

## **TEACHING AND RESEARCH APTITUDE OF BEd AND MEd STUDENTS IN YANGON UNIVERSITY OF EDUCATION**

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### **Abstract**

Teachers are the backbone of every society and they play a vital role in nurturing the mind of the young child. Teachers in this era are research oriented. If the lower aptitude is possessed, the lower the probability of achievement will be gained. Therefore, this study investigated teaching and learning aptitude of BEd and MEd students in Yangon University of Education (YUOE). By using stratified random sampling technique, 246 students were chosen for this study. A descriptive survey design was utilized. Teaching and research aptitude test including teaching aptitude, research aptitude and general knowledge was applied in this study. The results revealed that the research aptitude of those students was the lowest among teaching aptitude and general knowledge in this study.

**Keywords:** Aptitude, Teaching Aptitude, Teaching and Research Aptitude

### **Introduction**

The development of human resources can create the progress and prosperity of a nation. Therefore, it is highly needed to have competent teachers in a nation. Teaching is a great profession throughout the world. The person who chooses teaching as a profession must believe that all the necessary qualities must be possessed to become an effective teacher.

Teaching is a process involving the interaction of teachers and students for their mutual benefit in the teaching learning process. In this process, they have their own target and objective. As a creative and highly complex activity, teaching consists of mastering of subject matter, planning instruction, inspiring pupils, evaluating the achievement, establishing upgraded learning, applying efficient methods and managing the classroom.

An aptitude which is known as an innate, acquired, learned or developed component of competency to a certain kind of work at a certain level may be physical or mental. In daily life, aptitude is essential for reacting calmly under pressure. In education, it can help in identifying a student's strengths in order to achieve his or her goal based on his or her best skills and systematic training.

The term research comprises of two words, namely 're' and 'search'. Generally, 're' means 'again' and 'search' means 'to find out'. According to Advanced Learner's Dictionary, 'research is a careful investigation or inquiry specially to search for new facts in any branch of knowledge' (Madaan, 2017). Research aptitude means an aptitude for investigation, an effort made to uncover facts scientifically and objectively. Again, teaching aptitude is the interest in teaching himself and the capacity for acquiring proficiency with the help of suitable training and practice.

In the teaching-learning environment, difficulties may be faced so while trying to reach an efficient goal. To overcome this situation, the teacher has to search for appropriate and efficient ways. A careful investigation or inquiry can search these appropriate and efficient ways. Thus, the teachers must have the ability concerning teaching and research.

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This study mainly focuses on teaching and research aptitude among prospective teachers and post graduate learners in YUOE hoping that this aptitude may be part of the necessary qualities to become an effective teacher.

### **Purposes of the Study**

The aims of the present study are

- (1) to investigate the teaching and research aptitude of BEd students and MEd students in YUOE
- (2) to compare teaching and research aptitude among BEd students and MEd students in YUOE

### **Definitions of Key Terms**

**Aptitude.** A capacity to acquire proficiency in a given line with a given amount of training. (Kumari, 2022).

**Teaching aptitude.** A condition or set of characteristics possessed by an individual, indicative of the ability to grasp not only the subject matter but also the aims and processes of education. (Dave, N. & Raval, D., 2015, as cited in Rani, S., 2013).

**Operational definition of teaching and research aptitude.** The researcher operationally defined the teaching and research aptitude as the ability to learn or perform in teaching and research areas on the basis of marks obtained from the teaching and research aptitude test.

## **Review of Related Literature**

### **Teaching**

Teachers are the backbone of every society and they play a vital role in nurturing the mind of the young child. The best teachers always give knowledge and skills in very effective ways to young students. There are several roles a teacher plays to make the society stronger. Teachers play the role in a variety of ways either formally or informally. Teachers play in society as such roles as resource providers, instructional specialists, curriculum specialists, classroom supporters, learning facilitator mentors and school leaders. Teaching is a great profession throughout the world. The teacher may teach from kindergarten to university. Teaching is a very complex process which brings socially desirable behavioral changes in a person. In the process of teaching, it is required to bring certain changes in a student according to the need of the society where student is living. Effective teaching mostly depends on the teachers. To be effective in teaching, the teachers must know learners and pedagogy and also master subject knowledge (Changder, 2017).

### **Research**

According to Redman and Mory, “research is a systematized effort to gain new knowledge” (Jharotia, 2015). This basically means research is a walking from known thing towards the unknown thing. It is a systematized process of discovery. The concept of teacher-as-researcher also known as teacher-researcher is the idea that a classroom teacher can conduct his or her own studies to improve his or her teaching practices (Creswell, 2005). Some educational experts believe that the increasing emphasis on the teacher-as-researcher reinvents the teacher’s role and improves teaching and students’ learning (Cochian-Smith & Lytle, 1990; Flake & others, 1995; Gill, 1997).

