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THE CATALYST EFFECT: CAPACITY BUILDING INTERVENTION TOWARDS ENHANCING TEACHER'S ATTITUDE AND STUDENT DEVELOPMENT

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ABSTRACT

The study examines the intervention of capacity building practices towards teacher's attitude and student development. Questionnaires was incorporated in the study as a data collection tool and disseminated among the staff members of public sectors universities of Khyber Pakhtunkhwa (KP) Pakistan on cross sectional basis. Study used Liseral 8.80 software to analyze 3 factor model CB (Capacity Building), TA (Teacher's Attitude) and SD (Student Development) through Structure Equation Modelling (SEM) and CFA (Confirmatory Factor Analysis). Result reveals that CB has strong and positive influence towards enhancement of TA and SD. Recommendation and future research area is also incorporated in the study.

Key Words: Capacity Building, Teacher's Attitude Student Development and Structure Equation Model.

INTRODUCTION

Education is now universally accepted as a key to intellectual, socioeconomic and political improvement of a realm. The states, that have taken lead in education, made exceptional progress and performed exceptionally in the last twenty (20) years. Uncertainty, their enormous achievements had its foundation on efficient educational mechanism (Abbot, 2006). The advancement of the present day developed nations demonstrates that they have given exceptional preference and attention to superior education. As such, highly educated work force has proved to play effective leadership role in all spheres of the exceedingly demanding modern lifestyle. Besides, educating the students according to a prescribed syllabus, educators perform a vital part in the enhancement of moral and ethical ideals of students (Igwe, 2005). In education sector, researchers have established an important relationship between productivity and work experience (Qaraqish, 2008). Teachers with experience are more effective at raising the student's achievement as compared to inexperienced teachers (Matsumura and Pascal, 2003; Rivkin, 2005). Thus, policies that enhance teacher's performance, leads to student's development in different aspects of their lives, requires proper implementation of capacity building practices, i.e. (training, mentoring, skills, knowledge and technical education) that accelerates significant benefit to the students in terms of improved educational outcomes (Awan, 2008). Recently, more attention has given to teachers financial incentives that in tur increase the productivity and performance of teachers (Igwe, 2005).

Traditionally, the teaching structure in Pakistan is five (05) layered i.e., grade (1-5),

graduation and masters level degrees (Blood, 1994). The range of read/write ability is 28% in Kohlu District and 96% in Islamabad (PLS, 2010). Between the years 2000-2004, Pakistani's within the age range 55-64 had the simple read/write ability of almost 38%, those ages 45-54 had nearly 46%, those 25-34 had 57% and those ages 15-24 had 72% (LRP, 2013). The simple read/write ability differs in different areas, mostly by gender. In clannish areas, particularly female literacy rate is 9.5%. Besides, English language is swiftly disseminating in Pakistan, and 18 million populace (11% of the total inhabitants) have commanding communication skills in English language, making it the third state (Riazuddin, 1998) in the world and second in Asia (Igwe, 2005).

The successful educator is competent of producing an aspiration to gain knowledge. Teacher has to be proficient to wisdom the wellbeing of students, be acquainted with their requirements, and make education persistent not only in relation to curriculum purpose but in the mental power of his/her learners (Conant, 1993). The realization of student learning and development is a difficult procedure in standard universities, to overcome this teacher and veteran members of the society have to take part in setting up (Qaraqish, 2008). Various professionals draw attention with the aim of student learning through developing a teacher's positive attitude in educational institutes (Kilgore and Griffin, 1998). Additionally, a teacher's positive attitude assists to get enhanced students' behavioural skills (Lee and Odom, 1996) and add to the accomplishment of the personage education programs (Brinker and Thorpe, 1984). Capacity building practices, including (training, mentoring, skills/knowledge and technical education) play a significant role in attitude development and skills building (Awan, 2008).

This study demonstrates the capacity building practices towards teacher's attitude development, which further leads to students learning and growth. Study objective is to explore the impact of capacity building practices on the enhancement of teacher's attitude that further leads to student learning and development. This enquiry revision supports researchers as a foundation of suggestion and as a springboard for those that desire to acquire additional learning on the region. Ultimately, this learning will give all the concerned, an opportunity to achieve profound acquaintance relating to capacity building practices that enhances the role of teacher's attitude towards students learning and development in KP, Pakistan.

