	Research Instruments
Appendix M	Permission for Using Research Instrument
Appendix N	Permission for Using Research Instrument
Appendix O	Proof Reading Certificate
Appendix P	Reference of Oluka, Nie, and Sun Article
Appendix Q	Turnitin Report of Thesis

ACKNOWLEDGEMENTS

Allah Almighty is the only one who is most gracious and compassionate and admirable of all the admirations and praises. I am greatly obliged to my Almighty Allah, that he is the one and only who provided me with the opportunity to acquire the knowledge in this field. It is merely the consecration of the All-knowing being to give upon us His Holy Prophet (SallallahuAlaihayWa'alihiWasalam) who has deposited all ground of knowledge and will continue the source of all intelligence that is to transpire in the forthcoming.

I owe my deepest gratitude to my supervisor Dr Quratul-Ain-Hina for her superb guidance amalgamated with her affection, commitment and sweet beam, without which I would have not been able to undertake the present study. I owe a lot to my best friends Asma, Kainaat, Mehwish, and Sumera and my elder sister for giving me courage, moral and emotional support especially in those times when I felt fatigued and demotivated.

My heartiest and sincere salutation to my father and my mother without their moral and financial support and encouragement nothing was possible. My parents love and prayers are the most important part behind my success. I pray from Allah for my parents, friends, and advisor to bless all of them a glorious health and happiness. Stay blessed, and thank you all.

Aniqa Rasheed

DEDICATION

I am solemnly dedicating this thesis to my beloved, hardworking and supporting Father for his endless support and investment. Father I just pray from Allah Almighty to confer his countless blessings upon you and remove your all sorrows and may your all true wishes come true soon Ameen.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Importance of time and its wise use is the key to success especially in this highly advanced and fast era. It has been heard many times from elders that the successful people are those who respect time and use it wisely or people who possess time management skills. So it reveals that the wise and proper use of time is extremely important to get success in any desired field. In other or simple words it can be realized that the time management possesses a huge value for all and it has a strong influence on ways the people act in their lives. This particular term time management is defined by Editorial Team (2021) that it is a process in which a person plans and organizes activities with respect to proper time. The time management skills facilitate smart work rather than an overwhelmed work and help person to perform maximum quality work within less time.

As for as the current study is concerned, it was aimed to find out the effect of time management skills on quality of research among novice teachers. According to the Mahmood (2011) as a research quality is based on its proceeding factors that ensure its quality. These factors include completion of study within time or in other words management of time, valid research design in terms of both internal and external, useful sources of data, self-writing, data analysis methods that should be appropriate, and

statistically useful. So it can be identified that the quality of research is actually based on all those steps that are crucial for the execution of research and are matched with the particular research problem in all aspects. All over the world there are countless people who are busy in searching different things and facts related to their area of interests. The importance of time management for quality research among researchers especially novice teacher researchers is crystal clear because they are less experienced and need to set an appropriate schedule in order to manage their assigned roles and responsibilities by their institutions they are affiliated with at one side and to conduct their quality research on the other side.

Due to inappropriate use of time novice teacher researchers face a lot of challenges and hurdles which can slow down their progress and important tasks. Hence the time management capabilities and skills of novice teachers are the strongest tools that can help them to manage the quality of their research work and to minimize work anxiety and in this regard the current study focused on finding the level of novice teachers time management skills and their perception about whether those skills can help them to produce quality research work or not. There are various ways that can help a person to set an appropriate time frame in order to accomplish certain goals and tasks. As Svetla (2015) has concluded in research study that two factors have a great positive influence on appropriate time management and these are planning and organizing. Furthermore the study concluded that there are certain models and techniques which can be helpful in this regard.

Similarly, various Pakistani research studies focused on the effect of time management skills on different variables except quality of research. Like a study conducted by Sahito, Khawaja, Panhwar, Siddiqui, & Saeed (2016) on teachers time management and the

performance of students: a comparison of government and private schools. The researchers found that Impact of teacher time management is directly proportioned with the performance of students and the significant relationship between teachers' time management and students' academic performance was found. Likewise a study conducted by Khan, Ashraf, & Nadeem (2020) to find out the effect of time management on the academic performance of students in the higher educational institutions of Islamabad. The researchers found that academic performance is increases with the increase in self-study hours. Another study was conducted by Ahmad, Batool & Choudhry (2019) on path relationship of time management and academic achievement of students in distance learning institutions and they found that there is a strong positive relationship between time management and academic achievement. Similarly, a research conducted by Khanam, Sahu, Rao, Kar, & Quazi (2017) on university student's time management and academic achievement and researchers concluded that students who obtained higher percentages of marks also had high mean score on general time management and their dimensions. So in the light of above studies it can be assumed that the use of appropriate time management techniques and skills may also affect the quality of research work of novice researchers and present study is meant to identify that effect whether it is positive or negative by identifying the point of views of novice teachers.

1.2 Rationale of the Study

Various studies identified the effect of time management on different aspects and in different fields like a research study carried out by Cemaloglu (2010) to find out the association between time management skills and academic achievement of the potential teachers. The study concluded that the association is positive among both variables. Here

the positive relationship means that when a teacher wisely uses time, it will enhance his performance in academic achievement. So here it can be realized that the study results are emphasizing the importance of effect caused by the proper management of time. Therefore, in case of quality of research and novice teachers this effect can also be very crucial which was not focused by the researchers. So, by having a good time management skills the novice teachers may increase the productivity or in other words can maximize the quality of their research work and also manage their other roles and responsibilities and that's why the researcher designed this study to identify it through exploring teachers perception.

Another study was carried out by the researcher Pehlivan (2013) in which the researcher tried to check the effect of time management on the student's Course Grades and Grade Point Averages. In its findings the researcher reported that there is a notable effect of time management skills on student's course grades. The researcher further emphasized that the students must acquire these skills of using time wisely so that later on they can manage their university education properly. Therefore, this research is also showing the importance of effect caused by the good management of time but it was neglected by the researcher that this effect may also act beneficial for the novice teacher researchers in order to facilitate them in producing quality studies and managing their professional work. Therefore, this was the reason of conducting present study by identifying that what are teacher's time management skills and how those skills can help them in producing good studies and managing their other roles and responsibilities.

A research study carried out by the Jo-Ana (2013) has identified some useful strategies that can be used by the researchers in order to increase their abilities of using time effectively and to increase their progress in research study. Furthermore they have

emphasized that the researchers must acquire the skills of using time properly in order to produce quality work. Which means these skills have some good effect upon research quality that's why the present study focused on finding that effect which was not focused by the researcher so that the novice teachers can learn about these important time management skills in order to improve their work performance especially in research.

Similarly, another research study was conducted by the Glasziou & Chalmers (2004) on quality research assessment and in that research they concluded that the systematic reviews are necessary for all types of research studies to ensure the quality and there is a need to focus on the evidence hierarchies used in research. But the researcher did not emphasized on the management of time. So, the researcher focused on it to address this issue that what are the time management skills of novice teachers and what is the effect of those skills on their performance in research. According to Editorial Team (2021) in order to accomplish any task smoothly without being overwhelmed and panic a person needs to have proper skills of using time. This is because managing time does not detract the activities of concerned task or work and a person completes its task with best quality and within acceptable time period. It also helps person to get some free time which in return gives a mental peace and space to think more on the quality of the concerned task or activity this is because quality of work is something which matters a lot.

The culture of research in Pakistan is not up to the mark and new researchers usually cannot produce quality research work. As it has been highlighted by Pervez (2018) in their research that new researchers do not have proper guidelines for conducting quality research and that's why they are lacking behind. Hence, in order to fulfil this gap the researcher designed present study by focusing particularly on the teacher researchers having three or

less than three years' experience in the field of research that what are their time management skills and with the help of those skills they can manage their activities and tasks or not especially in producing quality studies.

Therefore it can be noticed that all the previous research studies including Pakistani studies, explored the effect of time management skills on different variables. These variables includes; academic achievements of secondary students, academic achievements of university students, teachers academic performances, students grades, organization productivity, etc. Also it has been discussed in terms of various other aspects like its importance, and strategies. Similarly quality of research has been focused in many studies individually in which the researchers discussed its various factors like a study conducted by Martensson et al. (2019), Belcher et al (2015), Hellstrom (2014) etc. But nevertheless, no study was found that has focused on effect of time management on quality of research among new teachers having three and less than three years' experience in the field of research. That's why the researcher designed this study to identify the level of time management skills of novice teachers and their perception about quality of research and to measure the effect in terms of relationship between time management and quality of research to fill this gap.

1.3 Statement of the Problem

In existing fast era the use of time in proper and wise manner is greatly emphasized in every field. This is because to manage the load of personal and job activities in an acceptable manner and to ensure the validity and quality of work. Therefore, by identifying the importance of time management the researcher designed this study for the novice

teachers who have to manage their research work which is a very tough job and if they are unable to manage their time well it may badly affect the quality of research studies they produce. Here by novice teachers means teacher researchers having three or less than three years' experience in the field of research. So the study meant to assess the level of time management skills of novice teachers and also the level of quality of their studies. It means that at which extent they can manage their time well and what are their skills. Then what is their perception about good research and whether they consider quality factors in their studies or not? Furthermore, the researcher focused on measuring the effect of time management on quality of research produced by novice teachers like if they are having good time management skills than by utilizing these skills they can produce quality research or not. Along with it the researcher was interested to individually check the effect of time management factors like, Goal setting, Prioritizing, Scheduling, Focusing, and Procrastination skills of novice researchers on quality of their research.

1.4 Research Objectives

The research contained objectives as given below:

1. To assess the level of time management skills of novice teachers.
2. To identify the level of quality of research of novice teachers.
3. To measure the effect of time management skills on quality of research among novice teachers at university level.
 - 3a. To measure the effect of 'Goal setting skills' related to time management on quality of research among novice teachers.
 - 3b. To measure the effect of 'Prioritizing skills' of time management on quality of research among novice teachers.

3c.To measure the effect of ‘Scheduling skills’ of time management on quality of research among novice teachers.

3d.To measure the effect of ‘Interruption management’ of time management on quality of research among novice teachers.

3e.To measure the effect of ‘Procrastination management skills’ related to time management on quality of research among novice teachers.

1.5 Null Hypotheses

The current study possessed null hypotheses which includes:

H₀1: There is statistically no significant effect of time management skills on quality of research among novice teachers at university level.

H₀1a: There is statistically no significant effect of “Goal setting skills” related to time management on quality of research among novice teachers.

H₀1b: There is statistically no significant effect of “Prioritizing skills” related to time management on quality of research among novice teachers.

H₀1c: There is statistically no significant effect of “Scheduling skills” related to time management on quality of research among novice teachers.

H₀1d: There is statistically no significant effect of “Interruption management skills” related to time management on quality of research among new teachers.

H₀1e: There is statistically no significant effect of “Procrastination management skills” related to time management on quality of research among new teachers.

1.6 Theoretical Base

Learning theories explain the perception, processing and retention of information by learners during learning process. For the current study, researcher used a conceptual

framework by using two models which were based on the concepts of theory of planned behavior. The theory of planned behavior (TPB) started as the theory of reasoned action in 1980 to predict an individual's intention to engage in a behavior at a specific time and place. According to the Claessens, vanerde, Rutte, & Roe (2007) time management are the “behaviours that aim at achieving an effective use of time while performing certain goal-directed activities”. They further said that these behaviors comprise setting goals, scheduling tasks, prioritizing, making to-do lists, grouping tasks etc which aim at an effective use of time. So, in current study the time management skills model was based on this concept. As, Davis (2000) said that time management has been referred to as techniques for managing time. Similarly, Claessens, vanerde, Rutte, & Roe (2007) further said that a common feature among the conceptualizations of time management is “planning behavior”. Planning behaviour refers to decisions about which tasks to perform, prioritization of tasks and effectively management of possible distractions. Time management, as planning behaviour, can be considered a particular way of goal setting as well.

Likewise, the current study used research quality assessment model to identify the novice teachers' perceptions towards the use of factors that are crucial for maintaining the quality of research. The perceptions in return had showed their behaviours towards the consideration of all quality factors properly in their studies. As, Oluka, Nie, and Sun (2014) mentioned in their study that, theory of planned behavior (TPB) model is subjective in nature, inherently veered toward personalized perception of human behavior. It implies that individuals will have the intention to perform a behavior when they evaluate it positively, believe that important others think they should perform it, and perceive it to be

within their own control. Therefore, the models used in current study were based on the concepts of the theory of planned behaviour. Third construct of the theory refers to a person's perception of the ease or difficulty of performing the behavior of interest. Perceived behavioral control varies across situations and actions, which results in a person having varying perceptions of behavioral control depending on the situation.

1.7 Conceptual Framework

According to the Charlesworth (2022) a conceptual framework is like a roadmap for your study, helping you visualize your research project and put it into action. It defines the relevant variables for your study and maps out how they might relate to each other. A conceptual framework is composed of several concepts. Further, a conceptual framework may include a theoretical framework. It identifies factors influencing a particular field. It may be in a written or diagrammatic format, representing expected relationships between variables like in a current study it was used to show relationship between main variables.

However, theoretical frameworks support research by describing and/or drawing from relevant theoretical aspects obtained in previous work. It is derived from theory and alone one theory can serve as a theoretical framework. Similarly, Regoniel & Patrick (2015) says that the conceptual framework is the researcher's understanding of how the particular variables in his study connect. Thus, it identifies the variables required in the research investigation. It is the researcher's "map" in pursuing the investigation. Therefore, the reason that why current study used conceptual framework is that the study was aimed at finding out effect in terms of relationship between study variables. So, the researcher selected two models related to the current study variables. Also these models were used in previous studies which were carried out by Editorial Team (2007), Oluka, Nie, and Sun

(2014), and Hina, Arshad, Kashmeeri, & Mehar (2017). So, the researcher developed a conceptual framework to show that how the main variables are connected.

Hence, the Present study comprised conceptual framework which was developed by the researcher by utilizing two models. Time management skills model developed by Editorial Team (2007) and Research quality assessment model which was developed by Oluka, Nie, and Sun (2014). The conceptual framework of the study is presented below:

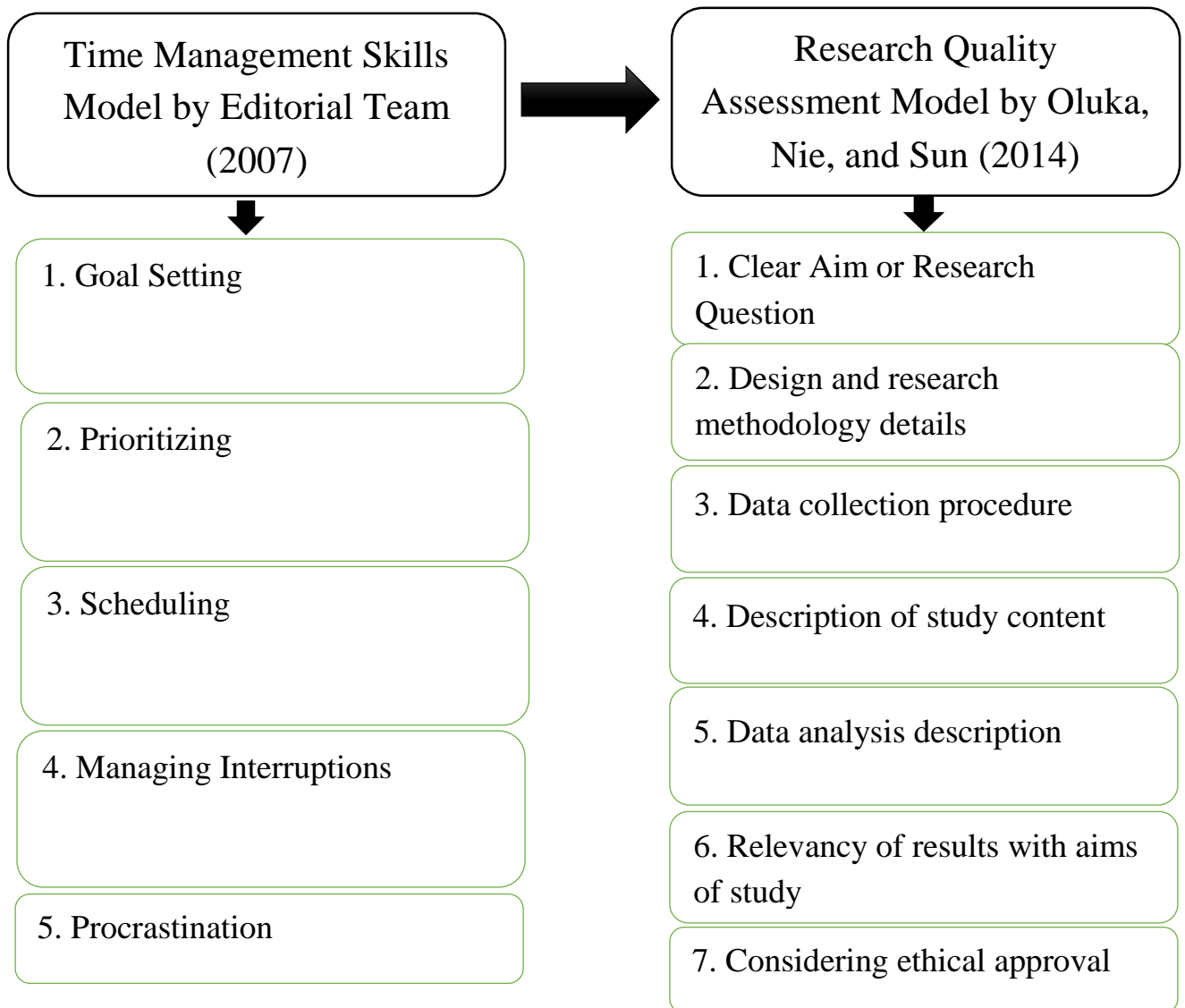


Figure 1. Conceptual Framework of the Study

1.7.1 Time Management Skills Model by Editorial Team (2007)

This time management skills model was based on five key dimensions or factors. It was developed by an organization Mindtools Editorial Team and was used in a study of Editorial Team (2007) which was conducted to find out the effective time management tools. The key dimensions of the model are described as under:

1.7.1.1 Goal Setting. Here by goal setting means a process in which one considers that what i want to achieve and at the end it requires much hard work to accomplish the goal. Goal setting is a process which not only facilitates you to control your life but also it provides you a benchmark for identifying whether you are proceeding or not.

1.7.1.2 Prioritization. This area of time management is very important especially when a person has to do a lot of work in a limited time and with the help of this skill a person can prioritize list of tasks on the basis of their importance and can perform in a better way. This skill helps a person to create calmness and space in life by managing excessive workload and tasks in order to focus the energy and attention on the things that really matter. Through prioritization a person can make best use of his\her efforts.

1.7.1.3 Scheduling. A person can manage much of time through scheduling. This process of scheduling involves how to use your time by setting a specific time for specific task which is already prioritized by a person. This helps you to be on track and minimize stress of workload. A person should not only schedule time for important tasks but for the interruptions as well to keep some space. Through various steps a person

can effectively schedule activities like, identification of spare time, setting necessary actions, Scheduling most important activities, and analyzing activities etc. By following this six step process a person can schedule time effectively.

1.7.1.4 Managing Interruptions. Interruptions are a part of life and need to be managed in order to accomplish the important tasks. The things that can cause interruption in work may involve unexpected calls, door bells, a dog barking outside, unexpected guests, noise of kids etc. These and many more need to be managed while working and there are various ways that can help to manage interruptions.

1.7.1.5 Procrastination. This area which is related to the time management is very important and the process is related to people who stretch their work by saying that I'll do it later and after so many 'laters' the work load gets more and more and at the end the person is unable to complete it within time frame. So avoiding procrastination is extremely important to finish the work on time. There are various ways that can help a person to avoid procrastinating like completing important tasks for 15 minutes, dividing activities into small parts, etc.

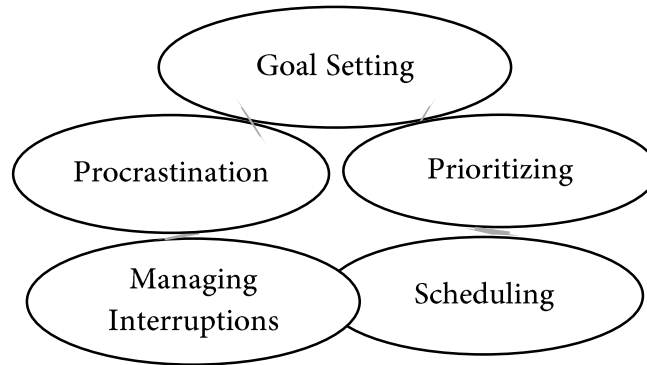


Figure 2. Time Management skills Model by Editorial Team (2007)

1.7.2 Research Quality Assessment Model by Oluka, Nie, and Sun (2014)

In a study conducted by Oluka, Nie, and Sun (2014) seven factors for quality of a research study were given which are described as under:

1.7.2.1 Clear Aim or Research Question. According to the researchers Oluka, Nie, and Sun (2014) the initial factor upon which the quality of study based is the aim or question which directs the researcher towards study. A researcher always begins his\her research with some aim or question and tries to fulfil aim and find answer of the question. So, as per the model the quality of study is actually based upon that aim or question and it should be clear, unambiguous and comprehensive so that the reader can understand it.

1.7.2.2 Information about Design and Research Methodology. This factor shows the importance of methodology in research and by methodology mean how the whole study will be carried out. It includes selection of target population, sample size, tools for collecting research data and statistical techniques that are used to analyze data. So, this factor is also

very crucial and shows quality of study if it matches with the concerned problem under study.

1.7.2.3 Data Collection Procedure. This sub factor is also very crucial and identifies and influences the quality of any research study. It involves an explanation about how the data will be collected, interpreted, whether the interpretation and data collection method is appropriate and relevant or not. If there exists relevancy among data collection procedure and nature of study then it will promote quality research.

1.7.2.4 Description of Study Content. By study content mean literature which is used in research and how much it is important to carry further study and describes that related literature increases the quality of research.

1.7.2.5 Data Analysis Description. As for as this factor is concerned, it reveals that the statistical techniques which are used in data analysis must be relevant and give accurate result to ensure the quality of study.

1.7.2.6 Relevancy of Results with Aims of Study. Concerning factor shows that it is important to have a relevancy between objectives of the study and findings or end results. This is because the relevancy will show the worth of study and also this factor emphasizes upon practical solutions of research problem and recommendations.

1.7.2.7 Considering Ethical Approval. This factor shows that those studies are worthy which are based on the data collected voluntarily from respondents. So, considering permission of study population is also a quality indicator for the study.

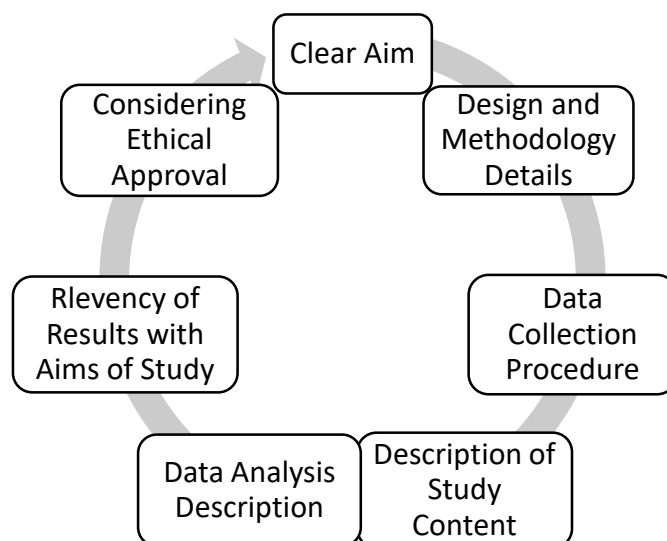


Figure 3. Research Quality Assessment Model by Oluka, Nie, and Sun (2014)

1.8 Significance of the Study

The importance of time is something that cannot be denied at any cost. Present study is designed to identify the level of time management among novice researchers ‘and its effect upon research work produced by them. Here by novice researchers means teacher researchers with three or less than three years’ experience in their field of research. As we know that research is a very time taking and exhausting process. The new teachers have to keep a good time management sense and skills in order to complete their work by keeping in mind the factor of quality. This is because they are less experienced and also have to deal with their institutional roles and responsibilities.

As the current study is meant to explore the time management skills of teacher researchers with three or less than three years’ experience in their field and its effect upon quality of research they produce. So, it will be beneficial for all those teacher researchers who are new in research field to evaluate their time management capabilities and to identify that

how they can use them to produce quality research work and reduce work anxiety and stress which occurs due to excessive workload and mismanagement of time. It will also help all of them to organize and manage their professional work properly.

It will help concerned institutions to get quality research work as the proper time management skills will make novice researchers efficient and effective in their work and they will be able to publish their work in well-known and standardized journals, books and articles etc.

The results of the study will help all researchers to identify the factors which can help in producing quality research. As the study is using research quality assessment model which describes important factors that researchers should keep in their mind while conducting any research that how each step of research should be written. So, on the basis of these factors researchers will evaluate their research abilities and work appropriately.

When new researchers will realize their capabilities and importance of time management together with their quality of research on the basis of important factors mentioned in the study like goal setting, prioritizing, scheduling etc for time management and clarity in aims, appropriate design and approach for particular study etc and by knowing that how each step should be written than they will produce worthwhile research by focusing on specific problems which in turns will help society to grow up and progress by solving those problems.

It will be beneficial for the stock of existing literature because it will provide an additional information about whether the effect of time management on quality of research among novice teachers is positive or negative. Also the factors which are compulsory for assuring

the quality of research were considered by novice teachers in their studies or not. Existing literature was more pertinent to the time management effects on other variables like students' course grades, potential teacher's performance, academic achievements of students etc. But this study will also provide an information about time management techniques which are preferred by the novice teachers and are helpful in enhancing their performance in professional tasks and activities specially the quality of their research studies.

1.9 Research Methodology

1.9.1 Research Approach

Current study used quantitative approach. This approach is used to apply statistical analysis on the data collected for study. Therefore, the researcher prioritized this approach because it itemizes the problem through developing numerical data which can be then presented in identifiable statistics. Furthermore, this approach offers more structured methods for the data collection.

1.9.2 Research Design

As for as the research design of this study is concerned it was based on correlational design. Correlational design is one type of non-experimental research. According to McCombes (2020) correlational design actually finds out a relationship between two variables. These variables are not controlled by the researcher. The correlational design finds out the relationship between two variables that's why in current study the researcher was interested to check effect of independent variable on dependent variable in terms of relationship as, is there any effect of time

management skills on quality of research among novice teachers or not and for that purpose researcher has used linear regression analysis test.

1.9.3 Population

According to the Momoh (2021) a population in research terminology is a pool of people, objects or any other items that are having similar features. There were 6 HEC (Higher Education Commission) recognized public sector universities which were offering common social sciences departments in Islamabad. So, the target population for the current study was 276 novice teachers of 6 public sector universities of Islamabad who were serving in all social sciences departments during session (2021-2022). List of these universities was taken from the HEC (Higher Education Commission, 2021) web site which is attached in Appendix I and list of novice teachers was taken from the coordinators of selected universities and is attached in Appendix J.

Table 1.1

Population of the study

Sr.No	Total Universities	Status	Total No. of Novice Teachers
1	6	Public	276

Above table 1.1 represented the total number of universities selected as a population which are 6 in numbers along with their status and total number of novice teachers serving in these universities which was 276.

