xIlkogretim Online - Elementary Education Online, 2021; Vol 20 (Issue 1): pp. 3541-3549

http://ilkogretim-online.org

doi: 10.17051/ilkonline.2021.01.399

Teacher Educators: Perception and Practices during Supervising the Action Research in Teacher Education Institutions of Sindh, Pakistan

Nadia Parveen Thalho, Instructor/Lecturer Government Elementary College of Education women Hyderabad Sindh Pakistan thalhonadia786@gmail.com, https://orcid.org/0000-0003-3728-4273

Waqar Hassan, Visiting lecturer University of Okara Punjab, Pakistan, hassanw448@gmail.com,

Shazia Inayet, Lecturer: Jinnah University for Women Karachi, Sindh Pakistan, shaziaassrani@yahoo.com

Chand Aqeel, Lecturer, Department of English, Government Associate Degree College Okara, Pakistan chandaqeel3@gmail.com

Syeda Sadaf Fatima (M.Phil. scholar) Department of Applied linguistics Minhaj University Lahore Pakistan, Sadafsveda44@gmail.com

Dr Anjum Bano Kazimi, Professor, Education Department, Iqra University Karachi Sindh, Pakistan **Dr. Rufus Olanrewaju ADEBISI**, Professor, Federal College of Education (Special), Oyo Nigeria

Abstract: Action research plays main role in the field of teacher education; the purpose of this study is to get the perception of action research by teacher's educators, which was also part of the B.ED Hons programme. Teacher educators self-analyze the problems of their students and provide a solution while working in their practicing schools. This research was based on cross-sectional and used deductive method of research. Quantitative research approach was used for data collection, and sampling techniques were purposive and convenience sampling techniques in collecting data from two districts (Hyderabad and Karachi), one college was selected from each district. The researchers selected samples of 80 teacher educators who are working in B.ED Hons program. The findings revealed that there were little or no mean difference between the teacher educator's perceptions on planning and process, importance, likeness, and abilities, assessment and supervision, and time/placement of both teacher education institutions of Hyderabad and Karachi towards the betterment of quality action research. The finding also revealed that teacher educators faced problems during supervising the student teachers because they had no skills and methods of teaching and guiding in those institutions. It is recommended that teacher educators should have training on Action research and also Higher education as create learning environment in institution.

Keywords: Action Research, Perception, Practices, Prospective Teacher, Education

I. INTRODUCTION

The Government of Pakistan is hoping for of both quality education and teachers, where they have designed the 10 National Professional Standards for Prospective Teachers that are needed for the 21st Century Teachers (skill, disposition, and value), that will bring change in the teaching practice. The ten standards for teaching have been set out in the instructions to achieve the necessary goals. The Government of Pakistan is eager to refine the value of education that is influenced by the value of teacher education. National Professional Standards for Teachers (NPSTs) have been developed to improve the value of teachers. They were established in February 2009 by Policy and Planning Wing, Ministry of Education, Government of Pakistan, with the technical support of UNESCO and financial support of USAID (Saifulla, Sherzaman, Ali, Idrees & Zaman, 2013), which includes the Professional Standards for Teachers (NPSTs).

The historical background of teacher education represents the initial provision of vocational education for junior vernacular (JV) and senior vernacular (SV) courses at that time. With the passage of time, these 1-year courses were replaced by (PTC) and (CT) continued until 2008-2009. It went along with the Oriental Teaching Certificate (OTC), the Art Teaching Certificate (ATC) and the Art Master Certificate (AMC). Teacher Education Institutions have been proposing an Associate Degree in Education (ADE) since 2009 to replace PTC and CT courses in accordance with the 2009 National Education Policy. In 2015, Teacher Education also introduced the B.Ed. (Hons.) programme. The elementary programme has also been introduced, where pre-service, and in-service education are supported. It is also the government's responsibility to provide teachers with capacity building and to provide supervision where the Bureau Curriculum and Extension Wing, Jamshoro Sindh (BCEWS).Now, Directorate of Curriculum Assessment and Research)/Teachers Training Institution (TTI) cooperates with various stakeholders, that is the Provincial Institute of Teacher Education (PIT). After the 18th amendment, the TTI Institute has been authorized to work for all Teacher Education Institutions. It also offered in-service training for the

capacity-building of teachers, teacher educators and head coaches, illuminating control staff, and side-by-side education managers. (Prospectus: GECE Karachi, 2017-2018).

