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A Correlational Study of Teachers' Conceptions of Assessment and Students' Academic Achievement at Secondary Level

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Abstract:

Present study aimed at the investigation of teachers' conceptions of assessment and their possible impact on students' academic achievement at secondary level. A total of 298 teachers completed the survey form asking conceptions of assessment from four districts of the Lahore division. Conceptions of assessment survey developed by Brown, Hui, Flora & Kendy., (2011) was used to collect data regarding teachers' conceptions of assessment. Students' scores in the subject of English assessed and announced by the board of intermediate and secondary education (BISE) Lahore were used as a measure of students' academic achievement. Data was analyzed using AMOS and SPSS (standard deviation, correlation and regression analysis). Teachers showed strong agreement towards improvement and school accountability conceptions. However, strong disagreement was found towards "assessment is irrelevant" conception of assessment. Conceptions were found mutually related. Results showed conceptions as significant predictors of students' academic achievement at secondary level. The study made a contribution to the understandings of school teachers regarding purposes of assessment and their impact on students' achievement in the context of secondary schools governed by the Govt. of Pakistan. The obtained results have significant implications for teacher education programs and assessment policies working for schools at secondary level.

Keywords: Conceptions of Assessment, Assessment Practices Inventory, Secondary Education

I. Introduction

Teachers' beliefs included beliefs about learners and learning, teaching, subjects or curriculum, learning to teach and about one's self. Scholars in education argue that student-teachers bring different beliefs to the teacher education programs and practice these after being employed in various teaching disciplines (Calderhead, 1996). In the present era, there is a focus to shift from traditional to constructivist approaches to teaching (Lord, 1999; Khalid & Azeem 2012), for which teachers' role is important. The success or failure of any introduced intervention depends upon teachers based on necessity of teachers' practices required to meet success (Prawat, 1992; Richardson, 1996). Studies exploring the process of transition from traditional to transformative practices found that success becomes possible through introducing change in teachers'

beliefs (Senger, 1992; Peterman, 1993; Brown et al., 2011). Therefore, it is necessary to explore belief and conceptions which teachers and students hold about knowledge, learning, teaching and assessment (Zawwal and Otting, 2013; Brown et al., 2011) in order to maximize the output of modern practices (Prawat, 1992; Richardson, 1996). Beliefs share a major part to shape a teacher's teaching practice and student's learning (Fang, 1996; Levitt, 2002; Olafson & Schraw, 2006), so it is vital to explore their features, content and the expressions (Turner, Christensen & Meyer; Richardson, 1996). Brown and Gao (2015) described conceptions as a person's philosophy, belief and attitudes towards something. It includes thinking about the concept, structure and objective behind some entity.

A major event in the educational process is assessment whose value is well established not only for teachers but also for the policy makers. The obvious purpose behind its establishment is its use to audit the performance of students as well as teachers regarding teaching and learning process (Danielson, 2008; NCLB, 2001). Policies regarding assessment are developed to bring teaching learning processes under administrative standards. However, the level of their employability in schools depends on the meanings and conceptions teachers possess regarding these policies (Brown, 2004). In order to measure teachers' conceptions about assessment, actual purpose behind an assessment events are investigated (Brown, 2008; Black and William, 1998). The literature showed three different purposes for which the assessment events were arranged (Black & William 1998; National Research Council, 2001; Torrance & Pryor, 1998). These include improvement, accountability of schools and accountability of students. Another fourth purpose was observed among teachers that assessment is irrelevant for teaching learning process. This purpose has been named as irrelevance (Shohamy, 2001).

According to Brown, Harris and Harnett (2012), the objectives and intentions regarding assessment develop teachers' perception for assessment. Teachers' conceptions regarding assessment can be categorized into four segments naming; a) Assessment improves teaching and learning b) Assessment makes students accountable for learning c) Assessment makes schools and teachers accountable and d) Assessment is irrelevant (Brown, 2002; Torrance & Pryor, 1998; Brown & Hirchfeld, 2005). From these conceptions, three can be categorized as purposes and fourth irrelevance as anti-purpose (Brown & Hirchfeld, 2008; Shohamy, 2001).

