

Professional Expertise Variances among Secondary School Teachers of Bangladesh: A Study

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ABSTRACT

This study aims to evaluate the levels of professional expertise among secondary school teachers as well as to identify the variances based on gender and work experience, as the teachers' professional expertise level is of vital importance in quality of teaching and learning and students' achievements. The study sample involved 85 teachers from various fields randomly selected from 3 schools in Chittagong, Bangladesh. The study used test with 30 questions to measure the teachers' professional expertise. Overall results show that the level of professional expertise is generally at an average level. The result shows that there are significant variances between female and male teachers in terms of mastery of professional expertise. In addition, the data shows that there is significant variance between more experienced and less experienced teachers regarding mastery of professional expertise. The implication is that the program, run by schools ministry of education, to implement to upgrade the professional expertise of teachers should consider teachers' backgrounds to make sure its effectiveness.

Keywords: teacher; professional expertise; variances; gender; working experience

1. INTRODUCTION

Professional competence is a set of knowledge and behavior which have to be possessed, observed and mastered professionally. Teachers are educational managers and leaders in a classroom. Therefore teachers who are competent would be able to carry out his teaching successfully, making full use of resources and materialize teaching process successfully. Teachers are expected to work systematically, consistently and creatively. Teaching profession requires specific knowledge and skills. Therefore, teacher education curriculum is designed to ensure that teachers are competent in content knowledge and pedagogical skills. By mastering these two main elements, teachers are able to face challenges in school. Effective teachers are a person who is able to carry out his duties and responsibilities successfully. Past studies showed that effective teachers must have broad knowledge and pedagogical skills to promote appropriate behavior (Awang, Jindal-Snape, & Barber, 2013). Public assumes that being a teacher is an easy job. Indeed, trainee teachers also assume that the duties of a teacher are easy, manageable and could be carried out successfully. Due to this paradigm, most trainee teachers are not serious in gaining knowledge during teaching training. As a result, it brings adverse effects to the teaching profession. In reality, being a teacher is not an easy task. Teachers have to fulfill parents' expectations and they

need to ensure that children are well-educated. Therefore, all teachers have to improve their teaching skills and content knowledge. The following elements and domains are supposed to be fulfilled by all teachers: personality, intellectual, emotion, inter-personal skills, intra-personal skills and creativity in teaching. Teaching profession is a professional designation which requires resilience, competitiveness and good leadership skills.

These come from individual talent and abilities. Good teachers are those who are expert in teaching subject content and able to manage personnel, teaching aids and classroom effectively. Teachers who have undergone training should possess the competencies based on the theoretical knowledge, practical training and soft skills. Walker, Jeffes, Hart, Lord, and Kinder, (2011) have discovered that teaching implementation depends on the involvement and versatility of teachers in establishing an interesting and effective learning environment. How well a teacher adopts all the knowledge and involvement could be seen in the implementation process? Teachers' dedication in carrying out the activities to inculcate teaching content is greatly influenced by the mastery of teaching aids and in making change in students' behavior. Hence, teachers have to be sensitive towards the latest development in education world today. Teachers have to be positive and strive to improve the standard of education so that the quality of teaching and learning is improved. According to Sumipura (1985), constant thinking and acting which is consistent and continuous could develop a competent person who possesses knowledge, skills, values and basic attitudes towards accomplishing something. Professional career requires thinking out of the box and away from mundane routines.

This is what it means by professionalism via expert and training. Expertise will influence a person's work performance in carrying out his duties as a social agent to the students. Professional competencies are crucial skills which determine the success of a teacher in carrying his duties as professional. The following questions provide general guidelines to explore teachers' competencies:

- ❖ What are the standards that have to be achieved by teachers to perform effective teaching?
- ❖ What are the skills required to teach?
- ❖ What are the questions asked to test students' knowledge?