1.9.4 Sampling

For the current study the researcher took 100% population as sample size which was 276 novice teachers. Because the number of target population was small the researcher used census sampling technique which means every member of the concerned population was the participant of this study. Then the researcher took 40 respondents from 276 for pilot trial. So, the remaining sample was 85% based on 236 novice teachers including both contract based and regular novice teachers who were selected for final data collection. Hence, the researcher distributed questionnaires among 236 respondents but only 227 questionnaires were returned with complete responses so the rate of return was 96%.

The researcher visited two times personally to the HEC office for the list of contract based and regular novice teachers of selected universities. But they refused for providing required information. So, the researcher took permission letter from university and visited all selected universities one by one in order to coordinate with HODs' of social sciences' departments. Then with the HODs' permission researcher took information about contract based and regular novice teachers in figures from coordinators of all selected universities. The figures are mentioned in the table below and also attached in Appendix J.

Table 1.2

Sample of the study

Sr. No	Name of Universities	Regular Novice Teachers	Contract Based Novice Teachers
1	National University of Modern Languages Islamabad.	43	9
2	International Islamic University Islamabad.	41	7
3	Air University Islamabad	10	5
4	Bahria University Islamabad	13	8
5	Quaid-e-Azam University Islamabad	86	12
6	Allama Iqbal Open University Islamabad	29	13
	Total	222	54
	Grand Total	222+54=276	

Above table 1.2 represented the sample having number of both regular and contract based novice teachers in six public sector universities of Islamabad.

1.9.5 Instrumentation

1.9.5.1 Time Management skills Assessment Scale by Editorial Team (2007). For assessing the time management skills researcher adapted a scale which was developed by the Editorial Team (2007).

Table 1.3

Description of Time Management skills Assessment Scale

Variable	Sub variables	Items
Time management skills		26
	Goal Setting	1,2,3,4,5,6
	Prioritizing	7,8,9,10,11
	Scheduling	12,13,14,15,16
	Managing Interruptions	17,18,19,20,21
	Procrastination	22,23,24,25,26

Table 1.3 represented the time management skill assessment scale based on 5 sub variables along with the number of items of each sub variable which were used in questionnaire.

1.9.5.2 Research Quality Assessment Scale by Mehar (2017). For assessing quality of research researcher adapted a scale developed by Mehar (2017).

Table 1.4

Description of Research Quality Assessment Scale

Variable	Sub variables	Items
Research Quality assessment scale		39
	Clear Aim or Research Question	1,2,3,4,5
	Research Methodology and Design	6,7,8,9,10,11
	Data Collection Procedure	12,13,14,15,16
	Description of Study Content	17,18,19,20,21,22
	Data analysis Description	23,24,25,26,27,28
	Relevancy of Results with Aims	29,30,31,32,33,34
	Considering Ethical Approval	35,36,37,38,39

Table 1.4 described the quality of research assessment scale based on seven sub variables along with the number of items of sub variable which were used in questionnaire.

1.9.5.3 Validity of Instruments. Validity of instrument means whether the instrument is exactly measuring that factor for which it was developed. For ensuring the validity of tools which were used in current study the researcher had consulted 4 experts who were related to the field of education. The experts checked instrument's face and content and suggested few amendments in the content which were improved by the researcher.

1.9.5.4 Reliability of Instruments. For ensuring the reliability of tools, researcher conducted pilot trial on 40 respondents who were selected randomly from study population.

1.9.6 Data Collection

For concerned study the researcher collected data from selected sample through close ended questionnaires as a data gathering instrument. Before starting the data collection process the researcher visited concerned authorities personally to take permission then collected data from respondents as per their availability and convenience.

1.9.7 Data Analysis

Final data was collected and analyzed in the SPSS (Statistical Product and Service Solutions)) 22nd Edition by applying suitable statistical techniques like linear regression analysis and descriptive analysis respectively.

Table 1.5

Tests for Data Analysis

Sr.No	Objectives	Null Hypotheses	Statistical Tests
1	To assess the level of time management skills of novice teachers.		Descriptive Analysis (Frequency and Percentage)
2	To identify the level of quality of research of novice teachers.		Descriptive Analysis (Frequency and Percentage)
3	To measure the effect of time management skills on quality of research among novice teachers at university level.	There is statistically no significant effect of time management skills on quality of research among novice teachers at university level.	Linear Regression Analysis

Table 1.5 shows the study objectives, hypotheses and statistical tests i.e individual scores which were used for identifying the level of both first and second main objectives and linear regression which was used for third main and all sub objective's analysis.

1.10 Operational Definitions

1.10.1 Time Management Skills

Time management skills are the capabilities researchers possess and with the help of which they manage their professional and especially research activities in a well

possible manner. The current study meant to assess the time management skills of novice teachers and to know whether they can produce quality research or not by using those skills.

1.10.2 Goal Setting Skills

In a current study it was meant to assess the abilities of novice teachers' in setting and deciding about purposeful goals before starting work on research through their perception.

1.10.3 Prioritizing Skills

It is the ability of organizing tasks and activities on the basis of their importance before their execution. The current study was aimed at assessing these abilities of the novice teachers to know whether they prioritize their research tasks before execution or not.

1.10.4 Scheduling Skills

The capability of setting tasks and activities in an order of suitable working time according to the availability and readiness of individual's mind. In a concerned study the researcher tried to assess the scheduling skills of novice teachers that whether they set their research tasks according to the time when their minds are ready or not.

1.10.5 Interruption Management Skills

The concerned study aimed at identifying abilities which can help teacher researchers to manage the un-necessary tasks and disturbing factors while performing research tasks.

1.10.6 Procrastination Skills

In a current study researcher meant to identify procrastination skills of novice teachers which refers to the capability of avoiding laziness in completing research tasks.

1.10.7 Quality of Research

Here by quality of research means how much a research study is worthwhile and is based on all necessary factors essential for ensuring its quality. So, the study aimed at identifying novice teachers' perceptions about how much they consider and follow the essentials of quality while conducting their research.

1.10.8 Clear Aim or Research Question

The study identified whether novice teachers set clear and unambiguous goals before conducting their research or not which indicates the quality of their research if they dedicate enough time for it and set unambiguous goals and if not then vice versa.

1.10.9 Design and Research Methodology Details

The second indicator as per the conceptual framework of the study which indicates the research quality if it is according to the nature of study. So, the researcher identified that weather the novice teachers consider this factor in their research or not. Like they select study methods and procedures based on the nature and need of the study or not.

1.10.10 Data Collection Procedure

In this study the next indicator was identified among novice teachers, that they use appropriate data collection and interpretation methods in their studies or not.

1.10.11 Description of Study Content

By study content means a literature which shows the relationship of understudy idea and previous related ideas in order to make the study more valuable and comprehensive. The present study identified that novice teachers can manage this factor better through the use of their time management skills or not.

1.10.12 Data Analysis Description

This factor reveals that the statistical techniques which are used in data analysis must be relevant and give accurate result to ensure the quality of study. Therefore, current study identified that novice teachers are considering it seriously by selecting accurate techniques in their research or not.

1.10.13 Relevancy of Results with Aims of Study

The most important indicator which shows the quality of any research is the relevancy between its aims and end results. So, the present study assessed novice teacher's perception about whether they consider and follow this factor properly in their research or not.

1.10.14 Considering Ethical Approval

Ethics are the most important factors which shows the value of study if they are being followed while conducting research. The researcher in current study

identified it among novice teachers whether they follow this quality factor in their studies or not.

1.10.15 Novice Researchers

Here by novice teachers means teacher researchers having three or less than three years' experience in the field of research and are serving in the common social sciences departments of six public sector universities of Islamabad.

The novice teachers were identified on the basis of their experience as the above definition described it. It is obvious that the university teachers conduct research and also supervise students' research. The current study was meant to identify that what are the time management skills of novice teachers and by using those skills they can produce quality research or not. So, in this context the researcher initially assessed teacher's time management skills and then their perception about factors which are necessary to assure the quality of research that whether they consider those factors during their research or not with the help of time management skills they possess. In this way the relationship between both variables was identified.

1.11 Delimitations

Due to limited resources and time the current study was delimited to:

1. Identify the teacher's time management skills and their perception about factors which are necessary to assure the quality of research that they are considering those quality factors or not by utilizing their time management skills in research. 6 public sector universities of Islamabad that were having common social sciences departments.

2. Only Islamabad city geographically.
3. Teacher researchers having three or less than three years' experience in the field of research.
4. The new teacher researchers who were serving at higher level in the 6 universities of Islamabad during session 2021-2022.
5. The new teacher researchers who were serving in all social sciences departments of selected universities.

CHAPTER 2

REVIEW OF THE RELATED LITERATURE

Current study was meant to explore “Effect of time management skills on quality of research among novice teachers at university level”. So, the current chapter was based on three sections. In a first section researcher deeply reviewed literature which was based on the general introduction of research idea. Then the second section included material about related theories and models. In the third section previous research studies were explored, reviewed, and discussed in order to show the relationship between time management skills and quality of research. Then with the help of it researcher had supported the idea of concerned study and fit it in the gap.

Section 1 possesses General Introduction of Research Variables

2.1 Meaning and Importance of Time Management Skills

Time management is actually an art not everyone possesses. But it can be learned through various ways. By having a good time managing abilities a person can win success in a variety of tasks and in all spheres of life. Juneja (2015) has defined it simply that time management is a process in which a person allocates it's time to some particular activity and can work effectively. Juneja further focused on it and wrote that for getting success in life a person must understand the value of time and its management because it can benefit a person in the form of success. Here the focus of author is on the importance of time management for getting benefit in life tasks and by getting benefit means quality work. So, the task can also be a research and the performer can be a novice teacher and if a teacher

manages its time well during its new job and conduct a research then by good time management skills the person can get good results in both activities like in research and also in professional roles and responsibilities. Ultimately it shows that there is some effect of time management on quality of work which increases if the manager manages time well and it can be a quality of research as well, which was a focus of current study. By Olpin and Hessen (2012) in its very clear concept managing time is actually related to the sequence. It means managing time is about performing certain events or tasks in a disciplined way or a proper sequence. By another researcher Kerzner (2009) it is reported that time is basically a resource which cannot be created again once lost or missed. So, by this statement it can be realized that how much the management of time is important in once life. And this importance is also for the novice teachers who can utilize it and get benefit in their research work in order to maintain quality of their research.

Harris (2008) clarify the concept of time management by defining it as a process with the help of which one can uses it smartly in order to gain perfection in particular activity and to complete it under the prescribed time period. Hence it supports the idea of current study in a way that, if novice teachers manage their time well during professional activities and research work then it will help them to produce quality research work along with the other professional roles and responsibilities. Kristan (2010) indicated that time management is all about taking responsibilities in a careful, purposeful and meaningful way by using once consciousness. It is about dealing with the difficulties occur in a way of certain performance and overcoming them. Pearson (2010) also noted that managing time is a way of completing activities with a great outputs and results. Therefore the great result can be a quality research produced by the teachers.

Some authors like Marquis and Huston (2009) do not accept this term time management because no one can manage time but by relating tasks or activities with it a person can manage or enhance its achievement. In this way if a novice teacher divides its work with respect to the available time frame, it will help to increase the worth of achieved progress in research and other tasks as well. Forsyth (2010) emphasized on this concept that managing time doesn't means just performing some activity under prescribed time frame but it must be related to the concept which ensures that previously set goals and objectives are met. Another researcher Hansen (2011) put an eye on the meaning of time management and reported that management of time doesn't mean taking more time for particular task but to make it possible to finish the task by sensibly using available time. Hence it is necessary for the teachers also to make a sensible use of time while conducting any research study to get best results.

Mancini (2007) stated that managing time is a powerful tool which helps a person to work with full efficiency and effectively. When effectiveness and efficiency comes in our work it decreases the work load stress and overwhelming condition and a person feel more relaxed and confident. So, when a person feels confident while working on some activity it definitely leaves positive impact on the outcomes. Therefore, if the novice teachers will have good time management skills they can also reduce their workload of institutional responsibilities including their research work. Ultimately the research which the teachers will produce will have a good quality work. Similarly Rivera (2007) argued that time management can make emergency work less emergency or less urgent if a person has an ability of maintaining discipline through planning. It means by utilizing available time in

a best possible way a person can minimize the stress of workload and can also get a best result.

As for as the importance of time management is concerned. Seaward and Seaward (2011) reported that by managing a time people complete their work on time and with best results and feel so good and motivated by completing tasks. When the task get complete, people feel free and enjoy those moments of life which is a very beautiful thing to get pleasure even on a very small things to be done. Similarly there are a lot of other benefits of the time management for all of us. Like researchers Alexander and Dobson (2008) reported that utilizing a time properly can increase the person's ability to be more productive. Furthermore, managing time in a well possible manner also makes a person to accomplish activities in less time and it saves the energy Becker and Mustric (2008). Moreover, management of time can enhance the possibility for a person to pursue own interests in the fulfilment of certain tasks Felton and Sims (2009). Likewise, time management is also very crucial in getting more tasks done in less time by focusing and planning Green and Skinner (2005). Also the time management has a great value in a sense that people feel good about themselves when they finish their work by taking less time Brott (2008).

Similarly the importance of time management is addressed by Juneja (2015) that it makes person more punctual, enhance morality and confidence of a person. Author also formulated that effective time management supports in achieving desired objectives and goals, improves planning, reduces work anxiety, and facilitates organized work. According to Downs (2008) there are some specific processes which involves in the proper and effective time management and these may include, set a priority then to analyze it after that filter your priorities and then make a schedule for their execution. All these are the abilities

which a person can acquire and to manage time. Hence with the help of time management a person can learn many more things which enhance the importance of time management in life in order to get quality outputs.

2.2 Time Management Techniques

As far as the techniques of time management are concerned these are the abilities which help an individual to set the time properly or in a well possible manner for managing different tasks and activities of the life. There are variety of techniques which are explained and discussed by different authors and researchers and which can be used to improve the ability of an individual of managing time properly. The most important and commonly addressed or discussed techniques are:

2.2.1 Prioritizing

Various studies declared this technique as an important time management technique. Like a researchers Tracy (2007) and Becker and Mustric (2008) considered prioritization a very necessary time management principal. Similarly Downs (2008) has stressed that when an individual will not follow this technique or principal of time management the individual will not be able to meet the necessary goals and waste time on useless or less important tasks which might makes the whole day busy with very little benefits. Again a researcher Yager (2008) relates this technique of prioritizing with the Pareto principal which is famous by 80/20 rule, and it means getting 80% benefit by working only 20%. So, here through prioritization a person can get more and more better results with less effort. The next researcher Dodd and Sundheim (2011) focused on it and agreed that the manager must prioritize the tasks by identifying first their value which will definitely give more benefits

to the manager. Then Seaward and Seaward (2011) agreed that this is a crucial technique for good time management. Researcher reported that when a person ranks tasks or particular activities by focusing on their importance this is said to be a prioritization. Another researcher Juneja (2015) has discussed it that it is necessary to prioritize the tasks on the basis of their importance and then a person must follow that list of tasks prioritized previously by keeping in view the value and available time period. Then Borucka (2018) also favored a concept of prioritization in the same manner. Next writer Chong (2018) has reported that deciding about what to do a night before makes a person to be more productive, and confident at work because there is no need to procrastinate as it is decided before what to do.

The researchers Mathews and Mccarthy (2019) identified a system for prioritizing tasks which is based on the concept of urgent and important and it is also supporting the ideas of already discussed researchers in current study. According to the Kos (2020) setting priorities is the key for getting development in any area of life. It actually makes an individual able to sacrifice some less important activities or things in life in order to achieve larger goals. A person will get only what will be more focused and prioritized in life. So, it's very necessary to consider what is more valuable for your success and what is not and then move accordingly. Same is the case with new university teachers who can make progress in their professional status by focusing on the quality of their research work. Likewise a researcher named as Keiling (2021) elaborated it as prioritizing means a person should know which activity needs to be completed at first. Also Rabha (2021) emphasized similar concept for employees regarding this technique. Ciesielska (2021) provided a review on this technique and agreed that it can help a person to a great extent in maintaining

balance between productive work and life. Likewise Team (2021) also shared about teachers that they also need to prioritize their tasks and activities which will definitely assist them in maintaining the workload whether it is professional or personal and will help them to be more focused and one other researcher Rahmah (2017) also agreed with this idea. Hence when teachers will be able to maintain their teaching responsibilities it will give them enough time to focus on research and to make it more worthwhile.

2.2.2 Setting Goals

This is the second technique which is most commonly addressed by the authors including Green and Skinner (2005), Rivera (2007), Becker and Mustric (2008), Felton and Sims (2009), Dodd and Sundheim (2011), and others. So as per the idea of Becker and Mustric about goal, a factor which is really required by any person in any work is called a goal and its setting before the execution of work is considered as a best technique to manage time successfully. Therefore according to the Rivera, Green and Skinner, and Dodd and Sundheim, it is declared to be the most basic principle for meaningful management of time. Moreover the mentioned researchers including Felton and Sims also recommended that the personal and professional goals can also set by the individuals through the positive statements, to be very specific and precise, by writing the goals, by differentiating the action goals and the missions and visions etc. Rivera also stressed upon the value of this technique by revealing the idea that it is mostly used by the highly successful people including: businessmen, great athletes and other high achievers in different areas. Again the researcher says that goal setting is not only about some activity or task it involves every aspect of life like; personal, professional, emotional, economic, social, etc. Therefore it can

be realized that if the teachers will follow this technique it will definitely help them in conducting quality research and also in managing professional chores.

Kristan (2010) mentioned an interesting suggestion about the characteristics of goals which is called SMART (Specific, Measurable, Achievable, Relevant, Time-Bound) and it stands for specific, measurable, achievable, realistic and timely. The next author Rahmah (2017) expressed that setting goals help teachers to be more attentive towards what they required to achieve the most. It can assist them in concentrating on tasks other than teaching and it can be a research study. Then Borucka (2018) considered this technique an extremely crucial for best time management. Researcher says that it keeps the person exactly straightforward towards the basic purpose of any activity which increases the chance of best results. So, through this technique a new teacher may increase the quality of research as well as institutional role. Chong (2018) also reported a model for teachers which is called SMART (Specific, Measurable, Achievable, Relevant, and Time-Bound) model in order to set short term as well as long term goals for teaching. Moreover Chong suggested teachers to think about activities that are a part of your daily routine and then differentiate those which will help you more in accomplishing tasks and achieving goals and separate those activities which are wasting time. In this way the teachers will find more time to focus on achieving desired objectives. Hence except achieving teaching goals the teachers will be able to find enough time for their research studies which will enhance the worth of their research.

Mccarthy (2019) focused on current technique and shared a point of view that if a person does not sets goals before performing some activity then it might distracts the attention of person from most precious things to useless things and it will waste the time. Then

Mathews (2019) also considered goal setting very precious technique to make best use of time and to gain maximum benefit. The researcher also discussed that by setting goals previously makes the worker active and it helps in avoiding procrastination. Another study carried out by the Kos (2020) has marked the value of setting goals before going ahead for any task. The study declared that a person must utilize smart approach to set and meet the big goals. Therefore new teachers also need to be smarter in meeting up the needs of teaching as well as quality in research and to be smarter new teaching staff needs to follow goal setting technique. According to the Keiling (2021) a person should know that what would be the ultimate results of concerned activity. It means it should be previously decided that what are the aims or goals of particular work and a person must be insured about what is needed most out of concerned work. After that Team (2021) expressed specifically for the teachers and students that they should plan their activities strategically and save time. Like a researcher emphasized upon avoiding repetitive practices in class which only waste time. . Rabha (2021) stressed that by setting smarter goals and deciding it that which will be completed first can save the time of worker and avoid distraction.

2.2.3 Planning

According to the Green and Skinner (2005) planning is compulsory part of making best use of time. It is not only necessary to complete professional objectives but also to accomplish personal goals. Similarly another researcher Limoncelli (2006) stressed that this technique is not only restricted to the accomplished or unaccomplished tasks but to those activities also which are necessary for once personal life balance including; having fun with friends and family, jogging, playing etc. Hence both researchers revealed that the planner also keep these things in mind while planning about work. Therefore the new

teachers also have to be careful about these things while planning their professional activities in this way they will be able to focus on their other activities also including research. Bhugra and Howes (2007), Alexander and Dobson, 2008 has shared their knowledge about planning and suggested that a person should write down the plans either short term or long term. Authors stressed that through written plans one can sticks with it and able to control the wastage of time by avoiding useless disturbances etc.

Walsh (2008) expressed the importance of planning related to time management in a way that an individual should include a time for personal take care while planning a day or any other long or short term plan related to work or any aspect of life. Walsh emphasized that the best planning is one which is also based on personal care. Similarly Christie (2009) shared similar concept about planning that it should also provide space for human mental and physical relaxation. Then Wigmore (2015) proposed that in order to manage time properly while performing any activity a person needs to plan or schedule about that activity and mention your objectives along with time for each step of activity in your plan. Wigmore further discussed that while scheduling keep the priority of tasks in your mind and also personal space. Then Rahmah (2017) focused on the strategic planning for teachers specially and shared that it can help them to get sufficient time rather than teaching. Hence in that sufficient time the new university teachers can also enhance their concentration in the field of research. After Rahmah, Borucka (2018) considered it the most valuable time management technique in all others because it supports all other aspects of any activity to be performed related to the effective management of time. Chong (2018) also expressed the value of planning in effective and successful time management. Chong

says that it can encourage any person to move with the pre-planned tasks and it gives satisfaction.

Then McCarthy (2019) reported this technique and showed that while planning any work every one should consider three steps in sequence which are; Rocks, Pebbles, and Sand. Whereas rocks means high priority tasks, pebbles means important but easy tasks, and then Sand means less important tasks. Likewise Mathews (2019) also mentioned the worth of planning as a best technique of time management. Mathews says that planning for the upcoming activity actually motivates a person to tackle with the unexpected problems which may occur in the way in future. So, for the novice teachers it is difficult to manage their new job roles and also to conduct quality research. However, if they plan their days before entering into then it will definitely assist them in both teaching as well as conducting research. Kos (2020) wrote similar concept of planning as the other authors showed like; make a list of extremely necessary activities before at night and then execute next day to avoid distractive things. After Kos, Keiling (2021) declared planning as a foundation for healthy time management. Team (2021) agreed with the previously discussed idea of Mathews about planning. Similarly Rabha (2021) favored the technique of planning for efficient and effective time management. Penn said that planning facilitates smooth work.

2.2.4 Preparing To-Do Lists

According to the Tobis and Tobis (2002) to-do list is the list which should contain all the necessary points which a person considers important related to some work to perform. But researcher argues that only adding items in list is not enough until allocating suitable time for each to perform and this is a good way to manage time well. Therefore a novice teacher

can also make a to-do list before every day and manage all activities well including research. Then about to-do list Butler and Hope (2007) wrote that high priority tasks should be performed at the time when an individual feels most productive like in morning or afternoon and the tasks must be scheduled in this manner on these lists. Now we can realize that if new teachers schedule their research work at the time when they feel fresh this will definitely yield better results regarding quality of their research. Moreover Butler and Hope (2007) also reported that planning equipment's facilitate good time management. In this manner researchers advised that a person should maintain activities on planners on daily basis. The other researcher Brott (2008) has proposed that a detailed planning should be included on to-do list. Also Zeller (2008) favored this technique as good one for time management and focused on its advantages. Then another researcher Downs (2008) discussed tools related to time management. The researcher stressed that using paper or digital tools is a person's personal priority as well as the knowledge of both. But the author preferred the use of digital tools which are having certain facilities for the planner. Hence the new teachers can also use digital planners for planning their projects and to get extra time for their research to enhance the worth of their research work.

Felton and Sims (2009) has written about to-do list and suggested that there should be a proper space in the lists of tasks. This is because of the emerging trends in new working environments and a change can occur anywhere while working. Similarly Christie (2009) gave a suggestion that in to-do lists only those activities and tasks should be mentioned which are related to the single goal so that the list do not overlap and only contain clear actions. Here this suitable idea can also be applied for the new teachers who can use this technique with the Christie suggestion and can make a daily to-do list with a very clear

action plan to facilitate their all responsibilities including research work. Then Christie again suggested that in order to avoid confusion in to-do list a person should differentiate those tasks which are completed from those which are there to do still. The next Forsyth (2010) advised that while making to-do list it is mandatory to keep the objectives in mind. The advice is about making meaningful list which is acceptable and achievable in a manner of goal achievement. So, the novice teachers must keep this idea in their mind to be successful in managing tasks and activities together with the research study. A researcher Silvis (2011) pointed another aspect of the to-do list that it may leads towards the laziness of the worker by shifting unaccomplished activities to the next day. In this way the list will be overloaded and difficult to manage. So, it is necessary to jot down tasks carefully and then must complete each one to be safe from confusion.

Juneja (2015) has also written about to-do list and said that a person should use it for writing daily important tasks with the specific time allotted for each one. The writer emphasized upon following the list strictly. It means when a person makes a planner then make sure to follow that plan accordingly. Another author Wigmore (2015) discussed this useful technique and reported that its use can help in managing different activities at work day by day. Then Rahmah (2017) revealed that by using to-do lists teachers can do maximum work in less time. Author suggested a useful software called todoist for the teachers to manage workload and manage all activities.

Keiling (2021) said that maintaining a daily work list is highly important for managing time in a successful manner. Researcher focused that a person may delete those tasks on list which are not fruitful or have less contribution in achieving desired goals and focus only on highly demanding activities. The novice teachers may use this advice to manage

their new hectic routine and to focus on other important tasks as well like research. In this way they will definitely be facilitated to produce quality research work. Again Team (2021) concentrated on it for teachers as plan for potential crises. The writers said that it is beneficial to plan every activity before going to teach in class because if during class any problem arises there must be a prepared solution in hands before. In this way the disturbance can be handled well and the class time will not be wasted. So, by planning and making action plan a teacher can handle all activities related to teaching. Rabha (2021) also considered to-do list a good way of organizing work and making effective schedule. Therefore a teacher can also manage other tasks by making effective action plans or to-do lists for getting good results in that particular work. The particular work can also be a research study which is the basic concern of current study and hence it shows the relationship between time management and quality of any work like research etc.

2.2.5 Focus and Concentration

The next technique which can be a useful tool for managing time in a successful manner in once life is concentration and focus. In this manner Limoncelli (2006) says that by focusing or concentrating means putting your all mental efforts as much as possible on a specific activity. Some authors like Green and Skinner (2005), Mancini (2007), Alexander and Dobson (2008), and Downs (2008) discussed the importance of concentration as a good time management tool. Researchers revealed its importance in general terms but couldn't provide such techniques that can facilitate focusing skill of a person. However some other researchers like Walsh (2008), Dodd and Sundheim (2011), and Silvis (2011) addressed a very top level importance of concentration in effective and successful time management. The researchers not only emphasized upon its importance but also suggested useful ways

that can help in improving one's focus. The useful ways suggested by the mentioned authors include decreasing the possibilities of high level distractions, keeping cell phones silent or off during work, and minimizing all other disturbing factors. These beneficial suggestions can enhance concentration of a person while performing some task and hence make best and short use of time with high quality outputs. So, a new teacher with a burden of tasks and activities can manage time well by improving concentration and focus on work which will definitely yield good results like quality in research work. This idea also reveals that there is a strong relationship between time management skills and quality of some work either research or some other work.