A. Improvement Conception

Conception of assessment with a particular focus on improvement in teaching and learning is concerned with the use of assessment data for introducing effective changes in teaching methodologies and providing effective feedback to the students. It is done through identification of deficiencies in students' learning. Classroom instructions are given to achieve predetermined learning goals. The students are corrected for their misunderstanding related to the contents taught and future teaching planning is done accordingly (Brown et al., 2011; Black & Wiliam, 1998; Brookhart, 2004; Hattie & Timperley, 2007).

B. Accountability conception

To exercise assessment with the purpose of school accountability actually reflects pressure on the part of school administration in order to show quality of instructions through assessment results. Schools are made accountable before

government, parents and taxpayers for the transparency and quality of instructions within school whereas results become catalyst for introducing change in instructions leading to school improvement (Smith & Fey, 2000; Linn, 2000; Brown et al., 2011).

C. Irrelevance

Irrelevance conception is based on the view that assessments which are external do not provide transparent results thus leading to no important information which can bring improvement in teachers (Shohamy, 2001). According to this conception, assessment is taken as an artificial event arranged to assess students' learning which is not so fruitful. Teacher is viewed as more capable of understanding students' learning and appropriate methodology manifested as a result of teacher student interaction (i.e., Airasian's (1997) `sizing up' as cited in Brown, 2004). It may also be a threat to teachers' professional autonomy whereas becomes hindrance in the process of teaching (Dixon, 1999 as cited in brown, 2004).

Effect of conceptions on students' academic achievement is an important area that needs to be explored in order to identify their significance. Meta-analysis of studies was conducted to explore the influence of teacher related characteristics on students' achievement. The results were found non-significant and inconclusive (Druva & Anderson, 1983). In order to bring constructive change in system of assessment it is necessary to address teachers' conceptions regarding assessment. Studies have found teachers' conceptions as robust indicators of their practices (Brown, 2009).

Teachers' conceptions are important as these affect the attitude and behavior as a result (Levin, 2015). Once developed, these conceptions work as filters through which all of the related actions pass (Grossman, Wilson, Shulman, 1989; Nespor, 1987; Pajares, 1992; Skott, 2015). Conceptions of assessment are considered to be context specific. Countries with similar policies are assumed to be similar in exercising conceptions of assessment (Hamilton Healy, Dunstan, Zderic and Owen, 2008; Brown, lake and Matters, 2011; Brown and Gao, 2015). The case is unlike for the regions having different policies and socio-cultural roots / background (Brown, Hui, Flora & Kennedy, 2011; Larenas, 2013). Following the assumption different models of teachers conceptions of assessment were developed in various regions including Spain (Remesal (2011), China (Brown et al., (2011) and India (Brown, Chaudhary and Dhamija, 2015).

According to Brown (2004), teachers' conceptions of assessment can be understood in terms of their agreement or disagreement with four purposes to which assessment can be exercised , specifically, (a) improvement of teaching and learning, (b) school accountability, (c) student accountability, or (d) treating assessment as irrelevant. In view of Brown, Hui and Kennedy (2011), policy priorities and systems of examination as low stake or high stake have major impact on the development of teachers' conceptions.

Literature found significant relations between assessment activities and student achievement (Crooks, 1988). Recently, Brown and Heirchfeld (2007) studied secondary school students' conceptions of assessment and their achievement in mathematics. They found positive links between "accountability" conception of assessment and students 'performance. On the other hand, students having conception that assessment is fun and assessment is ignored were found to be negatively related to their scores in mathematics.

Following up, same authors studied the concept in (2008), exploring the impact of conceptions on students' achievement in different domain as reading comprehension. Positive relationship was found between self-reported conceptions of students' and their academic achievement. The study confirmed the findings of previous work of authors reported in 2007 for the subject of mathematics.