In order to highlight the importance of education, the B.Ed. Hons Programme has been revised for 4 years as prospective teachers capable of exploring new teaching practices as well as meeting the national most professional standards of teachers (Mahmoud & Iqbal, 2018; NPST, 2009). In light of the reference, fresh and new education policies were developed following the 18 amendments adopted by the Pakistan Constitution in the National Assembly. New trends in education planned for the 21st century and focused on the needs of Pakistan's society and social structure (NEP, 2017). For the last 20 years, teachers have given more importance to research in the field of education. In recent times, teachers have significantly worked to develop their educational area for constructive reflection by improving knowledge in their context, where they have adopted research to improve their work (Clarke, 2006). Action research plays a key role in improving the ability of Teachers to solve problems of the classroom and introduces them as professionals in the field (Whitehead, 2002).

Objectives of the Research Study

The present study ideas are focused on aims and objective regarding the perception and practices during conducting action research in different teacher training institutes for maintaining the quality of academic sessions in Sindh. How? Teachers develop their interest in perception and practice during quality action research. The researcher will try to find out, the perception of teachers during conducting action research in the areas of Perception; they are giving importance and enhancing their abilities (skills) and their Likeness (interest) during conducting action research. Also, study is showing the practices of teachers are making/ designing Planning, going through Process or not and working under the supervision and have any assessment criteria, etc. The researcher also focused on identifying the problems faced by the teachers during action research and how they manage their Placement/time to perform the whole process effectively to analyzes time management of teachers during conducting action research.

HYPOTHESIS FOR TEACHER EDUCATORS

Ho: There is no significant relationship between importance and quality of action research

Ho: There is no significant relationship between likeness and abilities and quality of action research

Ho: There is no significant relationship between planning /process and quality of action research

Ho: There is no significant relationship between supervision/assessment and quality of action research

Ho: There is no significant relationship between teacher educator's placement/time and quality of action research

II. REVIEW OF THE LITERATURE

The present study reflected Teacher Education Institutes, while prospective teachers are pursuing actionoriented research for futuristic academic improvement and problem-solving based on their own value and interests. The Higher Education Commission has recently launched a new ADE/B.Ed. Hons programme, full of new trends, new methodologies and well-designed National Standards (NPST) for prospective teachers. This programme, initiated by the Government of Pakistan (HEC) has introduced a new curriculum, the main objective of which is to replace the teacher-centered approach of teacher-training institutes and to enhance the professional skills of teacher-trainers by means of new pedagogies, motivations, workshops etc. Action Research Approach collaboratively, diagnosed by Lankshear and Michele (2004), said that approach could be justified, and in that approach, we used two terms: the first term reflects that teachers are self-reflected in that class, faced with new challenges; and second term reflects that teachers reflect their teaching practices in the field of study (Lankshear & Knobel, 2004). Here, the theoretical framework follow of Kurt Lewin, used for the analysis of the quality of action research by the perception and practice of teacher educators and prospective teachers is further divided into independent variables: importance, resemblance, skills and practice; planning, training (of teacher educators), supervision, assessment and placement. There are so many different models of action research that represent the quality of action research. Andrew (2012) defined dependent variable in research as the one that determines the effect of an independent variable, which focuses on the research interest, results that have changed as a result of the study during the experiment. The independent variable is measured, influenced or selected by the researchers to control its relationship to the observed variable that affects the dependent variable. The subject of action research is recognized by different names such as: participatory, collaborative, analytical, learning, reflective practice, exploratory, selfassessment, teacher research, practice analysis, consultant, research, Biratu's (2016) word of action research also differs from time to time, as highlighted in the development of school activities and practices. In addition, the author specified that the term action research has begun to be considered as an applied and practical way to observe one's own self-exercise. Action research involves experts in thinking about and reflecting on their work. In addition, they indicated that action research is a process in which

