RESEARCH ARTICLE

PREPARATION AND VALIDATION OF THE QUESTIONNAIRE'S STRUCTURE RELATIONSHIPS BETWEEN TEN MEASURES OF TEACHER ACCOUNTABILITY AS A MEASURE OF TEACHER QUALITY

DARYA MOJARRAD SATTARCHIT
M.A., Islamic Azad Garmsar University, Iran
Email:Sattari2432@gmail.com

ABSTRACT

This study emphasized the value of teacher accountability as the means to help them to be aware of accountability standards in education. . In the process of empirical research, 71 male/female EFL teachers teaching in English language institutes and schools in Gilan province with different academic degrees and different experience were provided with questionnaires of teacher accountability designed and administered to tap their perception toward the mentioned constructs. The items of the questionnaire are categorized into eleven domains. Teacher accountability measuring scale developed by researcher herself and was arranged according to the specifications of related factors. This measure was the only instrument developed for measuring the construct of teacher accountability, Cronbach's alpha was used to measure the reliability of the questionnaire.

Key words: Structural validity, questionnaire, factor analysis, accountability

INTRODUCTION

Research on teacher education especially teacher accountability has become the most-recent watchword in education. The quality of teacher development practices has become a major concern in recent educational discourse, with a growing emphasis on a teacher accountability suggesting that quality should be assessed with reference to students' achievement. Whether and to what extent practices meet this goal is, however, often unclear. Although the quality of teacher development practices cannot be defined in absolute terms, provisional definitions are worth pursuing as long as both teachers and teacher educators acknowledge their usefulness in the regulation of professional empowerment processes. They should serve both to provide a direction to practices and to establish a framework for the assessment of those practices.

Accountability is an important dimension of professionalism. This dimension highlights that the teacher is morally responsive to the student's and parents' needs, as well as responsive to the public through the mechanism of the state. In moral terms accountability can be seen as keeping to ethical standards held by teachers as a group and as individuals. There is no doubt that organizational commitment is an important characteristic of a good and effective teacher which results from very deep faith and loyalty to the institution. Moreover, it's also important for student academic achievement.

Teaching in general, includes teaching English as a foreign language (TEFL) or teaching English as a second language (TESOL) depending primarily on three major elements: the curriculum, the student, the teacher, and on many secondary issues.

According to McNeil et al (1986), commitment has been defined as "The tendency to be involved in positive activities rather than feeling purposeless .In addition, those who are characterized as being committed usually have the ability to set goals for themselves and recognize their own personal value system.

Singh and Billinnsgley (1989) stated that low level of teacher's commitment reduces students'achievement, increases teacher absenteeism and increases teacher turnover, too (move from teaching to another job).

The success of any organization depends primarily on the staff's level of commitment (Oberholster &Taylor, 1999). They added that teachers with low levels of commitment are less faithful to the organization, see themselves as outsiders, do only what enables them to get by, and seem to be more concerned with personal success than with the success of the organization as a whole. In contrast, teachers with high levels of commitment see themselves as an integral part of the organization, what threatens the organization endangers them as well, do their best to perform their duties better, and work for the organization as if it belonged to them. So, there is no doubt that students' level of achievement will be influenced by the teachers' level of commitment. "In order to achieve its goals, any organization needs knowledgeable and experienced people, facilities and financial instruments as well as other factor including trust, commitment and accountability" (Chalbi, 1996, P.147).

In educational institutions, a number of institutional factors have been found to correspond with faculty commitment. For example, Harshbarger (1989) concluded that the congruence of faculty university value was one of the principal factors affecting faculty commitment. Allen(1992),Armon (1995), Graham (1996), and Kawakubo (1988) stated that communication satisfaction, sense of autonomy, and internal locus of control seem to take part in the organizational commitment, while external locus of control apparently plays a negative role.In other educational institutions, positive factors include reduced role ambiguity (Campisano,Cintavey, 1995), teacher empowerment (Homung, 1995; Wu, 1994), clean 1992 organizational mission Varona (1991), and encouragement of innovation, continual professional development, and shared decision making (Veitenheimer, 1993).

On the other hand, some personal factors have been found to influence negatively the organizational commitment of teachers. These include nonalignment of personal and organizational goals and values Menzies (1995), lack of communication and trust Varona high levels of interpersonal conflict Booker (1990), and imposing or (1991) withdrawing conflict resolution style on the part of principals (Hajzus, 1990). So the level of organizational commitment can be enhanced by maximizing the positive factors such as, administrative support, empowerment, collegiality, and a collaborative climate, and minimizing the negative factors such as nonalignment of personal and school goals and values, lack of communication and trust, high level of interpersonal conflict.

Research question

 Are there any statistically significant relationships between ten measures of teacher accountability as a measure of teacher quality (Appendix A).

In order to investigate the above-mentioned research question empirically, the following null hypothesis was put forth:

NH1: There are no statistically significant relationships between ten measures of teacher accountability as a measure of teacher quality (Appendix A).

METHODOLOGY

Participants

To accomplish the purpose of the study, the target population for this study consisted of 71 male and female EFL teachers with different work experience teaching in 11 English institutes and 3 high schools in Gilan province.23 of the participants were male and the rest 48 were female with different age, working experience, working hours and employment type.

According to the teachers' responses to the questionnaires, of the total subjects having participated in the research study, there were 21 MA holders, 27 MA student, and 23 BA holders.

Instrumentation

Considering the subjects of the study, the following instrumentation was developed: Teacher accountability measuring scale developed by researcher herself and was arranged according to the specifications of related factors. The questionnaire has two parts: The first part contains information about the teacher himself include; Name, Age Education, Gender,Teaching experience, Average working hours. Second part has a six-point from 1 (agree) to 6 (completely don't agree) that has been devised based on eleven factors (elements): selfacceptance, self-actualization, self-transcendence, job performance, affective teacher commitment, continuance teacher commitment, normative teacher commitment, autonomy, fairness, organizational support and general questions.