Work on teachers' conceptions of assessment is a phenomena of interest found researchers' attention in the last few decades. Scholars argued the need to explore teachers' conceptions in various regions in order to develop the domain. Gap was also found regarding exploration of the impact of teachers' conceptions on students' achievement. The respective classification of beliefs is of great importance for effective teaching practices and student learning outcomes. Therefore, a research project titled as "Effect of Teachers' Conceptions of Learning and Assessment on Students' Academic Achievement at Secondary Level" has been conducted.

D. Purpose of the Study

- The first purpose of the study is to explore the nature of conceptions regarding assessment as possessed by school teachers at secondary level. These conceptions may be explored through identifying teachers' agreement or disagreement to the four purposes of assessment.
- The second purpose is the investigation of any relationships among different conceptions of assessment as held by secondary level teachers. For the measurement of this purpose, Pearson correlation may investigate the possible relations among conceptions.
- The third purpose of the study is to identify the effect of teachers' conceptions of assessment on students' academic achievement. Regression analysis using structural equation modelling can be used to explore the significant impact on students' achievement.

E. Research question 1

- What is the nature of teachers' conceptions regarding assessment working at secondary level?
    - Can teachers' conceptions of assessment be explained regarding purposes of assessment encompassing improvement, accountability and irrelevance?
- Are teachers' conceptions of assessment mutually related?
    - Is there any relationship between teachers' conceptions of assessment?
- Do teachers' conceptions of assessment effect students' academic achievement?
    - Can teachers' conceptions of assessment predict students' academic achievement at secondary level?

II. Methods

A. Sample of the study

Secondary school teachers' conceptions and their effect on students' academic achievement was explored through descriptive correlational survey. The study was conducted in four districts of Lahore division. A total of 298 teachers completed the survey forms after missing value analysis using maximization modeling method and removing the forms completed less than 90%. Stratified sampling was used for the selection of sample (Lahore, Sheikhupura, Kasur & Nankanasahib). A total of 296

schools participated in the study using proportion of 50% of the total schools in each district.

B. Data collection and analysis procedure

Data was collected after getting formal permissions from DPI (director public instructions) schools and DEOs (district education officers) of the sampled districts. Survey forms were administered to the teachers of high schools. Data was obtained through personal visits and help of research assistants. Data regarding students' academic achievement was taken from the concerned school offices and was analyzed using descriptive, correlational and regression analysis techniques through SPSS and AMOS softwares.

C. Instrumentation

For the measurement of teachers' conceptions of assessment, a valid and reliable scale "Conception of Assessment Survey" (COA-III) developed by Brown et al., (2011), was selected and used with author's prior permission. The instrument was selected due to its suitability to measure the single construct "conceptions of assessment" developed for teachers teaching at secondary level.

D. Conceptions of Assessment Abridged Survey

The total scale comprised of three major conceptions of assessment labelled as "improvement", "accountability" and "irrelevance". The scale also included sub-factors. A total of three sub-factors were developed for improvement conception naming a) help learning b) student development and c) accuracy whereas two subscales named as a) examination and b) control were developed to measure accountability conception of assessment. Composite mean scores adding the responses of the statements of each factor was computed and used for analysis. The detail of the instrument is reproduced in the following table 1.

Table 1: COA (Conceptions of Assessment) III Survey Item Sub-Categories

Categories	Survey Items
Irrelevance	• Assessment results are filed and ignored • Assessment interferes with teaching • Assessment has little impact on teaching • Assessment is an imprecise process
Accountability (control)	• Assessment indicates how good a teacher is • Assessment is an accurate indicator of schools quality • Assessment results contributes to teachers appraisal
Accountability (examination)	• Assessment helps students to gain good scores in examinations • Assessment selects students for future education or employment opportunities • Assessment helps students avoid failures on examinations
Improvement (Student Development)	• Assessment fosters student character • Assessment is used to provoke students to be interested in learning • Assessment stimulates students think
Improvement (Accuracy)	• Assessment results are sufficiently accurate • Assessment results are trustworthy • Assessment results can be depended on
Improvement (Help Learning)	• Assessment helps students improve their learning • Assessment determines if students meet qualification standards • Assessment information modifies on going teaching of students