teachers examine self-practice and teaching and learning in order to develop learning for their students. In addition, Steele's (2007) action to improve the quality of education and help achieve learning objectives also included helping teachers to become masters, helping experts to solve the problems of their students and helping learners to understand the difficulties of learning through training strategies used in action research. Teacher action research has helped them to self-reflect in teaching. According to Noffke, three rationales were discussed for motivating teachers to carry out action research easily. In the first place, teachers carry out action research according to their context. Second, provide information to teachers, as well as help teachers in the institutions. This motivation helps to create equality and justice for teachers that some teachers willingly share and contribute to the development of the school environment and through social interaction (Noffke, 1997). According to Ferrance (2000), action research could be a useful search for instructors on five grounds. These include: school problems, professional development of teachers, mutual collaboration, the ability to influence school changes, practice reflection and improved interaction. Auriacombe (2015) stated that the main purpose of the gap between understanding theory and practice is research on real issues/world in order to get the right answers. In this context, not only the problem-solving, but also the effect on human learning that reflects the ways of critical thinking and problem solving. In order to bridge the gap between career and quality of service, HEC has given greater importance to the ADE/B.Ed. Hons programme in elementary schools to enhance skills through the practice and teaching of prospective teachers (Scheme of Studies, 2012). The prospective teachers have been confronted with problems during the conduct of action research in their respective teacher education institutions. The supervisors have no mutual understanding with the students on knowledge to convey instructions of the research project to all prospective teachers, where it is observed that prospective teachers face the problems of inadequate knowledge of the subject matter and skills. It also reported that prospective teachers face difficulties in teaching practicing centers different from what they are taught in the classroom (Yıldız, Gecikli, & Yesilyurt, 2016). During the research, the behaviour and response of school children was different from that of prospective teachers, so they experienced difficulties in conducting research (Maksimovic, 2010).

III. RESEARCH METHOLOGY

Research Design

This research was designed to explore the impact of action research among the teachers education. This research was carried out in a cross-sectional form, which was limited but rich in text (Noddings, 2018). The researchers focused on the deductive method of research. Based on the review of the related material and literature, a research approach was developed on the quantitative method approach. The research identified independent variables in perception (importance, likeness and capacity) and practice (planning and processing, oversight and assessment, time/ placement) all studies are based on a single dependent variable to maintain the quality of teaching action research.

Population and Samples

The sample was determined by means of a convenient and purposive sampling techniques, in which teacher educators were selected from two government colleges of education in Sindh, selected for study between two institutes on the basis of action research, and the main reason for comparison was that the affiliated universities were homogenous. It was very difficult to gather data from teacher educators, where the researchers were able to collect data with the help of the Head of Department. The teacher educators in B.ED Hons programme in Government of Education were; (Male=45 (56%) and Females =25(24%), Table 1: shows that Teacher educators of the Prospective Teachers

Table 1 Demographic Presentation of Teachers Educators

Teacher Educators Age	Frequency Per cent	Academic Qualification	Frequency Percent	Professional Qualification	Frequency Per cent	Designation	Frequency Percent	Experience In Current Job	Frequency Percent
21 to 30	2 (3%)	BA/BSc	2 (3%)	B.ED	5 (6%)	Lecturer	57 (72%)	1 to 5 Years	4 (5%)
31 to 40	24 (30%)	MA/MSc	61 (76%)	M.ED	75 (94%)	Associate Professor	22 (27%)	6 to 10 Years	21 (26%)
41 to 50	32 (40%)	MPHIL	14 (17%)	Total	100	DPE	1 (2%)	11 to 15 Years	28 (35%)
50 to 60	22 (27%)	PhD	3 (4%)			Total	80 100	16 to above Years	27 (34%)
Total of	100,0	Total	80 100					Total of	80 100