LITERATURE REVIEW

Capacity Building and Teachers Attitude

Teacher has to exhibit outstanding sympathy, meticulousness, attentiveness, genuineness, research point of reference, sincerity and elasticity as a person (Raza, Majid and Zia, 2010). Educator grants direction to the students and are the foundation of motivation to them (Bell and Gilbert, 2004). The educator is the actual center of the entire instruction scheme and the accomplishment of the entire scheme circles around the teaching-learning behavior, including the erection of instruction, identification of the teaching-learning resources in categorize to rouse inquisitiveness to give confidence

to learner's contribution in learning behavior and make assured improved learning procedure (Raza and Naqvi, 2011).

Educationalists (teachers, lecturers and professors) are expected to enhance overall performance of students to be readily in demand in the marketplace (Raza, Majid and Zia, 2010). Educationalists with experience are more successful at raising the student's achievements as compared to inexperienced ones (Matsumura, 2003; Rivkin, 2005). Thus, policies that improve an educationalist's performance, results in students' maturity in different modes of their lives require appropriate implementation of capacity building (CB) practices, i.e. (improved training, mentoring, skills, information and technical education in educationists), accelerates significant improvement in the students in terms of their educational achievements (Awan, 2008). And that can only be achieved, if CB practices are properly implemented in departments on a regular basis (Raza and Naqvi, 2011).

Because CB practices in educationalists are very important for overall growth of both the trainer and the trainees (Raza and Naqvi, 2011). CB practices enhance range of knowledge and walk around new ideas and skills with self-confidence (Raza and Naqvi, 2011). CB practices protect the system of education from becoming useless and smash up (Cambline and Steger, 2000). For the endurance of educationalists and universities on the one hand and improved performance of the students on the other hand, CB practices are essential for equipping both to face the challenges of the day. According to Bell and Gilbert (2004) the purpose of higher education in students is "serving them to become a sign of their personal knowhow, in terms of not only the extent of understanding of substance and ways of thinking, learning and assessing the change and growth of concepts, but the extent to which they had gained knowledge of those concepts as well. Teaching as an interactive process in a particular context, focused on learning about something momentous (Fink, 2006). But, teaching in upper education is not restricted to injecting information to a certain extent, rather it facilitate students for learning on ones own, i.e. how to make use of diverse resources of information (Kasowitz-Scheer and Pasqualon, 2002) all the way through their existence, on their own. According to Gray and Drew (2008) in reality, the educators coat the pictures in the brains of learners and characterize the terms to produce thoughtfulness. This argument painted the inspired measurement of teaching that is deemed as a scholarly monument. Based on the above captioned literature the first hypothesis of the study is as follows:

H1: *Capacity building significantly effects on the teacher's attitude.*

Teachers Attitude and Students Learning

An attitude may be defined as a tendency to respond in a favourable or unfavourable style with respect to a given situation or object (Oskamp and Schultz, 2005). All teachers consider the development of positive approach in his students as his accountability (Cheung et al., 2009). As per Yara (2009) teachers approach and his teaching technique can seriously influence the students' learning and development.

Research study discovered that the intermediate level students who had developed a lower productive attitude nearly at all times got lesser grades in assessment (Bennett et al., 2001). The identified causes relates to student's attitude; such factors include teaching mechanics, teacher's mind-set, authority of parents, gender, age, cognitive approach of apprentice, career preference, and societal repercussion of accomplishment (Adesoji, 2008). Olatoye (2002) established that teacher's attitude has a prominent straight consequence on students' attainment. Understanding of students' stance is central in his accomplishment in a particular area. Furthermore, more experienced teachers are considered as very capable to focus on the most fitting way to teach particular subject matter to students who are at variance in their capability, past understanding and conditions (Rivkin, 2005).