Teachers' expertise is aligned with the ability to manage information, framing duty solving and active communication with students. Teachers also have to possess the knowledge about subject curriculum and syllabus through accurate testing procedures. In other words, teachers should be able to integrate the use of technology compatible with the standard technology for undergrads in developing curriculum. Teachers have to know how to make use of technology and cognitive thinking process which is complex. Teachers should also be able to know how students learn and understand the difficulties faced by the students. Professional teachers have to master of:

- knowledge discipline as teaching resources;
- teaching content that is going to be delivered;
- knowledge about undergrads' characteristics;
- knowledge about the philosophy and aims of education;
- mastery of teaching methods and models of teaching;
- mastery of technological principles of learning; and
- ability to lead and direct learning environment.

In Bangladeshi context, professional expertise refers to the mastery of education in depth which enables teachers to guide students and manage teaching activities. Competent teachers would make the effort to relate teaching content with students' background

knowledge and provide effective learning experience through assignments, exercises and homework which are of high quality. There is a relationship between the steps taken by teachers to simplify and master teaching content with their expertise.

2. STATEMENT OF THE PROBLEM

This study was influenced by past studies on professionalism in teaching profession where it was found that most teachers have a lack of professionalism. Three contributing factors identified to the low level of teachers' professionalism are: (1) many teachers who do not fully carry out their profession; (2) low level of loyalty towards the norms and teaching ethics; and (3) unsatisfactory acknowledgement of teachers towards educational knowledge in implementing the policies to the involved parties. Past studies also revealed that teachers' integrity and accountability are often questionable. Most issues raised about teachers are regarding the school milieu and teachers' expertise in managing classroom and delivering lesson. A teacher should be accountable to his duties and therefore will work hard and show sense of responsibilities and subsequently will be proud of their job (Crisakshank et al., 2006). There is no excuse for a teacher especially those of the high ranking to be less proud of their duties and responsibilities.

The effort to improve teachers' quality actually does not stop when they are assigned to their workplace. Instead, it continues for the rest of their teaching profession. It is observed that the quality of work declines as they serve long in the service. Empirical research on teachers' burnout carried out by Morrison et al. (2005) revealed that the nonacademic routines of teachers reduce their mood to keep on learning and improve their professionalism that they refuse to change due to high pressure at work, high workload and role conflicts. Burnout causes emotional exhaustion, physical exhaustion, attitudinal exhaustion and low feeling of accomplishment. Consequently this affects the quality of their dedication and treatment towards their students. Therefore efforts and measures have to be taken to improve the ability and quality of a teacher. According to Salsal (2009), teachers' readiness change and the optimum use of their professional skills is still limited and not developing and making full use of their professional skills is still limited that it does not improve their perseverance towards the challenges and changes that are happening. Sadirman (2004) discovered that there are students who are not happy and scared of teachers. Some teachers always scold their students during teaching and learning activities. Some teachers have a lack of punctuality. Some of them have been teaching the same topics repeatedly. This discourages students to be involved in lesson activities.

3. LITERATURE REVIEW

Expertise is the capacity to carry out teaching and learning process successfully. Capacity is also shown when an individual is successful in learning how something complex and abstract is done. Expertise is the potential skill and expertise in conducting one's roles. The basic expertise of a teacher consist of these components: time management, focus, feedback, forecast, decision making, and transfer of knowledge and culture. Gorman et al. (1997) introduced a competency model based on the study on outstanding skills and leadership qualities. This study utilized qualitative research design using individual interviews. Each individual was interviewed and results suggest the importance of emotional

intelligence to improve competencies in handling organizational climate. Important elements identified including interpersonal skills, initiative, possessing a vision, cognitive abilities, technical skills, and high level of IQ. Five emotional intelligences investigated in that study were self-awareness, self-discipline, and high level of motivation, high level of empathy and inter-personal skills. Pillay (2005) has carried out a study on the relationship between burnout and teachers' competencies in Queensland. That study reveals that teachers' workload has a high correlation with burnout tendencies among teachers. It has negatively affected teachers' working competencies.