Instrument for Data Collection

Before running factor analysis software, outliers for generalized results were removed and 80 Teacher educators information was finalized. A Kaiser-Meyer-Olkin (KMO) was used to calculate the samples that the value of KMO is greater than > 0.50 (Kaiser, 1974). This indicates that each factor has enough items to make factors (Leech, Barrett, & Morgan, 2005). The Bartlett test should be significantly less than (p<0.05) for an appropriate analysis of the factors. The KMO test value is well analyzed in .614, and the result was shown to be adequate, also the value of 0.000 of Bartlett's Test that the indicated matrix is not identical (Bartlett, 1950). The reliability of the tool was measured by SPSS for the reliability of the items (Likert scale) used by the researchers. The average score corresponding to other items was analyzed. Items 26 (30) are intended for teachers Educators and, during the analysis; the reliability was > 0.05 (Cronbach, 1951). The Cronbach Alpha of prospective teacher tools was .733. Correlations between perception (importance and likeness/ability) and variable practices (planning and process, monitoring and assessment and placement/time) were calculated. The Pearson correlation is normally used in conjunction with the data (bi-variant correlation) where the two correlation coefficients measured with +1 or-1 and mostly used. Positive relationships indicate strong correlation (Patrick, Boer, Christa; Lothar, & Schwarte, 2018) using the IBM SPSS Statistic 22.

Procedures For Data Collection

The whole data was analyzed step by step where the Missing Value Analysis is a major part of the data analysis where the Researchers must be conscious of analyzing the missing value whether or not it exists in the statistical data. The researchers worked on the IBM SPSS statistical programme and assured that no missing value of the teacher's questionnaire was left blank to collect the data. Outliers are often defined as the interpretation of data that are mostly different or different from other cases in the sample (Osborne, & Overbay, 2004). This study was conducted in selected institutions where a limited teacher educators (80) were selected. However, for better results and simplifications, outliers were removed in two different stages for the establishment of relationships. In the first stage, outliers were removed while generating a relationship between perception and practices, with importance, likeness, and abilities as a facilitator. In the second stage, outliers were removed to make generalized relation between practice through assessment and supervision and time/placement to maintain the quality of action research. Removal of outliers may affect the size of the Teacher Educators sample and make it short to positive factor analysis. Therefore in order to maintain good KMO value (>0.5) outliers are removed separately before factor analysis of each of the questionnaire.

IV. METHOD OF DATA ANALYSIS

There is different Hypothesis which is sequentially discussed below. In order to answers used the mean and standard deviation to measure the difference between the two educational groups. The mean difference controls the numerical values which are different in relation to the population means (Guide Library, 2019).

- 1. Ho: There is no significant relationship between Teacher Educators importance and quality of Action Research.
- 2. Ho: there is no significant relationship between Teacher educators Likeness, ability, and quality of conducting Action Research.
- 3. Ho: there is no significant relationship between teacher educators Planning, Process, and quality of Action Research.
- 4. Ho: There is no significant relationship between Teacher Educators supervision, assessment, and quality of action research.
- 5. Ho: there is no significant relationship Relation between Teacher Educators placement /time and quality of Action Research.

The Teacher Educators of (Table 2) Government college of Educations Hyderabad (N=35), where mean value is almost similar form as the Teacher Educators of Government college of Educations Karachi (N-39), we can say that the importance of conducting action research varies for both groups of Teacher Educators From both groups statistic shows that the quality of action research has more importance for the teacher educators of both Government colleges of educations (Hyderabad and Karachi).

From the statistic of an Independent Sample, t-Tests were (Table 3) conducted to examine the variable Perception (Importance, ability and Likeness) and the practices (Planning and process, Supervision and

assessment, time allocations) of teacher educators for conducting action research. Levine Test for equality of variance shown

that p Value is greater than > 0.05. It can be said that Null Levine's data is based accepted on equal variance assumed. Further, equal variance result indicated that Teachers Educators of both public Institutes Hyderabad and Karachi have no significant difference between them as Significant (2 tailed) are greater than 0.05.

Thus, the Null Hypothesis is rejected and data showed that the selected variables of action research had a relationship with the Teachers Educators of both institutions. T-test mean measure with the degree of freedom (72) and the standardized difference between two means, And the Confidence Interval is affected because of the p-value. This proved that the perception of importance is one of the key factors in maintaining the quality of action research in the undergraduate degree program.