Procedure

This measure is the only instrument developed for measuring the construct of teacher accountability, and in order to examine the psychometric characteristics of teacher accountability questionnaire, the data gathered from the participants was analyzed using SPSS software. The analyses included first running corrected item-total correlation as a measure of item discrimination. Corrected item-total correlation is actually an equivalent measure of point-biserial correlation or classical item discrimination measures; however, corrected item total correlation is specifically used for Likert-scale type items scored on several categories rather than dichotomously scored items.The SPSS software provides the effect of removing items with particular discrimination values on the internal consistency of the scale. In the data analysis here, these values were checked, and those items with low discrimination index were removed. Following the removal of malfunctioning items, Pearson correlation coefficient was computed between the subscales of the questionnaire to see if there are any statistically significant relationships between eleven measures of teacher accountability as a measure of teacher quality. Since these subscales were added to the questionnaire by the researcher herself, high correlation between the subscales would be indicative of the fact that these subscales together are correctly chosen to be considered as different facets of the construct teacher accountability. All the subscales of teacher accountability questionnaire were analyzed at the item level and scale level and some items were removed. The reliability of questionnaires was computed through Cronbach's Aalpha (= .79) which indicates a high reliability.

RESULTS

Questionnaire scale/item analysis

In order to examine the psychometric characteristics of teacher accountability questionnaire, the data gathered from the participants was analyzed using SPSS software. The analyses included first running corrected item-total correlation as a measure of item discrimination. Corrected item-total correlation is actually an equivalent measure of point-biserial correlation or classical item discrimination measures; however, corrected item-total correlation is specifically used for Likert-scale type items scored on several categories rather than dichotomously scored items. The SPSS software provides the effect of removing items with particular discrimination values on the internal consistency of the scale. In the data analysis here, these values were checked, and those items with low discrimination index whose removal resulted in higher Cronbach alpha (i.e. internal consistency) were removed from the scale as psychometrically mal-functioning

DARYA MOJARRAD SATTARCHIT

items. In the following the above-mentioned analyses results are presented for each subscale of the questionnaire.

Self-acceptance sub-scale1

Table 1 provides the descriptive statistics of all the items of the self-acceptance sub-scale.

Table 1: Items descriptive statistics

Item	Mean	Std Dev	Cases
1.	2.3103	1.2313	58.0
2.	3.4310	1.4279	58.0
3.	2.1552	1.4241	58.0
4.	3.2241	1.5451	58.0
5.	3.7069	1.4267	58.0
6.	4.5000	1.2176	58.0
7.	2.8448	1.1668	58.0
8.	4.5517	.9583	58.0
9.	3.8103	1.3039	58.0
10.	3.0690	1.1217	58.0
11.	2.7414	1.4211	58.0
12.	3.2759	1.2676	58.0
13.	3.0172	1.2494	58.0

Table 2 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .72) which could be considered acceptable with regard to the number of the items and participants.

Table 2: Scale statistics before removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
42.6379	65.7438	8.1083	13	.7222

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 3 show that some items are malfunctioning and do not represent the whole battery of the items in the sub-scale since they have item-total correlations below 0.3 (i.e. items 2,6, & 9), the removal of which from the sub-scale results in higher internal consistency or alpha as presented in Table 3.

Table 3: Item-total Statistics

Item	ScaleMean if Item Deleted	Corrected Variance if ItemDeleted	Item-Total Correlation	Alpha if Item Deleted
1	40.3276	57.5224	.3590	.7041

DARYA MOJARRAD SATTARCHIT

2*	39.2069	58.3424	.2458*	.7231*
3	40.4828	55.0962	.4077	.6972
4	39.4138	52.4924	.4852	.6851
5	38.9310	55.8197	.3700	.7024
6*	38.1379	60.6473	.1906*	.7234*
7	39.7931	57.0792	.4142	.6981
8	38.0862	59.5538	.3564	.7063
9*	38.8276	60.1803	.1910*	.7245*
10	39.5690	58.7057	.3362	.7071
11	39.8966	56.0593	.3602	.7038
12	39.3621	55.8140	.4394	.6940
13	39.6207	57.7834	.3369	.7067

Table 4 presents the scale statistics as well as the internal consistency measure of the scale after the malfunctioning items are removed. Evidently, this time alpha .71 which is still acceptable but lower than the alphas before the malfunctioning items were removed. This is, however, natural, since this time the number of items had decreased, and alpha is a positive function of the number of items in the battery.

Table 4: Scale statistics after removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
31.0984	46.8235	6.8428	10	.7104

2)   Self-actualization sub-scale

Tables 5 provide the descriptive statistics of all the items of the Self-actualization sub-scale.

Table 5: Items descriptive statistics

Item	Mean	Std Dev	Cases
1.	4.1600	1.3607	50.0
2.	3.8200	1.3200	50.0
3.	4.6400	.8271	50.0
4.	4.6600	1.2056	50.0
5.	3.8800	1.3192	50.0
6.	2.7800	1.1830	50.0
7.	4.6600	.9392	50.0
8.	2.5000	1.1995	50.0
9.	2.9200	1.2591	50.0
10.	3.0400	1.3242	50.0

DARYA MOJARRAD SATTARCHIT

11.	3.2200	1.3445	50.0
12.	4.2800	1.2296	50.0
13.	3.0200	1.5185	50.0
14.	2.6400	1.3211	50.0
15.	3.5400	1.4316	50.0
16.	4.7400	.9858	50.0

Table 6 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .78) which could be considered acceptable with regard to the number of the items and participants.

Table 6: Scale statistics before removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
58.5000	45.6837	6.7590	16	.7847

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 7 show that some items are malfunctioning and do not represent the whole battery of the items in the sub-scale since they have item-total correlations below 0.3(i.e. items 4, 15, & 16), the removal of which from the sub-scale result in higher internal consistency or alpha as presented in Table 7.