The research discovers that working practices and working environment such as competitions, working nature transformation and technology could bring impact on the wellness and competencies of teachers. According to Davies (2000), the creative process of learning is crucial for a teacher. Teachers have to be creative role models for the students. In addition, Baghart and Trull (1973) who have carried out the research on the expertise level of creative teachers have proposed several measures that could be adopted by teachers, namely: the ability to accommodate to students' learning style, creating a fun learning environment, inculcate living skills and veracity in the students, and reduce all barriers and limitations in learning activities. Learning Implementation Plan that was introduced in pedagogical competency is the ability of teachers to carry out learning experience that includes the understanding of education policies, the understanding of students, curriculum development, learning plans, learning implementation, benefits of learning outcomes, learning outcome evaluation, the realization of students' potential. Gillies, et al. (2013) emphasize that the most important things to be considered in teaching practice are regarding the learning outcomes and questioning techniques used.

These will lead to effective learning and improve learning readiness and cognitive ability among students. Everything begins with the understanding of the simplest to the most complex ones. Good teaching practice will provide students with the education in critically thinking involving the process of recalling information, handling information, analyzing, making analogy, making interpretations, synthesizing and evaluating. According to the criteria set forth by UNESCO, quality education is the combination between professional teachers with integrity and expertise. Thiessen (2012) stressed that the quality of teacher should be given priority in the effort to develop effective teaching pattern.

The quality of teacher is measured through personal expertise, work performance, motivation, effort and changes in students' behavior. Walker, et al. (2011) suggests that teachers need to improve their delivery quality in order to meet the professional standards. These include working style, teaching practice, and the use of interactive approach in communication. Working quality is the product produced by the workers within a time frame which includes high specialization ability among workers to be able to share working qualities. Teachers are able to avoid the decline of work performance due to burnout by sharing their workload (Hinshaw, Richter, and Kramer, 2010).

Mulyono (2006) and Arikunto (2004) proposed several criteria for competent teachers. They have initiated specific tests in their studies which then were utilized in the current study. These tests were adapted and modified to fulfill the current research objectives. The validation of the items in the test was referred to educational experts in Indonesia. The pilot study was then carried out where Cornbrash Alpha scores indicated that the items were appropriate to be used.

4. OBJECTIVES OF THE STUDY

Following are the main objectives of the study:

- 1) to evaluate the mastery of professional competency among high school teachers as well as to identify the differences based on gender and work experience;
- 2) to identify the level of professional expertise among teachers, focusing on mastery in education foundation, vision, mission and educational objectives, national educational standards;
- 3) to development curriculum, classroom management, usage of media and educational resources; and
- 4) to identify the variances concerning the mastery in professional expertise among teachers, based on gender and work experiences.

5. METHODOLOGY OF THE STUDY

The current study employed test to evaluate the mastery of professional competency among teachers in Chittagong. The test of mastery of professional expertise contains 30 items which were divided into 6 constructs to evaluate mastery in education foundation (5 items), vision, mission and educational objectives (5 items), national educational standards (5 items), curriculum development moves (5 items), classroom management (5 items), and the ability to use media and educational resources (5 items). Sample of this study was selected using simple random technique involving 85 teachers (40 males and 45 females) from various fields in three secondary schools. To validate the face and content validity of the test questions, professional experts are referred. Pilot test was conducted in one secondary school involving 85 teachers. All the items in the expertise level and professional expertise test show high validity and reliability in which the value of Cronbach Alpha is 0.82. This indicates that all items are acceptable and appropriate to be used. Data analysis was performed using descriptive and inferential statistics including the score mean, percentage, ANOVA and MANOVA. To measure the expertise level and professional expertise among teachers, this formula was used:

$$\text{Total Score} = \text{Obtained scores} / \text{Raw score} \times 100$$

Teachers' professional expertise level is measured based on the five level mean scores. Table 1 shows the interpretation of the test scores.