Table 2. Group Statistics of variance

				N	Mean	Std. Deviation
Perception:	Government	College	Of	Education35	3.171	.545
Importance	Hyderabad					
	Government C	ollege Of E	ducat	ion Karachi 39	3.376	.608
Perception:	Government	College	Of	Education35	3.047	.399
Ability	andHyderabad					
Likeness	Government C	ollege Of E	ducat	ion Karachi 39	3.303	.455
Practices:	Government	College	Of	Education35	3.468	.359
Planning	andHyderabad					
Process	Government C	ollege Of E	ducat	ion Karachi 39	3.415	.514
Practices:	Government	College	Of	Education35	3.247	.454
Supervision	andHyderabad	J				
Assessment	Government	College	Of	Education39	3.325	.389
	Karachi	J				
Practices:	Government	College	Of	Education35	2.722	.658
Placement /'	Time Hyderabad					
,	Government C	ollege Of E	ducat	ion Karachi 39	2.943	.548

	Table 3.	Inde	pendent	t Sampl	es Test T	Teache	er educat	ors for quality of Act	ion research	ı		
Но			Levine's Test fort-test for Equality of Means									
			Equali	ty	of	-						
			Variances									
	Variables		F	Sig.	T	Df	Sig. tailed)	(2-standardized difference betwo means	95% eenInterval Differend	Confidence of the		
	Varia							two means	Lower	Upper		
	Perception:		.042	.838	-1.52	72	.133	0.376	473	.064		
1	Importance	_										
2	Perception: Ability and Likeness	assumed	.151	.698	-2.55	72	.013	0.597	455	056		
3	Practices: Planning and Process	variances a	2.321	.132	.510	72	.611	0.11997	155	.261		
	Practices: Supervision and	_	.423	.518	786	72	.434	0.280	27284	.11850		
4	Assessment	Eq										

5	Practices:					0.365		
	Placement	.764	.385	-1.574 72	.120		501	.058
	/Time							

Conclusion, It's statistically observed that the p-value rejection in both GCEs; of Hyderabad and Karachi have a significant relationship during conducting action research. Teacher Educators provided Perception (Importance, ability and Likeness) and the practices (Planning and process, Supervision and assessment, time allocations) according to the requirement of the subject to the Prospective teacher during action research. So, we can say that these hypotheses had a significant relationship in both institutions of Karachi and Hyderabad

V. DISCUSSION

The study found that the perception (importance) of action research has no or little significant mean difference in the students of both institutions. This has shown that the perception of importance is one of the key factors in maintaining the quality of research action in the undergraduate programme. The study also found that the ability and resemblance of prospective teachers during the course of action research assumed to have the same mean difference. The findings were consistent with Disharoon's (2003) view that action research would help teachers identify their problems and provide the institutions with a critical output/result. Equally, the teacher has created a platform for continuous self-care, through the challenges and problems of the classroom. Teacher and Head of Department (Principal) must be aware of the solution to this problem, which is intentionally developed in the classroom environment (Mills, 2007), and this whole process is useful for students' learning, where teachers reflect the ability of a problem solver for students (Darling-Hammond, 2006). By applying research, the teacher has not only learnt the needs of students, colleagues, but also came to know his/her problems and strategies to overcome them (Ferrance, 2000). According to the perspective of the author on action research, the author stated that action research is beneficial and assumed that teachers have been helped to make self-decisions related to their own practices, and that they have the authority to resolve issues related to their classrooms in order to improve educational outcomes (Zeichner, 2003). Action research involved experts in thinking about and reflecting on their work. In addition, they indicated that action research is a process in which teachers examine self-practice and teaching and learning in order to develop learning to their students (Biratu, 2016). In addition, Steele's (2007) action to improve the quality of education and help achieve learning objectives also included helping teachers to become masters, helping teachers to solve the problems of their students and helping learners to understand the difficulties of learning through training strategies in the use of action research. The study also found that there is no significant mean difference between prospective teachers' planning and the process on the quality of action research. The findings have shown that the practices (planning and process) of action research have little or no mean difference with the students of both institutions. This has shown that the perception of planning and process is one of the key factors in maintaining the quality of action research in the undergraduate program. This was in agreement with Creswell (2005) that action research reflected self-critical and team-based research by teachers, which enhances decision-making skills and improvement through continued professional development. Bryman (2008) also stated that the school environment is affected by social interactions that reflect human behavior. In addition to being diagnosed with action research using mixed methods to solve any problems, teachers used appropriate methods for teaching practices and achieve learning objectives through action research and planning. Lydia (2015) noted that action research included planning, acting, observing and reflecting new learning strategies. Action research has so many models and approaches that express their own communication in different ways of reviewing the situation and providing solutions through discussion. The present study has shown that there is no significant mean difference between prospective teacher supervision, assessment on the quality of action research. The study showed that the practices (supervision and evaluation) of action research have an equal difference with the students of both institutions. This has shown that supervision and assessment practices are one of the key factors in maintaining the quality of action research in the undergraduate programme. Clarke's (2006) opinion confirmed that teachers have worked more and more and have developed their educational area for constructive reflection by improving knowledge in their context, where they have undertaken research to improve their own work. Action research plays a key role in improving the skills of teachers in addressing the problem of the classroom and introducing them as professionals in the field (Whitehead, 2002). In addition, Jorge stated in his research that teachers have taken on the main role of formal instruction, which has shaped the research of teachers to complete professional teachers (Jorge, 2007).