E. Structure of the instrument

The questionnaire measuring conceptions of assessment consisted of two sections: In the first part demographic information including background of the respondent (gender, age, experience, subject and qualification) were asked. In the second part 19 items scored on a scale from 1 to 6 (1 = strongly disagree and 6 = strongly agree) mainly addressing conceptions of assessment (assessment for improvement, assessment for accountability, and assessment is irrelevant) were asked. The response scale for measuring conceptions consisted of six positively arranged formats with only two negative and four positive response categories. This format is preferred when it is obvious that the subjects would have a positive attitude towards the concept (Brown, 2011).

F. Psychometric Properties of the Instrument

The conceptions of assessment abridged survey was in fact extracted from a 31 item large scale developed by Brown et al., (2011) for Chinese secondary school teachers. The total scale consisted of three conceptions with seven sub-factors for the conception of "improvement" and "accountability". The third conception named "irrelevance" had no sub-factor. In order to ensure its applicability in Pakistani context, scale was validated through exploratory and confirmatory factor analytic techniques. After exploratory and confirmatory factor analysis techniques, a total of 19 items measuring three conceptions of assessment named (a) accountability, (b) improvement and (c) irrelevance were retained. The fit characteristics were found adequate in model testing. The item loadings for each factor were adequate. Therefore, factor analysis showed the items as having significantly good fit characteristics.

Table 2: Model fitness index for Conception of Assessment

Factors	Values	Factors	Values
CMIN	495.96	Df	137
Chi-square/df	3.620	p-value	0.000
AGFI	0.921	GFI	0.943
TLI	0.915	CFI	0.932
RMSEA	0.054		

Alpha values for each sub-factor ranged between .65 to .8 show adequate reliability of the scale.

III. Findings of the Study

A. Conceptions of assessment

Table 3 shows values of mean and standard deviation found for the factors measuring conceptions of assessment "improvement", "accountability" and "irrelevance". It is shown that teachers are mostly agree to factors representing "improvement" and "accountability" conceptions of assessment. The highest agreement is shown towards "accountability" conception of assessment (M = 4.96, S.D = .69) as the values of mean and standard deviation are near to strongly agree on the response scale. This value is followed by "improvement" conception with values (M = 4.61, S.D = .53) showing mostly agree. Strong disagreement is shown towards "irrelevance" conception with the mean values (M = 2.9, S.D = 1.4) given in Table 3. Overall strong agreement is found for "accountability" conception followed by "improvement" conception of assessment.

Table 3: Descriptive statistics for conceptions of assessment among teachers at Secondary level

Names of the scales	Mean	Standard deviation
Assessment factor Improvement Improvement of teaching and learning	**4.61**	**.53**
Assessment factor Accountability Accountability of school and teacher	**4.96**	**.69**
Assessment factor Irrelevance Irrelevance	**2.91**	**1.45**

B. Relationship among Conceptions

Pearson correlation coefficient calculated for the relationship between conception of assessment "improvement" and "accountability" showed moderate level of relationship. The values reported in the Table 4 shows ($r = 0.626$, $p < 0.01$) positive, significant and linear relationship between these two variables. It is concluded from the values that teachers who perceived assessment necessary for the improvement of teaching learning also endorsed its need for the accountability of teacher and school.

However, the relationship between conception of assessment "improvement" and "irrelevance" revealed insignificant linear relationship as the value of coefficient was found $r = 0.020$, $p > 0.05$. The result of correlation was quite up to the expectation as the nature of relationship showed that teachers who perceived assessment necessary for the improvement do not consider it as irrelevant activity.

The relationship between assessment conception of assessment "accountability" and "irrelevance" shows the value of $r = - 0.255$, $p < 0.05$ which indicates negative and significant linear relationship between two variables. It shows the inverse relationship between teachers having agreement to "accountability" conception of assessment versus taking it as irrelevant activity. The relationship found is logical while showing that teachers' having strong perception of using assessment for accountability measures would be against the idea that assessment is unnecessary or irrelevant.