Table 7: Item-total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
1	54.3400	41.8616	.4119	.7809
2	54.6800	40.9567	.47667	.7650
3	53.8600	44.2861	.3648	.7850
4*	53.8400	46.1371	.2164*	.8264*
5	54.6200	39.5873	.5624	.7440
6	55.7200	40.6547	.5406	.7515
7	53.8400	40.0963	.6956	.7290
8	56.0000	38.4490	.6896	.7170
9	55.5800	40.4527	.5276	.7533
10	55.4600	42.7841	.3662	.7912
11	55.2800	38.0016	.6544	.7197
12	54.2200	37.8078	.7209	.7080
13	55.4800	41.1527	.4142	.7826

14	55.8600	40.4494	.5076	.7575
15*	54.9600	45.4269	.2929*	.8319*
16*	53.7600	46.3902	.2250*	.8183*

Table 8 presents the scale statistics as well as the internal consistency measure of the scale after the malfunctioning items are removed. Evidently, this time alpha .82 is even more acceptable than the alpha before the malfunctioning items were removed .

Table 8: Scale statistics after removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
45.7647	47.9835	6.9270	13	.8204

3)   Self-transcendence sub-scale

Tables 9 provides the descriptive statistics of all the items of the Self-transcendence sub-scale.

Table 8: Items descriptive statistics

Item	Mean	Std Dev	Cases
1.	4.4906	1.2029	53.0
2.	4.6604	1.0909	53.0
3.	5.1132	.8696	53.0
4.	4.9623	.8540	53.0
5.	1.6604	1.0909	53.0
6.	1.7925	1.1987	53.0
7.	3.3774	1.5470	53.0
8.	2.3774	1.1305	53.0
9.	5.0000	1.1929	53.0
10.	2.3774	1.5346	53.0
11.	3.0189	1.6348	53.0
12.	1.6604	1.3001	53.0
13.	2.2642	1.2271	53.0
14.	4.8302	1.1724	53.0
15.	3.3396	1.6165	53.0
16.	4.7358	1.1120	53.0
17.	5.2075	1.0258	53.0

Table 10 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .73) which could be considered acceptable with regard to the number of the items and

DARYA MOJARRAD SATTARCHIT

participants.

Table 10: Scale statistics before removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
60.8679	44.5399	6.6738	17	.7341

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 11 show that some items are malfunctioning and do not represent the whole battery of the items in the sub-scale since they have item-total correlations below 0.3 (i.e. items 1, 2, & 14), the removal of which from the sub-scale result in higher internal consistency or alpha as presented in Table 11.

Table 11: Item-total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
1*	56.3774	44.7779	.2047	.7736*
2*	56.2075	44.7061	.2930	.7665*
3	55.7547	44.9579	.4007	.7596
4	55.9057	43.0486	.3680	.7320
5	59.2075	41.3215	.4446	.7173
6	59.0755	39.3788	.5476	.6920
7	57.4906	37.9470	.5203	.6934
8	58.4906	38.6393	.6289	.6747
9	55.8679	41.8476	.3822	.7315
10	58.4906	36.6009	.6007	.6675
11	57.8491	39.2460	.4280	.7233
12	59.2075	39.5907	.4992	.7024
13	58.6038	37.2054	.6894	.6546
14*	56.0377	43.3447	.2116	.7522*
15	57.5283	38.7540	.4576	.7135
16	56.1321	40.4630	.5008	.7048
17	55.6604	42.6132	.3653	.7336

Table 12 presents the scale statistics as well as the internal consistency measure of the scale after the malfunctioning items are removed. Evidently, this time alpha .72 which is still acceptable but lower than the alphas before the malfunctioning items were removed. This is, however, natural, since this time the number of items had decreased, and alpha is a positive function of the number of items in the battery.

DARYA MOJARRAD SATTARCHIT

Table 12: Scale statistics after removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
46.8868	45.7562	6.7643	14	.7213

1)   Job performance sub-scale

Tables 13 provides the descriptive statistics of all the items of the Job performance sub-scale.

Table 13: Items descriptive statistics

	Mean	Std Dev	Cases
1.	1.3231	.5335	65.0
2.	1.4462	.7078	65.0
3.	1.2462	.4687	65.0
4.	1.4154	.7266	65.0
5.	1.2923	.5789	65.0
6.	1.3385	.6194	65.0
7.	1.8615	.7881	65.0
8.	1.4154	.6347	65.0
9.	1.9231	.7966	65.0
10.	1.5846	.7684	65.0
11.	1.8000	.9552	65.0
12.	1.5077	.6643	65.0
13.	1.7077	.8047	65.0
14.	1.5385	.7088	65.0

Table 14 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .86) which could be considered acceptable.

Table 14: Scale statistics before removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
21.4000	35.5562	5.9629	14	.8648

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 15 can show what items are malfunctioning and do not represent the whole battery of the items in the sub-scale if they have item-total correlations below 0.3. As Table 15 demonstrates, no item is malfunctioning, and the removal of no item may lead to higher internal consistency in this scale.

Table 15: Item-total Statistics

Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
20.0769	32.2284	.5024	.8574
19.9538	31.7322	.4167	.8613
20.1538	32.6635	.4989	.8583
19.9846	30.1716	.6085	.8508
20.1077	31.5663	.5619	.8544
20.0615	30.9337	.6152	.8515
19.5385	30.4712	.5130	.8564
19.9846	30.9529	.5947	.8523
19.4769	30.2534	.5327	.8552
19.8154	31.0279	.4600	.8594
19.6000	29.8687	.4573	.8624
19.8923	30.8788	.5737	.8531
19.6923	29.6851	.5957	.8513
19.8615	31.2462	.4805	.8579

2)   Affective Teacher commitment sub-scale

Tables 16 provides the descriptive statistics of all the items of the Affective Teacher commitment sub-scale.