Okpala and Onocha (1985) discovered that, the consequence of teacher's mind-set towards students' accomplishments and thoughts was helpful. Igwe (1985) also demonstrated that, the result of teachers' mind-set was stronger on the student's learning and success. The standard of excellence in teaching is an important feature affecting students' approach (Ebenezer and Zoller, 1993; Osborne, Simon, and Collins, 2003). Abimbade (1999) believes that teachers are effective when their teaching show the way to student's knowledge. It is not possible to teach effectively until it has been understood and learnt properly and this is possible only when the educator is successful in bringing a change in the behaviour of his apprentice. That is why it is an attempt on the part of the teacher to shift his learning to his students using the correct and efficient approach (Adesoji, 2008). Based on the above, the second hypothesis of the study is as follows.

H2: *Teacher's attitude significantly effects on student learning and development.*

Capacity Building and Student Development

Development of wakefulness and understanding is critical in tutoring today because "learning remains no longer a unilateral process." Rather, "it is a bilateral process that oblige teachers to help students learn with thoughtfulness" (Willms, Friesen and Milton, 2009). In deviation from a unilateral transfer of knowledge from teacher to student, a dialogue model of education researchers found that where students are paid attention, appreciated and cherished for who they are, leads to greater student involvement which, results, in greater student accomplishments (Flessa etal., 2010; Willms, Friesen and Milton, 2009).

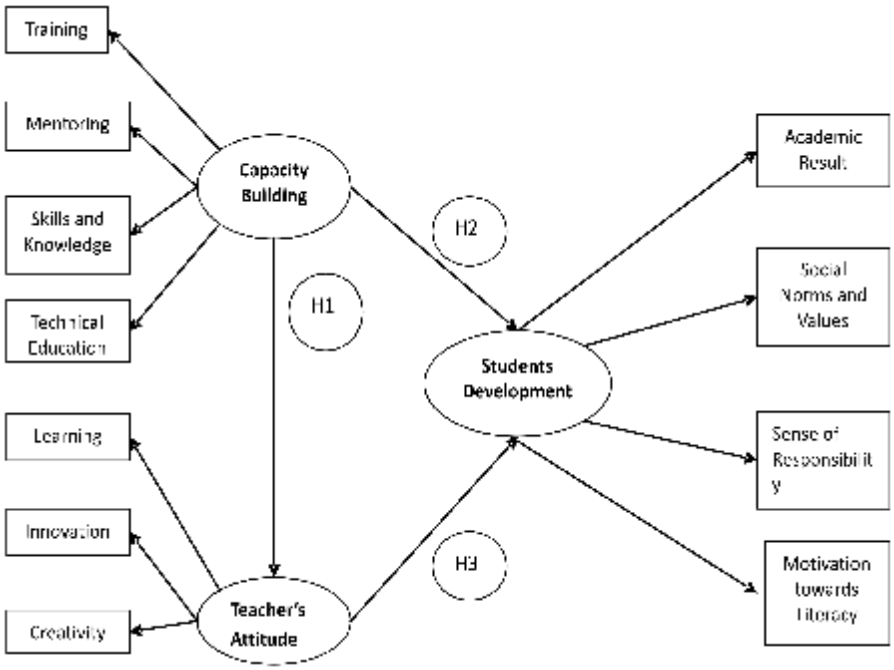
Hargreaves and Shirley (2009) also advised education influential's and strategy framers to make certain that students are taken as partners in bringing a change rather than simply making them the objects of change. Teachers mostly know about their student's potentials, requirements and tendencies. This equips them to manage proper students learning. Knowing a student's vocational ambitions, what he or she is interested in, or what sets on fire his learning passion can be made part of lessons that build a bridge of relevance between what is important to a student, and the concepts of course contents (Olatoye, 2002). Understanding the framework and interests of the students assist the

trainers in imparting personalized learning. Students lesser involvement in teaching-learning process leads to lesser performance and in opposition higher level of their involvement leads to higher level of performance (Rogers, 2000). Student capacity building enhance their personal ability, skills, knowledge, attitude and behaviour that further leads to enhancement of their moral and ethical values (Flessa et al, 2010). The third hypothesis of the study is as follows.