The importance of focus and concentration is also stressed by the Juneja (2015) where the researcher mentioned that a person's focus is very crucial to keep him away from the work stress in terms of time. Moreover the researcher explained that a person should not leave any task due to some other or new urgent call. This is because if the person will do so his concentration on that task will break. Likewise Wigmore (2015) has valued concentration by saying that no one should periodically interrupt any activity because it disturbs the focus. In order to stay focused Borucka (2018) provided some suggestions like a person can put phone away while working or keep it off, concentrate at best, limit the use of social media. By following these suggestions a person can maintain full focus on work and get high quality results. The new teachers should also follow these valuable suggestions for getting quality in their tasks. Similarly McCarthy (2019) expressed focus and concentration by relating it with Pareto principle. The researcher showed that focusing 20 percent can help in achieving 80 percent. Here the importance of concentration is stressed in a way that if a person will concentrate properly on a particular activity then the results will definitely

be the worthy and prestigious. Rabha (2021) has mentioned that it is possible to maintain good focus when a person is having one task or activity at a time in mind. It means a person should work only on one activity at a time which will enhance focus and ultimately the results will be desired.

2.2.6 Use of Time Logs

Using a time log is also considered a useful tool by many writers, and researchers which can assist people in managing their time fruitfully. So, in this regard Limoncelli (2006) recommends that by using time log people can identify that how they use their time. Then by knowing it people can identify that where is a need to improve. Downs (2008) has suggested that all those activities which require time more than five minutes should be added in a time log. Researchers further advised that conclusions should be made on the basis of time spent on each type of task during whole week. In this way time management can be improved. Similarly Felton and Sims (2009) argued that by utilizing time log for some days helps people to know actual usage of their time not about what they think about used time. However Dodd & Sundheim (2011) did not consider this technique as a good time management tool but only a way which can help person to see where actually the time is going on.

Rahmah (2017) suggested software todoist for the teachers specially for managing their all work. It can be helpful for the teachers in terms of handling research a well. Borucka (2018) has discussed this technique as a good way to manage time. Researcher explained that if a person knows about the exact time spent on particular task then it can help in the better management of activities. Furthermore researcher suggested a time tracking software

which can facilitate in suitable time allocation. Chong (2018) has suggested some tools for the teachers in order to lighten up their work which includes; Jing, ETp Web watcher etc. The researcher said that these tools can make the teaching better and saves teachers time by managing certain tasks and activities in better way. Mathews (2019) has suggested that by using templates, digital calendars, and time trackers, can help in improving productivity of tasks and manage time in best way. The researcher Rabha (2021) suggested several approaches like; using a time tracker, to-do list, Communication, and Logging can help in knowing and estimating time spent on several activities and facilitate the proper management of time.

2.2.7 Delegation

The next time management principle is delegation which enhances the best use of time and quality of tasks and activities performed in specific period by an individual. A researcher Mancini (2007) explained delegation as a technique through which a person can buy time in a way like, on payment hiring someone to accomplish work, or buying such equipment's based on modern technology which can be utilized for accomplishing certain activities. However Mancini also agreed that this way of managing time or buying time is not suitable or affordable for all because not everyone is capable for this. So the suggestions and techniques for managing time well varies from person to person on the basis of their financial status. As for as the benefits of this way are concerned, Christie (2009) said that proper delegation can provide a space to the person to think about other strategic plans. Additionally Felton and Sims (2009) said that delegation can help an individual also an organization to encourage the skills of employs working under. This useful technique helps also in distributing responsibilities. Then Forsyth (2010) advised that for fruitful delegation

a person should be careful in these things i.e selecting a suitable individual for performing task, surety of making person understood about task, providing him adequate task related resources, monitoring the person and appreciating on good performance etc. The researcher said that if these suggestions are followed by the person then it will lead an effective delegation and if not then vice versa.

A researcher Borucka (2018) has written about delegation and said that people should have a courage to say no to the tasks which they are unable to perform. Moreover the researcher expressed that if an individual can find a person who can better perform some task then it is better to assign task to that person. Again a researcher Chong (2018) consider it best technique for saving once health by saying no to the overwhelming and extra tasks which are out of plan. Then Mccarthy (2019) explained that before starting new task a person can think about whether it can be given to someone else or not who can perform it well than me. This will help in saving time for other activities. Keiling (2021) explained that delegation means a person is able to do some extra work which is not even related with the previously assigned tasks at work place. Rabha (2021) supported delegation as a strong time management tool which can help individuals to get accomplished their activities faster and better by ignoring those tasks smartly which are not a part of daily plan and are difficult for handling.

2.2.8 Organization

Now the last one repeatedly discussed and addressed method or technique which can improve time management of any person if followed is organization. Here by organization means staying disciplined and do not mixing up things or tasks need to do. Mancini (2007)

in his recommendations addressed that in order to be an organized personality and to make safe use of time regarding activities a person should divide his or her work in three major types. To the first type researcher gave a name of “keep”. Researcher recommended that in this box a person can put necessary tasks. Then a second category which the researcher suggested is “delegate”. In this box a person can adjust as much as possible. Then the last category is “get rid box”. In get rid box a person can keep those tasks which will not help much in achieving required goals. In this way a person can easily reach the required files and save time in useless search. Therefore in case of current study the idea can be useful for the new teachers who have to deal with a lot of new stuff and can manage their activities by following this suggestion. New teachers can manage their research as well as institutional activities by keeping them in these different boxes. This will definitely save time and help them in accomplishing tasks with worthy results. The disorganization leads towards the wastage of precious time and mismanagement in one's life. This idea is supported by several writers like Dodd and Sundheim (2011), Fleming (2011) etc.

Dodd and Sundheim (2011) suggested some useful approaches to deal with the work. These include; getting rid of, delegating, making to-do lists, delaying and dealing with additional information. Then researcher said keep this information at a place where it is easy to access for the person. These approaches can help a person to stay disciplined and save time. Juneja (2015) recommended to be disciplined and organized so that the time can be managed properly. The writer said that taking useless and maximum leaves shows non-punctual behavior which leads to disorganization. Similarly researcher said that keep every gadget at its proper place so as to avoid time-wasting search. Rahmah (2017) also suggested this technique to the teachers for managing their time productively. Moreover

researcher declared it a quality of good teacher. Another researcher McCarthy (2019) has shown in his study that a person can make himself productive by following a rule of organization. It means by staying organized a person can manage time well. Then the researcher suggested some useful ways like keeping management tools, avoiding unnecessary clutter, keeping important and constantly using items near etc can help in saving time at work and maintaining discipline.

Next by organization, Keiling (2021) means a person when knows about some activity and a time required to complete that particular activity along with the other necessary details is called organizing technique. It shows that the person is having an organized personality. Again Rabha (2021) also considered organization as a crucial one for managing time effectively.

2.3 General Concept of Quality

Before discussing specifically the quality in research lets discuss what is quality in general together its meaning. A researcher Flood (1993) has described a quality in terms of different aspects including customer's need, product aspect, manufacturing aspect, and valuing aspect. But the researcher ignored other stakeholders in its quality definition except customers. Then Ryall and Kruithof (2001) further focused on the term quality and also described it in terms of customers but by emphasizing the aspect continuity which was modified. Another author Oakland (2003) also stressed quality in view of customers and fulfilment of their requirements. Furthermore American society for quality control in (2004) also tried to describe meaning of quality term and focused on just customers' aspect in its definition and ignored other fields like one of previously discussed researcher Flood

did. Similarly Kemp (2006) gave his idea about the quality which was based on some elements required to meet the standards of some product or service. The idea revolves around two factors for customers and organization stakeholders. Here the author also added organization stakeholders together with the customers but one part of the idea was ambiguous like author discussed some add value which was not clear. Nelsen (2007) described quality in two ways. At first the quality means when a product or service possess ability to fulfil the demanded needs. Secondly author said that a product is said to be quality one when it is out of all faults or errors.

After that Hoyle (2007) expressed the meaning of term quality by considering a manufacturing, user and product factors. Researcher said that a quality is when a product or service satisfies and fulfils the purpose of user not at the time of taking or buying but also during its usage. According to the ISO the general definition of the quality includes “The totality of features and characteristics of product or service that bear on its ability to satisfy stated needs revolving around the customer”. Now the concerned study focused on the quality in research. In this manner if this definition is critically analyzed then it means the ability of particular study to resolve the problem or to provide solution of concerned problem upon which it was conducted then it is said to be a quality research. Then British Defense Industries Quality Assurance Panel has written that quality is conformance to specifications. Which means if some rule or criteria is previously specified for some action and then the action follows exactly the specified rules then it is said to be the quality action.

Mar (2013) has discussed quality in terms of different aspects which includes: management, marketing, quality assurance, manufacturing, economic, and product. The researcher says that “fit for purpose” is the definition of quality commonly used in

management like if any product completely fulfils its purpose then that is its quality. However, the definition can also be fit in research area like if a study procedure is exactly based on the proposed idea then it is said to be fit for purpose. Then researcher discussed quality as conformance to requirements in terms of quality assurance. However, it can also be applied for research quality like; a study results are conformance to the society problems. Similarly researcher described quality in terms of price and said that it is a price of some service or product which the consumers are willing to pay. It can be related to those studies published in paid international Journals. Likewise Mar (2013) also expressed quality as a standard. So, the research which follows the high standards in its conduction can be a quality research. Then researcher described quality as a value. It means the products or things which are valuable for the customers are having quality. Therefore a study which is considered valuable for the concerned authorities reveals its quality as well. In its last description the researcher said quality is satisfactory experience. In research if an advisor satisfies with the work of its advisee then it reveals the quality of conducted research. Moreover, Elshaer (2014) has presented new definition of quality on the basis of his study which is “Quality is a situation when a set of inherent characteristics consistently fulfil the continuously changing requirements of the organization's customers and other stakeholders”. Now if this definition is described in terms of research quality then it would be like: “Quality research is one which genuinely fulfils the gap in existing stock of knowledge and provides proper solutions of emerging problems in related fields”.

2.4 Concept of Quality in Research

The concept of quality in research means how the research quality is measured and what makes a research an effective and worthwhile. If a particular study is based on the defined

specifications and criteria then it would be considered as a quality research study. According to the Shavelson & Towne (2002), Boaz & Ashby (2003), and Lohr, (2004) quality research is often called a scientific process which possesses all factors of study design, particularly related to the similarity between research question and method, subject selection, measurement of outcomes, and avoidance of systematic and nonsystematic bias, and finally inferential error. Furthermore Bouchrika (2014) has determined some factors for quality research which includes an interesting question, an appropriate and systematic methodology, and acknowledgment of the past research in between the study, relevant data, and data analysis techniques. Moreover the researcher described that a quality research is generalizable and representative, it is based on some logic and it has an external validity. More quality indicators that were discussed by the author like a quality research is replicable and can be reproduced and has a transparent nature. Then again researcher said that a study which indicates exact limitations and provides suitable suggestions for upcoming researchers is said to be a quality research. At last the researcher also described that those studies are having quality which are based on ethics.

Likewise a general question was asked by a person Qambrani (2018) on ResearchGate about quality of research and Bright (2018) answered to the question which was based on the idea that a quality research is one which is followed by some topic or problem and which contributes to the existing literature of concerning filed. Further it was described by the researcher that the integrity of research methodology is also a factor which determines the quality of research. Moreover there should be no ambiguity in the presentation, data source, data use and management. One more important factor of quality research was mentioned by the researcher is peer review and integrity in review, which indicates the

quality work. After that Ahmad (2018) has replied a question of quality as the perception of quality is varies from person to person and for the researcher personal point of view those studies are worthwhile which are beneficial for the country and humanity. Then Ncube (2018) has answered that the studies which are based on valid and reliable methodology, effective, relevant and validated data collection tools, and on real problems which exist in the life are having a quality. Moreover the writer also considered ethics a very important feature for the quality research together with the relevancy and agreement of findings with the existing scientific knowledge.

2.5 Principles of Quality Research

When we talk about research and its quality then obviously there must be a discussion of principles as well upon which any research quality depends if followed strictly. There are some principles described by different researchers that should be followed before conducting any research. So, the National Research Council (2002) and Ragin et al. (2003) formulated some standards or principles for assessing the quality of research. The most commonly used principles includes: posing a significant question which can be empirically investigated and provides some knowledge base, testing questions with the relevant theory, selecting and using methods that address the question at its best, the research should be based on the reasoning links which are supported by the relevant literature, provision of the important information for the replication of study, making sure that the study methods, design and procedures are transparent and ensure an objective, balanced and independent approach to the study, provision of the description of sample, utilization of the proper and reliable conceptualization together with the measurement of the study variables, assessment of the alternative explanations for findings, find and assess the impact of any

systematic bias, submission of the study for peer review, and strictly adhering to the quality standards for reporting which are clarity, completion, and weighty. According to the Mahmood (2011) quality research contains all basic particularities that user needs. For him a quality research should be based on the principles like: internal and external validity of study design, principal of reliable data source, it should be out of plagiarism, principle of using useful tools, and interpretation of results should be understandable in practice as well as statistically.

After that Rand (2015) has also mentioned some standards or principles for quality research and the first one is: a problem upon which a study based must be presented in a way which at least clarifies the aim that what is going to be accomplished. The second standard or principle identified by the corporation is that the study method or design should exactly matches the type of problem and the purpose so that the study execution carried out properly and with full rigor. The next principle includes a rich and well explained previous research studies that are related to the concerned topic. This principle emphasizes upon the meaningful demonstration of the previous studies in a way to express that how the current study differs, agrees or disagrees. After that the next principle is the principle of best data and information availability. Here the principle focuses on the fact that the data presentation and generation methods should be appropriate and unambiguous. In the description of this principle it is also mentioned that there should be meaningful elaboration of the data limitations regarding its quality. Then the next principle is about the assumptions that should be justified with the help of obtained results and based on the analysis of multiple scenarios. The proceeding principle is the principle of findings that should enrich the existing knowledge and based on policy issues. After that the emphasis

is on the principle of implication and recommendation which should base on logic and suggested by the findings. Both factors should be well explained. Next the corporation stressed upon the principle of documentation which should be very attractive, neat, correct and structured. Then there comes a principle of study relevancy and importance which means the study should be worthwhile and relevant to the decision makers and stakeholders. The last principle mentioned by the corporation is the principle of study objectivity, independence and balance.

Then according to the Andrea and Dwyer (2017) the basic elements or principles of the research quality include, unambiguity in the study, technical corrections, relevancy and importance, and interest to readers. After that a general question about research quality or standards was asked by the Allo (2019) on Editage website and its answer was given by Insights that the quality standards or principles are actually a guidelines for the researchers to follow in order to produce best knowledge. The writer said that these guidelines or principles includes principles of integrity, honesty, responsible behavior, and non-plagiarized work. All the principles recognized and suggested by mentioned different researchers are crucial for the successful and quality research. By analyzing these principles it can be realized that it is very necessary for all the researchers' whether novice or old to keep these points in mind while conducting their study. Another thing which can be identified that in order to follow these principles there is a need to manage proper time before. This is because without proper time management it is not possible to follow all the principles especially for the novice teachers who has to deal with a lot of responsibilities at the same time along with the research. Therefore, time management skills are required

for the researchers to follow the principles properly during research in order to ensure the quality of study.

Section 2 Possesses Related Theories/Models of Study Variables

2.6 Theory of Planned Behaviour

The current study used conceptual framework which was developed by the researcher by using two models. Time management skills model and quality of research model. Both models had their roots in theory of planned behaviour. This theory was developed by Icek Ajzen in (1991) and addressed some factors that can influence human behaviour. These factors involved attitudes, subjective norms, and perceived behavioral control.

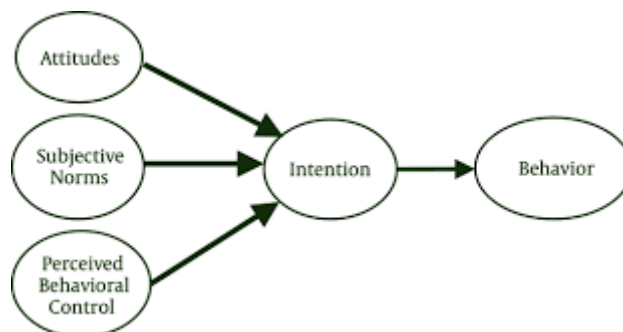


Figure 4. Theory of Planned Behaviour by Icek Ajzen (1991)

According to this theory any behaviour is a function of three factors: attitudes, subjective norms, and perceived behavioral control.

In a factor of attitude the theory states that attitude affects the way an individual perform particular behaviour. It means if an individual thinks that some behaviour will have a positive difference or change in life then it is more likely that the individual will perform that particular behaviour. In short the attitude answers a question what do I think?

The second factor subjective norms deals with the concept of what others think about particular behaviour. As for as the third factor perceived behavioral control is concerned,

it deals with the answer of question, can I do it? In other words it deals with the individuals' strength of performing particular behaviour. If an individual thinks that he or she is capable and has proper tools and means to exhibit some behaviour then it will be performed by the individual but if not then vice versa.

In a current study the researcher wanted to ask about novice teachers' time management skills and their perception about whether those skills affect their research quality or not and how do they conduct their studies. So, the concept of current study reflects the concept of these factors discussed in the theory of planned behaviour as what is the behaviour of novice teachers towards time management and how does it affects their studies' quality. Also what is their behaviour towards the consideration of important factors which maintain the research quality? According to the Claessens, vanerde, Rutte, & Roe (2007) time management are the "behaviours that aim at achieving an effective use of time while performing certain goal-directed activities". Researcher further said that these behaviors includes setting goals, scheduling tasks, prioritizing, making to-do lists, grouping tasks etc which aim at an effective use of time. So, in current study the time management skills model was also based on these dimensions which were used by Editorial Team (2007) in their study like, Goal setting, prioritizing, scheduling, managing interruptions, and procrastination.

Similarly, the current study used research quality assessment model to identify the novice teachers' perceptions towards the use of factors that are crucial for maintaining the quality of research. In order to identify their perceptions about quality the researcher used those quality factors which were used by Oluka, Nie, and Sun (2014) in their study i.e, Clear Aim or research question, design and research methodology details, data collection

procedure, description of study content and data analysis, relevancy of results with aims and consideration of ethical approval.

2.7 Other Related Theories /Models of Time Management

There are various useful models presented by different writers related to the time management. These models can help a lot if studied and followed by the people in order to improve their time management skills and to achieve remarkable progress in all fields. Let us discuss the models here.

2.7.1 ABC Model of Time Management

According to the Jinalee and Singh (2018) ABC model is based on three basic ideas.

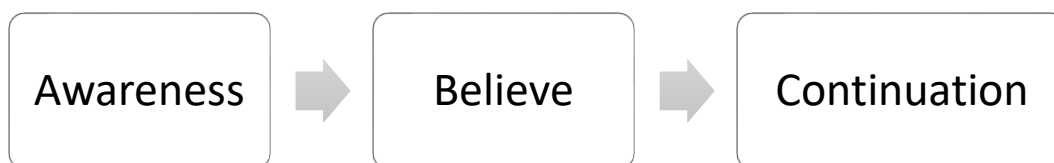


Figure 5. Three fundamental Ideas of ABC Model by Jinalee and Singh (2018)

In these basic ideas here, by “awareness” the researcher means awareness of the importance of each and every moment in life. When a person understands the importance of time it will definitely not be wasted. Then by second basic idea which is “believe”, researcher meant that after realizing the importance of time people then make a habit of accomplishing tasks and activities on time and with full confidence. And the last factor is “Continuation” which means after awareness and believe the effective use of time goes continuously.

There are four quadrants of ABC model and it was originally presented by the Alan Lakein.

Table 2.1

Four Quadrants of ABC Model

Particulars	Urgent	Not Urgent
Important	1 Exam preparation	2 Exercise
Not Important	3 Unimportant phone calls	4 Watching TV, Gaming etc.

Table 2.1 represents the four quadrants of the ABC model like, important, urgent, not urgent and not important.

According to the ABC model the tasks or activities can be divided into four parts mentioned above and by following this order in daily routine people can manage their time effectively. So, the teachers having little experience in the field of research can also get benefit through this technique by putting their teaching tasks in the first category which is important and urgent and the other important activities like research in important but not urgent category. In this way the quality of their research will not be affected by the institutional responsibilities.

2.7.2 ALPEN Model

This time management model or approach is developed by the economist and time management expert Prof. Lothar J. Seiwert. This method is simple but very effective in terms of dividing tasks into smaller parts in order to accomplish easily Jinalee and Singh (2018). This method consists of five key factors which are mentioned in diagram below.

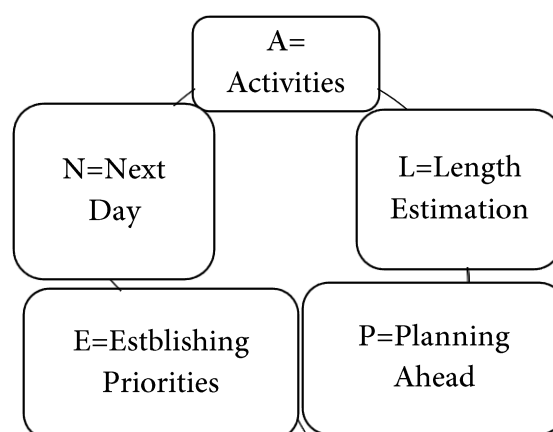


Figure 6. ALPEN Model

The first step which is activities shows here that firstly it is necessary to make a list of all tasks, activities and appointments for day, week. Secondly the model describes that after making a list of activities a person should estimate a time for every activity accordingly. Then in next step which is planning ahead, a person should make some strategies for the future unexpected things and also reserve some time for that things after allocating time to listed activities. Then in a next step the model suggested that prioritize the tasks on the basis of their worth. Then at the end a person should estimate the done activities and unfinished ones also and take them at the top of next day activities' list. Therefore new teachers or researchers can also take advantage through this method of time management and can manage their teaching as well as research to make both worthy and maintain quality.

2.7.3 Pareto's Principle- The 80- 20 Rule

This time management approach is described by the Vilfredo Pareto. This can also be used to manage different aspects in one's life. According to the Jinalee and Singh (2018) this principle simply suggests that by focusing over 20% of the highly crucial tasks and activities out of 100% will yield maximum benefit rather than wasting time on low value

tasks. It emphasizes that people should first complete those activities which are most important for their progress and success.

Table 2.2

Pareto Principle in Time Management

Time	Effects
20% Important Tasks	80% Achievement
80% Low Value Tasks	20% Achievement

Table 2.2 shows the Pareto principle regarding time management and its effects upon achievement.

This time management approach is exactly about getting maximum quality of any work by managing time effectively. So, if the new teachers will follow the strategy of focusing on 20% most crucial tasks they will undoubtedly not only finish their tasks on time but also with the high quality. Including the quality of research which is the main concern here that if the new researchers will improve their time management by following even this rule they will be able to produce high quality research. This in turn revealed that there is an association exists between time management skills and quality of research among novice teachers or researchers.

2.7.4 Covey's Time Management Grid

Again this model is explained by the Jinalee and Singh (2018) in his article that it is very useful to manage priorities. The researcher cited in his research that this is developed by the Covey (2013) and according to him this approach is consist on four quadrants. The first one is about urgent deadlines. Then the second is about long term planning and

development. Then third is about less important and urgent tasks. And the last is about very little value activities to be focused and accomplished accordingly.

Table 2.3

Covey's Time Management Grid

Particulars	Urgent	Not urgent
Crucial	Urgent activities	Not urgent but important
Non Crucial	Urgent and not important	Not urgent and important

Table 2.3 shows the four quadrants of the Covey's Grid about time management. It includes Urgent, Not urgent, Urgent and not important, Important and not Urgent.

2.7.5 Time Management through Planning

Curiel (2017) has given an idea about how to manage time effectively by using planning. According to the researcher there are three fundamental steps of planning which includes defining the goals of task, then deciding intermediate objectives and the third step includes deciding and finalizing the ways to achieve defined goals. The researcher has addressed the effects of planning and no planning before any activity or programme. It has addressed by the writer in a model that how a person goes through certain mental disturbances if do not plan a day and how it pleases

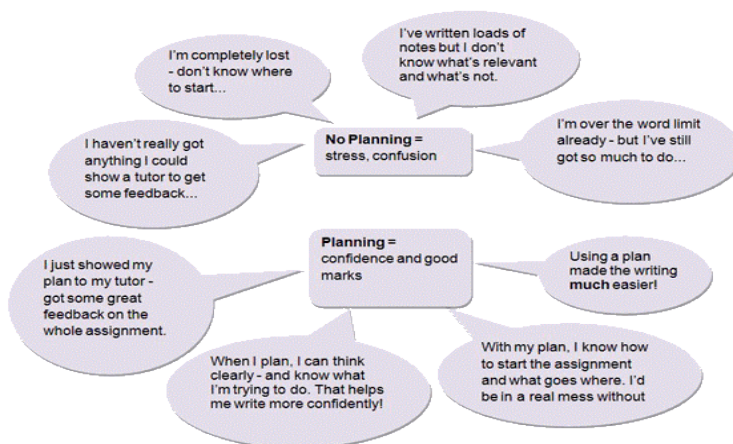


Figure 7. Time Management Model through planning by Curiel (2017)

It has been focused by the researcher that a person plan a day before and focus on the rule of making to-do list. Then special attention should be given to the important tasks and at the end researcher said that a person should do this every day and fix at least five minutes before to plan. Effective time management requires identification of the obstacles which do not let person to manage things. It also requires to understand and aware of the techniques of managing time, critical skills, reusable resources, and action plan together with the effective use of a study session by awarding and appreciating oneself.



Figure 8. Effective Time Management Model by Curiel (2017)

2.7.6 Eisenhower Matrix

This model which is related to the management of time and is developed by the US former president D. Eisenhower and is somehow similar to the Covey's time management grid as explained by the Jinalee and Singh (2018) in their research article. Now there is some difference which is related to the concept of quadrant four. According to the Covey in fourth quadrant the recreational activities are placed however, Eisenhower said that there is nothing to do in this quadrant. The division of Eisenhower matrix is also based on four quadrants. The first includes important and urgent tasks. Then second is about important but not urgent. Then urgent but not important and last one is neither urgent nor important. These four quadrants are represented by the Eisenhower in the form of model as shown below.

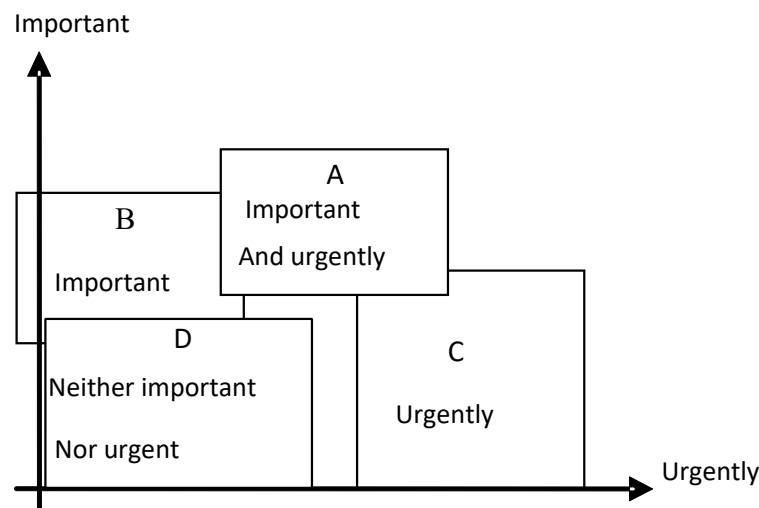


Figure 9. Categories of Tasks by Eisenhower

A researcher Panayotova et al (2015) reported in his research that this model can be used in planning about goals of tasks. According to the researcher it also facilitates in

differentiating the important and urgent tasks which in turn will help to enhance the efficiency of the performer. Through this method new teachers can gain efficiency in completing their research task as well as other job activities.