Table 16: Items descriptive statistics

Item	Mean	Std Dev	Cases
1.	4.8548	1.2655	62.0
2.	1.9194	.9632	62.0
3.	1.8226	.9671	62.0
4.	1.9355	.9210	62.0
5.	4.6129	1.4183	62.0
6.	1.7742	.9653	62.0
7.	2.3710	1.4399	62.0
8.	2.1452	.9026	62.0
9.	2.4516	1.3988	62.0

Table 17 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .69) which could be considered acceptable with regard to the low number of the items and participants.

Table 17: Scale statistics before removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
23.8871	18.5936	4.3120	9	.6928

Although the sub-scale's internal consistency is somehow acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 18 show that two items are malfunctioning and do not represent the whole battery of the items in the sub-scale since they have item-total correlations below 0.3 (i.e. items 1& 5), the removal of which from the sub-scale result in higher internal consistency or alpha as presented in Table 18.

Table 18: Item-total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
1*	19.0323	20.0973	.1737*	.7458*
2	21.9677	14.8514	.6791	.5831
3	22.0645	14.2909	.7606	.5499
4	21.9516	15.4238	.6209	.6091
5*	19.2742	19.9728	.1675*	.7656*
6	22.1129	14.7575	.6916	.5779
7	21.5161	13.5653	.5786	.5981
8	21.7419	14.4569	.7840	.5507
9	21.4355	14.8400	.4667	.6616

Table 19 presents the scale statistics as well as the internal consistency measure of the scale after the malfunctioning items are removed. Evidently, this time alpha is .76, which is even more acceptable than the alpha before the malfunctioning items were removed.

Table 19: Scale statistics after removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
19.4000	22.8203	4.7771	6	.7650

3)   Continuance teacher commitment sub-scale

Tables 20 provides the descriptive statistics of all the items of the Continuance teacher commitment sub-scale.

Table 20: Items descriptive statistics

	Mean	Std Dev	Cases
1.	3.6333	1.5727	60.0
2.	2.6167	1.3415	60.0
3.	3.8167	1.5348	60.0

4.	3.2167	1.2900	60.0
5.	2.3333	1.1596	60.0
6.	3.2833	1.5633	60.0
7.	4.1333	1.5673	60.0

Table 21 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .75) which could be considered acceptable with regard to the number of the items and participants.

Table 21: Scale statistics before removing malfunctioning items

Statistics for	Mean	Variance	Std Dev	N of Variables	Alpha
SCALE	23.0333	23.7277	4.8711	7	.7519

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 22 show that one item is malfunctioning and does not represent the whole battery of the items in the sub-scale since it has an item-total correlation below 0.3 (i.e. item 1), the removal of which from the sub-scale results in higher internal consistency or alpha (.76) as presented in Table 22.

Table 22: Item-total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
1*	19.4000	22.8203	-.2042*	.7656*
2	20.4167	17.9760	.6474	.6497
3	19.2167	17.5963	.5932	.6692
4	19.8167	18.5251	.6186	.6661
5	20.7000	21.4678	.3852	.7625
6	19.7500	15.5466	.7654	.5665
7	18.9000	19.2441	.4474	.7466

4)   Normative teacher commitment sub-scale

Tables 23 provides the descriptive statistics of all the items of the Normative teacher commitment sub-scale.

Table 23: Items descriptive statistics

Item	Mean	Std Dev	Cases
1.	4.1129	1.5376	62.0
2.	2.8387	1.4165	62.0
3.	3.4839	1.2898	62.0

DARYA MOJARRAD SATTARCHIT

4.	2.1613	1.1480	62.0
5.	2.8871	1.4038	62.0
6.	2.8387	1.2037	62.0

Table 24 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .78) which could be considered acceptable with regard to the number of the items and participants.

Table 24: Scale statistics before removing malfunctioning items

Statistics for	Mean	Variance	Std Dev	Variables	Alpha
SCALE	18.3226	18.0582	4.2495	6	.7842

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 25 show that some items are malfunctioning and do not represent the whole battery of the items in the sub-scale since they have item-total correlations below 0.3 (i.e. item 1), the removal of which from the sub-scale results in higher internal consistency or alpha (.88) as presented in Table 25.

Table 25: Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
1*	14.2097	18.5619	.1165*	.8838*
2	15.4839	12.2538	.6830	.6559
3	14.8387	11.5473	.8529	.5641
4	16.1613	13.2195	.7218	.6561
5	15.4355	13.5613	.5443	.7388
6	15.4839	13.8604	.6067	.7092

5)   Teacher's autonomy sub-scale

Tables 26 provides the descriptive statistics of all the items of the Teacher's autonomy sub-scale.

Table 26: Items descriptive statistics

		Mean	Std Dev	Cases
1.	AU1	2.9242	1.5223	66.0
2.	AU2	2.8485	1.4277	66.0
3.	AU3	3.6061	1.6161	66.0
4.	AU4	2.7121	1.2742	66.0

Table 27 also provides the descriptive statistics of the whole sub-scale along with its internal consistency

measure (i.e. alpha = .86) which is acceptable with regard to the number of the items and participants.

Table 27: Scale statistics before removing malfunctioning items

Statistics for	Mean	Variance	Std Dev	Variables	Alpha
SCALE	12.0909	24.6070	4.9605	4	.8678

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 28 can show what items are malfunctioning and do not represent the whole battery of the items in the sub-scale if they have item-total correlations below 0.3. As Table 28 demonstrates, no item is malfunctioning. It should be noted item 3 is of acceptable item discrimination; however, removing this item from the test results in higher internal consistency in the scale. This is not done though, since there are only a few items in this subscale and the internal consistency of the scale is, nevertheless, acceptable even when this item is not removed.