Table 4: Correlation Analysis Conception of Assessment

	Mean	SD	1	2	3
1. Improvement	4.6177	.53094	1		
2. Accountability	4.9690	.69812	0.626**	1	
3. Irrelevance	2.9160	1.45973	0.020	-0.255**	1

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

C. Regression Analysis

The strength of regression analysis is dependent on some assumptions that are classically formed in relationship to model and data. In current study multiple regression was used by using Maximum Likelihood method in AMOS software. Before regression analysis all assumptions of regression were tested by using SPSS software.

D. Conception of Assessment: English

To study the effect of teachers' conceptions of assessment on students' achievement for the subject of English, regression analysis based on structural equation modelling in the AMOS software was carried out. Figure 1 shows relationship of conceptions of assessment with students' achievement scores for the subject of English. The one side head arrows in the figure 1 shows linear dependencies. The value mentioned

on the path from each dimension on dependent variable shows the beta (estimate) impact of that dimension on dependent variable. The value of error is enclosed on the dependent variable in circle because it is not directly observed. The value mentioned on dependent variable is R^2, which shows the variance in the model due to all independent variables. Independent variables 1 to 3 (IV1 to IV3) account for 04% of the variance of dependent variable (DV) in the proposed model.

Figure 1: Model of conceptions of assessment and student achievement based on English teachers

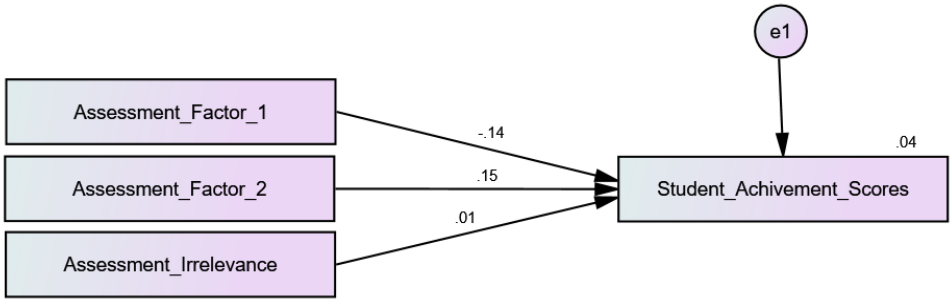

Table 5 presents results of the regression analysis obtained by using maximum likelihood method in the AMOS software. The estimate value shows the impact of independent variable on dependent variable. The CR is critical ratio, i.e., t-value in SPSS output, the value of CR of any independent variable (IV) to dependent variable (DV) is, if > ±1.96 that path will be significant at 0.05 level. If the p-value is three asterisks (***), it indicates significance is smaller than 0.001. The values presented in Table 5 shows that conception of assessment factor 1 "improvement" has negative and significant impact on students' achievement scores in the subject of English ($b = - 0.138$, $p < 0.05$). The estimate value 0.138 shows that if one unit increases in the conception of assessment "improvement" it will bring 13.8% negative impact on students' achievement score in the subject of English. However, conception of assessment factor "accountability" ($b = 0.151$, $p < 0.05$) shows significant impact on students' achievement scores. The third conception of assessment "irrelevance" ($b = 0.006$, $p > 0.05$) is found to have insignificant impact on students' achievement scores. Therefore, conception of assessment "improvement" showed significant negative impact on students' achievement whereas conception of assessment "accountability" is proved to have significantly positive impact on students' achievement score in the subject of English. The p-value is < 0.05 level of significance.