Action research could suggest the interests and values of the researchers in their own context, which would help design the project in the field of action research (Lydia, 2015).

VI. CONCLUSION

This study concluded, after analysis and discussion, that perceptions and practices have a major role to play in promoting the quality of action research, where the Hypothesis had shown that each Teacher Education Institution was little or no significant different from each other. They all follow the policies of the HEC, but were independently responsible for planning and setting the criteria as they could achieve the goal of the research project in a given time. The study also found out that the real scenario of teacher education in most of the institutions work best for the academic sessions, most of which students work only for the sake of degrees, could not accept the value of the research action. Teacher educators need to play main role to develop students' interest for doing research and give the platform to introduce them. The challenges faced by teachers are not knowledge and resources, but they are trying to achieve the objectives of the degree. At the end of the day, they need some awareness on action research and well-qualified staff to have knowledge of action research and its practices for the best academic session. There should be same coordination among supervisors and student workshops for supervisors.

VII. RECOMMENDATIONS

- Teacher educators and research coordinators should play a key role in this field, working as mentors to develop interest, create a learning environment and make use technology to impact action research on prospective teachers.
- It is recommended that the public universities need to facilitate affiliated colleges, assist and provide them with platforms of workshops and monthly meetings as subject support forms in some specific subjects.
- It is noted that teacher educators and prospective teachers do not have resources such as internet, photocopier, printer and other materials for research work, so it is recommended that they be provided with sub-laboratories that meet 21 century well-equipped laboratories and resources for better education and results.
- Teacher Educator Institutes also showed low knowledge; it is therefore recommended that MPhil or Ph.D. should be used to teach in Teachers Education Institutions.
- Teachers should be given incentives or appreciation for their support in conducting action research in schools.
- Also recommended to the future teachers that work on teacher workshop /training on Action Research, also introduced their give a platform of Research Support Form in each public Colleges where all teacher educators share their learning and strategies etc.

REFERENCES

- 1. Andrew, P. J. (2012). A short guide to action research, Pearson Education.
- 2. Auriacombe, C. J. (2015). Closing the gap between theory and practice with action research. https://repository.up.ac.za/handle/ 2263/58171
- 3. Bartlett, M. S. (1950). Tests of significance in factor analysis. https://doi.org/10.1111/j.2044-8317.1950.tb00285.x.
- 4. Biratu, S. (2016), Action research practices, challenges and prospects: The case of bole preparatory school. http://etd.aau.edu.et/bitstream/han dle/123456789/9711/Samuel%20Bi ratu.pdf? sequence=1&isAllowed=y
- 5. Clarke, A. E. (2006). Teacher inquiry: What's old is new again! http://blogs.ubc.ca/stevemcg/files/2015/09/Clarke-Erickson-2006.-Teacher-inquiry-Whats-old-is-new-again.pdf
- 6. Creswell, J. W. (2005). Educational research: Planning conducting and evaluating quantitative and qualitative research (4 Ed.). Pearson.
- 7. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests, Journal of Psycho metrika, 16 (3), 97–334.