Table 28: Item-total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
1	9.1667	13.4641	.7900	.8011
2	9.2424	13.5711	.8554	.7758
3	8.4848	14.9921	.5596	.9018
4	9.3788	15.7774	.7119	.8376

6) Teacher's fairness sub-scale

Table 29 provides the descriptive statistics of all the items of the Teacher's fairness sub-scale.

Table 29: Items descriptive statistics

Item		Mean	Std Dev	Cases
1.	F1	3.7705	1.2961	61.0
2.	F2	4.4098	1.5316	61.0
3.	F3	4.3115	1.3969	61.0

Table 30 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .81) which is acceptable.

Table 30: Scale statistics before removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
12.4918	13.0874	3.6177	3	.8149

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item

discrimination) presented in Table 31can show what items are malfunctioning and do not represent the whole battery of the items in the sub-scale if they have item-total correlations below 0.3. As Table 31demonstrates, no item is malfunctioning. It should be noted item 1 is of acceptable item discrimination; however, removing this item from the test results in higher internal consistency in the scale. This is not done though, since there are only a few items in this subscale and the internal consistency of the scale is, nevertheless, acceptable even when this item is not removed.

Table 31: Item-total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
F1	8.7213	7.5377	.5438	.8598
F2	8.0820	5.6765	.6940	.7206
F3	8.1803	5.8503	.7822	.6238

7)   Teacher's organizational support sub-scale

Table 32 provides the descriptive statistics of all the items of the Teacher's organizational support sub-scale.

Table 32: Items descriptive statistics

Item	Mean	Std Dev	Cases
1.	3.2759	1.4116	58.0
2.	2.8621	1.3172	58.0
3.	3.3103	1.4043	58.0
4.	3.0862	1.4053	58.0
5.	3.2069	1.3476	58.0
6.	3.7414	1.3187	58.0
7.	3.8276	1.3395	58.0
8.	3.7069	1.3638	58.0
9.	3.2586	1.3053	58.0
10.	4.0000	1.2704	58.0
11.	3.1379	1.1765	58.0

Table 33 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .62) which could be considered almost acceptable with regard to the low number of the items and participants.

Table33: Scale statistics before removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
37.4138	19.0889	4.3691	11	.6287

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 34 show that some items are malfunctioning and do not represent the whole battery of the items in the sub-scale since they have item-total correlations below 0.3 (i.e. items 5, 6, 8, & 10), the removal of which from the sub-scale result in higher internal consistency or alpha as presented in Table 34.

Table 34: Item-total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
1	34.1379	14.9631	.4953	-.5953
2	34.5517	16.5324	.3767	-.6886
3	34.1034	17.0417	.3065	-.6373
4	34.3276	16.9259	.3163	-.6450
5*	34.2069	20.7985	.1868*	.7618*
6*	33.6724	19.2066	.2606*	.6786*
7	33.5862	14.7030	.5523	-.5334
8*	33.7069	19.8950	.1191*	.7211*
9	34.1552	15.5720	.4760	-.7649
10*	33.4138	19.0889	-.2454*	.6650*
11	34.2759	16.6594	.4088	-.7029

Table 35 presents the scale statistics as well as the internal consistency measure of the scale after the malfunctioning items are removed. Evidently, this time alpha is .74, which is even more acceptable than the alpha before the malfunctioning items were removed.

Table 35: Scale statistics after removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
22.7586	34.5372	5.8768	7	.7425

8) General questions about teacher accountability

Tables 36 provides the descriptive statistics of all the items of the general questions sub-scale.

Table 36: Items descriptive statistics

Item	Mean	Std Dev	Cases
1.	4.1270	1.4424	63.0
2.	4.2857	1.4416	63.0
3.	3.9048	1.3040	63.0

DARYA MOJARRAD SATTARCHIT

4.	3.1746	1.5610	63.0
5.	3.9524	1.5906	63.0
6.	4.4921	1.3663	63.0
7.	4.7937	1.1382	63.0
8.	3.3016	1.4988	63.0
9.	4.1429	1.2425	63.0
10.	3.3968	1.4204	63.0
11.	4.3968	1.2253	63.0
12.	4.0000	1.4028	63.0

Table 37 also provides the descriptive statistics of the whole sub-scale along with its internal consistency measure (i.e. alpha = .83) which is acceptable.

Table 37: Scale statistics before removing malfunctioning items

Mean	Variance	Std Dev	N of Variables	Alpha
47.9683	100.0958	10.0048	12	.8374

Although the sub-scale's internal consistency is acceptable, item-total correlation measures (i.e., item discrimination) presented in Table 38 show that item 10 is malfunctioning and does not represent the whole battery of the items in the sub-scale since it has item-total correlations below 0.3, the removal of which from the sub-scale result in higher internal consistency or alpha (alpha = .85) as presented in Table 38.

Table 38: Item-total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
1	43.8413	88.0067	.3698	.8352
2	43.6825	80.1879	.6906	.8094
3	44.0635	83.8991	.6068	.8173
4	44.7937	88.1987	.3227	.8402
5	44.0159	83.3707	.4887	.8264
6	43.4762	83.8664	.5739	.8193
7	43.1746	85.6948	.6219	.8180
8	44.6667	85.6129	.4412	.8299
9	43.8254	85.3722	.5740	.8201
10*	44.5714	94.2488	.1389*	.8520*
11	43.5714	82.2488	.7355	.8089
12	43.9683	83.5151	.5700	.8195

In sum, all the subscales of teacher accountability questionnaire were analyzed at the item level and scale level and some items were removed. The revised version of this questionnaire based on all the above analyses is provided in Appendix B.

Investigating question 1: relationships between ten measures of teacher accountability

In order to investigate whether there are any statistically significant relationships between ten measures of teacher accountability as a measure of teacher quality, Pearson correlation coefficient was computed between the subscales of the questionnaire. Table 41 provides the descriptive statistics on the subscales. As the skewness values are between the acceptable range (i.e. -1 and 1) to meet the assumption of normality, Pearson correlation could be computed between different measures of teacher accountability.