2.7.7 Pickle Jar Theory

This theory is developed by Stephen Covey which he has described in his book *7 habits of highly effective people* which is published in September (2006). A researcher Mulder (2017) has explained it in his article that this theory is about a pickle jar which is filled by rocks, pebbles and sand. The researcher explained that this jar is actually representing our daily life in which we perform certain tasks, activities and divide time for all these activities and tasks and it keeps us busy whole day. The pickle jar and the division of tasks is described in the image as:

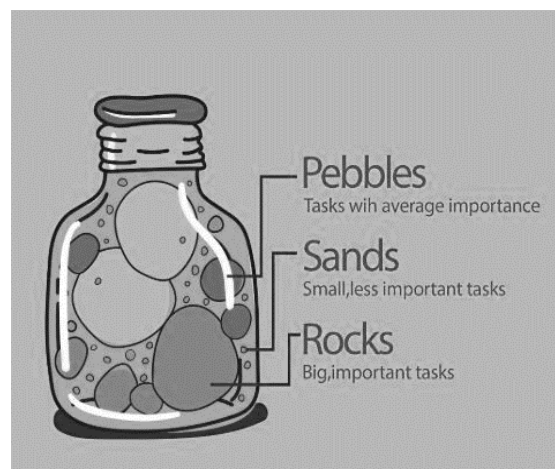


Figure 10. Pickle Jar Theory

Here in above diagram of the pickle jar theory the jar is actually a reflection of our life and the pebbles are the reflection of those tasks which are having average importance in our daily life. Then the second factor sand, is representing those tasks which are having no value or

those activities which does not facilitate us in accomplishing certain useful tasks in our daily life. Then the last factor is rocks which are showing the most important activities of our life. Now the focus is on the sequence that how to fill the jar with these factors or how to adjust these factors in the jar. The theory explained that if we fill the jar first with the sand then it will not be possible to adjust other two items. This means if an individual will first focus on the useless activities which are represented by the sand here, then it will not possible to complete or even focus on the most important and least important activities of life. But if the sequence will be reversed then there is a possibility to complete all the tasks including most important, moderate and least important. This theory is all about making priorities in life at the right time which will give us benefit and boost up the progress in certain areas. Like for the new teachers or researchers it will be beneficial if they focus on it in order to gain quality and efficiency in their research and jobs.

2.8 Other Related Theories /Models of Quality Research

As for as the theories and models of research quality are concerned these will be discussed here. These models or theories provide basis to understand that what makes a research worthy and which factors are the most important ones that are needed to follow in order to achieve high quality research outcomes. Let us discuss some important models and theories.

2.8.1 Research Quality Model by Martensson et al. (2016)

A researchers Martensson et al. (2016) have developed a very conceptual and useful model for quality of research. The model contains very crucial aspects which are considered to be very necessary to maintain the quality in any research study. The model is based on 32

common concepts which are generally used in any research process. Martensson et al. (2016) showed that these concepts which are used in research quality model are actually based on each other or in simple words they have a connection with each other. Through this connection any study can achieve high quality if followed strictly. Out of 32 common concepts upon which the model based, there are four main factors or concepts which are related to many academic research studies and facilitate them towards achieving success and high worth.

The researchers have this idea that on the basis of these factors the quality research studies can be measured. In other words if a study is meeting the requirements of all these factors then it means it is quality based study. On the basis of their model Martensson et al. (2016) defined a research process. The description of their definition is that a research is actually an act which aims at developing new knowledge and begins from some question and studies single or various contexts. It actually builds upon previous or existing knowledge and uses different scientific methods. It requires a documentation through specified procedure. Then it requires a transparency and is linked to the several rules. The four fundamental criteria's which are developed through the model are, Credible, Contributor', Communicable, and Conforming.

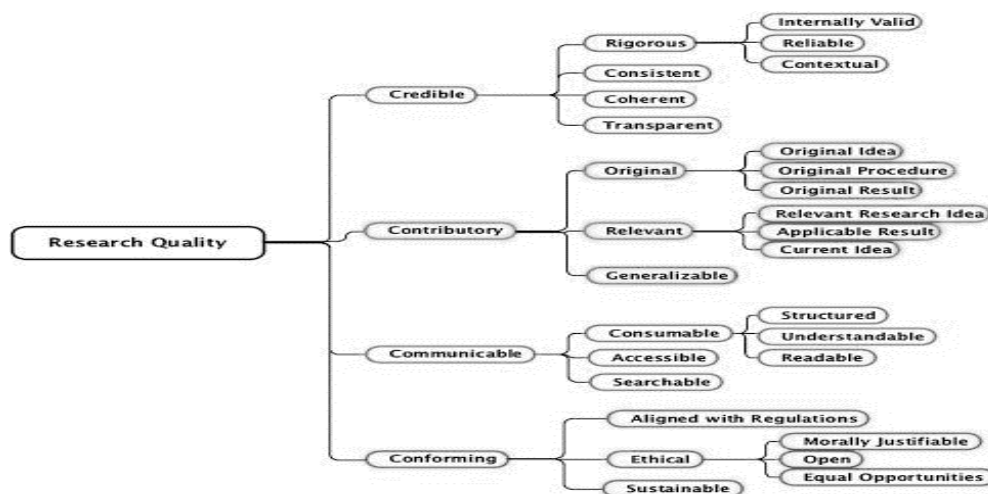


Figure 11. Research Quality Model by Martensson et al. (2016)

The above figure shows all the aspects which were identified by the researcher as a crucial one for measuring the quality of research. The first factor ‘credible’ factor is further related to the seven concepts. In order to be credible the research must be coherent, consistent, rigorous and transparent. For making research contributory the question must be original and the knowledge developed through the study must be beneficial in terms of practical utility and theoretical aspect. Therefore, the new teachers can attain credibility in their research through improving their time management skills. By adding this factor in a priority list of the study new teachers will be able to focus on it while conducting research study. The next factor which can assess the quality of research is ‘communicable’. It means that the research must be comprehensive, structured and easy to read. It should clearly reflect the research procedure and provide clear-cut evidences upon new knowledge developed. So, the new teacher researchers can make their study communicable through focusing and concentrating skill which are a time management skills explained above. Then the last factor or criteria is ‘conforming’ which is related to the ethical and legal aspects.

These aspects are one upon which the quality of research also relies. So, the new teachers must take ethics at priority before conducting their research study.

Now as for as concerned with the other sub factors of the main four criteria factors, these are described here. According to the Martensson et al. (2016) the sub factors of the 'credible' includes: Rigorous, Internally valid, Reliable, Contextual, Consistent, Coherent, and Transparent. Now by 'Rigorous' means a research which is valid internally in terms of context and reliability. Then by Internal validity means the research study used correct scientific method or research design that is exactly related to the research question. After that 'Reliability' means the research method must related to the research question, and follows prescribed procedure completely. By 'Contextual' means the presented study idea must build on some previous knowledge and is according to the rules. 'Consistent' means there is a logical connection between previous literature and presented idea and the used method. 'Coherent' means the existing literature must be given a considerable place in the presented context. And the last sub factor 'Transparent' means the results should base on the new developed knowledge and the whole research process should described in relation to the research question, study method and existing knowledge. The sub factors of the main second factor 'Contributory' includes: Original, idea, procedure, result, relevant, relevant research idea, applicable result, current idea, generalizable. Here the original means the research idea, procedure and the results must be real. Original idea means there should not be any research done before on same context. Original procedure means the research methodology and context should be correlated. Original result means the results must be provable in relation to the previous knowledge. Relevant sub factor means the research question and the results must be relevant. Relevant research idea includes that the research

is applicable for the targeted group. Applicable result shows that the new developed knowledge is meaningful for the targeted population. Current idea means the research idea is related to some previous contexts. And Generalizable is used in sense that conducted research is beneficial theoretically and practically for the different contexts including one studied.

Then by Martensson et al. (2016) the sub factors of the 'communicable' includes: Consumable, Structured, Understandable, Readable, Accessible, and Searchable. The consumable is based on the concepts of understandable, readable and proper structured. Structured is related to the rules prescribed for the documentation. Understandable means the language of the document is proper and understandable for the target group. Readable reflects the concept of correct language used in the research. After that Accessible means new knowledge is easily available for concerned group and the term Searchable means the developed knowledge is easily found for the concerned group. Then Martensson et al (2016) described last criteria 'conforming' which includes: Aligned with regulations' which means research is based on predetermined rules. 'Ethical' means moral values are considered. Morally justifiable, means according to the ethical standards of described system. 'Open' means transparent with the existing ethical standards. Equal opportunities, means it should be consistent with the balanced treatment as per the rules. Finally Sustainable is related to the concept of developmental aspects set by the system.

2.8.2 Criteria for Assessing Research Quality by Coughlan et al (2007)

In order to assess the quality of research Coughlan, Cronin, and Ryan (2007) have developed a criteria model based on the 7 factors. These 7 factors are the necessary parts which all the research studies must possess in order to ensure the quality.



Figure 12. Research Quality Assessment Model by Coughlan et al. (2007)

In this model the researcher has emphasized some aspects which can help new researchers also to get quality in their research. Especially when we consider new university teachers who has to deal with a lot of stuff along with the research can get benefit from this model because it is covering all the important factors required to maintain quality. However in order to completely focus on these factors and to ensure their presence in the research the new university teachers must need to manage their time properly. This is because without good time management skills it is not possible for them to maintain these keen aspects in their research. At it has been proved by the researcher in literature above that time management skills help individual to be efficient in their work and to enhance the standard of work. In simple words time management skills facilitate to retain quality of any task or activity outcome. Therefore when these new university teachers will use time management skills like planning, prioritizing, focusing etc then it will help them to maintain these

necessary quality factors proposed by the Coughlan et al. (2007) in their research as well as in performing other professional roles and responsibilities in an efficient manner.

Section 3 Contains Related Research Studies of Study Area

2.9 Previous Studies Related to the Research Idea

According to the Kapur (2020) time management skills are the abilities which an individual possesses to use time effectively and in a productive manner. The researcher further said that it is an art of allocating specific time for specific task that needs to be done. In her study Kapur further identified some useful strategies which can help a person to utilize time efficiently. These strategies includes planning before work, organizing duties, leading duties, prioritizing, controlling, goal-setting, communication, delegation, collaborating and stress management. The researcher at the end stressed that it is compulsory for all to utilize time in a proper way in order to maximize the quality of work whether personal or professional. So, here the influence of time management on work quality can be identified upon which the current study was focusing. A research study carried out by the Chase et al. (2013) identified that when researchers continuously assess their time management capabilities, it motivates them to identify the weak areas of their research work and then they try to improve those areas. Then by improving the weaknesses the quality or productivity of their research increases. The researcher further discussed various useful time management strategies that are supporting the members of Western Journal of Nursing Research editorial board in producing quality research. Results concluded that useful strategies facilitate the productivity of research work. The researchers should assess their time management skills on the basis of useful strategies and then it will help them to

improve where needed. Therefore, it can be assumed that by evaluating self-capabilities in terms of time management skills all the researchers can improve their research productivity.

In a research study carried out by the Nadinloyi et al (2013) researchers have taken into account the time management and academic achievement relationship and checked that whether time management skills can be improved or not through some training. They have experimented it through control and experimental group and found that there is a significant effect of training programme on the time manager's skills as it can be improved and in return it improves academic achievement. Therefore, it can be realized from these results that the effect of good time management on any task performance is very crucial because it enhances the performance. So, the researcher wanted to know its effect on quality of research carried out by the novice teachers because previous studies didn't report it.

In a study carried out by Panayotova et al. (2015) various beneficial techniques and models related to the effective management of time were analyzed by the researchers. Firstly the emphasize was on an important factor that the term 'time management' is not correct because time resource is constant and a person can manage himself according to the time through concentration. So, it is correct to use term management of resource time. Then the focus was on the techniques and models that can facilitate the associates of any organization in managing their roles and responsibilities. A model called ALPEN was discussed and described in study, the Eisenhower Principle which is based on two concepts urgent and important. Further the study discussed and described Pareto Principle which is also called 80\20% rule and it emphasizes upon concentrating and focusing upon 20% of the most important tasks and then 80% achievement will be done within a very short period

of time. This technique is highly beneficial in saving time and resources as well. At last the study focused on the ABC –Analysis which is related to Pareto Principle and consist on three concepts like very important, moderately and less important concept. The study concluded that by utilizing above discussed techniques and models management of resource time is possible and it will yield good results. Therefore, the techniques and models which were discussed in this study can assist novice researchers also to manage their job and produce quality research as well.

An article written by John (2020) focused on management of time as a tool for maximum productivity in any organization. The study identified that if an individual or an organization manage time in a well possible manner it is possible for them to achieve their desired and predetermined goals successfully. Study further elaborated that using a set of techniques and strategies together with the useful tools and skills for effective use of time will help an organization or members of organization to enhance their productivity. The researcher concluded in the study that management of time is a worldwide solution and tool for the organizational effectiveness. The time management skills can be acquired through training and experience. Therefore, from this study it can be inferred that with the help of proper time management the researchers working in any organization can also manage their work effectively and conduct research by identifying the basic requirements of quality research work.

Another research study done by the Bielczyk (2020) has identified and emphasized on some useful techniques and models that can assist novice researchers in their career and in making tasks successful and worthwhile. The researchers stressed upon Eisenhower principle, pomodoro technique and SMART principle that can encourage and help novice

researchers in managing time properly in order to get success in their work. Hence, the time management principles and techniques used in this study can play a good role in facilitating novice researchers' research and other tasks. A research conducted by Divya & Chitkara (2018) for identifying effect of time management on student's academic achievement. The researchers particularly focused on management students and tried to identify the effect of three factors related to time management on their performances. Those three factors were, long term, short term time management, and time attitudes. Along with that the results were compared among males and females. The study concluded that long and short term time management factors are very supporting towards student's achievements. Furthermore it was found that female students are better than males. So, another study has revealed the importance of time management for getting success in any task and that task can be conducting a quality research.

As the quality of research is concerned it is highly debatable scenario. There are different perspectives on it and different factors are identified by the different researchers. According to the Martensson (2019) there are various aspects and factors that challenge the quality of research and these include what is research itself, for whom its it is good or bad, which criteria makes it good, relevant and Rigorous research , etc. The researchers developed a model for assessing a quality of research on the basis of certain factors or dimensions. The important elements of the model for assuring a quality of research are credible, contributory, communicable, and conforming. These main dimensions were also subdivide. The researchers then assess the quality of research among senior researchers on the basis of these dimensions used in model. It was found that all the dimensions and factors mentioned in the model are important for the quality of research by the respondents except

few sub dimensions. Hence this quality model can be used to assess the quality of research among novice teacher researchers also.

By locating the other research studies related to the quality of research a researcher found a research conducted by Jaroonkhongdach (2011) on a topic “Three Dimensions of Research Quality” and researchers discussed and concluded that the three dimensions like quality of research procedure, quality of research Presentation, and Researching Quality can be a factors upon which the quality of any research is based. It was further explained that there can be more dimensions emerged in this regard because mentioned dimensions may not be comprehensive. Therefore, current study emerged time management skills as a dimension that can effect quality of research positively and to find this effect current study was conducted by the researcher.

A researcher found another study designed by Belcher et al (2015) in order to find out the answer about principle criteria of identifying research quality in trans-disciplinary context. They did systematic review on previous research and with the help of that information developed a framework for assessing quality of trans-disciplinary research. The framework is based on four main principles which they identified on the basis of their review. The principles include, relevance, credibility, legitimacy, and effectiveness. They described these principles as relevancy in terms of significance and usability, credibility in terms of integration, legitimacy in terms of unprejudiced representations of stakeholders and effectiveness in terms of real contribution in solving the society problems. They have developed this framework upon which any trans-disciplinary research quality can be assessed to a great extent as they tested it and found it very useful and applicable for evaluating the quality of research projects. They further advised that by utilizing this

framework in different study's assessments will enhance its efficiency. Hence, the novice researchers can also get benefit from this framework to enhance the quality of their research. Similarly another researcher Hellstrom (2014) identified some useful factors upon which the quality of research is based in his study. The researcher firstly explained two broad factors for quality of research and these are intrinsic and extrinsic quality indicators. He explained that the extrinsic factors include reward on research whether it gets published or not, it gets maximum citations or not, will it lead to the PhD, and it received any funding or not, etc. Then the researcher explained about intrinsic factors which involves the judgment of peers about research, informal patterns of research, etc. At the end the researcher identified and explained some high quality standards for research and analyzed them. Hence, these quality indicators can also be a useful tool for novice researchers to follow and maintain the quality in their research.

Now as for as concerned with the Pakistani research it is mentioned by the Pervez (2018) in his research that the new researchers are not producing quality research due to several reasons among which lack of time management skills is one. Therefore, through the development of time management skills researchers can enhance their research abilities. At the end it can be realized that all discussed research studies have focused on time management effect on other variables except quality of research and that's why to fill this gap researcher designed this study.

2.10 Summary

To summarize the whole discussion which the researcher presented above, it can be identified that the current study was about exploring the effect of time management skills on quality of research among novice teachers at university level. The present study tried to check this effect by thoroughly studying, reviewing, analyzing and interpreting the existing literature. As the study reflects that novice university teacher researchers have to deal with a lot of job related stuff and at the same time they have to do research in their related fields. It is proved through the previous studies that if novice teacher researchers will improve their time management skills, it will enhance their efficiency and also facilitate them in producing quality research. The literature discussed above, firstly focused on the general introductory aspects of study variables i.e. 'time management skills' and 'quality of research'. Researcher tried to clear the basic concept of time management skills for the readers along with the importance of it. Then researcher moved towards the basic and most discussed techniques of time management skills identified by the various researchers and writes and tried to build link of each technique with the concerned idea in order to prove that there exists some relation between time management skills and quality of research. The effects of time management techniques in terms of objectives is also discussed. After that the second variable is targeted to clear the fundamental concept of quality with the help of previous studies and then in the context of concerned area. Researcher then discussed principles of the quality research in the light of previous related studies along with the time management ideas which can help in attaining quality in concerned activities including research of novice teachers. Similarly the theories and models of both variables were discussed and connected with present study in next. The researcher then proceeded

with the discussion of previous related studies in order to show the relationship between study variables. It is proved through all the discussed literature that there is some positive effect of time management skills on quality of research and no study was conducted previously internationally as well as in Pakistan to check that effect. Ultimately it was found that it is important for the novice teacher researchers to improve their skills in this regard and attain quality in their studies. So, the researcher had designed this study.

CHAPTER 3

METHODS AND PROCEDURES

3.1 Introduction

This chapter addressed in detail about research approach, research design, study variables, population, sampling technique, procedure and detail about tools before final data collection, reliability and validity of tools in pilot testing, scoring of the research tools for final data analysis, data collection process, data analysis procedure, research ethics, and delimitations of the study. In research approach a brief description was given about which approach was used in current study and why. Similarly, in design a brief description was mentioned that what is correlational design and why it was used in this study. After that a brief description was written about major variables of the current study along with their dimensions. Then researcher addressed about the population that what was the population and how many respondents were selected for the data collection. Likewise, in sampling the process of selecting sample was briefly described along with the reason of taking census sample. Then a detailed explanation was added about the tools used for collecting pilot trial data, their validity and reliability appeared in pilot trial. After that researcher explained about scoring of the research tools used in final data analysis. Then, the detail about how researcher collected data was written. Then researcher explained about data analysis process and ethics researcher followed in current study. Last but not the least, researcher described about the study delimitations in few points.

3.2 Research Approach

The current study comprised quantitative approach. This approach facilitates interpretation of the results and conclusion through the use of numerical data. It is related to the phenomena that is measurable and observable and involves people, events and objects and used particular statistical tests for data analysis. The reason of selecting this approach was to conduct a structured analysis of the collected data and this approach based on more structured data collection methods that's why the researcher selected it.

There were three basic objectives of this study set by the researcher i.e to assess the level of time management skills of new teachers, to identify the level of research quality produced by the new teachers, and to measure the effect of time management skills on quality of research among novice teachers at university level. So, all the objectives needed a quantitative data for their statistical analysis and interpretation that's why quantitative approach was used. Furthermore, in current study the researcher used null hypotheses and all the objectives and hypotheses were clearly defined by the researcher and the whole approach was developed at the beginning. The data was collected through close ended questionnaires in the form of statistical numbers which was further arranged by using tables and figures for clear data analysis and interpretation. The statistical tests which were used for the analysis were, descriptive analysis (Percentage), and linear regression analysis.

3.3 Research Design

A research design is basically a strategy for detecting useful answers related to the research problem. It helps in making a plan for future actions in research and identifies particular methods and procedures for the data collection and interpretation and to fulfil the study

objectives. Therefore, in order to achieve study objectives and address research problem current study used a correlational design.

According to the Bhandari (2021) a correlational research design investigates relationships between variables without the researcher controlling or manipulating any of them. A correlation reflects the strength or direction of the relationship between two or more variables. The direction of a correlation can be either positive or negative. Similarly, a researcher Cherry (2022) defined correlation as a type of research design that looks at the relationships between two or more variables. Correlational studies are non-experimental, which means that the experimenter does not manipulate or control any of the variables. Therefore, a correlation is a study design. Again Bhandari (2021) mentioned that there are many different methods you can use in correlational research. In the social and behavioral sciences, the most common data collection methods for this type of research include surveys, observations, and secondary data. Therefore, the current study used survey method in which researcher collected data with the help of questionnaires.

Therefore, in this study because the researcher was interested to find out the one way effect in terms of relationship between time management skills and quality of research so its design was set as correlational. According to the Bewick, Cheek, and Ball (2003) the most commonly used techniques for investigating the relationship between two quantitative variables are correlation and linear regression. Correlation quantifies the strength of the linear relationship between a pair of variables, whereas regression expresses the relationship in the form of an equation. Therefore, current study meant to find out one way relationship between both variables and that's why correlation design was used and linear regression analysis was applied to test the hypotheses. Bhandari (2021) explained that it's

best to perform a regression analysis after testing for a correlation between study variables. With a regression analysis, you can predict how much a change in one variable will be associated with a change in the other variable. So, in current study linear regression analysis was used to find out one way relationship between both variables that whether time management skills of novice teachers effect quality of their studies or not. The effect was taken here in terms of relationship.

3.4 Description of Study Variables

According to the Bhandari (2022) researchers often manipulate or measure independent and dependent variables in studies to test cause-and-effect relationships. The current study was based on two variables i.e independent variable and dependent variable. Further description of the variables is given below:

3.4.1 Time management skills (Independent Variable)

Time management skills was the first and independent variable of the study and its nature was cause as describes in the literature and its values were independent of other variable of the study. It was further divided into five sub-dimensions i.e Goal setting, Prioritizing, Scheduling, Managing Interruptions, and Procrastination. The study was designed to measure the effect of time management skills on quality of research. The researcher had also measured the effect of all sub-variables on dependent variable individually.

3.4.2 Quality of Research (Dependent Variable)

Quality of research was the dependent variable of study and its nature was showing the effect caused by the independent variable as shown in the findings of the study. It was further based on seven sub-dimensions i.e Clear Aim or Research Question, Research

Methodology and Design Details, Description of Study Content, Description of Data Collection, Description of Data Analysis, Relevancy between Aims and Results of study, and Consideration of Ethical Approval.

Table 3.1

Description of Research Variables

Time management Skills (IV)	Quality of Research (DV)
1: Goal Setting	1: Clear Aim
2: Prioritizing	2: Research Methodology and Design
3: Scheduling	3: Data Collection Procedure
4: Managing Interruptions	4: Description of Study Content
5: Procrastination	5: Data analysis Description
	6: Relevancy of Results and Aims
	7: Considering Ethical Approval

Above table 3.1 represented the independent and dependent variables of the study i.e time management skills which was independent and quality of research which was dependent variable along with the sub-dimensions of both variables.

3.5 Population

As for as the population of current study was concerned it was based on the novice teachers who were serving in the 6 public sector universities of Islamabad in session (2021-2022) in the faculty of social sciences. List of these universities was taken from the HEC (Higher Education Commission, 2021) web site which is attached in Appendix I. There were 276 novice teachers who were serving in all social sciences departments of these universities selected as a population. The information about the novice teachers was taken from the coordinators of selected universities and is attached in appendix J.

Table.3.2

List of Novice Teachers in 6 Public sector Universities of Islamabad

Sr. No	Name of Universities	Total Number of Novice Teachers
1	National University of Modern Languages Islamabad.	52
2	International Islamic University Islamabad.	48
3	Air University Islamabad	15
4	Bahria University Islamabad	21
5	Quaid-e-Azam University Islamabad	98
6	Allama Iqbal Open University Islamabad	42
	Total	276

Above table represents the names of universities selected as a population and number of novice teachers serving in these universities during session 2021 to 2022.

3.6 Sampling

The current study used census sampling because the target population of study was only 276 novice teachers. From 276 novice teachers researcher took 40 (15%) respondents for pilot trial and remaining sample of 236 (85%) was taken for final data collection. Hence, the researcher distributed questionnaire among 236 novice teachers in final data collection but only 227 questionnaires were returned with complete answers. So, the rate of return was 96%. Due to the small number of respondents researcher used census sampling

technique. Census sampling technique is used when the area of research is limited or in other words when the number of population is small.

According to the dictionary definition of a census is “an official count or survey of a population, typically recording various details of individuals”. However, it’s meaning in statistics is slightly different: “a census is a survey that studies every member of a population”. Similarly researcher reported another definition of the census sampling by Surbhi (2017) as “Census refers to the quantitative research method, in which all the members of the population are enumerated”.

So by the above definitions it can be concluded that the census sampling is a way to find and record information about every member of a population and in this research study the target population was novice teachers having three or less than three years’ experience in the field of research who were serving in six public sector universities of Islamabad having common social sciences departments. As, the number of target population was small that’s why a census sampling technique was used by the researcher and all the novice teachers of target population were taken as a sample. Then from those 276(100%) respondents 40(15%) were taken for pilot trial and 236(85%) for final data analysis.

However, in purposive sampling technique researchers take representative sample from target population for the data collection. According to the Black (2010) Purposive sampling is a non-probability sampling method and it occurs when “elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money”. Similarly, Crossman (2020) says that a purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the

study. Purposive sampling is different from convenience sampling and is also known as judgmental, selective, or subjective sampling. Therefore in current study the researcher has taken 100% target population as a sample instead of representative sample which the researchers usually take in purposive sampling and that's why current study didn't use purposive sampling.

Table 3.3

Detail of Sample Distribution

Sr.No.	Total Population	Sample for Pilot Trial	Sample for Final Data Collection	Rate of Return
1	276	40	276-40=236	227 (96%)

Above table shows total number of population, pilot trial respondents and final Sample to whom questionnaires were distributed and the total number of questionnaires that were returned back along with their percentage.

3.7 Tool construction

3.7.1 Demographic Information Section

This section of the tool was used to collect demographic information of the study respondents. It was based on 5 factors including:

- 1 Gender
- 2 Name of Universities
- 3 Highest Academic Qualification
- 4 Highest Professional Qualification of the respondents.