Table 1. Interpretation of the Professional Expertise Test Scores.

Score	Interpretation
0-54	Not competent
55-64	Less competent
65-79	Quite competent
80- 89	Competent
90-100	Very competent

6. FINDINGS AND THEIR ANALYSIS

Overall results indicate that most teachers are quite competent (Table 1). Detailed analyses revealed that teachers are competent in two aspects that are the mastery of education foundation and the mastery of vision, mission and educational objectives.

Table 2. Mastery in professional expertise level among teachers.

Professional Expertise Aspects (n = 327)	Mean	SD	Interpretation
Education foundation	83.49	15.12	Competent
Vision, mission and educational objectives	81.65	15.78	Competent
National educational standards	71.25	26.73	Quite Competent
Curriculum development	65.32	16.92	Quite Competent
Classroom management	60.32	21.09	Less Competent
Usage of media and educational resources	58.10	22.58	Less Competent
Average Mean Score	70.02	19.46	Quite Competent

Level of significance < 0.05

The level of professional competency among teachers generally is satisfactory. This shows that the serving quality among them is a average level. This reveals that the teachers are mastering the professional competency. Results also indicate that teachers are less competent in classroom management and the use of media and educational resources. Past study suggests that a teacher has to be accountable of his duties which will encourage them to work hard and show high sense of responsibilities that they would be proud of their career (Cruickshank et al., 2006).

The result of this study is consistent with the findings of a study by Mustafa M. Nur (2012) in which she reported that the teachers' work performances also were not satisfactory. Recent research carried out by ministry of education, Bangladesh revealed that 55% of the teachers still teaching using lecturing method. The use of modern technology was limited. Hence, it contributed to less productive learning. Teachers have to take various efforts to improve their performance including all the competency elements mentioned. Detailed analyses were carried out to seek differences and commonalities between genders.

Results show that the professional expertise among female teachers is higher than male teachers. Table 3 shows that there are significant differences between genders with regard to the aspects of mastery of education foundation (0.028), mastery of vision, mission and education (0.000), understanding and mastery of national education standards (0.021), mastering and developing curriculum (0.010); however, in terms of the mastery of classroom management and ability to use media and education resources there is no significant difference (0.735) and (0.637) respectively based on gender.

These results are parallel with previous researches such as by Anderson (1990) and Bakalis (2003) which state that female teachers are more committed in the teaching profession

compared to male teachers. Results from this study is also consistent with the research results obtained by Widoyoko (2005) who found that female teachers' professional expertise level is higher than that of the male teachers.

However, the competency in classroom management does not show any variances between male and female teachers in the research carried out by Shullman (1990). Teachers only focus on the delivery of teaching in the classroom towards academic improvement which consequently does not show obvious variances.

Table 3. Mastery of professional expertise level, by gender.

Aspects	Gender	n	Mean	SD	Type III Total Square	df	Mean Square		
Education Foundation	Male	40	81.25	17.02	110.94	1	110.94	4.10	0.028
	Female	45	85.00	13.53	-	-	-	-	-
vision, mission and education objectives	Male	40	75.76	15.73	769.14	1	769.14	34.0	0.000
	Female	45	85.64	14.54	-	-	-	-	-
Understanding and national education standards	Male	40	67.12	25.70	379.38	1	379.38	5.36	0.021
	Female	45	74.05	27.12	-	-	-	-	-
Developing curriculum	Male	40	62.30	19.14	190.4	1	190.4	6.78	0.010
	Female	45	67.31	18.87	-	-	-	-	-
classroom management	Male	40	59.85	20.90	46.29	1	46.29	0.11	0.735
	Female	45	60.61	19.57	-	-	-	-	-
Ability to use media and education resources	Male	40	57.39	22.85	113.99	1	113.99	0.22	0.637
	Female	45	58.59	22.42	-	-	-	-	-

Level of significance < 0.005

Results show that there are no significant variances between genders in terms of classroom management and the use of resources. The mean scores indicate that professionals of both genders are moderately competent in these two aspects.