Table 39: Mean and standard deviation scores on eleven measures of teacher accountability

	N	Min	Max	Mean	Std	Skewness
self-acceptance	71	11.00	54.00	30.4930	7.11110	.027
self-actualization	71	28.00	83.00	45.3944	8.25224	.941
self-transcendence	71	32.00	111.00	47.2817	10.44876	.993
job performance	71	2.00	38.00	21.3380	6.55078	.126
affective teacher commitment	68	6.00	73.00	15.3676	8.60736	.959
continuance teacher commitment	69	6.00	29.00	18.8696	4.88670	-.292
normative teacher commitment	68	5.00	69.00	14.7500	7.95205	.820
teacher's autonomy	67	4.00	24.00	12.0746	4.92462	.385
teacher's fairness	65	3.00	18.00	12.1231	3.85076	-.303
teacher's organizational support	66	1.00	37.00	21.6364	6.94957	-.232
general questions	67	24.00	63.00	44.1343	9.77922	-.009
Valid N (listwise)	0					

Table 42 presents the Pearson correlation coefficients computed between different measures of teacher accountability. Significant correlations are marked with asterisk in Table 42 (i.e. double asterisk = large effect size; single asterisk = medium effect size). Evidently, not all these coefficients are significant. In an order of largest to smallest, the significant correlations exist between:

1)   self-acceptance and general questions about teacher accountability (-.541**)

2)   self-acceptance and self-transcendence (.459**)

3)   job performance and general questions about teacher accountability (-.438**)

4)   self-actualization and normative teacher commitment (.433**)

5)   job performance and affective teacher commitment (.379**)

6)   self-transcendence and general questions about teacher accountability (-.346**)

7)   teacher's autonomy and teacher's organizational support (.338**)

8)   self-acceptance and continuance teacher commitment (-.306*)

9)   teacher's autonomy and teacher's fairness (.272*)

10)   job performance and teacher's fairness (-.268*)

11)   self-acceptance and normative teacher commitment (-.261*)

Table 40: Correlations Pearson

	self-acceptance	self-actualization	self-transcendence	job performance	affective teacher commitment	continuance teacher commitment	normative teacher commitment	teacher's autonomy	teacher's fairness	teacher's organizational support	general questions
self-acceptance		-.155	.459(**)	.175	.221	-.306(*)	-.261(*)	.061	.114	.029	-.541(**)
p		.197	.000	.145	.070	.011	.032	.622	.366	.819	.000
N		71	71	71	68	69	68	67	65	66	67
self-actualization			.125	-.041	-.047	-.061	.433(**)	-.055	-.115	.037	.037
p			.297	.734	.705	.621	.000	.657	.361	.769	.766
N			71	71	68	69	68	67	65	66	67
self-transcendence				.120	.090	-.191	-.015	.174	.126	.172	-.346(**)
p				.319	.466	.116	.903	.159	.319	.168	.004
N				71	68	69	68	67	65	66	67
job performance					.379(**)	.177	.037	.026	-.268(*)	-.184	-.438(**)
p					.001	.145	.764	.836	.031	.138	.000
N					68	69	68	67	65	66	67
affective teacher commitment						.041	.123	.122	.037	-.184	-.195
p						.737	.320	.329	.774	.143	.116
N						68	67	66	64	65	66
continuance teacher commitment							.133	.044	.146	-.180	.094
p							.279	.723	.246	.148	.452
N							68	67	65	66	67
normative teacher commitment								-.057	.220	.137	.069
p								.646	.078	.273	.580
N								67	65	66	66
teacher's autonomy									.272(*)	.338(**)	-.102
p									.028	.006	.419
N									65	66	65
teacher's fairness										.282(*)	-.001
p										.023	.995
N										65	63
teacher's organizational suppose											.100
p											.432
N											64

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Summary of the results

The data analyses of this study revealed some important findings a recap of which is as follows:

1. This study contributed to the current literature in the area of teacher accountability by providing a newly devised and statistically analyzed and validated questionnaire on teacher accountability. This questionnaire's content was basically based on several other measures of teacher quality which were hypothesized to have contribution to teacher accountability.

2. The analysis of correlations between different measures of teacher accountability included in this questionnaire revealed significant correlations between

    a. self-acceptance and general questions about teacher accountability
    b. self-acceptance and self-transcendence
    c. job performance and general questions about teacher accountability
    d. self-actualization and normative teacher commitment
    e. job performance and affective teacher commitment
    f. self-transcendence and general questions about teacher accountability
    g. teacher's autonomy and teacher's organizational support
    h. self-acceptance and continuance teacher commitment
    i. teacher's autonomy and teacher's fairness
    j. job performance and teacher's fairness
    k. self-acceptance and normative teacher commitment

3. Comparison of the participants' mean scores on different sub-scales of accountability with the mean of the population reveled that,

    a. The participants' teacher accountability means were significantly smaller than the population mean on the sub-scales: self-acceptance, job performance, affective teacher commitment, continuance teacher commitment, normative teacher commitment, teacher's autonomy, and teacher's organizational support.

    b. The participants' teacher accountability means were significantly larger than the population mean on the sub-scales teacher's fairness and general questions about teacher accountability.

DISCUSSION

This study contributed to the current literature in the area of teacher accountability by providing a newly devised and statistically analyzed and validated questionnaire on teacher accountability. This questionnaire's content was basically based on several other measures of teacher quality which were hypothesized to have contribution to teacher accountability .