Table 5: Regression Weights based on conceptions of assessment and student achievement of English teachers

				Estimate	C.R.	P
Student Scores	Achievement	←	Assessment Factor 1	-.138	-2.423	.015
		←	Assessment Factor 2	.151	2.653	.008
		←	Assessment Irrelevance	.006	.108	.914

On the basis of regression weights, it is concluded that in English subject, students' achievement scores are positively influenced by assessment factor "accountability". It is evident in the results that teachers' conception of assessment

"improvement" would bring decrease in the scores of students. The inverse relationship of "improvement" conception of assessment with students' achievement scores is observed. The findings are not against the expectation considering the scenario of teaching and learning situation of schools at secondary level in Pakistan. Therefore, a negative trend between teachers' conception of assessment "improvement" and student achievement is observed in the data. The finding obtained for the impact of "accountability" perception of assessment on students' achievement is also quite rationale considering the context of secondary level involving high stake examinations at the end of grade 9 and 10. Teachers at secondary level are forced by the school authorities to show their performance in the form of students' high scores in high stake examinations. Students' scores are also used for teachers' appraisal system. Therefore, teachers adopt techniques to prepare students for exams and grade them on the basis of classroom assessment.

IV. Discussion

Results of the study are in line to the findings reported by researchers' measuring teachers' conceptions of assessment at secondary level in various regions. Brown (2002) found similar results measuring school teachers' conceptions of assessment. Study by Brown (2002) found moderate agreement of teachers towards conceptions of assessment as "improvement" and "accountability". Brown (2002) explained that teachers showed high agreement towards system accountability rather than student accountability that is similar to the findings in present study as teachers endorsed the need of accountability of teachers and schools through assessments. Following the line, similar results were reported by Brown, (2009) investigating prospective teachers' conceptions of assessment. According to his study prospective teachers were found moderately agree towards conception of assessment "improvement" and to grade students through assessments. Similar trend was observed in the study by Brown and Hirschfeld, (2008) reporting moderate agreement of teachers towards "accountability" conceptions of assessment. The results of the study are also similar to the works carried out in different regions like by Brown, Chaudhary and Dhamija (2015) in India and by Brown and Remesal (2012) in Spain.

For the "irrelevance" conception of assessment, respondents showed strong disagreement that is evident in the mean value (Mean 2.91, S.D, 1.45) obtained for the construct. This result reflects that teachers do not consider assessment as an irrelevant activity but endorse its worth and establishment for the improvement and accountability purposes at secondary level. This finding was logical and rationale as assessment is not purposeless while impedes in itself important objectives to achieve through its establishment. The result was found to be similar to those reported in previous studies. Brown and Hirschfeld, (2008), and Brown, (2009), Brown (2002), Brown (2004), Khan (2011), Brown, et al., (2015), and Brown and Remesal (2012) also reported similar level of disagreement of teachers towards irrelevance conception of assessment. This comparative analysis of the studies proved similar level of positive attitudes of teachers in different regions towards accountability and improvement conceptions of assessment. It shows stability and trend of attitude of people in a working condition.

A. Interconnection of Conceptions of Assessment

The results showing interconnection of the conceptions revealed the constructs as related to each other. Results of present study are quite similar to most of the studies

conducted in various regions. Positive relationship between accountability and improvement conceptions has been found in the studies carried out on the same constructs (Brown, 2004; Brown et al., 2011; Gebril & Brown, 2013; Barnes et al, 2017).

Results revealing the relationship of accountability and improvement to irrelevance conception found insignificant relationship results. It is found that improvement and irrelevance conception are insignificantly but positively related whereas accountability and irrelevance conceptions are negatively related to each other. Results are similar to the studies of (Brown, 2004). His study also found positive relationship of student accountability with irrelevance conception of assessment. He argued that if a teacher perceives assessment for student accountability, he would not consider it necessary to have assessment showing agreement to irrelevance conception of assessment. Similar trend was observed in a study reported by Brown et al., (2011), to explore secondary school teachers' conceptions of assessment. Results revealed conceptions of assessment as mutually correlated. They found a weak negative relationship between conception of assessment as "improvement" and "irrelevance" and conception of assessment "accountability" to "irrelevance". Findings of the present study also corroborated to the results found by Brown, (2004), Brown et al., (2011), Gebril & Brown (2013) and Barnes et al, 2017).