3.7.2 Time Management Skills Assessment Scale

This scale was adapted by the researcher to use in current study and it was developed by Editorial Team (2007). The procedure of adapting tool includes taking permission from the developer by sending an email which is attached in Appendix M. Then researcher modified its format and layout according to the university pattern. Then a few grammatical changes were made by the researcher to make it more understandable for the respondents. It was based on 5 sub sections or dimensions and 39 items. The first sub dimension was goal setting which contained 8 items, second was prioritizing which was based on 7 items, scheduling contained 8 items, managing interruptions possessed 8 items and procrastination was also based on 8 items.

3.7.2.1 Goal Setting. This is a first factor of time management and it involves deciding about what a person wants to achieve in other words what are the basic targets towards achieving something.

3.7.2.2 Prioritizing. This skill helps a person to create calmness and space in life by managing excessive workload and tasks in order to focus the energy and attention on the things that really matter.

3.7.2.3 Scheduling. This process of scheduling involves how to use your time by setting a specific time for specific task which is already prioritized by a Peron.

3.7.2.4 Managing Interruptions. It means the things that can cause disturbance in work may involve unexpected calls, door bells, a dog barking outside, unexpected guests, noise of kids' etc needs to be managed.

3.7.2.5 Procrastination. This process means stretching work by saying that I'll do it later and after so many 'laters' the work load gets more and more and at the end the person is unable to complete it within time frame.

Table 3.4

Description of Time Management Skills Assessment Scale (Before Pilot Trail)

S.No	Dimensions	Items
1	Goal Setting	8
2	Prioritizing	7
3	Scheduling	8
4	Managing Interruptions	8
5	Procrastination	8
	Total	39

Table 3.4 shows the sub dimensions of first variable along with the number of items used in each dimension.

3.7.3 Research Quality Assessment Scale

This scale was adapted by the researcher and developed by Mehar (2017). The procedure of adapting this tool also includes taking permission from the developer by sending an email which is attached in Appendix N. Then researcher modified its format and layout according to the university pattern. Then researcher changes its concept as it was used initially for the students to assess their perception about quality of research but in current study researcher used it for assessing teacher's perception. It was based on 7 sub sections and 49 items. The first sub section Clear Aim or Research Question was based on 7 items, second Design and Research Methodology contained 7 items, third section Data Collection Procedure was also based on 7 items, next Description of study content was also contained

7 items, Data Analysis processed 8 items, Results and Aims Relevancy contained 6 and last section Ethical Approval was based on 7 items.

3.7.3.1 Clear Aim or Research Question. The initial factor upon which the quality of study based, is the aim or question which directs the researcher towards study.

3.7.3.2 Design and Research Methodology. It includes selection of target population, sample size, tools for collecting research data and statistical techniques that are used to analyze data.

3.7.3.3 Data Collection Procedure. It involves an explanation about how the data will be collected and interpreted.

3.7.3.4 Description of study content. This dimension of the scale was based on the context that literature which is used in research is how much important to carry further study and describes that whether it is related with the research or not.

3.7.3.5 Data Analysis. This dimension of the scale was based on the items related to the statistical techniques used in data analysis.

3.7.3.6 Results and Aims Relevancy. Concerning factor of the scale showed that it is important to have a relevancy between objectives of the study and findings or end results. This is because the relevancy shows the worth of study.

3.7.3.7 Ethical Approval. This section of the scale was based on the items related to the concept that those studies are worthy which are based on the data collected voluntarily from respondents.

Table 3.5

Description of Research Quality Assessment Scale (Before Pilot Trail)

S.No	Dimensions	No. of Items
1	Clear Aim or Research Question	7
2	Design and Research Methodology	7
3	Data Collection Procedure	7
4	Description of study content	7
5	Data Analysis	8
6	Results and Aims Relevancy	6
7	Ethical Approval	7
	Total	49

Table 3.5 shows the sub dimensions of second variable along with the number of items used in each of these dimensions.

3.7.4 Description of Likert Scale

In current study two types of the Likert scales were used due to the nature and requirement of the study variables. For assessing time management skills a five point Likert scale was used in which the scores were rated by utilizing options; Not at All, Rarely, Sometimes, Often, and Very Often. Therefore to assess quality of research researcher also used five point Likert scale but its scores were rated by utilizing options: Strongly Disagree, Disagree, Neutral, Agree, and Strongly agree.

3.7.5 Validation of Instruments

In order to check whether the tools adapted for the data collection were valid in the context of face and content validity or not. The researcher consulted with 4 experts who were related to the field of Education and their list is attached in Appendix G. The researcher personally visited to the experts for tools validation and attached a cover page along with

the validation certificates. All 4 experts deeply checked the tools and some of them suggested few improvements which were mentioned in Table 3.6. After that the researcher updated scale on the basis of suggestions and then experts did signatures on the validation certificates and all the certificates are attached in Appendix H.

Table. 3.6

Experts Suggestions in Tool Validation

Expert Name	Designation	Suggestions	Area of Expertise
Dr Jameela Ashraf	Assistant Professor Department of Education	Dr Jameela had suggested to improve sentence structure in few items and in validation certificate which was followed by the researcher and after improvements she did signatures on the validation certificate.	Teacher Education
Dr Imran Yousuf	Associate Professor Chairman Department of Education	He had suggested to improve demographic section as: Write highest academic qualification instead of only academic qualification and similarly for the professional qualification. Secondly he asked to merge some items that were having almost similar meanings. The suggestion were followed by the researcher.	Teacher Education
Dr Qaisara Parveen	Assistant Professor Department of Education	Validated questionnaires without declaring further amendments after checking deeply.	Teacher Education

Dr Sheikh Tariq Mehmood	Assistant Professor Department of Education	Validated questionnaires after checking deeply and no further improvements were suggested by him.	Teacher Education
----------------------------	---	--	-------------------

Table 3.6 lists names of experts, their designations, and area of expertise along with the suggestions who had validated face and content validity aspects of tools before data collection process.

3.8 Pilot Testing

For checking reliability of instruments researcher distributed 40 questionnaires randomly among respondents of six universities included in population on the basis of their availability. This is because the respondents were university teachers and it was difficult to access all 40 teachers of one institution in short time. Also some universities were having respondents less than 40 and it was the total sample set for pilot trial. Therefore, researcher used all six public sector universities for pilot trial and collected data from teachers who were easily available in the social sciences' faculties at that time. The researcher personally visited institutions and before visiting those institutions researcher took permission letter from the university and went for pilot testing. One day was given to the respondents to fill questionnaire. Before giving questionnaire to any respondent the researcher asked about their convenience and treated them ethically and answered their all queries about the questionnaire. Those who refused filling questionnaire at that time the researcher didn't wait for them and approached other respondents to save time and did great struggle for getting responses ethically. All 40 questionnaires were filled by the respondents in the pilot

testing so the rate of return was 100%. Then the responses were coded and entered into the SPSS (Statistical Product and Service Solutions) 22nd Edition by the researcher for the purpose of reliability analysis.

3.8.1 Reliability of the Instruments

It was crucial to check the reliability of the questionnaires used for data collection. So the researcher did pilot trial for testing the reliability of the tools. The data collected from Pilot trial was used to check reliability, item total correlation and inter-section correlation of the items.

Following table lists the reliability scores of first tool comprehensively:

Table. 3.7

Statistical Reliability Analyses of Time Management Skills Assessment Scale (Sections) – Pilot Testing (n=40)

Scale/Variable	Sub-variables	Items	Reliability
Time Management Skills Assessment scale		39	.91
	Goal Setting	8	.79
	Prioritizing	7	.68
	Scheduling	8	.74
	Managing Interruptions	8	.59
	Procrastination	8	.56

Table 3.7 shows that the Cronbach alpha reliability of Time Management Skills Assessment scale was found as .91. Time Management Skills assessment scale had five sub-sections Goal Setting, Prioritizing, Scheduling, Managing Interruptions, and Procrastination and each section of scale was processed for reliability analysis. The

reliability score on Cronbach alpha for the section related to Goal Setting was found .79, section related to Prioritizing was .68, for Scheduling .74, for Managing Interruptions .59 and the reliability of section related to Procrastination was found as .56.

The reliability score of two sections related to the interruption management and procrastination is appeared as .59 and .56 because of the few items which were having low reliability value in these sections. The items with low reliability value were then removed from the tool before final data collection in order to maintain the reliability of tool. The reason of conducting pilot trial was actually to find out that which statements were weak and affecting the reliability of tool and each dimension. After pilot trial all those weak statements were removed and it is mentioned in the list of items of final version in Table 3.13. Also the reliability values of these dimensions were appeared satisfactory after updating tool before final data collection and this is mentioned in Table 4.1 respectively.

Table 3.8

Statistical Reliability Analyses of Research Quality Assessment Scale (Sections) – Pilot Testing (n=40)

Scale/Variable	Sub-variables	Items	Reliability
Research Quality Assessment Scale		49	.95
	Clear Aim or Research Question	7	.80
	Design and Research Methodology	7	.84
	Data Collection Procedure	7	.77
	Description of study content	7	.89
	Data Analysis	8	.81
	Results and Aims Relevancy	6	.88
	Ethical Approval	7	.66

Table No. 3.8 shows that the reliability score of Research Quality Assessment Scale was found .95, Reliability score related to Clear Aim or Research Question section was .80, Design and Research Methodology related section score was .84, Data Collection Procedure related section score was .77, Description of study content section score was .89, Data Analysis section score was .81, Results and Aims Relevancy score was .88 and Ethical Approval score was found as .66.

Table 3.9

Item Total Correlation-Pilot Testing of Time Management Skills Assessment Scale (n=40)

Item	r	Item	r	Item	r	Item	r	Item	r
GS1	.31*	P1	.64**	S1	.61**	MI1	.42*	PR1	.74**
GS2	.78**	P2	.78**	S2	.64**	MI2	.69**	PR2	.45**
GS3	.64**	P3	.69**	S3	.71**	MI3	.89**	PR3	.63**
GS4	.51**	P4	.59**	S4	.69**	MI4	.55**	PR4	.53**
GS5	.78**	P5	.29	S5	.27	MI5	.21	PR5	.61**
GS6	.75**	P6	.56**	S6	.24	MI6	.43**	PR6	.26
GS7	.21	P7	.02	S7	.70*	MI7	.14	PR7	.10
GS8	.28			S8	.17	MI8	.25	PR8	.11

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

*= Correlation is significant at the 0.05 level (2tailed)

Item total correlation was calculated in order to check the strength of each item of time management skills assessment scale and the acceptable range of item-total correlation was set as .30. The appeared values are mentioned in above Table No. 3.9 which shows that all the items had significant (0.01) correlation with each other except GS7, GS8, P5, P7, S5, S6, S8, MI5, MI7, MI8, PR6, PR7, and PR8 which had weak correlation i.e less than .30 and had to remove from tool due to weak correlation.

Table 3.10

*Inter-section Correlation-Pilot Testing of Time Management Skills Assessment Scale**(n=40)*

	Goal Setting	Prioritizing	Scheduling	Managing Interruptions	Procrastination
Goal Setting	1				
Prioritizing	.80**	1			
Scheduling	.66**	.86**	1		
Managing Interruptions	.79**	.81**	.87**	1	
Procrastination	.76**	.85**	.80**	.87**	1

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

Inter-section correlation was calculated to measure the relationship between sections or dimensions of the scale. The values are mentioned in Table 3.10 Shows that all sub-sections of Time Management Skills Assessment Scale were significantly correlated. The highest correlation was between scheduling and managing interruption section and managing interruption and Procrastination (.87**) and lowest correlation was between goal setting and scheduling (.66**).

Table 3.11

Item Total Correlation-Pilot Testing of Research Quality Assessment Scale (n=40)

Item	r	Item	r	Item	r	Item	r
CA1	.72**	DCP1	.78**	DA1	.80**	EA1	.78**
CA2	.80**	DCP2	.94**	DA2	.82**	EA2	.83*
CA3	.73**	DCP3	.94**	DA3	.83**	EA3	.83**
CA4	.94**	DCP4	.78**	DA4	.94**	EA4	.67*
CA5	.29	DCP5	.89**	DA5	.08	EA5	.07
CA6	.76**	DCP6	.05	DA6	.66**	EA6	.07
CA7	.29	DCP7	.16	DA7	.23	EA7	.41**
DRM1	.80**	DSC1	.94**	DA8	.89**		
DRM2	.54**	DSC2	.83**	RAR1	.82**		
DRM3	.94**	DSC3	.80**	RAR2	.71**		
DRM4	.09	DSC4	.94**	RAR3	.78**		
DRM5	.54**	DSC5	.15	RAR4	.80**		

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

*= Correlation is significant at the 0.05 level (2tailed)

Similar was the case with “Research Quality Assessment Scale (RQAS)”. Table 3.11 shows that all the items had significant (0.01) correlation with each other except CA5, CA7, DRM4, DCP6, DCP7, DSC5, DA5, DA7, EA5, and EA6 which had correlation less than .30 which is weak. So, these items had to remove from scale.

Table 3.12

Inter-section Correlation-Pilot Testing of Research Quality Assessment Scale (n=40)

	Clear Aim or Research Question	Design and Research Methodology	Data Collection Procedure	Description of study content	Data Analysis	Results and Aims Relevancy	Ethical Approval
Clear Aim	1						
Design and Research Methodology	.89**	1					
Data Collection Procedure	.84**	.78**	1				
Description of study content	.88**	.84**	.90**	1			
Data Analysis	.87**	.81**	.87**	.95**	1		
Results and Aims Relevancy	.81**	.75**	.82**	.84**	.86**	1	
Ethical Approval	.78**	.66**	.73**	.76**	.82**	.81**	1

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

Table No. 3.12 shows that all sub-variables of Research Quality Assessment were significantly (0.01) correlated. The highest correlation was found between Description of study content and Data Analysis section (.95**) and the lowest correlation was between Design and Research Methodology and Ethical Approval section (.66**).

Table 3.13

List of items (Final version) of Time Management Skills Assessment Scale

	Goal setting	Prioritizing	Scheduling	Managing Interruptions	Procrastination	Grand Total
	GS1	P1	S1	MI1	PR1	
	GS2	P2	S2	MI2	PR2	
	GS3	P3	S3	MI3	PR3	
	GS4	P4	S4	MI4	PR4	
	GS5	P5	S5	MI5	PR5	
	GS6					
Total	6	5	5	5	5	26

Table 3.13 shows final number of items of all the dimensions of time management skills assessment scale. The items that were having correlation less than .30 were removed from this scale.

Table 3.14

List of items (Final version) of Research Quality Assessment Scale

	Clear Aim	Design and Research Methodology	Data Collection Procedure	Description of study content	Data Analysis	Results and Aims Relevancy	Ethical Approval	Grand Total
	CA1	DRM1	DCP1	DSC1	DA1	RAR1	EA1	
	CA2	DRM2	DCP2	DSC2	DA2	RAR2	EA2	
	CA3	DRM3	DCP3	DSC3	DA3	RAR3	EA3	
	CA4	DRM4	DCP4	DSC4	DA4	RAR4	EA4	
	CA5	DRM5	DCP5	DSC5	DA5	RAR5	EA5	
		DRM6		DSC6	DA6	RAR6		
Total	5	6	5	6	6	6	5	39

Table 3.14 shows final number of items of all the dimensions of Research Quality Assessment Scale. The items that were having correlation less than .30 were deleted from this scale.

3.9 Scoring of the Research Tools

Time management skills assessment scale was adapted by the researcher in order to assess the level of time management skills of teacher researchers. A 5 point Likert scale was used for this assessment and respondents were asked to choose any option from the given range (5=Very Often, 4=Often, 3=Sometimes, 2=rarely, 1=Not at All) by keeping their preferences in mind.

Then the responses were scored by calculating the scores obtained by the respondents on given options. The total number of items in final tool of time management skills were 26 so the minimum score was $(1 \times 26 = 26)$ and the highest possible score was 130 $(26 \times 5 = 130)$. The range (26-130) was then categorized in three sections as below average, average, and above average. The scoring of the responses to calculate the level of time management skills of teacher researchers was based on the following division:

Score 26-60 = Below Average

Score 61-95= Average

Score 96-130= Above Average

Table 3.15

Scoring for the Level of Time Management Skills of Novice Teachers

Variable	Level of (TMS) of Novice Teachers	Scores
Time Management Skills	Below Average	26-60
	Average	61-95
	Above Average	96-130

Table 3.15 shows the scoring levels along with the scores about Time Management Skills Awareness of Teacher Researchers.

Similarly the second tool which was used for the assessment of quality of research was adapted by the researcher and was based on 39 items. Five point Likert scale having options like (5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly Disagree) was used to identify the level of quality of research of respondents. There were 39 items in this tool and the responses were scored by calculating the scores obtained by the respondents. So the minimum score was 39($1 \times 39 = 39$) and the highest score was 195 ($39 \times 5 = 195$). Therefore this range (39-195) is categorized into three sub-categories as below average, average, and above average. The scoring of the responses to calculate the level of quality of research of teacher researchers was based on the following division:

Score 39-91= Below Average

Score 92-144= Average

Score 145-197= Above Average

Table 3.16

Scoring for the Level of Quality of Research of Novice Teachers

Variable	Level of (QR) of Novice Teachers	Scores
Quality of Research	Below Average	39-91
	Average	92-144
	Above Average	145-197

Table 3.16 shows the scoring levels along with the scores about Quality of research of Teacher Researchers.

3.10 Data Collection

The process of data collection is mandatory in any research because the whole research scenario depends upon it. The results of the study come out on the basis of data which the researchers collect from selected respondents.

So, in current study there was no exception in this process and researcher firstly took permission letter from University in order to start data collection process. The researcher initially got permission from all concerned institutions that were included in the study population and selected as a sample. Researcher considered all ethical values while collecting data and distributed questionnaires after getting volunteer permission from every institution and respondent. There were 236 respondents after excluding pilot trial sample to whom questionnaires were given for final data collection. Enough time was given to every respondent for filling questionnaire. Few respondents took 2 days and few took only one day for filling questionnaire. Researcher also guided all queries that were asked by the respondents while data collection. Total 227 questionnaires were returned back by the respondents and rate of return was 96%. The researcher took one and half month in data collection.

3.11 Data Analysis

The data was collected by the researcher through visiting concerned institutions. Then it was coded and entered into the SPSS (Statistical Product and Service Solutions) 22nd Edition by the researcher in order to proceed data analysis process. Data was analyzed by using statistical techniques like linear regression analysis and descriptive analysis (percentage and frequency). The results and values which were appeared by applying techniques were then mentioned in the tabular form.

Researcher used descriptive analysis (percentage and frequency) to identify the status of individual response and for this purpose researcher used a scoring key. In current study the researcher was interested to identify the level of time management skills and quality of research of novice teachers. In order to identify individual responses researcher divided scores in three categories like, below average, average and above average category on the basis of five point likert scale used by the researcher. Then on the basis of responses researcher calculated frequency on SPSS and find percentages manually then presented values in tables and rated levels as below average, average and above average to the novice teachers' time management skills and research quality as the detailed explanation is presented in section 3.9. Similarly a study conducted by the Raza (2021) to find out the effect of prospective teachers' interpersonal skills on their self-efficacy. The researcher used similar procedure to find out the level of interpersonal skills of perspective teachers as in current study it was used. Another study conducted by Kazim (2021) to investigate the relationship of emotional intelligence and teachers' self-efficacy at university level. The researcher also used same procedure to assess the level of emotional intelligence of teachers at university level and also to assess the level of self-efficacy of teachers at university level. Therefore, in current study the researcher was also interested to find out the level of both variables among novice teachers that's why individual score was used which represented results in percentage.

Table 3.17

Tests used for Data Analysis

Sr.No.	Objectives	Hypotheses	Statistical Tests
1	To assess the level of time management skills of novice teachers.		Descriptive Analysis (Frequency and Percentage)
2	To identify the level of quality of research of novice teachers.		Descriptive Analysis (Frequency and Percentage)
3	To measure the effect of time management skills on quality of research among novice teachers at university level.	There is statistically no significant effect of time management skills on quality of research among novice teachers at university level.	Linear Regression Analysis

Table 3.17 shows the study hypothesis and statistical tests including individual score, and linear regression analysis which were used for data analysis.

3.12 Research Ethics

Current study was conducted by the researcher under full ethical consideration. On every step researcher followed ethical values. Firstly researcher took permission letter from National University of modern languages Islamabad for data collection. Then the researcher personally visited all the selected institutions and took permission for data collection. After that the researcher also took permission individually from the respondents and upon their convenience and availability researcher collected data from them. During

the process of data collection researcher did not force any participant and let them fill by their own choice and understanding. Also it was assured by the researcher in a cover letter of questionnaire that the data will not be used for any wrong purpose and will be kept anonymous. Researcher answered all queries which were asked by the respondents during data collection. The researcher also gave enough time to the respondents to fill questionnaires as some respondents took one and some took two days in returning questionnaires. The data collection process took one and half month in its completion.

CHAPTER 4

ANALYSIS AND INTERPRETATION OF THE DATA

Current chapter 4 is based on the analysis and discussion of data collected through research instruments by the researcher. The present study was based on the effect of time management skills on quality of research among novice teachers serving in the universities of Pakistan Islamabad which were offering common social sciences departments. This research was correlational in nature and the results were based on the opinions of teachers about what their time management skills are? And what is the effect of those skills on the research studies they produce? For collecting data researcher used two scales. The first scale was named as time management skills assessment scale used to assess the time management skills of the novice teachers and it was based on five sections. The first section was Goal Setting, second was prioritizing, and then scheduling, fourth was managing interruptions and fifth one was procrastination. As a whole the time management skills assessment scale was based on 26 items. Then the second scale was research quality assessment scale which was used to assess the research quality of novice teachers. This scale had a seven sub sections including, clear aim, design and research methodology, data collection procedure, description of study content, data analysis, results and aims relevancy and last one was ethical approval. This second instrument was based on 39 items.

As for as the section of scale was concerned after adapting scales for assessment the researcher validated face and content of the scales by four different experts who were related to the field of education. The experts keenly checked instruments and suggested few amendments in the content which were later improved by the researcher. The experts

then validated scales by doing signatures on the validity certificates. In order to check the reliability of instruments the researcher conducted pilot trial on 40 respondents from population who were selected randomly from all six universities. Then the data was collected and entered into the SPSS (Statistical Product and Service Solutions) 22nd Edition and analyzed by the researcher. The researcher checked reliability, item total correlation and inter section correlation of the scale's items. Then on the basis of analysis the tool was revised and finalized for the final data collection and distributed among respondents and final data was collected and analyzed in SPSS (Statistical Product and Service Solutions) 22nd Edition by using linear regression analysis, and descriptive analysis.

4.1 Summary of the Data Analysis

The data was collected from respondents with the help of close ended questionnaire. It was then analysed, interpreted and presented in different sections by keeping in mind the nature of objectives.

Section 1 Tool Construction

In section 1 the reliability of both scales was presented by obtaining Cronbach's Alpha, item total correlation and intersection correlation in the form of tables and their interpretation.

Section 2 Level of Time Management Skills

In this section first objective which was about level of time management skills of respondents was addressed.

Section 3 Level of Quality of Research

Objective number 2 was discussed in the mentioned section which was about the Level of Quality of Research.

Section 4 Effect of Time Management Skills on Quality of Research

This section addressed objective number 3 which was “Effect of Time Management Skills on Quality of Research among Novice Teachers at University Level.”

Section 5 Effect of Goal Setting Skills on Quality of Research

This section was concerned with the analysis and interpretation of the objective 3a which was about the effect of Goal Setting Skills on Quality of Research.

Section 6 Effect of Prioritizing Skills on Quality of Research

This section was related to the analysis and interpretation of the objective 3b which was about the effect of Prioritizing Skills on Quality of Research.

Section 7 Effect of Scheduling Skills on Quality of Research

This section deals with the analysis and interpretation of the objective 3c which was about the effect of Scheduling Skills on Quality of Research.

Section 8 Effect of Managing Interruptions Skills on Quality of Research

This section deals with the analysis of the objective 3d which was about the effect of Interruption Managing skills on Quality of Research.

Section 9 Effect of Procrastination Skills on Quality of Research

This section was based on the analysis of the objective 3e which was about the effect of Procrastination skills on Quality of Research.

Section 1

4.2 Tool Construction

4.2.1 Reliability of the Instruments

Table 4.1

Reliability of the Time Management Skills Assessment Scale (N=227)

Scale	Sub- sections	No. of Items	Cronbach's Alpha Reliability
Time Management Skills Assessment Scale		26	.92
	Goal Setting	6	.70
	Prioritizing	5	.61
	Scheduling	5	.78
	Managing Interruptions	5	.62
	Procrastination	5	.70

Table No. 4.1 shows that the Cronbach alpha reliability of Time Management Skills Assessment scale was found as .92. The reliability score for Goal Setting was found .70, section related to Prioritizing was .61, for Scheduling .78, for Managing Interruptions .62 and the reliability of section related to Procrastination was found as 70.

Table 4.2

Reliability of the Research Quality Assessment Scale (N=227)

Scale	Sub- sections	No. of Items	Cronbach's Alpha Reliability
Research Quality Assessment Scale		39	.96
	Clear Aim or Research Question	5	.87
	Design and Research Methodology	6	.78
	Data Collection Procedure	5	.78
	Description of study content	6	.70
	Data Analysis	6	.74
	Results and Aims Relevancy	6	.67
	Ethical Approval	5	.68

Table No. 4.2 shows that the reliability score of Research Quality Assessment Scale was found .96. Reliability score related to Clear Aim section was .87, Design and Research Methodology was .78, Data Collection Procedure score was .78, Description of study content score was .70, Data Analysis section score was .74, Results and Aims Relevancy score was .67 and Ethical Approval score was found as .68.

4.3 Item Total Correlation

Item total correlation is the measure of reliability of a multi-item scale. In chapter no.3 the researcher conducted reliability analysis of the tools which were initially used in pilot trial. After pilot trial the researcher analyzed pilot trial data and revised tools on the basis of results. In the results it was identified that some items in tools were having low reliability and correlation and needed to remove from the tools. After removing weak items the questionnaire was revised in order to use it for final data collection. Also the number of items and their values mentioned in both chapter no.3 and 4 of current study can be compared to see the difference.

So, the researcher used a revised tool in a final data collection that's why its reliability analysis was again conducted before final data analysis like in a research study conducted by Raza (2021) on a topic, effect of perspective teachers' interpersonal skills on their self-efficacy, the researcher followed same procedure. Similarly, another study conducted by Kazim (2021) on a topic, exploring the relationship between emotional intelligence and teachers' self-efficacy at university level, the researcher also used a revised tool for final data collection and rechecked its reliability before final analysis.

Table 4.3

Item Total Correlation of Time Management Skills Assessment Scale (N=227)

Item	r	Item	r	Item	r	Item	r	Item	r
GS1	.57**	P1	.55**	S1	.76**	MI1	.55**	PR1	.68**
GS2	.73**	P2	.63**	S2	.66**	MI2	.55**	PR2	.54**
GS3	.38**	P3	.31*	S3	.68**	MI3	.65**	PR3	.70**
GS4	.44**	P4	.42**	S4	.63**	MI4	.52**	PR4	.58**
GS5	.60**	P5	.45**	S5	.53**	MI5	.51**	PR5	.57**
GS6	.55**								

*= Correlation is significant at the 0.05 level (2tailed)

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

Item total correlation values of time management skills assessment scale are mentioned in Table 4.3 which shows that all the items had significant (0.01) correlation with each other. The highest correlation value was found of the item S1 which is .76** and lowest was of the item P3 which is .31*.