Based on the findings of the study, the researcher arrived at the following conclusions: The analysis of correlations between different measures of teacher accountability included in this questionnaire revealed significant correlations between

    A. self-acceptance and general questions about teacher accountability
    B. self-acceptance and self-transcendence
    C. job performance and general questions about teacher accountability
    D. self-actualization and normative teacher commitment
    E. job performance and affective teacher commitment
    F. self-transcendence and general questions about teacher accountability
    G. teacher's autonomy and teacher's organizational support
    H. self-acceptance and continuance teacher commitment
    I. teacher's autonomy and teacher's fairness
    J. job performance and teacher's fairness
    K. self-acceptance and normative teacher commitment

DARYA MOJARRAD SATTARCHIT

Implications of the study

The findings of the present study can be implicated in ESL/EFL teaching practice from several aspects. This study emphasized the value of teacher accountability as the means to help them to be aware accountability standards in education and also it can be useful for teacher in studying and being taught. And school leaders can use the questioner for evaluating teachers that how much they are committed to their work.

REFERENCES

Allen, M. W. (1992). Communication and organizational commitment: Perceived organizational support as a mediating factor, *Communication Quarterly, 40 (4),* 357-367. ERIC Abstract NO. EJ451318.

Armon, J. M. (1995). Factors that influence faculty organizational commitment in higher education. *Abstract from Pro Quest File: Dissertation Abstracts International Item:56/03.*

Ary, D., Jacobs, L. C., & Rezavish, A. (1996). *Introduction to research in education (5th ed.).*Harcourt Brace.

Booker, R. T. (1990). A study of conflict, attributed conflict resolution, teacher activity, and commitment in senior high school. *Abstract from: Pro Quest File: Dissertation Abstracts International Item: 51/ 09.*

Campisano, F. A. (1992). A theoretical model for the effects of the school work environment in Jesuit high schools**.** *Abstract from: Dissertation Abstracts International Item: 54-10.*

Celep, C. (2001). *Teachers' Organizational Commitment in Educational Organizations.*

Chalpi, Masood, (1996). *Order Sociology, Tehran:* Nei Publication.

Cintavey, K., O. (1995). Outcome- Or Performance-based Education and Organizational Commitment: A predictive Study of Educational Change on Kindergarten through Twelfth Grade Public School Teachers. *ERIC NO: AAC 9535857.*

Day, C. (2004). *A Passion for Teaching.* London: Routledge Falmer.

Elliott, B., & Crosswell, L. (2001). *Commitment to teaching: Australian perspectives on the interplays of the professional and the personal in teachers' lives.* Paper presented at the International Symposium on Teacher Commitment at the European Conference on Eduactional Research, Lille, France.

Fried, R. L. (1995). The Passionate Teacher: A Practical Guide. Boston, Mass.: Beacon Press.

Graham, K. C. (1996). Running ahead: Enhancing teacher commitment. Journal of Physical Education, Recreation, and Dance, 67(1), 45-47. Abstract from: ERIC NO: EJ23869.

Hajzus, T. J. (1990). Conflict resolution styles attributed to principals and organizational commitment of secondary teachers in the context of differing problem situations**.** Abstract from: Pro Quest File: Dissertation Abstracts International Item: 51/06.

Harshbarger, D. B. (1989). Assessing faculty commitment at four doctoral- granting universities. Abstract from: ProQuest File: Dissertation Abstracts International Item:49/ 08.

Homung, C. S. (1995). The relationship between conflict resolution style, level of conflict, commitment and teacher empowerment. Abstract from: Pro Quest File: Dissertation Abstracts International Item: 59/ 07.

Howitt, D., & cramer, D. (2000). An introduction to statistics in psychology (2nded.). Essex, UK: Prentice Hall

Hoy, W. k., Tarter, C. J., & Kottkamp, R. B. (1991). Open schools, health schools. Newbury Park: Sage Production.

Kawakubo, M. K. (1988). Perception of authority, control, and commitment in Japanese organizations. Abstract from: ProQuest File: Dissertation Abstracts International Item: 49/ 01.

McNeil, K., Kozma, A., Stones, M. J., & Hannah, E. (1986). Measurement of psychological hardness in older adults. Canadian Journal on Aging.5 (1), 43– 48.

Menzies, T. V. (1995). Teacher commitment in colleges of applied arts and technology: Sources, objects, practices, and influences. Abstract from: ProQuest File: Dissertation Abstract International Item: 57/ 04.

Nias, J. (1996). Thinking about Feeling: The emotions in Teaching. Cambridge Journal of Education, Vol.26, 3, pp. 293-306.

Oberholster, F. R., & Taylor V, J. W. (1999). Spiritual Experience and Organizational Commitment of College Faculty. Unpublished master's thesis, Adventist International Institute of Advanced Studies, Silang, Cavite, Philippines Vol. 2, No. 1, Pp. 57– 78. Open University press.

Saatchi, M., Kamkari, K., & Asgariyan, M. (2010). Job Performance Questionnaire Paterson. Edition publication.

Seliger, H. W., & Shohamy, E. (1989). Second language research methods. Oxford: Oxford University Press.

Singh, K., & Billinnsgley, B. S. (1998). Professional support and its effects on teachers' commitment. Journal of Educational Research, 91 (4), 229-239.

Varona, F. (1991). Communication satisfaction and organizational Commitment. Abstract from: ProQuest File: Dissertation Abstracts International Item: 53/ 09.

Veitenheimer, J. R. (1993). Employee– organizational linkages:Teacher and principal organizational commitment in high performing and low performing elementary schools. Abstract from: ProQuest File: Dissertation Abstracts International Item: 54/04.

Wilbert D. Hawkins. (1998). Predictors of affective organizational commitment among high school principals. April 7, 1998 Blacksburg, Virginia.

Appendix A

Accountability Questionnaire (English)

Dear fellow Thanks for taking time to give us. The following comments about teacher accountability have been, please carefully read each of the sentences. Then what you do and you believe it and, not as you think but everything you believe to the job of choosing one of the options completely agree, agree, approximately agree, approximately disagree, disagree, and completely disagree expression.