To obtain information, the teacher researcher uses methods such as participants’ observations, interviews and case studies. Learning about educational research methods not only can help to understand the research but also have another practical benefit. The more knowledge about research in educational psychology, the more effect will be in the increasingly popular teacher researcher roles (Airasian & Gay, 2000).

**Aptitude**

Aptitude refers to the composite ability in natural or acquired capacity, inclination to learn or understand. An aptitude may be the result of either an innate intellectual endowment of special training or both. Aptitude is classified as verbal, numerical, spatial, motor, musical, social, intelligential, natural, mechanical, teaching, academic, learning, etc. Also, it is a present condition with a forward reference. An aptitude is a composite of different component abilities that together make for success in a particular field. If the lower aptitude is possessed, the lower the probability of achievement will be gained. Aptitude tests measure and describe special abilities, capacities or talents which are supposed to determine the level of achievement that is expected from individuals in a specific field. Aptitude tests are measures of potential abilities that foreshadow success on a related task of some future time. (Menka, 2016).

**General Knowledge**

This test aims to assess the teaching and research aptitude as well as their awareness. Participants are expected to possess and exhibit cognitive abilities which include comprehension, analysis, evaluation, understanding and reasoning. They are also expected to have communication also known as a general knowledge of sources of information. They should be aware of the interaction between people and the environment and their impact on quality of life.

Comprehension is the ability to read and understand the texts they read. Analysis, the systematic study of real and complex value continuous function, is a branch of something with continuous changes and includes the theory of integration, differentiation, measured limited analytic function and infinite series. Again, evaluation is a systematic process of determining to what extent instructional objectives: teaching and research aptitude have been achieved. Reasoning means a process of thinking about something in a logical way in order to form a conclusion. The last part of general knowledge, communication, refers to the ability that the participants use when giving and receiving different kinds of information.

**Methodology**

**Sampling**

<b>Year</b>	<b>No. of Students</b>
Second Year	96
Fourth Year	75
Master	75
Total	246

**Method**

Descriptive survey design was applied in this study,

## Instrument

In order to find out the teaching and research aptitude of the participants, a questionnaire constructed by Madaan and Changder (2017) was used. This questionnaire contains 10 items for teaching aptitude, 10 items for research aptitude, 13 items for general knowledge involving communication, comprehension, logical reasoning and data interpretation and 2 open-ended questions. The number of total items is 35.

## Data Analysis and Findings

### Teaching and Research Aptitude of BEd Students and MEd Students in YUOE

To observe teaching and research aptitude of the participants, descriptive analysis was firstly done. According to Table 1, descriptive analysis revealed that mean percentage of research aptitude subscale was the lowest among those of subscales in teaching and research aptitude.

**Table 1 Descriptive Statistics for Teaching and Research Aptitude**

Subscales	N	Minimum	Maximum	Mean	Mean Percent (%)	Standard Deviation
TA	246	1.00	10.00	5.30	53.00	1.87
RA	246	.00	10.00	3.65	36.50	1.82
GK	246	.00	11.00	5.83	52.99	1.95
Total	246	5.00	30.00	14.78	49.27	4.01

To compare teaching and research aptitude among BEd students and MEd students in YUOE, one-way ANOVA was computed. According to Table 2, the result showed that there were significant differences among education levels in teaching and research aptitude at  $p < .05$ .

**Table 2 ANOVA Result for Teaching and Research Aptitude**

(I)	(J)	Mean Difference (I-J)	Std. Error	Sig	95% Confidence Interval	
					Lower Bound	Upper Bound
Second Year	Fourth Year	-1.49667*	.57720	.027	-2.8578	-.1355
	Master	-3.53667*	.57720	.000	-4.8978	-2.1755
Fourth Year	Second Year	1.49667*	.57720	.027	.1355	2.8578
	Master	-2.04000*	.61162	.003	-3.4823	-.5977
Master	Second Year	3.53667*	.57720	.000	2.1755	4.8978
	Fourth Year	2.04000*	.61162	.003	.5977	3.4823

\*The mean difference is significant at the 0.05 level.

### Critical Analysis on Open-ended Questions

To collect this data, the participants were asked to answer the two open-ended questions which were (1) to write down their attitudes toward conducting research in educational field and (2) the types of research they want to conduct. Responses for these two open-ended questions were coded and analyzed.

Specifically, participants' responses to the research questions were reviewed and explored the following major themes by summarizing the significant key answers from participants' responses as the important discoveries of this study.

The responses, frequency and percentages to the first open-ended question which was about the attitudes toward conducting research in educational field were shown in Table 3.