Table 4.4

Item Total Correlation of Research Quality Assessment Scale (N=227)

Item	r	Item	r	Item	r
CA1	.63**	DCP3	.67**	DA5	.36*
CA2	.64**	DCP4	.66**	DA6	.57**
CA3	.68**	DCP5	.49**	RAR1	.66**
CA4	.80**	DSC1	.75**	RAR2	.52**
CA5	.64**	DSC2	.68**	RAR3	.67**
DRM1	.65**	DSC3	.60**	RAR4	.60**
DRM2	.61**	DSC4	.82**	RAR5	.54**
DRM3	.84**	DSC5	.39**	RAR6	.82**
DRM4	.55**	DSC6	.49**	EA1	.70**
DRM5	.67**	DA1	.71**	EA2	.61**
DRM6	.52**	DA2	.71**	EA3	.69**
DCP1	.71**	DA3	.75**	EA4	.65**
DCP2	.58**	DA4	.74**	EA5	.42**

*= Correlation is significant at the 0.05 level (2tailed)

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

Item total correlation values of Research Quality Assessment Scale are mentioned in Table 4.4 which shows that all the items had significant (0.01) correlation with each other. The highest correlation value was found of the item DSC4, and RAR6 which is .82** and lowest was of the item DA5 which is .36*.

4.4 Inter-section Correlation

Table 4.5

Inter-section Correlation of Time Management Skills Assessment Scale (N=227)

	Goal Setting	Prioritizing	Scheduling	Managing Interruptions	Procrastination
Goal Setting	1				
Prioritizing	.61**	1			
Scheduling	.72**	.68**	1		
Managing Interruptions	.64**	.78**	.67**	1	
Procrastination	.67**	.70**	.78**	.76**	1

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

Table 4.5 Shows that all sub-sections of Time Management Skills Assessment Scale were significantly correlated. The highest correlation was between managing interruptions and Prioritizing section and also between scheduling and Procrastination which is (.78**) and lowest correlation was between goal setting and prioritization that is (.61**).

Table 4.6

Inter-section Correlation of Research Quality Assessment Scale (N=227)

	Clear Aim or Research Question	Design and Research Methodology	Data Collection Procedure	Description of study content	Data Analysis	Results and Aims Relevancy	Ethical Approval
Clear Aim or Research Question	1						
Design and Research Methodology	.80**	1					
Data Collection Procedure	.59**	.66**	1				
Description of study content	.65**	.79**	.76**	1			
Data Analysis	.66**	.74**	.67**	.86**	1		
Results and Aims Relevancy	.65**	.61**	.59**	.66**	.75**	1	
Ethical Approval	.68**	.75**	.63**	.70**	.75**	.67**	1

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

Table No. 4.6 shows that all sub-variables of Research Quality Assessment were significantly (0.01) correlated. The highest correlation was found between Description of study content and Data Analysis section (.86**) and the lowest correlation was between clear aim and data collection procedure section and also between data collection procedure and results and aims relevancy section (.59**).

Section 2

4.5 Objective 1 “To Assess the Level of Time Management Skills of Novice Teachers”.

Table 4.7

Level of Time Management Skills of Novice Teachers (N=227)

Score	Status	No. of Teachers	Percentage %
26-60	Below Average	0	0%
61-95	Average	85	37%
96-130	Above Average	142	63%

Above table shows that in order to find out the level of time management skills the responses were divided into three categories i.e below average (26-60), average (61-95), and above average (96-130). In results no respondent was found at below average scoring category. At average scoring category, 85 respondents were found and their percentage was (37%). At above average scoring category 142 respondents were found and their percentage was (63%). Therefore, it was analysed that majority (63%) teachers were having high level of time management skills.

Table 4.8

Level of Goal Setting Skills (N=227)

Score	Status	No. of Teachers	Percentage
6-14	Below Average	3	1%
15-22	Average	73	32%
23-30	Above Average	151	67%

Above table shows that 3 respondents were found at below average category and their percentage was (1%). At average scoring category, 73 respondents were found and their percentage was (32%). At above average scoring category 151 respondents were found and their percentage was (67%). Therefore, it was analysed that majority (67%) teachers were having high level of Goal Setting skills.

Table 4.9

Level of Prioritizing Skills (N =227)

Score	Status	No. of Teachers	Percentage
5-12	Below Average	0	0%
13-20	Average	168	74%
21-28	Above Average	59	26%

Above table shows that no respondent was found at below average category. At average scoring category, 168 respondents were found and their percentage was (74%). At above average scoring category 59 respondents were found and their percentage was (26%). Therefore, it was analysed that majority (74%) teachers were having average level of prioritizing skills.

Table 4.10

Level of Scheduling Skills (N =227)

Score	Status	No. of Teachers	Percentage
5-12	Below Average	6	3%
13-20	Average	161	71%
21-28	Above Average	60	26%

Table 4.10 shows that 6 respondents were found at below average level and their percentage was (3%). At average scoring category, 161 respondents were found and their percentage was (71%). At above average scoring category 60 respondents were found and their percentage was (26%). Therefore, it was analysed that majority (71%) teachers were having average level of Scheduling skills.

Table 4.11

Level of Managing Interruption Skills (N =227)

Score	Status	No. of Teachers	Percentage
5-12	Below Average	4	2%
13-20	Average	175	77%
21-28	Above Average	48	21%

Above table shows that 4 respondents were found at below average scoring category and their percentage was (2%). At average scoring category, 175 respondents were found and their percentage was (77%). At above average scoring category 48 respondents were found and their percentage was (21%). Therefore, it was analysed that majority (77%) teachers were having average level of Managing Interruptions skills.

Table 4.12

Level of Procrastination Skills (N =227)

Score	Status	No. of Teachers	Percentage
5-12	Below Average	4	2%
13-20	Average	166	73%
21-28	Above Average	57	25%

Above table shows that 4 respondents were found at below average scoring category and their percentage was (2%) At average scoring category, 166 respondents were found and their percentage was (73%). At above average scoring category 57 respondents were found

and their percentage was (25%). Therefore, it was analysed that majority (73%) teachers were having average level of Procrastination skills.

Section 3

4.6 Objective 2 “To Identify the Level of Quality of Research of Novice Teachers”

Table 4.13

Level of Quality of Research of Novice Teachers (N=227)

Score	Status	No. of Teachers	Percentage %
39-91	Below Average	0	0%
92-144	Average	79	35%
145-197	Above Average	148	65%

Table 4.8 represents that in order to find out the level of quality of research of novice teachers the responses were divided into three categories i.e below average (39-91), average (92-144), and above average (145-197). In results no respondent was found at Below Average scoring category. In Average scoring category 79 respondents were found and their percentage was (35%). Similarly, at above average level 148 respondents were found and their percentage was (65%). So it was analysed that majority (65%) teachers were producing above average level of quality of research.

Table 4.14

Level of Setting Clear Aim (N=227)

Score	Status	No. of Teachers	Percentage
5-12	Below Average	4	2%
13-20	Average	140	62%
21-28	Above Average	83	36%

Above table represents that 4 respondents were found at below average category and their percentage was (2%). At average scoring category, 140 respondents were found and their percentage was (62%). At above average scoring category 83 respondents were found and their percentage was (36%). Therefore, it was analysed that majority (62%) teachers were having average level of setting Clear Aim or Research Question.

Table 4.15

Level of Selecting Design and Research Methodology (N=227)

Score	Status	No. of Teachers	Percentage
6-14	Below Average	0	0%
15-22	Average	99	44%
23-30	Above Average	128	56%

Above table represents that no respondent was found in below average category. At average scoring category, 99 respondents were found and their percentage was (44%). At above average scoring category 128 respondents were found and their percentage was

(56%). Therefore, it was analysed that majority (56%) teachers were having high level of selecting design and research methodology.

Table 4.16

Level of Selecting Data Collection Procedure (N=227)

Score	Status	No. of Teachers	Percentage
5-12	Below Average	0	0%
13-20	Average	146	64%
21-28	Above Average	81	36%

Table 4.16 shows that 0 respondent was found at below average level. At average scoring category, 146 respondents were found and their percentage was (64%). At above average scoring category 81 respondents were found and their percentage was (36%). Therefore, it was analysed that majority (64%) teachers were having average level of selecting data collection procedure.

Table 4.17

Level of Describing study content (N=227)

Score	Status	No. of Teachers	Percentage
6-14	Below Average	0	0%
15-22	Average	97	43%
23-30	Above Average	130	57%

The table shows that 0 respondent was found at below average category and its percentage was (0%). At average scoring category, 97 respondents were found and their percentage was (43%). At above average scoring category 130 respondents were found and their

percentage was (57%). Therefore, it was analysed that majority (57%) teachers were having high level of describing study content.

Table 4.18

Level of Data Analysis (N=227)

Score	Status	No. of Teachers	Percentage
6-14	Below Average	0	0%
15-22	Average	105	46%
23-30	Above Average	122	54%

The table shows that 0 respondent was found at below average category and its percentage was (0%). At average scoring category, 105 respondents were found and their percentage was (46%). At above average scoring category 122 respondents were found and their percentage was (54%). Therefore, it was analysed that majority (54%) teachers were having high level of Data Analysis.

Table 4.19

Level of Having Results and Aims Relevancy (N=227)

Score	Status	No. of Teachers	Percentage
6-14	Below Average	0	0%
15-22	Average	71	31%
23-30	Above Average	156	69%

The table shows that 0 respondent was found at below average category and its percentage was (0%). At average scoring category, 71 respondents were found and their percentage was (31%). At above average scoring category 156 respondents were found and their percentage was (69%). Therefore, it was analysed that majority (69%) teachers were having high level of results and aims relevancy in their studies.

Table 4.20

Level of Taking Ethical Approval (N=227)

Score	Status	No. of Teachers	Percentage
5-12	Below Average	4	2%
13-20	Average	121	53%
21-28	Above Average	102	45%

The table shows that 4 respondents were found at below average category and its percentage was (2%). At average scoring category, 121 respondents were found and their percentage was (53%). At above average scoring category 102 respondents were found and

their percentage was (45%). Therefore, it was analysed that majority (53%) teachers were having average level of taking ethical approval.

Section 4

4.7 Objective 3 “To Measure the Effect of Time Management Skills on Quality of Research among Novice Teachers at University Level”.

Table 4.21

Effect of Time Management Skills on Quality of Research (N=227)

Independent variable	Dependent Variable	R²	β(Coefficient)	t	Sig.
Time Management Skills	Quality of Research	.36	.87	11.28	0.00

**P<0.01

*P<0.05

Table 4.21 shows that the R² value was (.36) that means time management skills had 36% effect on quality of research and the rest is due to the other factors. The Beta value ($\beta=.87$) shows that effect is positive and statistically significant at 0.01 level. Therefore, it was analysed that the hypotheses number one, there is statistically no significant effect of time management skills on quality of research among novice teachers at university level was rejected.

Section 5

4.8 Objective 3a “To Measure the Effect of “Goal Setting Skills” related to time management on Quality of Research among Novice Teachers”.

Table 4.22

Effect of Goal Setting on Quality of Research (N=227)

Independent variable	Dependent Variable	R ²	β (Coefficient)	t	Sig.
Goal Setting	Quality of Research	.21	2.54	7.81	0.00

**P<0.01

*P<0.05

Table 4.22 indicated that the R² value was (.21) that means time management skills had 21% effect on quality of research and the rest is due to the other factors. The Beta value ($\beta=2.54$) shows that effect was positive and statistically significant at 0.01 significance level. So, it was analysed that the hypotheses H_{01a}, there is statistically no significant effect of Goal Setting skills on quality of research among novice teachers at university level was rejected.

Section 6

4.9 Objective 3b “To Measure the Effect of “Prioritizing Skills” of time management on Quality of Research among Novice Teachers”.

Table 4.23

Effect of Prioritizing on Quality of Research (N=227)

Independent variable	Dependent Variable	R ²	β (Coefficient)	t	Sig.
Prioritizing	Quality of Research	.29	4.71	9.65	0.00

**P<0.01

*P<0.05

Table 4.23 declared that R² value was (.29) that means time management skills had 29% effect on quality of research and the rest is due to the other factors. The Beta value ($\beta=4.71$) shows that effect was positive and statistically significant at 0.01 significance level. Therefore, it was analysed that the hypotheses number three, there is statistically no significant effect of Prioritizing skills on quality of research among novice teachers at university level was rejected.

Section 7

4.10 Objective 3c “To Measure the Effect of “Scheduling Skills” of time management on Quality of Research among Novice Teachers”.

Table 4.24

Effect of Scheduling on Quality of Research (N=227)

Independent variable	Dependent Variable	R ²	β (Coefficient)	t	Sig.
Scheduling	Quality of Research	.32	3.27	10.32	0.00

**P<0.01

*P<0.05

Table 4.24 identified that the R² value was (.32) which means time management skills had 32% effect on quality of research and the rest is due to the other factors. The Beta value ($\beta=.27$) shows that effect was positive and statistically significant at 0.01 significance level. So, it was analysed that the hypotheses number four, there is statistically no significant effect of Scheduling skills on quality of research among novice teachers at university level was rejected.

Section 8

4.11 Objective 3d “To Measure the Effect of “Interruption Management” of Time Management on Quality of Research among Novice Teachers”

Table 4.25

Effect of Managing Interruptions on Quality of Research (N=227)

Independent variable	Dependent Variable	R ²	β(Coefficient)	t	Sig.
Managing Interruptions	Quality of Research	.30	3.95	10.00	0.00

**P<0.01

*P<0.05

Table 4.25 shows that the R² value was (.30) which means time management skills had 30% effect on quality of research and the rest is due to the other factors. The Beta value ($\beta=3.95$) shows that effect was positive and statistically significant at 0.01 significance level. Thus, it was analysed that hypotheses number five, there is statistically no significant effect of Interruption Managing skills on quality of research among novice teachers at university level was rejected.

Section 9

4.12 Objective 3e “To Measure the Effect of “Procrastination Management Skills” related to time management on Quality of Research among Novice Teachers”.

Table 4.26

Effect of Procrastination on Quality of Research (N=227)

Independent variable	Dependent Variable	R ²	β (Coefficient)	t	Sig.
Procrastination	Quality of Research	.26	2.98	9.10	0.00

**P<0.01

*P<0.05

Table 4.26 shows that the R² value was (.26) that means time management skills had 26% effect on quality of research and the rest is due to the other factors. The Beta value ($\beta=.98$) shows that effect was positive and statistically significant at 0.01 significance level. Thus, it was analysed that hypotheses number six, there is statistically no significant effect of Procrastination skills on quality of research among novice teachers at university level was rejected.

CHAPTER 5

SUMMARY, FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The current study was meant to identify the effect of time management skills on quality of research among novice teachers at university level. It was based on three key objectives as; to assess the level of time management skills of novice teachers, to identify the level of quality of research of novice teachers and to measure the effect of time management skills on quality of research among novice teachers at university level. The third objective was further categorized into 5 sub-objectives. Moreover the study was based on null hypothesis which had further 5 sub-hypotheses. The population of study was based on 276 novice teachers. These novice teachers were serving in the 6 public sector universities of Islamabad which were offering common social sciences departments.

Researcher used close ended questionnaire in order to collect the data. The questionnaire was adapted by the researcher because a complete questionnaire was not available on concerning research topic which could be used to assess both variables' concepts. The questionnaire used to assess time management skills was based on 26 items and it was divided into 5 sub-sections on the basis of indicators used in the conceptual framework. However, the questionnaire used to assess the quality of research was based on 39 items and it was having 7 sub-sections based on the dimensions of conceptual framework. After adapting questionnaires the researcher consulted with four experts for its content and face

validity. The experts were selected from different universities who were related to the field of education. After validation the researcher updated questionnaires as per the suggestions given by the experts. Then for checking the reliability of questionnaires the researcher did pilot testing. For this purpose the researcher collected data from 40 respondents who were selected randomly from all universities which were included in the study population then analyzed it on SPSS (Statistical Product and Service Solutions) 22nd Edition.

After pilot testing the researcher got final and updated version of the questionnaire and went for final data collection and for that purpose researcher personally visited all the institutions to collect data. Researcher also faced difficulties in approaching respondents of few institutions but after much struggle data was collected from those institutions. The questionnaire was distributed among 236 respondents and a reasonable time was given to all the respondents to fill the questionnaire. Few respondents took one day and rest took 2 days in filling questionnaires and for that reason researcher visited to them more than once in order to get the filled questionnaires. The researcher received 226 questionnaires back with complete responses. So, the final rate of return was 96%.

After data collection the researcher entered it into the SPSS (Statistical Product and Service Solutions) 22nd Edition and analyzed it by using different tests like statistical reliability test, item total and inter section correlation, and linear regression analysis respectively.

5.2 Findings

5.2.1 Objective 1 “To Assess the Level of Time Management Skills of Novice Teachers”

In Table 4.7 it is mentioned that the score of time management skills was divided into three sub categories and no response was found in below average category. However (37%) responses were at average category and maximum (63%) novice teacher’s responses were falling at above average category. So, it was found that maximum (63%) novice teachers were having above average level of time management skills.

Table.4.8 shows that (1%) respondents were at below average level, while (32%) were at average level and (67%) respondents were at above average level. Therefore, it was analyzed that majority (67%) teachers were having high level of goal setting skills.

Table.4.9 shows that (0%) respondents were at below average level, while (74%) were at average level and (69%) respondents were at above average level. Therefore, it was analyzed that majority (74%) teachers were having high level of prioritizing skills.

Table.4.10 shows that (3%) respondents were at below average level, while (71%) were at average level and (26%) respondents were at above average level. Therefore, it was analyzed that majority (71%) teachers were having high level of Scheduling skills.

Table.4.11 shows that (2%) respondents were at below average level, while (77%) were at average level and (21%) respondents were at above average level.

Therefore, it was analyzed that majority (77%) teachers were having high level of managing interruption skills.

Table.4.12 shows that (2%) respondents were at below average level, while (73%) were at average level and (25%) respondents were at above average level.

Therefore, it was analyzed that majority (73%) teachers were having high level of procrastination skills

5.2.2 Objective 2 “To Identify the Level of Quality of Research of Novice Teachers”

As for as the objective 2 is concerned the table 4.13 showed that the score of research quality was also divided into three categories where no response was found at below average category. However, (35%) responses were falling at average category and maximum (65%) novice teachers’ responses were found at above average level category. Therefore, Results declared that maximum (65%) of novice teachers were producing quality research.

Table 4.14 shows that (2%) respondents were at below average level, while (62%) were at average level and (36%) respondents were at above average level. Therefore, it was analyzed that majority (62%) teachers were having high level of setting clear aim or research Question.

Table 4.15 shows that (0%) respondents were at below average level, while (44%) were at average level and (56%) respondents were at above average level. Therefore, it was analyzed that majority (56%) teachers were having high level of selecting design and research methodology.

Table 4.16 shows that (0%) respondents were at below average level, while (64%) were at average level and (36%) respondents were at above average level. Therefore, it was analyzed that majority (64%) teachers were having high level of selecting data collection procedure.

Table no.4.17 shows that (0%) respondents were at below average level, while (43%) were at average level and (57%) respondents were at above average level. Therefore, it was analyzed that majority (57%) teachers were having high level of describing study content.

Table 4.18 shows that (0%) respondents were at below average level, while (46%) were at average level and (54%) respondents were at above average level. Therefore, it was analyzed that majority (54%) teachers were having high level of data analysis.

Table 4.19 shows that (0%) respondents were at below average level, while (31%) were at average level and (69%) respondents were at above average level. Therefore, it was analyzed that majority (69%) teachers were having high level of having results and aims relevancy.

Table 4.20 shows that (2%) respondents were at below average level, while (53%) were at average level and (45%) respondents were at above average level. Therefore, it was analyzed that majority (53%) teachers were having high level of taking ethical approval.

5.2.3 Objective 3 “To Measure the Effect of Time Management Skills on Quality of Research among Novice Teachers at University Level”

Regarding this objective interpretation of the table 4.21 represented that there was a significant effect of time management skills on quality of research among novice teachers. It was analyzed by applying linear regression analysis. Moreover it was found that the effect was positive which means with good time management skills novice teachers were producing quality research. It was also found that this association between time management skills and quality of research was statistically significant.

5.2.3.1 Objective 3a. The interpretation of table 4.22 declared that goal setting skills has a significant positive effect on quality of research among novice teachers. That means through setting a goals of their tasks the novice teachers can enhance the quality of their research.

5.2.3.2 Objective 3b. In the study results it was found that Prioritizing skills has significant positive effect on quality of research which means if the novice teachers will utilize prioritizing technique of time management, this will also facilitate them to increase the quality of their research work.

5.2.3.3 Objective 3c. It was identified from the interpretation of table 4.24 that scheduling skills has significant positive effect on quality of research. This interpretation realized that when novice teachers will practice scheduling technique of time management they will be able to increase the quality of their research study as well.

5.2.3.4 Objective 3d. It was showed in table 4.25 that interruption management skills also has significant positive effect on quality of research. It means, by

managing interruptions properly the novice teachers can improve the quality of their research studies.

5.2.3.5 Objective 3e. It was analysed by the study results that procrastination skills has significant positive effect on research quality. It means the novice teachers can improve their research quality by avoiding procrastination.

5.3 Discussions

The research was meant to measure the effect of time management skills on quality of research among novice teachers at university level. So, the first objective was to assess the level of time management skills of novice teachers. The researcher found that maximum novice teachers were falling at above average level of time management skills. It shows that the awareness of novice teachers about time management techniques was at above average level. With a similar finding a study was conducted by Erdem (2013) at university level in order to identify the perception of academic staff in the faculty of education at Pamukkale University and researcher found that their perception about their level of time management skills was positive and they found themselves good in managing time. Therefore, this study supports the finding of current study that the level of time management skills of university teachers is good. Likewise, a research designed by the Gul, Tahir, Ishfaq, and Batool (2021) to identify the impact of teachers workload on their time management skills at university level regarding several factors like working hours, job content, job satisfaction and several other responsibilities. Researchers found that the teachers' time management perception was positive which means by managing time properly they may increase their work efficiency and they have good time management skills as well. Therefore, the finding of this study about the teachers' time management

skills supports current studies' first finding that the level of time management skills of university teachers is good.

The present study found that the level of quality of research of maximum novice teachers was at above average level. It means that novice teachers can produce quality research by using their effective time management skills. A study was conducted by Leuverink and Aarts (2019) in which the researcher found that the teacher researchers fall at different levels regarding quality of research they produce. The researcher assessed quality with respect to the different quality factors and identified different levels of teacher researchers on the basis of collected data. In some factors the researcher found good level of teachers' research quality and in some average level. Therefore, the present study assessed novice teachers' perception about level of research quality and researcher found that they are producing good research overall. Therefore, the results of both studies are reflecting similar idea to some extent because in current study few researchers were also not following quality factors of research. Likewise a study conducted by Groothuijsen, Bronkhorst, Prins, and Kuiper (2020) was aimed to identify teacher-researchers' perspectives on the quality of practice-oriented educational research and it was concluded by the researcher that the quality concerns of the teachers regarding research are different from those quality concerns held by the researchers. So, it can be identified that their level will also be different. Therefore, it can be concluded that some teachers will have good level in producing quality research and some will have average and the rest will have above average. Hence, the present study identified that the level of novice teachers in producing quality research was above average level and in this way both studies support each other's finding to some extent.

It was found in the present study that there is a positive association between time management skills and quality of research among novice teachers. A study with similar results was conducted by the Njagi and Malel (2012) in which the researcher found that time management and work performance are directly related to each other. Researcher also found that there exists a positive correlation between time management performances. So these findings are supporting the idea of current research finding that there is a positive association between time management skills and quality of research of novice teachers. Similarly a study was designed by Islam, Ali, & Osmani (2021) in which researchers concluded that certain time management factors like; time management instruments, schedules, and prioritization sustain a significant positive association to job performance. This shows that time management skills are positively related to the job performance which supports the context of current study finding. Furthermore another related finding was reported by the researcher in a research study designed by Cross, Daniel & Jiya (2020) in which researchers found that there is a positive association between the organizational performance and effective time management. Therefore, these findings are supporting the context of findings of present research that effective time management skills can also help or facilitate in improving the performance of quality of research of novice teachers. Moreover, a study with a similar results was conducted by Adu-Oppong, Agyin-Birikorang, Darko, and Aikins (2014) which found that through time management the organizational staff can improve its productivity and achieve its set goals at their highest level. It indicates that there is a positive effect of time management on work productivity. Therefore, these findings are related to the findings of current study which shows that the novice teachers can increase the productivity of their research by increasing their time

management skills. In short the time management skills and quality of research of novice teachers are positively associated with each other.

A research conducted by Rivera (2007) reported the importance of goal setting as, it is the most valuable time management technique and is usually a successful people use this technique to achieve high results in their tasks. Therefore, the novice teachers may get success to achieve good quality in their studies by properly following this technique or principle before executing their tasks and this is also identified by the results of present study. Similarly Dodd and Sundheim (2011) reported the importance of prioritization as, by prioritizing tasks and activities the time manager definitely get more benefits at the end. Hence, the results indicate that there is a positive relationship between prioritizing skills and work performance. So, these study results are matching with the current study results in a way that, if the novice teachers will prioritize their roles whether related to the research or other professionals, they will definitely get good output in all including the quality of their research work.

Likewise a researcher Rahmah (2017) emphasized on the scheduling for teachers and declared that by scheduling their roles and responsibilities they can get more spare time in which they can perform well in other life responsibilities also. Therefore, novice teachers may use that spare time to boost up their performance in research work and this is shown in the results of current study. Also Chong (2018) mentioned that through scheduling activities one can perform satisfactory which means there is a positive relationship between scheduling and work performance. Hence, the novice teachers may perform satisfactory in their research and it is proved by the current study results. Likewise, a researcher Felton and Sims (2009) declared in their research that the use of time logs may help people to

keep an eye on their time that where actually they are spending it. This will help to keep control on interruptions and in this way they will be able to overcome them and increase their work performance. Similarly, Rabha (2021) reported various strategies that can facilitate in managing time properly and to overcome task procrastination and these includes Logging, Communication, using a time tracker and to-do lists etc. Therefore, all mentioned research studies indicate that time management skills are positively related to the work performance of people in different fields.

Conclusions

On the basis of findings which the researcher found in current study the following conclusions were derived:

The current study was designed to measure the effect of time management skills on quality of research among novice teachers at university level. The first main objective of the study was “to assess the level of time management skills of novice teachers”, and it was assessed by using scoring key. The responses were categorized into three levels and no response was found at below average level but at average level (37%) responses were found. Moreover majority of responses (63%) were found at above average level. So it can be concluded that a maximum number of novice teachers were having above average level of time management skills.

In order to find out the “level of quality of research of novice teacher” which was the second main objective of the study, the researcher also used scoring key and with the help of obtained scores it was concluded that no response was falling at below average level of quality of research. However, (35%) respondents were having average level of quality of

research and majority of the respondents (65%) were producing above average level of quality of research.

The current study was aimed to measure the “effect of time management skills on quality of research among novice teachers at university level” and for its analysis linear regression analysis was applied. Through the obtained results it was concluded that both variables time management skills and quality of research are positively related to each other which means novice teachers can maximize their research quality by managing time properly. Maximum novice teachers were agreed that by managing time properly they can produce quality studies. Likewise from obtained results it was revealed that the one way effect of goal setting, prioritizing, scheduling, managing interruptions, and procrastination skills on research quality was significantly positive. Which means with the help of all these effective time management techniques novice teachers can properly maintain their professional roles and responsibilities, and also produce quality research.