Name   Age   Education   Gender

Teaching experience   Average working hours

NOTE: CA=completely agree, A=agree, AA=approximately agree, AD=approximately disagree, A=disagree , CD=completely disagree

Self-acceptance   CA   A   AA   AD   A   CD

1. Often I cannot feel my impact on others.
2. I accept myself as very low.
3. I often find myself involved in some activities being precious to show to others.
4. Issues are meaningful to me when I asked to be in order.
5. The problem comes,I get confused easily.
6. Comprehensive cover of my dreams has priority over everything.
7. Often do not recognize that I have a lot of choices in any situation.
8. I'm living in dull conditions.
9. There are many things I have to do it, which have been doing a bit of attention.
10. I do a lot of things that prefer do not them.

DARYA MOJARRAD SATTARCHIT

Self-actualization

1. I feel completely free .
2. I feel inner peace, even at busy time.
3. I do things that I have accepted it and I accept them.
4. I open myself to the unpleasant decisions without having to think about them too much.
5. I get distracted easily, even when I am doing something that I enjoy.
6. I have many good ways to deal with my own.
7. I'm not in any position to make the right decision./
8. I do most of the work that I have to do them.
9. I do not have to decide when to rely on feelings.
10. It is difficult to start anything because I do not know the consequences.
11. I have the feeling of freedom.
12. Feel free to have a problem when I have no choice.
13. Usually, I do not know what is important in various situations.

Self-transcendence

1. I believe that there is a reason to live.
2. Personally, I feel that I have benefited from the work that I do.
3. There is nothing good in my life.
4. There is nothing in my life that I really committed myself to it.
5. My life is a good life for no reason.
6. I can barely understand it, what are the things that concerns me is my life.
7. Always eager to know what the future will bring for me.
8. Life has betrayed me because of my desire not to be feasible.
9. It is very hard for me to imagine myself anywhere else.
10. I wish I did not exist.
11. I cannot establish connection with the things I need to do.
12. When I'm sick, I do not know what I do.
13. I think that my life has meaning premier of my personal interests.
14. I know there are things in the world that is beyond my understanding.

Job Performance Questionnaire

1. I accepted the job, responsibility, and I know the consequences for their.
2. Unsupervised superior (manager) would work honestly.
3. I would be respectful with students and try to fix their problems.
4. I've been working on for the achievement of results and confident I follow.
5. I am in earnest, it is worth keeping, and I try to work on problems.
6. I am sympathetic towards my job and I try to give it the desired quality.
7. Emergency arises, or when human issues are discussed, from the point of sacrifice.
8. I strive to increase my professional knowledge.
9. Accept my mistakes.
10. I respect my colleagues and to respect their rights and to have a sense of cooperation.
11. I'm trying to pass on information on my career.
12. I refrain useless waste of time and tasks in the classroom
13. Means of work and care in their use would save.
14. I follow orders, and administrative regulations.

Affective Teacher Commitment

1. I do not feel like part of a family at school.
2. I feel emotionally attached to school.

3. Working at school has a great deal of personal meaning for me.
4. I feel a strong sense of belonging to school.
5. School does not deserve my loyalty.
6. I am proud to tell others that I work at school.
7. I would be happy to work at school until I retire.
8. I really feel that any problems faced by school are also my problems.
9. I enjoy discussing school with people outside of it.

Continuance Teacher Commitment

1. I am not concerned about what might happen if I left (name of school) without having another position lined up.
2. It would be very hard for me to leave (name of school) right now, even if I wanted to.
3. Too much in my life would be disrupted if I decided I wanted to leave (name of school) now.
4. It wouldn't be too costly for me to leave (name of school) now.
5. Right now, staying with (name of school) is a matter of necessity as much as desire.
6. One of the few, serious consequences of leaving (name of school) would be the scarcity of available alternatives.
7. One of the reasons I continue to work for (name of school) is that leaving would require considerable sacrifice–another organization may not match the overall benefits I have here.

Normative Teacher Commitment

1. I do not feel any obligation to remain with (name of school).
2. Even if it were to my advantage, I do not feel it would be right to leave (name of school) now.
3. I would feel guilty if I left (name of school) now.
4. (Name of school) deserves my loyalty.
5. It would be wrong to leave (name of school) right now because of my obligation to the people in it.
6. I owe a great deal to (name of school).

Autonomy

1. Within the bounds of any applicable school board policy and applicable laws, I have freedom to act on student issues.
2. I have reasonable freedom to make decisions about instructional issues in the school in which I am employed.
3. I have reasonable freedom to manage the fiscal affairs of my school.
4. I have freedom to direct student activities in the school in which I am employed.

Fairness

1. I believe that rules and procedures are administered fairly by school district leaders.
2. District resources are allocated without favoritism.
3. I trust my school district to make decisions on my behalf.

Organizational Support

1. I receive support from my school district when I have to make tough, unpopular decisions.
2. My school district shows concern for the needs which I express regarding the school at which I work.
3. My school district appreciates any extra time and effort that I spend to do efficient and effective work
4. School / institution values my contributions to its well-being
5. School / institution really trying to improve my life.
6. School / Institute notice to my satisfaction in the work environment.
7. School / institution admire my achievements.

General question

1. Usually do not think too deeply about things.
2. I often don't feel satisfaction, even after a lot of work to do.
3. I always controlled by the expectations of others.
4. I do not have enough time for the things that are important.
5. Rarely do I have to do I prioritize.
6. I rarely think about the consequences before doing my job.
7. I haven't ever known my main tasks.
8. There are times when I feel completely helpless.
9. I do a lot of things without knowing enough about them.
10. Sense of fragmentation (pressure) because I'm getting a lot of work to do in that department.
11. Even when important work I do, I do not have the perseverance to finish it.
12. I do not want to do a lot of things actually.