**Table 3 Responses, Frequency and Percentages to Attitudes toward Conducting Research in Educational Field**

No	Responses	Frequency	Percentage
1	Conducting research in educational field is very beneficial for - studying current problems - overcoming educational challenges - changing teaching strategies - making effective teaching and learning - developing education system	99	41.59
2	Conducting research in educational field is important to - improve the abilities of teachers and students - find out educational problems and solutions - become better education system	29	12.18
3	Conducting research in educational field is essential for - producing qualified teachers - developing education system	11	4.62
4	Conducting research in educational field is good because it - solves educational problems - makes deeper understanding about educational field - gives feedback to education system - helps the needs of educational field - promotes the level of society	75	31.51
5	Conducting research in educational field is interesting.	5	2.10
6	Conducting research in educational field is complex and difficult.	2	0.84
7	Conducting research in educational field is not affect in real situation. (e.g urban and rural)	2	0.84
8	Another answers	15	6.30

According to Table 3, the students have received knowledge related to research. They answered about conducting research in the educational field that it is (1) very beneficial for developing education system, (2) important to find out educational problems and solutions, (3) essential for producing qualified teachers, (4) good because it promotes the level of society and (5) interesting. Most responses represent positive attitudes toward conducting research in the educational field although a few responses state that research in educational field does not affect in the real situation. (e.g urban and rural). Based on the result, most students accept the benefits of conducting research in educational fields.

Then, the responses, frequency and percentages to the second open-ended question which was about the types of research they want to conduct were shown in Table 4.

**Table 4 Responses, Frequency and Percentages to Types of Research Wanted to Conduct**

No.	Responses	Frequency	Percentages
1	Survey research - to collect data from a large simple size - to collect data easily - to collect data online - to save time consuming	36	17.31
2	Quantitative research - to test hypotheses - to get numerical data	34	16.35
3	Experimental research - to conduct by the researcher - to face educational challenges - to get fundamental principles	41	19.17
4	Qualitative research - to explore ideas, meanings and thoughts - to study in depth	15	7.21
5	Action research - to improve educational practice in classroom - to enhance students' abilities	11	5.29
6	Case study - to study in depth	6	2.88
7	Longitudinal research -to get information how people develop over time	1	0.48
8	Deductive method - to generate from general to specific	10	4.08
9	Observation - to observe detail	7	3.37
10	Not sure	25	12.01

According to Table 4, students were examined to be knowledgeable concerning with types and natures of research in educational fields. They want to conduct (1) survey research - to collect data from a large simple size easily, (2) quantitative research - to get numerical data, (3) experimental research - to get fundamental principles, (4) qualitative research - to explore ideas, meanings and thoughts, (5) action research - to improve educational practice in classroom, (6) case study - to study in depth (7) longitudinal research - to get information how people develop over time, (8) deductive method - to generate from general to specific and (10) observation - to observe detail. Although some students are not sure what type of research wanted to conduct, most students answer types of research wanted to conduct with reasons why they want these types. The result showed that the students' research knowledge will contribute to their research studies.

### **Discussion**

The main aim of this study was to investigate the teaching and research aptitude of BEd students and MEd students in YUOE. This study also compared teaching and research aptitude among BEd students and MEd students in YUOE.

The results revealed that second year students are knowledgeable concerning educational research although they are taught in curriculum widely. However, they are also learning about educational research in their environment informally. Although research aptitude subscale was the lowest among the three subscales in teaching and research aptitude.

In teaching aptitude, according to Yar Zar Chit (2020), the teacher trainees' teaching aptitude was significantly improved during three academic years. In the study of Shallu Rani, there was no significant difference between the teaching aptitude among (boys and girls) B.Ed. student teacher. The result of Abdullah (2022) showed that there was a significant difference between trained and un-trained secondary school teachers on teaching aptitude.

In this study, the teaching and research aptitude of BEd students and MEd students in YUOE were different according to education level. The teaching and research aptitude of master students were significantly improved compared with BEd students. Fourth year students were also more improved than second year students. The results of open-ended questions stated that all students were knowledgeable related to the types, natures and effectiveness of educational researches. They also have knowledge of some characteristics of research types. However, the research aptitude of the students was needed to improve.

### **Conclusion**

This present research found that there were significant differences according to education level in teaching and research aptitude. Although they are knowledgeable in educational researches, research aptitude is needed to improve. The research aptitude can be improved by training effectively. Therefore, it is needed to carry out in educational research in this era and the education system can be developed by conducting educational researches.

### **Limitations of the Study**

Further research can be conducted with large sample size in EDCs including the students from SUOE and UNDRs because sample size participated in this study was small.

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