5.4 Recommendations for Novice Teachers

On the basis of findings and conclusion the researcher recommended following suggestions:

1. Departmental discourse may be organized on monthly basis for the sharing of latest time management strategies by the senior teachers.
2. The new teacher researchers may utilize digital project management software (Monday.com, web based etc) in order to keep control on all research tasks and to increase the quality of their research studies.

3. Universities may arrange book talks at departmental level related to the new and useful time management methods in order to polish the novice teachers' time management skills.
4. The novice teachers may produce worthy research studies by setting clear and achievable goals and answerable questions regarding their research studies. (Goal Setting)
5. The novice teacher researchers may produce productive research studies by categorizing their roles and responsibilities on the basis of importance and urgency. (Prioritizing)
6. Senior teachers may guide novice teachers to decide about what and how much time is best for particular research task before its execution to increase the quality of their research.(Scheduling)
7. Novice teachers may enhance their research quality and manage other roles and responsibilities well by maintaining discipline. (Keeping their cell phones silent, using separate place to work, and keeping the door lock to avoid un-necessary voice during work etc). (Managing Interruptions)
8. Moreover, teachers may manage their time well by avoiding activities like sitting for a long time in front of television, on a dining table, scrolling useless things on internet at the time of work and also thinking about the consequences of procrastinating important tasks. (Procrastination)

5.5 Recommendations for Future Researchers

On the basis of findings and conclusions the researcher recommends few suggestions to the future researchers which are:

1. Future researchers may explore and address more time management techniques which were not discussed in this study.
2. Current study is taking novice teacher's perception about quality of their studies so future researchers may use mixed method research to assess their research quality.
3. Future researchers may focus on the effect of time management skills on other tasks of teachers except quality of research they produce.
4. The current study focused on the time management skills of novice teachers. However the future researchers may focus on teachers having more experience in this field.
5. The future researchers may conduct this research on teachers serving in the private sector universities because the current study was having public sector universities' in its population.

5.6 Research Limitations

1. The study was aimed to assess time management skills of novice teachers and their perception about, whether they are following quality factors to produce quality studies or not by using their time management skills.
2. The study took only six public sector universities of Islamabad which were offering common social sciences departments. Therefore, its results can only be generalized to selected six universities.
3. The current study cannot be generalized to the school teachers.
4. The current study can only be generalized to the university teachers having three or less than three years' experience in the field of research. Not more experienced university teachers.

5.7 Alignment Table

Alignment table for research objectives, hypothesis, findings, conclusion and recommendations is mentioned in below table 5.1.

Table 5.1

Research Objectives, Hypotheses, Statistical Tests, Findings, Conclusions, and Recommendations

Research Objectives	Hypotheses	Statistical Tests	Findings	Conclusions	Recommendations
To assess the level of time management skills of novice teachers.		Individual Scores	Majority (63%) teachers were having above average level of time management skills.	Maximum number of novice teachers were having good time management skills.	Departmental discourse may be organized on monthly basis for the sharing of latest time management strategies by the senior teachers for novice teachers' grooming.
To identify the level of quality of research of novice teachers.		Individual Scores	Majority (65%) teachers were producing high level of quality of research.	Maximum number of novice teachers were producing quality studies.	Novice teachers may utilize digital project management soft wares (Monday.com, web based etc) in order to keep control on all research tasks and to increase the quality of their research studies.
To measure the effect of time management skills on quality of research among novice teachers at university level.	There is statistically no significant effect of time management skills on quality of research among novice teachers at university level.	Linear Regression Analysis	It was found that there is statistically significant and (36%) positive effect of time management skills on quality of research among novice teachers at university level.	Time management skills have positive effect on quality of research among novice teachers.	Universities may arrange book talks at departmental level related to the new and useful time management techniques in order to polish the novice teachers' time management skills which can help them

To measure the effect of goal setting on quality of research among novice teachers.	There is statistically no significant effect of goal setting skills related to time management on quality of research among novice teachers.	Linear Regression Analysis	It was found that goal setting skills were having significant and (21%) positive effect on quality of research among novice teachers.	Goal setting skills facilitate in producing quality of research among novice teachers.	to produce worthy research studies. The novice teachers may produce worthy research studies by setting clear and achievable goals and answerable questions regarding their research studies with the help and guidance of senior teacher researchers.
To measure the effect of prioritizing skills of time management on quality of research among novice teachers.	There is statistically no significant effect of prioritizing skills related to time management on quality of research among novice teachers.	Linear Regression Analysis	It was found that prioritizing skills were having significant and (29%) positive effect on quality of research among novice teachers.	Prioritizing skills can help novice teachers to produce quality research.	The novice teacher researchers may produce productive research studies by categorizing their roles and responsibilities on the basis of importance and urgency.
To measure the effect of Scheduling skills of time management on quality of research among novice teachers.	There is statistically no significant effect of scheduling skills related to time management on quality of research among novice teachers.	Linear Regression Analysis	It was found that scheduling skills were having significant and (32%) positive effect on quality of research among novice teachers.	Scheduling skills can assist novice teachers to produce quality research.	Senior teachers may guide novice teachers to decide about what and how much time is best for particular research task before its execution to increase the quality of their research.
To measure the effect of Interruption management of time management on quality of research among novice teachers.	There is statistically no significant effect of Interruption management skills related to time management on quality of	Linear Regression Analysis	It was found that interruption management skills also had having significant and (30%) positive effect on quality of research among novice teachers.	Interruption management skills can help novice teachers to produce quality research.	Novice teachers may enhance their research quality and manage other roles and responsibilities well by maintaining discipline. (Keeping their cell phones silent, using separate place to work, and keeping the door lock

research among
new teachers.

to avoid un-necessary
voice during work
etc).

To measure the
effect of
Procrastination
management
skills related to
time
management on
quality of
research among
novice teachers.

There is
statistically no
significant
effect of
procrastination
management
skills related to
time
management on
quality of
research among
new teachers.

Linear
Regression
Analysis

It was found
that
procrastination
skills also
having
significant and
(26%) positive
effect on
research quality
among novice
teachers.

Procrastination
skills may
facilitate
novice teachers
in maintaining
quality in
research.

Novice teachers may
manage their time well
by avoiding activities
like sitting for a long
time in front of
television, on a dining
table, scrolling useless
things on internet at
the time of work and
also thinking about the
consequences of
procrastinating
important tasks.

REFERENCES

- Aduoppong, A.A., Agyin-Birikorang, E., Darko, G.M., & Aikins, E.D. (2014). Time management and administrative effectiveness. *Global Journal of Interdisciplinary Social Sciences*, 5(1), 76-82.
- Ahmad, M. (2018). Point of View on general concept of quality. (Retrieved from <https://www.researchgate.net> on October 2021).
- Ahmad, S., Batool, A., & Choudhry, H.A. (2019). Path relationship of time management and academic achievement of students in distance learning institutions. *Pakistan Journal of Distance & Online Learning*, 5(2), 191-208.
- Alexander, R & Dobson, M.S. (2008). Real-world time management. *Amacom*, 24(12), 124-129.
- Allo, E. (2019). What are the standards or qualities of research? (Retrieved from <https://www.editage.com/Insights> on October 2021).
- Andrea, R. & Dwyer, J. P. (2017). Can editors save peer review from peer reviewers? *Journal Plos One*, 12(10), 14-21.
- Becker, H & Mustric, F. (2008). Can i have 5 minutes of your time? Morgan James Publishing New York, 126(6), 23-31.
- Belcher et al. (2015). Principle criteria of identifying research quality in trans-disciplinary context, 12(7), 1-17. <https://doi.org/10.1093/reseval/rvv025>.
- Bewick V, Cheek L, Ball J. (2003). Statistics review 7: Correlation and regression. 7(6), 451-9.doi: 10.1186/cc2401. PMID: 14624685; PMCID: PMC374386.
- Bhandari, P. (2022). Correlational Research; When & How to Use. (Retrieved from <https://www.scribbr.com/methodology/correlational-research> on October 2021).

- Bhandari, P. (2023). Independent vs. Dependent Variables. Definition & Examples. Scribbr. (Retrieved from <https://www.scribbr.com/methodology/independent-and-dependent-variables/> on July 2023).
- Bhugra, D. & Howes, O. (2007). Handbook of psychiatric trainees. Germany RCPsych Publications, 5(7), 112-118.
- Bielczyk, Z.N. (2020). Effective self-management for early career researchers in the natural and life sciences. *Journal of Neuron*, 2(4), 212-217.
- Black, K. (2010). Business Statistics: Contemporary Decision Making. 6th edition, John Wiley & sons. (Retrieved from <https://research-methodology.net.com> on October 2021).
- Boaz, A. & Ashby, D. (2003). Fit for purpose? Assessing research quality for evidence based policy and practice. London: ESRC UK Centre for Evidence Based Policy and Practice, 12(4), 56-64.
- Bouchrika, I. (2014). Factors for quality research. (Retrieved from <https://www.research.com> on November 2021).
- Borucka, K. (2018). What is the concept of prioritization? (Retrieved from <https://www.timecamp.com> on November 2021).
- Bright, J. M. (2018). What are the factors of research quality? (Retrieved from <https://www.researchgate.net> on November 2021).
- Brott, R. (2008). Successful time management: be the productive person you want to be. London: Anc Book Publishing. 7(3) 17-25.
- Butler, G & Hope, T. (2007). Managing your mind: the mental fitness guide. Oxford. 12(4), 35-41.
- Cemaloglu, F. (2010). The relation between time management skills and academic achievement of potential teachers. *Journal of Educational Research Quarterly*, 9(3), 15-23.

- Chong, C. S. (2018). Goal setting for teaching professionals. (Retrieved from <https://www.etprofessional.com> on November 2021).
- Chase et al. (2013). Time management strategies for research. SAGE Publications. *Western Journal of Nursing Research*, 35(2), 155-176.
- Charlesworth, A. (2022). Conceptual framework versus theoretical framework. (Retrieved from <https://www.cwauthors.com> on November 2021).
- Cherry, K. (2022). What is a correlational study? (Retrieved from <https://www.verywellmind.com/correlational-research> on November 2021).
- Christie, S. (2009). Effective time management for doctors: making the most of the time you have. *Developmedica* (0). (Retrieved from <https://www.Mukwemanagementstudyguide.com> on November 2021).
- Ciesielska, K. (2021). Review of prioritizing technique. (Retrieved from <https://www.timecamp.com> on November 2021).
- Claessens, J.C., vaneerde, W., Rutte, G.C., & Roe A.R. (2007). A review of the time management literature. *Emerald group publishing limited*, 36(2), 255-276. <https://doi.org/10.1108/00483480710726136>.
- Covey, S.R. (2013). Powerful lessons in personal change. The 7 habits of highly effective people. New York: Simon & Schuster, 60(8), 853-65.
- Coughlan, M., Cronin, P., & Ryan, F. (2007). Step-by-step critiquing research. Part. 1. Quantitative research. *British Journal of Nursing*, 16(11), 14-21.
- Crossman, A. (2020). Understanding Purposive Sampling. An overview of the method and its application. (Retrieved from <https://www.thoughtco.com> on November 2021).
- Cross, O., Daniel, O.C., & Jiya, S. (2020). Relationship between the organizational performance and effective time management, 18(6), 235-241. <https://doi.org/10.5281/zenodo.3612089>.

- Davis, M.A. (2000). Time and the nursing home assistant: relations among time management, perceived control over time, and work-related outcomes. Paper presented at the Academy of Management, Toronto.
- Divya, G., & Chitkara, S. (2018). Effect of time management on academic performance of management students. *Global Journal on Recent Advancement in Business Forecasting and Marketing Intelligence*, 6(2), 1-14.
- Dodd, P & Sundheim, D. (2011). The 25 best time management tools and techniques: how to get more done without driving yourself Crazy, John Wiley & Sons, 6(2), 13-17.
- Downs, L.J. (2008). Time management training2 astd. (Retrieved from <https://www.resilienteducator.com> on November 2021).
- Editorial Team, M. (2007). Time management techniques. (Retrieved from <https://www.mindtools.com> on November 2021).
- Elshaer, I. A. (2014). Definition of quality in general. (Retrieved from <https://www.mpra.ub.uni-muenchen.de.com> on November 2021).
- Erdem, A. R. (2013). The perception of academic staff in the faculty of education at Pamukkale University. *International Journal of Scientific Research in Education*, 6(2), 179-188.
- Felton, S & Sims, M. (2009). Organizing your day: time management techniques that will work for you. *Revell*, 12(7), 56-64.
- Fleming, I. (2011). The Time Management Pocketbook. *US Management Pocketbooks*, 3(1), 122-16.
- Flood, R. L. (1993). *Beyond TQM*. England. John Wiley & Sons. (Retrieved from <https://www.resilienteducator.com> on November 2021).
- Forsyth, P. (2010). Successful time management. *Kogan*. Retrieved November, 25, 2021.
- Glasziou, P., & Chalmers, I. (2004). Assessing the quality of research. *Journal BMJ*, 328(4), 39-41. <https://doi.org/10.1136/bmj.328.7430.39>.

- Green, P. & Skinner, D. (2005). Does time management training work? An evaluation. *International Journal of Training and Development*, 9(2), 124 – 139.
- Groothuijzen, S. E. A., Bronkhorst, L. H., Prins, G. T., & Kuiper, W. (2020). Teacher-researchers' quality concerns for practice-oriented educational research. *Journal of Research Papers in Education*, 35(6), 766-787.
- Gul, R., Tahir, T., Ishfaq, U., & Batool, T. (2021). Impact of teachers' workload on their time management skills at university level. *Indian Journal of Economics and Business*, 20 (3), 819-829.
- Hansen, D. (2011). Stress management for life: a research – based experiential approach. *Cengage Learning*, 14(8), 132-145.
- Harris, J. (2008). The 100 most asked questions on skills, tips, training, tools and techniques for effective time management. Time management 100 success secrets. British: Lulu Publications, p 22.
- Hellstrom, T. (2014). Research quality indicators. (Retrieved from <https://www.people.cs.umu.se.com.org> on November 2021).
- Hina, Q., A., Arshad, M., Kashmeeri, S., & Mehar, S. (2017). Demographic Diversity Affecting Teacher's Perceptions Related to Quality of Research Produced in Distance Education. *International Journal of Distance Education and E- Learning (IJDEEL)*. 2(2), 12-27.
- Hoyle, D. (2007). Quality management essentials. (Retrieved from <https://www.etprofessional.com.org> on November 2021).
- Indeed, T. E. (2020). Importance of time management skills. (Retrieved from <https://www.indeed.com> on November 2021).
- Islam, R., Ali, M. Y., & Osmani, N. M. (2021). Time management for better job performance: An analysis from al-wasatiyyah perspective. *Asian Academy of Management Journal*, 26(1), 171–19 6. <https://doi.org/10.21315/aamj2021.26.1.7>.

- Jaroonkhongdach, R. D. (2011). Three dimensions of research quality. (Retrieved from <https://www.researchgate.net> on November 2021).
- Jinalee, N., & Singh, A. (2018). A descriptive study of time management models and theories. *International Journal of Advanced Scientific Research and Management*, 23(9), 141-147.
- Jo-Ana, C. (2013). Time management strategies for research. *Western Journal of Nursing Research*, 35(2), 155-176.
- John, M. (2020). Time management as a tool for higher productivity in an organization. *Journal of Inshore Arts and Management*, 14(2), 38-43.
- Jugder, N. (2019). Reviewing the quality of master's dissertations. *Journal of Hillary Place Papers*, 5(2), 52-65.
- Juneja, P. (2015). Importance of time management. (Retrieved from <https://www.managementstudyguide.com> on November 2021).
- Kapur, D. R. (2020). Time management skills. Fundamental in taking out time for all job duties. (Retrieved from <https://www.researchgate.net> on December 2021).
- Karim, N. H. (2013). The study efficacy of time management training on increase academic time management of students. *Journal of Social and Behavioral Science*, 8(2), 134 – 138.
- Kazim, M. (2021). To investigate the relationship of emotional intelligence and teachers' self-efficacy at university level. (Retrieved from <http://www.elibrary.numl.edu.pk> on December 2021).
- Kemp, S. (2006). *Quality management demystified*. New York: McGraw-Hill. (Retrieved from <https://www.etprofessional.com> on December 2021).
- Kerzner, H. (2009). *Project management: a systems approach to planning, scheduling, and controlling*. John Wiley & Sons, p286.
- Keiling, H. (2021). Time management techniques. (Retrieved from <https://www.indeed.com> on December 2021).

- Khanam, N., Sahu, T., Rao, E.V., Kar, S.K., & Quazi, Z.S. (2017). A study on university student's time management and academic achievement. *International Journal of Community Medicine and Public Health*, 4(12), 4761-4765. <http://dx.doi.org/10.18203/2394-6040.ijcmph20175365>.
- Khan, J.M., Ashraf, A., & Nadeem, A. (2020). The effect of time management on the academic performance of students in the higher educational institutions of Islamabad. *International Review of Management and Business Research journal*, 9(3), 202-211. [https://doi.org/10.30543/9-3 \(2020\)-16](https://doi.org/10.30543/9-3 (2020)-16).
- Khan, M.C. (2015). The impact of time management on the students' academic achievements. *Journal of Literature, Languages and Linguistics*. 5(11), 66-71.
- Kos, B. (2020). Time management strategies. (Retrieved from <https://www.spica.com> on December 2021).
- Kristan, P. (2010). Practical time management for those on a spiritual path. *Awakening in time*. London: Dog Ear Publishing, 20(12). 4-10.
- Limoncelli, T. (2006). Time management for system administrators. New York O'Reilly publications, 14(4), 13-19.
- Leuverink, K.R., & Aarts, A.M.L. (2019). A quality assessment of teacher research. *Educational Action Research journal*, 27(5), 758-777.
- Mahmood, S. T. (2011). Factors affecting the quality of research in education: students' perceptions. *Journal of Education and Practice*, 31(2), 34- 39.
- Mancini, M. (2007). Time management: 24 techniques to make each minute work. British: McGraw-Hill, 9(4), 43-51.
- Mathews, D. (2019). Strategies of time management. (Retrieved from <https://www.trainingindustry.com> on December 2021).

- Mar, A. (2013). Concept of quality in different contexts. (Retrieved from <https://www.business.simplicable.com> on December 2021).
- Marquis, B.L. & Huston, C.J. (2009). Leadership roles and management functions in nursing: theory and application. *Wolters Kluwer Health China*, 16(6), 22-34.
- Martensson et al. (2016). A multidisciplinary approach to assessing research practice and quality. *Journal of Research Policy*, 24(5), 593-603.
- Martensson, P., Fors, U., Froberg, E., Zander, U., & Nilsson, G.H. (2019). An interdisciplinary face validity evaluation of a quality model. *Quality of Research Practice*. 14(2), 14-21. <https://doi.org/10.1371/journal.pone.0211636>
- McCombes, S. (2020). What is correlational design? (Retrieved from <https://www.scribbr.com> on December 2021).
- Mccarthy, D. (2019). Effective time management skills. (Retrieved from <https://www.thebalancecareers.com> on December 2021).
- Mehar, S. (2016). Quality of research in distance education: an analysis of attitude and facilities provided at higher. *International Journal of Distance Education and E-Learning (IJDEEL)*, 2(1), 71-84.
- Muhammad, S. N. (2015). The impact of time management on the students' academic achievements. *Journal of Literature, Languages and Linguistics*, 7(5), 66-71.
- Mulder, P. (2017). Pickle jar theory. (Retrieved from <https://www.toolshero.com/personal-development/pickle-jar-theory> on December 2021).
- Nadinloyi et al. (2013). The study efficacy of time management training on increase academic time management of students. *Social and Behavioral Science journal*, 8(3), 13 – 19. <https://doi.org/10.1016/j.sbspro.2013.06.523>
- Natalia, Z., Bielczyk, A. A. (2020). Effective self-management for early career researchers in the natural and life sciences. *Neuron*. Retrieved December, 17, 2021.

- Necati, S. F. (2010). The relation between time management skills and academic achievement of potential teachers. *Journal of Educational Research Quarterly*, 33(4) 3-23.
- Ncube, F. (2018). Indicators for the quality of research. (Retrieved from <https://www.researchgate.net> on December 2021).
- Nelsen, D. (2007). General concept of quality. (Retrieved from <https://www.mpra.ub.uni-muenchen.de.com> on December 2021).
- Njagi, K.L. and Malel, J. (2012). Relationship between time management and work performance. (Retrieved from <https://www.researchgate.net.com> on December 2021).
- Oakland, J. S. (2003). Total quality management text with cases (3rd Edition). Great Britain: Butterworth Heinemann, 16(4), 16-22.
- Olpin, M. & Hesson, M. (2012). A research – based experiential approach. Stress management for life .Cengage Learning, 11(7), 167-174.
- Oluka, OC., Nie, S., and Sun, Y. (2014). Quality assessment of tpb-based questionnaires: a systematic review. PLOS ONE. 9(4), 1-8. <https://doi.org/10.1371/journal.pone.0094419>
- Paul, I. C. (2004). Assessing the quality of research. *Journal BMJ*, 44(28), 39-41.
- Pearson, T. (2010). Can i have 5 minutes of your time? London: Morgan James Publishing, p49.
- Pehlivan, A. (2013). The effect of the time management skills of students taking a financial accounting course on their course grades and grade point averages. *International Journal of Business and Social Science*, 19(12), 196-203.
- Pervez, W. (2018). Obstacles in research for new scholars. *International Journal of Academic Research and Development*, 9(3), 16-19.
- Qambrani, N. A. (2018). What is quality of research? (Retrieved from <https://www.researchgate.net.com> on December 2021).

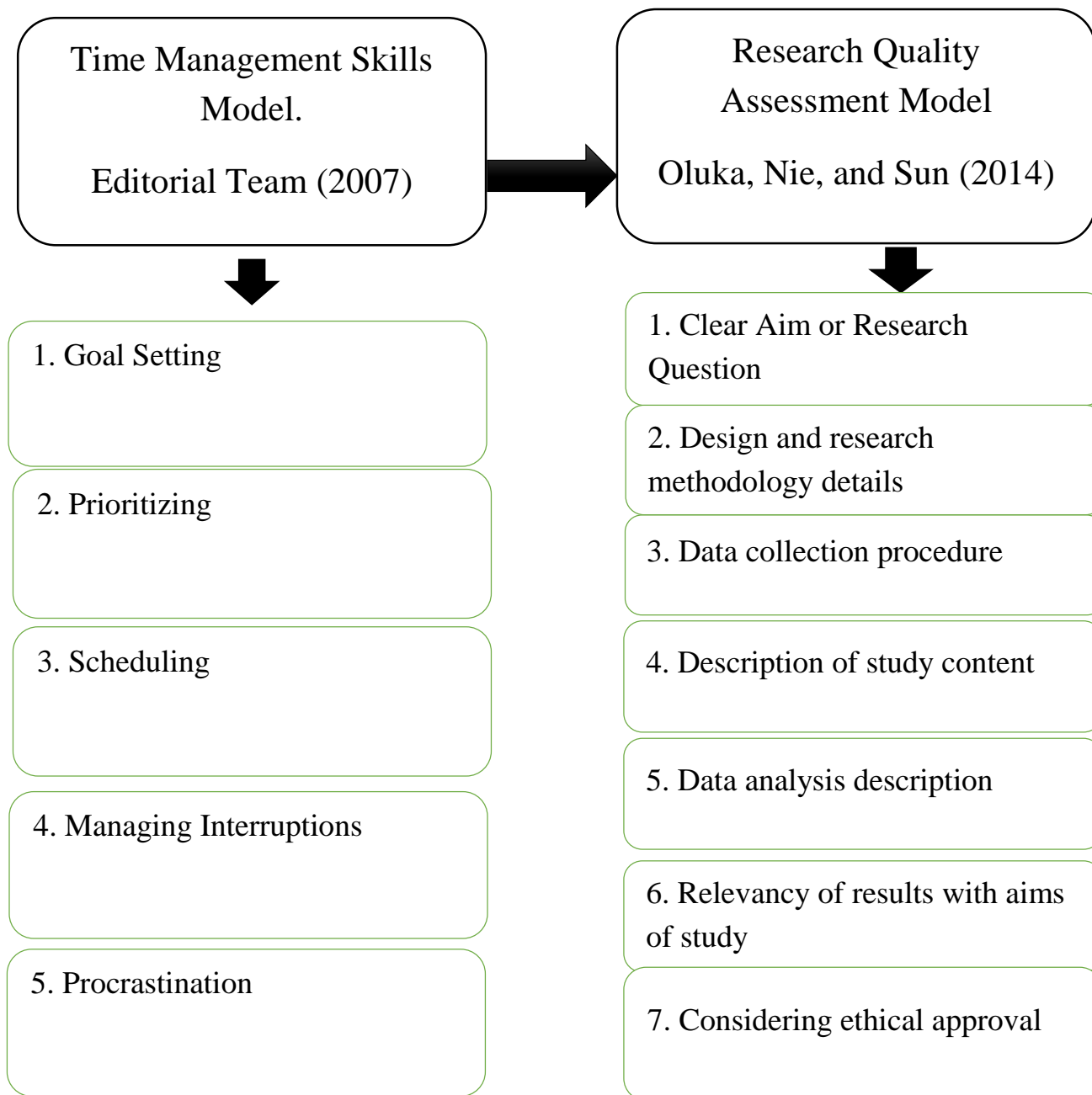
- Ragin et al. (2003). Workshop on scientific foundations of qualitative research. Arlington, VA: National Science Foundation, 22(13), 16-19.
- Rahmah. (2017). Effective time management strategies. (Retrieved from <https://www.safsms.com> on December 2021).
- Rabha, M. (2021). Approaches of time management. (Retrieved from <https://www.blog.vantagecircle.com> on December 2021).
- Rand, C. (2015). Principles for quality research. (Retrieved from <https://www.rand.org.com> on December 2021).
- Raza, A. (2021). Effect of prospective teachers' interpersonal skills on their self-efficacy. (Retrieved from <http://www.elibrary.numl.edu.pk> on December 2021).
- Regoniel, & Patrick. (2015). Conceptual framework: a step-by-step guide on how to make one in research-based articles. (Retrieved from <https://www.simplyeducate.me.com> on December 2021).
- Rivera, C. (2007). Time management global media, 2 (23), 43-51.
- Ryall, J. and Kruithof, J. (2001). The quality systems handbook. Australia: Consensus Books, 16(9), 35-42.
- Sahito, Z., Khawaja, M., Panhwar, M.U., Siddiqui, A., & Saeed, H. (2016). Teachers' time management and the performance of students: a comparison of government and private schools of Hyderabad, Sindh, Pakistan. *World Journal of Education*, 6(6), 42-50. <http://dx.doi.org/10.5430/wje.v6n6p42>.
- Seaward, B.L & Seaward, B. (2011). Managing stress: principles and strategies for health and well-being. Jones and Bartlett Learning, 28(14), 126-134.
- Shavelson, R. J., & Towne, L. (2002). Scientific research in education. Washington, DC: National Research Council, National Academy Press, 18(6), 12-17.