Results of present study found significant impact of teachers' conceptions of assessment on students' achievement in the subject of English. Results of the present study support the findings obtained by Brown and Hirschfeld (2008), for secondary school students' conceptions of assessment and its relationship to their achievement. Authors reported significant impact of "accountability" conception on the achievement of students. Their study explored all other conceptions of assessment being insignificant for the impact on achievement. Results of the present study are also similar in trend to those found by Walton and Brown (2009). Their study compared the impact of students' conceptions of assessment on their achievement in reading. Results of their study discovered that "accountability" conception was the most significant predictor of achievement.

The results of present study are contradictory to the finding revealed by Brown (2011). The study carried out on prospective teachers found that "accountability" conception was related negatively to their achievement in the course grade. The varied results might be due to the variation on part of the sample being student teachers rather than practicing teachers. The results can be explained with reference to theory of self-regulation employing the influence of responsibility on the performance of individuals. In the Pakistani context, there is considerable pressure on teachers and schools to focus on good performance in high stake exams. Performance shown in these high stake exams are used as indicators of schools' quality and teachers' recognition. Teachers' appraisal at secondary level also include the results shown in high stake exams. Thus, teachers' pay more attention to learning of the content leading to produce considerable performance of students. Consequently, teachers have a tendency to use strategies to enable students ready for exams. Results also confirmed that accountability perception of assessment is the most deriving force for teachers effecting students' performance in Pakistan.

Results of the present study showed conception of assessment "improvement" as negatively related to students' performance. However, Walton and Brown (2009), found

insignificant impact of "improvement" conception of assessment on achievement. Similar result was reported by Brown (2011) who found conception of assessment as to improve students' learning and teaching being an insignificant predictor for the performance in exams. Another important study by Brown and Herschfeld (2008), found similar insignificant impact of "improvement" conception on students' achievement. They explored and reported negative impact of students' conceptions as "is enjoyable" and "is ignored" to their scores in reading and mathematics. The results of present study compared to the reported ones is different showing inverse relationship between "improvement" conception of assessment and students' achievement. Results are in line to the studies conducted in Pakistan such as the study by Akram (2017), reported that social, administrative and academic challenges make it difficult for the teacher to teach students giving wider exposure to learning at secondary level. He found that examination system at secondary school level does not assess a breadth of learning in a language subject. Seemingly, success in high stake exam is dependent on the perfect appreciation of the syllabus writers. Thus, teachers following the teaching for the purpose of learning rather than scoring exams would cause low performance in high stake exams.

With respect to third conception of assessment "irrelevance", results of the present study are similar to the studies reported by Walton and Brown, 2009; Brown and Herschfeld, 2009 and Brown (2011). Similar trend was explored by Brown (2011) showing "irrelevance" conception as insignificant factor impacting performance of prospective teachers. Negative relationship of "irrelevance" to achievement endorses stability of teachers' attitude of giving worth to the establishment of assessment to have more constructive outcomes.

B. Implication of the Study

Structure of teachers' conceptions of assessment and their impact on students' achievement showed the link of accountability conception to students' achievement in high stake exams. It showed the influence of strict accountability measures on the teachers' perception to focus exam related assessment patterns rather than improvement oriented. Hence, school policies might utilize these findings to introduce assessment mechanism focusing improvement of teaching and learning. It can be done through including parameters for teachers' accountability other than students' scores in high stake exams.

Pre-service curriculum might include the topics of conceptions regarding assessment, rationales behind these conceptions and possible consequences in terms of effects on teachers' teaching and students' learning. The modified model of secondary school teachers' conceptions of assessment in Pakistani context can also be utilized to measure teachers conceptions of assessment to evaluate the effectiveness of interventions focusing change in teachers' conceptions of assessment.

C. Future studies

Qualitative aspects such as observation, interviews, student essays and teachers' reflection on their own work can be a part of survey studies. It will help in validation of belief practice notion. It will further help in finding out the possible differences between practices of teachers having "accountability" conception to those endorsing "improvement" conception. Student learning outcomes other than scores such as use of

deep surface approach to learning can be explored to find out the link between teachers' conceptions and students' learning outcomes.

A comparative study of teachers in public and private school system might be useful to investigate the differences of conceptions as influenced by school policies in public versus private sector.

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