Table 4. ANOVA analysis within groups:
Mastery of Professional expertise, by working experience.

Professional Competency	r ²	Level of freedom	Mean ²	F	Sig.
Between Group	2018.06	2	1009.0	12.03	0.000
Within groups	27173.47	324	83.87		
Total	29191.53	326			

From the ANOVA analysis in table 4, it is observed that there are significant variances in terms of teachers' professional expertise between groups based on working experience. For more details of the difference, you can see in the table below.

Table 5. MANOVA analysis:
Overall teachers' professional competency level, by working experience.

Work Experience	Work Experience	Mean Difference	Range	Sig.
4-9 years	10-15 years	-2.28	1.15	0.118
	16-25 years	-6.66(*)	1.36	0.000
10-15 years	4-9 years	2.28	1.15	0.118
	16-25 years	-4.38(*)	1.33	0.003
16-25 years	4-9 years	6.66(*)	1.36	0.000
	10-15 years	4.38(*)	1.33	0.003

Level of significance < 0.05

The table 5 shows that there are significant variances in terms of professional expertise based on teachers' working experience. Teachers with 4 to 9 years of working experience compared to those with 10 to 15 years of experience show no significant variance; however, compared to the teachers with 16 to 25 years of working experience there is significant variance. This means that the more experienced teachers, that is, the teachers with over sixteen years of working experience performed the less experienced teachers regarding the mastery of professional expertise. Therefore, as the past studies highlight (Manullang, 2002; Tillman, 2002) the more experienced teachers are, the more competent in professional expertise they are. The data shows that the teachers who have 10 to 16 years of experience also show significant difference compared to the teachers with 16 to 25 years of working experience. The data also indicates that the teachers who have 16 to 25 years of working experience show significant difference (0.003) compared to the teachers with 10 to 16 years of working experience.

7. CONCLUSION

The results show that the female teachers are more competent and professional compared to the male teachers. The study found that the expertise of the teacher can be improved by focusing on initiative, vision in education, high intellectual training, technical and cognitive skills. Lack of teachers' professional competency can be the consequences of the policy of ministry of education as they do not provide sufficient and comprehensive in-service training for teachers. The study implication is that female teachers are more competent a professional in comparison with the male teachers. The current study revealed most teachers lack skills in managing classroom effectively. Thus, there are rooms for improvement for teachers especially in terms of classroom management and the utilization of learning resources. They must be exposed to the best practice of classroom management by visiting other schools either at national or international level. Teachers also need to attend training on the use of various

learning resources. It is important for teachers to have creativity in teaching and carrying out their own-initiative to utilize learning resources. The current study also has an implication for policy makers as data from this study can be used as a guideline in developing short term or long term courses in order to improve educational qualities in Bangladesh. As demographic factors play important roles in developing teachers' professional expertise, any policy made by the Ministry of Education Bangladesh has to take into account demographic variables. Furthermore, it is suggested that to upgrade the expertise level and professional expertise among teachers the schools and the ministry of education should provide special in-service training for the male teachers. Due to the importance of working experience in education, the teachers need to reflect on and get feedback from their own performances in the process of teaching and learning in order to be competent and flexible enough to deal with various teaching and learning situation. Accordingly, the school heads should entrust them with the tasks which demand experience to share with the novice teachers and consequently contribute to students' academic excellence in the schools. The professional competency of teachers is vital. This is because teachers with high professional expertise are able to help the students not only to get the excellent result in the academics, but also they can teach students how to learn in the appropriate way to become the holistic students. Therefore, the ministry of education and schools should have clear policy and long term program to maintain and upgrade the professional expertise of teachers.

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