- Silvis, C. (2011). Time management and organization for writers. (Retrieved from <https://www.managementstudyguide.com> on December 2021).
- Surbhi, S. (2017). Difference between census and sampling. (Retrieved from <https://www.keydifferences.com> on December 2021).
- Svetla, B. (2015). Time management – models and techniques for application. *Journal of Infoteh-Jahorina.*, 6(2), 16-21.
- Editorial Team, M. (2021). Strategies of time management for teachers. (Retrieved from <https://www.resilienteducator.com> on December 2021).
- Tobis, M & Tobis, I. (2002). Managing multiple project. McGraw-Hill professional. (Retrieved from <https://www.etprofessional.com> on December 2021).
- Tracy, B. (2007). Eat that frog! 21 great ways to stop procrastinating and get more done in less time berrett-koehler store, 30(4), 432 – 440.
- Wahid, M. T. (2018). Obstacles in research for new scholars. *International Journal of Academic Research and Development*, 9(4), 86-89.
- Walsh, R. (2008). Time management: proven techniques for making every minute count. *Adams Media*, 12(3), 55-61.
- Wigmore, I. (2015). Techniques of time management. (Retrieved from <https://www.whatis.techtarget.com> on December 2021).
- Woravut, R. W. (2011). Three dimensions of research quality. (Retrieved from <https://www.researchgate.net> on December 2021).
- Yager, J. (2008). Work less, do more: the 14-day productivity makeover, Barnes & noble. (Retrieved from <https://www.researchgate.net> on December 2021).
- Zeller, D. (2008). Successful time management for dummies. *For Dummies*, 32(7), 14-19.

Zenker, P. (2018). Penny Zenker. (Retrieved from <https://www.pennyzenker360.com> on December 2021).

Appendix- A

Conceptual Framework



Conceptual Framework of the Study

Appendix-B**Reference of Mindtools Editorial Team**

Jag Saluja (Mind Tools Support) <support@mindtools.zendesk.com>

Oct 29, 2022, 5:49 AM

to me

Please do not write below this line

Jag Saluja (Mind Tools Support)

29 Oct 2022, 2:49 pm BST

Hi,

Thanks for your email.

The article was published on May 2007.

Author: Mind Tools Editorial Team

It was created after the research and study by Mind Tools Editorial Team.

Best wishes

Jag

Aniqa Rasheed

28 Oct 2022, 5:03 pm BST

Emerald Publishing Limited, Registered Office: Howard House, Wagon Lane, Bingley, BD16 1WA

United Kingdom. Registered in England No. 3080506, VAT No. GB 665 3593 06

For information about how we use your personal data, and your rights in relation to this, see our [Privacy Notice](#). This email is confidential between us and the intended recipient. Any recipient who receives this email in error should immediately report the error to us and permanently delete this email from all storage devices.

www.mindtools.com

Essential skills for an excellent career!

Address: MindTools.com, 2nd floor, 145-157 St John Street, London, EC1V 4PY, United Kingdom

Mind Tools Ltd (Company No. 04829074) is a company registered in England and Wales. Registered office: Hardwick House, Prospect Place, Swindon, and Wiltshire, SN1 3LJ, UK. VAT Number: 840 1273 62.

All currently agreed Terms & Conditions and product and service Warranties are implicitly assumed with this Email. Other than this, no contract is being entered into in this email unless explicitly stated.

This email is a service from Mind Tools Support. Delivered by Zendesk

Appendix-C

M Phil Thesis Title and Supervisor Approval Letter



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

ML.1-4/2021/Edu

Dated: 10th December 2021

To: Aniq Rasheed
01MPhil/Edu/S20

Subject: **APPROVAL OF MPhil THESIS TITLE AND SUPERVISOR**

1. Reference to Letter No, ML.1-4/2021-Edu, dated 11-12-2021, the Competent Authority has approved the title and supervisor in 12th BASR meeting dtd 18th November 2021 on the recommendations of Faculty Board of Studies vide its meeting held on 9th September 2021.

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

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

b. **Thesis Title**

Effect of Time Management Skills On Quality of Research Among Novice Teachers At University Level

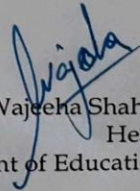
2. You may carry out research on the given topic under the guidance of your supervisor and submit the thesis for further evaluation within the stipulated time. It is to inform you that your thesis should be submit within described period by 31st December 2022 positively for further necessary action please (*Time line attached*)

3. As per policy of NUML, all MPhil/PhD thesis are to be run on Turnitin by QEC, 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 (Dr Saira Nudrat, Coordinator MPhil/PhD)

Telephone No: 051-9265100-110 Ext: 2094

E-mail: snudrat@numl.edu.pk


Dr. Wajeeha Shahid
Head
Department of Education

Distribution:

Aniq Rasheed (MPhil Scholar)

Dr Qurat Ul Ain Hina (Thesis Supervisor)

Appendix-D

Reference Letter for Data Collection



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

ML.1-3/2021-Edu

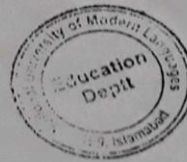
Dated: 08-12-2021

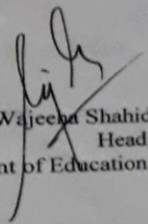
WHOM SO EVER IT MAY CONCERN

Ms. Aniq Rasheed, Daughter of Rasheed Hussain Butt student of Mphil (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 Institutions 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.




Dr Wajeeha Shahid
Head,
Department of Education.

Appendix-E

Cover Letter for Validity Certificate
Effect of Time Management Skills on Quality of Research among Novice
Teachers at University Level.



Subject: Request for validity certificate

Respected Sir \Madam,

I have attached my questionnaires adapted for the purpose of research entitled as “Effect of time management skills on quality of research among novice teachers”.

The time management scale is based on the model developed by Mind Tools Content Team (2021). It is categorized into five sections i: e Goal Setting, prioritizing, scheduling, managing interruptions, and procrastination. The quality of research scale is based on the model presented by Oluka, Nie and Sun (2014). This model is based on seven sections i: e Clear Aim or research question, design and research methodology, data collection procedure, description of study content, data analysis, results and aims relevancy, and ethical approval.

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

Aniqa Rasheed

M Phil scholar, Department of Education
National University of Modern Languages
Islamabad, Pakistan

Validity Certificates
CERTIFICATE FOR TOOL VALIDATION



Time Management Skills Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG
 NOVICE TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of
 Modern Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire adapted by the scholar towards her research has been assessed by me and I found that it is adequately designed to assess the time management skills based on the model presented by Editorial Team (2021). The model has five sections i.e. Goal Setting, prioritizing, scheduling, managing interruptions, and procrastination.

It is considered that the instrument adapted for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name _____
 Designation _____
 Signature _____
 Institute _____
 Date _____

CERTIFICATE FOR TOOL VALIDATION



Research Quality Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG
NOVICE TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of
Modern Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire adapted by the scholar towards her research has been assessed by me and I found that it is adequately designed to assess quality of research based on the model presented by Oluka, Nie and Sun (2014). The model has seven sections i.e. Clear Aim or research question, design and research methodology, data collection procedure, description of study content, data analysis, results and aims relevancy, and ethical approval.

It is considered that the instrument adapted for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name _____

Designation _____

Institute _____

Signature _____

Date _____

Appendix-G**List of Experts Committee for Tool Validation**

Expert Name	Designation	Area of Expertise	Institute Name
Dr Jameela Ashraf	Assistant Professor, Department of Education	Teacher Education	NUML Islamabad
Dr Imran Yousuf	Associate Professor, Chairman Department of Education	Teacher Education	ARID University Rawalpindi
Dr Qaisara Parveen	Assistant Professor, Department of Education	Teacher Education	ARID University Rawalpindi
Dr Sheikh Tariq Mehmood	Assistant Professor, Department of Education	Teacher Education	Islamic University Islamabad

Research Instrument Validity Certificates

CERTIFICATE FOR TOOL VALIDATION



Research Quality Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of Modern
Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire adapted by the scholar towards her research has been assessed by me and I found that it is adequately designed to assess quality of research based on the model presented by Oluka, Nie and Sun (2014). The model has seven sections i.e. Clear Aim or research question, design and research methodology, data collection procedure, description of study content, data analysis, results and aims relevancy, and ethical approval.

It is considered that the instrument adapted for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name Dr. Jameela Ashraf
Designation Assistant Prof.
Institute NUML
Signature [Signature]
Date 28-12-2021

CERTIFICATE FOR TOOL VALIDATION



Time Management Skills Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of Modern
Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire adapted by the scholar towards her research has been assessed by me and I found that it is adequately designed to assess the time management skills based on the model presented by Mind Tools Content Team (2021). The model has five sections i.e. Goal Setting, prioritizing, scheduling, managing interruptions, and procrastination.

It is considered that the instrument adapted for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name Dr. Jamela Ashraf
 Designation Assistant Professor
 Institute NUML
 Signature [Signature]
 Date 28-12-2021

CERTIFICATE FOR TOOL VALIDATION



Time Management Skills Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of Modern
Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire developed by the scholar towards her research has been assessed by me. I find it that it has been adequately designed to assess the time management skills based on the model presented by Mind Tools Content Team (2021). The model has five sections i.e. Goal Setting, prioritizing, scheduling, managing interruptions, and procrastination.

It is considered that the instrument developed for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name Dr. M. Imran Yousuf
 Designation Chairman
 Institute _____
 Signature [Signature]
 Date 08-12-2021

Dr. M. Imran Yousuf
 Associate Professor
 Education
 PIR MEHR ALI SHAH
 Arid Agriculture University
 RAWALPINDI

CERTIFICATE FOR TOOL VALIDATION



Research Quality Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of Modern
Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire developed by the scholar towards her research has been assessed by me. I find it that it has been adequately designed to assess quality of research based on the model presented by Oluka, Nie and Sun (2014). The model has seven sections i.e. Clear Aim or research question, design and research methodology, data collection procedure, description of study content, data analysis, results and aims relevancy, and ethical approval.

It is considered that the instrument developed for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

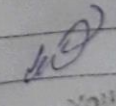
Name _____

Designation _____

Institute _____

Signature _____

Date _____


 Dr. M. Imran Yousaf
 Associate Professor
 Education
 PIR MEHR ALI SHAH
 Arid Agriculture University
 RAWALPINDI

CERTIFICATE FOR TOOL VALIDATION



Time Management Skills Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of Modern
Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire developed by the scholar towards her research has been assessed by me. I find it that it has been adequately designed to assess the time management skills based on the model presented by Mind Tools Content Team (2021). The model has five sections i.e. Goal Setting, prioritizing, scheduling, managing interruptions, and procrastination.

It is considered that the instrument developed for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name Dr. Qaisara Parveen
 Designation A.P
 Institute Asial
 Signature [Signature]
 Date 15/12/2021

Dr. Qaisara Parveen
 Assistant Professor
 Department of Education
 PMAS Arid Agriculture University
 Rawalpindi

CERTIFICATE FOR TOOL VALIDATION



Research Quality Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of Modern
Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire developed by the scholar towards her research has been assessed by me. I find it that it has been adequately designed to assess quality of research based on the model presented by Oluka, Nie and Sun (2014). The model has seven sections i.e. Clear Aim or research question, design and research methodology, data collection procedure, description of study content, data analysis, results and aims relevancy, and ethical approval.

It is considered that the instrument developed for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name

Qaisara Darveen

Designation

A.P

Institute

Apic

Signature

Qaisara Darveen

Date

15/12/2021

Dr. Qaisara Darveen
Assistant Professor
Department of Education
F.A.S And Agriculture University
Rawalpindi

CERTIFICATE FOR TOOL VALIDATION



Time Management Skills Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of Modern
Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire developed by the scholar towards her research has been assessed by me. I find it that it has been adequately designed to assess the time management skills based on the model presented by Mind Tools Content Team (2021). The model has five sections i.e. Goal Setting, prioritizing, scheduling, managing interruptions, and procrastination.

It is considered that the instrument developed for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name Dr. S. T. J.

Designation AP

Institute NU

Signature [Handwritten Signature]

Date _____

Dr Sheikh Tariq Mehmood
Assistant Professor
Department of Education
International Islamic University
Islamabad

CERTIFICATE FOR TOOL VALIDATION



Research Quality Assessment Scale

For The Research Entitled As

EFFECT OF TIME MANAGEMENT SKILLS ON QUALITY OF RESEARCH AMONG NOVICE
TEACHERS AT UNIVERSITY LEVEL

By

Miss, Aniq Rasheed

M Phil scholar, Department of Education, Faculty of Social Sciences, National University of Modern
Languages (NUML), H9, Islamabad, Pakistan

This is to certify that the questionnaire developed by the scholar towards her research has been assessed by me. I find it that it has been adequately designed to assess quality of research based on the model presented by Oluka, Nie and Sun (2014). The model has seven sections i.e. Clear Aim or research question, design and research methodology, data collection procedure, description of study content, data analysis, results and aims relevancy, and ethical approval.

It is considered that the instrument developed for research is according to the objectives of the research and it also assures adequate face and content validity. It can be used for data collection by the researcher with fair amount of confidence.

Name _____

Designation _____

Institute _____

Signature _____

Date _____

Dr. Sheikh Tariq Mahmood
Assistant Professor
Department of Education
International Islamic University
Islamabad

Appendix-I

HEC Recognized Universities and Degree Awarding Institutions

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 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 Zulfiqar Ali Bhutto Medical University	Public	Government of Pakistan	Medical	Islamabad Capital Territory	Islamabad

Appendix-J**List of Novice Teachers Included in Population**

Sr. No	Name of Universities	Regular Novice Teachers	Contract Based Novice Teachers
1	National University of Modern Languages Islamabad.	43	9
2	International Islamic University Islamabad.	41	7
3	Air University Islamabad	10	5
4	Bahria University Islamabad	13	8
5	Quaid-e-Azam University Islamabad	86	12
6	Allama Iqbal Open University Islamabad	29	13
	Total	222	54
	Grand Total	222+54=276	

Appendix-K**List of Social Sciences Disciplines Included in Selected Universities**

Sr.No	Departments	Sr.No	Departments
1	Education	17	Iqbal Studies
2	International Relations	18	Urdu
3	History	19	Library and Information Science
4	English	20	Gender and Women Studies
5	Pak Studies	21	Pakistan Language
6	Islamic Studies	22	Business Administration
7	Anthropology	23	Social Work and Pakistan Studies
8	Sociology	24	Peace and Conflict Studies
9	Mass Communication	25	Common Wealth
10	Humanities	26	Confucius Institute
11	Islamic Art and Architecture	27	Governance and Public Policy
12	Area Studies	28	Psychology
13	Asian Civilization	29	Gender Studies
14	Defense and Strategic studies	30	Linguistic studies
15	Economics	31	Political Science
16	Law	32	Commerce

Appendix-L

Research Instrument

Serial No _____

Effect of Time Management Skills on Quality of Research among Novice Teachers at University level.

Dear Respondents,

I am M.Phil. Scholar working to conduct research on the above mentioned topic. You are requested to fill the questionnaire attached.

I assured you that your response will be kept confidential and will not be disclosed to any person or authority. The questionnaire is developed to collect data for research work only.

Aniqa Rasheed

M Phil Scholar, Department of Education

National University of Modern Languages

Islamabad Pakistan

Demographic Information

1	Gender	Male 1			Female 2		
2	Name of Universities	National University of Modern Languages Islamabad 1	International Islamic University Islamabad 2	Air University Islamabad 3	Quaid-e-Azam University Islamabad 4	Allama Iqbal Open University Islamabad 5	Bahria University Islamabad 6
3	Highest Academic Qualification	BS 1	MS 2		PhD 3	Post Doc 4	
4	Highest Professional Qualification	B.S.Ed. 1		MS. Ed. 2	Mention if Any Other 3	None 4	

Time Management Skills Assessment Scale

INSTRUCTIONS

You are required to give your responses by utilizing options ranging from 1 to 5 indicating your preferences of responses (5=Very Often, 4=Often, 3=Sometimes, 2=rarely, 1= Not at All).

Sr No	Code	i. Goal Setting It involves deciding about what a person wants to achieve or a basic targets towards achieving something.	Not at All	Rarely	Sometimes	Often	Very Often
1	GS1	I set goals before working on any task.	1	2	3	4	5
2	GS2	I relate my activities with predetermined goals.	1	2	3	4	5
3	GS3	I know the main objectives of my work.	1	2	3	4	5
4	GS4	I set due dates for all urgent and non-urgent tasks.	1	2	3	4	5
5	GS5	I get irritated by setting targets for any task	1	2	3	4	5
6	GS6	I feel stressed about deadlines.	1	2	3	4	5
Sr No	Code	ii. Prioritizing It involves focus and attention of any person on the things that really matter.	Not at All	Rarely	Sometimes	Often	Very Often
7	P1	I work on high priority tasks.	1	2	3	4	5
8	P2	I try to do important tasks when I feel fresh.	1	2	3	4	5
9	P3	I spend enough time on work-related activities.	1	2	3	4	5
10	P4	I know the value of tasks I work on.	1	2	3	4	5
11	P5	I feel confused in prioritizing tasks	1	2	3	4	5

Sr No	Cod e	iii. Scheduling It means how to use your time by setting a specific time for specific task which is already prioritized by you.	Not at All	Rarely	Sometimes	Often	Very Often
12	S1	I set some time in my schedule to deal with the problems.	1	2	3	4	5
13	S2	I make daily and weekly work list.	1	2	3	4	5
14	S3	I know how much time I need for particular task.	1	2	3	4	5
15	S4	I plan time for my recreation also.	1	2	3	4	5
16	S5	I am able to Achieve a good work-life balance.	1	2	3	4	5
Sr No	Cod e	iv. Managing Interruptions It means the things that can cause disturbance in work needs to be tackled.	Not at All	Rarely	Sometimes	Often	Very Often
17	MI1	I am able to manage interruptions while working on critical tasks.	1	2	3	4	5

18	MI2	I accomplish what needs to be accomplished during the day.	1	2	3	4	5
19	MI3	I feel it difficult to deal with the interruptions	1	2	3	4	5
20	MI4	I also work on unprofitable activities.	1	2	3	4	5
21	MI5	I take work at home in order to get it done.	1	2	3	4	5
Sr No	Cod e	v. Procrastination It means stretching work by saying that I'll do it later and after so many 'laters' the work load gets more and more.	Not at All	Rarely	Sometimes	Often	Very Often
22	PR1	I complete my task at the last minute.	1	2	3	4	5
23	PR2	I ask for extensions to complete my task.	1	2	3	4	5
24	PR3	I tackle difficult tasks without procrastinating.	1	2	3	4	5
25	PR4	I feel I use my time effectively	1	2	3	4	5
26	PR5	I try to meet deadlines.	1	2	3	4	5

Research Quality Assessment Scale

INSTRUCTIONS

You are required to give your responses by utilizing options ranging from 1 to 5 indicating your preferences of responses (5=Strongly Agree, 4=Agree, 3=Neutral, 2= Disagree, 1= Strongly Disagree).

Sr No	Code	i. Clear Aim or Research Question The initial factor upon which the quality of study based, is the aim or question which directs the researcher towards study.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	CA1	I develop research questions which based on the nature of study.	1	2	3	4	5
2	CA2	I design research questions which are achievable.	1	2	3	4	5
3	CA3	I design research questions which are realistic.	1	2	3	4	5
4	CA4	I design research questions which are measurable.	1	2	3	4	5
5	CA5	I design research questions within prescribed time.	1	2	3	4	5
Sr No	Code	ii. Design and Research Methodology It includes selection of target population, sample size, tools for collecting research data and statistical techniques.	SD	D	N	A	SA
6	DRM1	I select appropriate research design for research.	1	2	3	4	5
7	DRM2	I identify research population according to my research topic.	1	2	3	4	5
8	DRM3	I select appropriate sampling technique.	1	2	3	4	5
9	DRM4	I am able to select representative sample.	1	2	3	4	5
10	DRM5	I can approach sample respondents for data collection.	1	2	3	4	5

11	DRM 6	I feel it difficult to select appropriate research design.	1	2	3	4	5
Sr No	Cod e	iii. Data Collection Procedure It involves an explanation about how the data will be collected and interpreted.	SD	D	N	A	SA
12	DCP 1	I am able to develop a reliable data collection tool.	1	2	3	4	5
13	DCP 2	I am able to find resource for data collection.	1	2	3	4	5
14	DCP 3	I am satisfied with the return rate in data collection.	1	2	3	4	5
15	DCP 4	I am able to get experts opinion on data collection tool.	1	2	3	4	5
16	DCP 5	I feel it difficult to design a reliable data collection tool	1	2	3	4	5
Sr No	Cod e	iv. Description of study content By study content mean literature which is used in research and how much it is important to carry further study and describes that it is related with the research or not.	SD	D	N	A	SA
17	DSC 1	I am able to find relevant literature.	1	2	3	4	5
18	DSC 2	I am able to analyze previous research.	1	2	3	4	5
19	DSC 3	I am able to link available literature with my study.	1	2	3	4	5
20	DSC 4	I am able to find gaps in literature.	1	2	3	4	5
21	DSC 5	I feel it difficult to discuss literature according to my study.	1	2	3	4	5
22	DSC 6	I feel it difficult to analyze previous research.	1	2	3	4	5
Sr No	Cod e	v. Data Analysis It reveals that which statistical techniques are used in data analysis.	SD	D	N	A	SA

23	DA1	I am able to draw relevant findings from data.	1	2	3	4	5
24	DA2	I am able to select appropriate statistical techniques for analysis.	1	2	3	4	5
25	DA3	I am able to describe a process of data analysis.	1	2	3	4	5
26	DA4	I am able to interpret the data accurately.	1	2	3	4	5
27	DA5	I feel difficult to select appropriate statistical techniques for analysis.	1	2	3	4	5
28	DA6	I find it challenging to draw relevant findings from data.	1	2	3	4	5
Sr No	Code	vi. Results and Aims Relevancy It is important to have a relevancy between objectives of the study and findings. This is because the relevancy will show the worth of study.	SD	D	N	A	SA
29	RAR1	I am able to interpret data in the light of research objectives.	1	2	3	4	5
30	RAR2	I am able to suggest practical solutions for research problem.	1	2	3	4	5
31	RAR3	I am able to link the findings with the research objectives.	1	2	3	4	5
32	RAR4	I am able to draw suitable conclusion.	1	2	3	4	5
33	RAR5	I find it challenging to suggest solutions according to the study results.	1	2	3	4	5
34	RAR6	I feel it difficult to link the findings with the research objectives.	1	2	3	4	5
No	Code	vii. Ethical Approval It shows that those research studies are worthy which are based on the data collected voluntarily from respondents.	SD	D	N	A	SA

35	EA1	I consider approval letters important for data collection.	1	2	3	4	5
36	EA2	I deal with the respondents ethically.	1	2	3	4	5
37	EA3	I get approval letters easily for data collection.	1	2	3	4	5
38	EA4	I get permission from institutions before data collection.	1	2	3	4	5
39	EA5	I find it challenging to deal with the respondents ethically.	1	2	3	4	5

Appendix-M

Permission for Using Research Instrument

12 of 103 < >

PERMISSION FOR USING RESEARCH INSTRUMENTS FOR DATA COLLECTION

Inbox x



aniqarheed06 <aniqarasheed06@gmail.com>
to MindTools

05 July 2021, 02:15 PM



Respected Mindtool,

I am Aniq Rasheed from Pakistan. I am Student of M. Phil (Education) at National University of Modern Languages Islamabad. These days I am doing a research and my research topic is 'Effect of Time Management Skills on Quality of Research among Novice Teachers at University Level'. . Respected members of Mindtool Team, I want to use your research instrument for data collection which was developed by your team to measure the time management skills in (2021).

Kindly give me a permission to use your questionnaire to complete my research successfully. I hope you will allow me. I will be very thankful to you for this act of kindness.

Regards: Aniq Rasheed.



MindTools <mtegeneral@mindtools.com>
to me

06 July 2021, 10:51AM



Dear Aniq,

You can use it for your Rsearch.

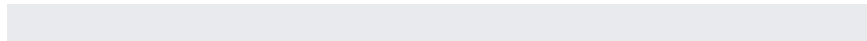
King regards,

MindTools | Emerald Works Limited
| Registered Trademark of Emerald Works
| Level 1,
123 Victoria St,
Westminster,
London
SW1E 6RA

| **phone:** +44 20 7788 7978

| **email:** mtegeneral@mindtools.com

| **site:** www.mindtools.com/



Thanks a lot.

Thank you so much.

Thank you for your response.

↩ Reply

➡ Forward

Appendix-N

Permission for Using Research Instrument

12 of 103 < >

PERMISSION FOR USING RESEARCH INSTRUMENTS FOR DATA COLLECTION

⇅ 🖨️ ↗️

📧 Inbox x



aniqarasheed06 <aniqarasheed06@gmail.com>
to SaimaMehtar ▾

08 July 2021, 10:42 PM

★ ↶ ⋮

Respected Ms. Saima,

I am Aniq Rasheed student of M. Phil (Education) at National University of Modern Languages Islamabad. These days I am doing a research and my research topic is 'Effect of Time Management Skills on Quality of Research among Novice Teachers at University Level'. . Respected mam, I want to use your research instrument for data collection which was developed by you to measure the quality of research in (2016).

Kindly give me a permission to use your questionnaire to complete my research successfully. I hope you will allow me. I will be very thankful to you for this act of kindness.

Regards: Aniq Rasheed.



saimamehar <saimamehar@gmail.com>
to me ▾

09 July 2021, 01:35 PM

★ ↶ ⋮

Hi Aniq,

Thanks for your email.

I have no objection you can use my tool in your Research.

King regards,

Saima Mehtar

Appendix-O

PROOF READING CERTIFICATE



CERTIFICATE OF PROOF READING

For The Research Entitled As

Effect of Time Management Skills on Quality of Research among Novice Teachers at University Level

By

Miss, Aniq Rasheed

National University of Modern Languages (NUML), H9, Islamabad, Pakistan 2022

It is certified that the research work with the title “Effect of Time Management Skills on Quality of Research among Novice Teachers at University Level” submitted by Aniq Rasheed, has been checked and proofread for the Language and Grammatical mistakes.

Name: Muhammad Tayyab Yaqub

Designation: Secondary School Teacher

Institute: Govt. Boys High School,
Khayaban e Sir Syed, Sector 3, Rawalpindi.

Signatures:

Date: 9th Nov. 2022.

Appendix-P**Reference from Oluka, Nie, and sun Article**

The second page of the article by Oluka, Nie, & Sun (2014) contains Table.2 which represents the criteria for assessing the study quality. Furthermore, this quality assessment model was also used by Hina, Arshad, Kashmeeri & Mehar (2017) in their study.

Table 2. Criteria Used to Assess Study Quality in the Article of Oluka, Nie, & Sun (2014)

Criteria
1. Clear aim or research question.
2. Details of study methodology and design.
3. Description of data collection.
4. Research content; description of the study.
5. Data analysis.
6. Results relevant to the aims of the study.
7. Ethical approval obtained.

Appendix-Q

Turnitin Report of M Phil Thesis



National University of Modern Languages
Quality Enhancement Cell
Sector H-9, P.O. Shaigan, Islamabad, Pakistan
Tel: +92-51-9265100 Ext 2246/2247
Web: www.numl.edu.pk

Dated: June 23, 2022

Faculty of Social Sciences

Subject: Turnitin Report of MPhil Thesis of Ms Aniq Rasheed (Education) 1st - Attempt

This is to state that MPhil thesis of Ms Aniq Rasheed has been run through Turnitin on June 23, 2022. Paper ID is 1861777489 and similarity index is 05%. This is within the limit prescribed by the Higher Education Commission.

The subject similarity index report is attached for further processing, please.

Dean FSS

[Handwritten signature]
24/6/22



[Handwritten signature]
(Dr. Khushbakht Hina)
Director
Quality Enhancement Cell

HOD Edu.