- 8. Darling-Hammond, L. (2006). Constructing 1st-century teacher education. Journal of Teacher Education, 57(3), 300-314.
- 9. Disharoon, R. A. (2003). Action research toolkit arts education. http://www.aems-edu.org/PDFs/Action_Research_Tool kit.pdf
- 10. Ferrance, E. (2000). Themes in education action research, Producer).https://mafiadoc.com/themes-in-education-action-
- 11. Guide Library. (2019). SPSS tutorials: Independent samples t Test. https://libguides.library.kent.edu/spss/independentttest
- 12. Jorge, J. R. (2007). Teachers' conceptions of teacher-research and self-perceptions as enquiring practitioners—a longitudinal case study. Teaching and Teacher Education, 23 (4), 402-417.
- 13. Kaiser, H. F. (1974). An index of factor simplicity, Journal of Multivariate Behavioral Research, 39 (1), 31-36. https://www.statisticshowto.datasci encecentral.com/kaiser-meyer-olkin/
- 14. Lankshear, C., & Michele, K. (2004). A handbook for teacher research: From design to implementation (illustrated, reprint 1 ed;) OPen University Press.
- 15. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests, Journal of Psycho metrika, 16(3), 97–334.
- 16. Leech, N. L., Barrett, K. C., & Morgan, G. A. (2005). SPSS for intermediate statistics: Use and interpretation. https://psycnet.apa.org/record/200 4-18541-000.
- 17. Lydia, A. (2015). Action research for higher education practitioners: A practical guide. https://lydiaarnold.files.wordpress.c om/2015/02/action-research-introductory-resource.pdf.
- 18. Maksimovic, J. (2010). Historical development of action research. Philosophy, Sociology, Psychology and History, 9 (1), 119 124. http://facta.junis.ni.ac.rs/pas/pas2010-10.pdf
- 19. Mahmood, N., & Iqbal, Z. (2018). Challenges faced by prospective teachers during teaching. Journal of Bulletin of Education and Research, (2), 113-136.
- 20. Mills, G. E. (2007). Action research: A guide for the teacher (5th Ed.).Pearson. https://files.pearsoned.de/inf/ext/9 781292054490.
- 21. National Education Policy. (2017). National Education Policy 2017-2025. Government of Pakistan Ministry of Federal Education and Professional Training Islamabad. http://www.moent.gov.pk/userfiles 1/file/National%20Educaiton%20Pol icy%202017.pdf
- 22. Noddings, N. (2018). Philosophy of Education (4th Ed.). Routledge. Noffke, S. E. (1997). Professional, personal and political dimensions of action research. Journal of Review of research in Education, 22 (1), 305-343.
- 23. NPST. (2009). National professional standards of teachers, policy and planning wing ministry of education government of Pakistan Islamabad. http://unesco.org.pk/education/documents/step/National%20Profession al%20Standards%20for%20Teacher s%20in%20Pakistan.pdf.
- 24. Osborne, W. J., & Ovrbay, A. (2004). The power of outliers (and why researchers should. https://www.researchgate.net/profil e/Jason_Osborne2/publication/2420 73851_The_Power_of_Outliers_and __Why_Researchers_Should_Always_ Check_for_Them/links/0c96053606 c3cb1b2f000000.pdf
- 25. Patrick, S., Boer, Christa, Lothar, S., & Schwarte. (2018). Correlation coefficients appropriate use and interpretation. International Anesthesia Research Society, 126(6), 1763–1768.
- 26. Saifulla, S., Sherzaman, A. A., Ali, S. S., Idrees, A., & Zaman, S. (2013). Effect of reformed teaching practicum on profession development of B.Ed (Hons) prospective teachers. Journal of Bulletin of Education and Research, 35(2), 125-138.
- 27. Scheme of Studies. (2012). Scheme of studies associate degree in education in service. http://hec.gov.pk/english/services/ universities/RevisedCurricula/Documents/2011-2012/Education/ADEinService.pdf.
- 28. Steele, L. (2007). Accessible portfolios: Making it happen. https://core.ac.uk/download/pdf/41 335669.pdf.
- 29. Whitehead, J. (2002). Action research: Principles and practice, (2nd Ed.). Routledge.
- 30. Yıldız, M., Geçikli, M., & Yeşilyurt, S. (2016), Turkish prospective English teachers' reflections on teaching practice. Universal Journal of Educational Research, 4 (4), 696-703.
- 31. Zeichner, K. M. (2003). Teacher research as professional development for P– 12 educators in the USA. Journal of Educational Action Research, 11(2), 301-326.