H3: *Capacity building significantly effects on student learning and development.*

Conceptual Framework

The following is the theoretical structure of the study namely, CTS model.



METHODOLOGY

This research study was based on quantitative research technique. The data was collected from 8 public sector universities of KP, Pakistan namely Abdul Wali Khan University Mardan, Peshawar University, Agriculture University, Peshawar, Bacha Khan University Charsadda, Gomal University D.I Khan, Kohat University, Bannu University, Khushal Khan Khattak University Karak. The aforementioned universities are selected because researchers observed the positive signs of CB practices including (training, mentoring, skills/ knowledge developing practices and technical education) in public sector universities of KP Pakistan. Researchers want to investigate the outcome of CB practices on enhancement of TA and SD. During the research study, researcher's intercession was nominal, analysis unit was individual and the study was

carried out in a single go. Questionnaires were circulated among the Lecturers, Assistant Professors and Professors and their views were taken. The data was analyzed in SPSS version 17.0 software and normality of data was calculated. When the data was normalized, then various statistical tools were applied on the data for analysis.

Population and Sample

Total 1000 male and female staff members in eight (08) universities were targeted. With the help of (Yamane, 1967) formula sample size was determined. The ultimate sample was 285 members. Data from respondents was collected by simple random sampling.
n=N/1+N*e21000/1+1000*(.05)2n=285

Measures

Questionnaire was the data collection tool which is comprised of two parts with segment "A" (been based on data such as age, sex and management level) and segment "B" (collect information regarding CB, TA and its effects on SD) on five point Likert Scale.

Capacity Building

For CB measurement items were taken from (Awan, 2008) that contains total 8 items. Cronbach's α was found .796.

3.4 Teachers Attitude

For TA measurement items were taken from the study of (Ranjdoust, Gahramani and Rezayi, 2013) with a minor alteration dimension item contains total 8 items. Cronbach's α was found .801.

Student's Development

The measurement items of SD were taken from the study of (Tuana, Chinb and Shiehc, 2005) based on a 5 point Likert scale. Reliability found .790.

DATA ANALYSIS AND RESULT

Following is the data analysis portion of the study.

Table 1: Descriptive

	Faculty	Male	Female	Total	Percentage	μ	S.D
Title	Professors	35	10	45	15%		
	Assistant Professors	50	10	60	21%		
	Lecturers	140	40	180	63%	1.42	.498
	Total	225	60	285			
	Gender						
Age	24-34	145	45	190	66%		
	35-45	55	15	70	24%	1.74	.250
	46 and above	20	5	25	8%		
		220	65	285			

Out of 285 respondents, 45 were Professors, 60 were Assistant Professors, and Lecturers were 180 within the age range of 24 and above. The detail information is in above captioned table.

Table 2: Reliability Statistics

Composite Measure	Items	Mean	SD	A
	Mentoring	3.72	.488	
	Training	3.63	.472	
Capacity Building	Knowledge and Skills	3.42	.459	
	Technical Education	3.07	.411	.796
	Innovation	3.06	.412	
	Learning	3.09	.493	
Teachers, Attitude	Creativity	3.01	.383	.801
	Value and Norms	3.04	.582	
Students Development	Academic Result	3.22	.593	.790
	Motivation	3.02	.483	
	Responsibility	3.12	.481	

For measuring the reliability of the three above captioned constructs the Cronbach's α was calculated and there values were found .796, .801 and .790 for CB, TA, and SD respectively. According to Sekaran (2003) the acceptable range for the value of Cronbach's α for questionnaire reliability is equal or above 0.790.

Table 3: Correlation

	Mean	SD	1	2	3
1. CB	2.60	1.26	__		
2. TA	3.20	1.17	.324*	__	
3. SD	3.40	1.21	.819*	.270*	__

* p< .01

Result of correlation reveals a significant positive relationship i.e. (r =.342*, .819* and 270* at p<.01) between CB, TA and SD.

Table 4: CFA Result

Models	X^2/df	GFI	AGFI	NNFI	CFI	RMR	RMSEA
1: (CB, TA and SD)	2.8	.93	.86	.93	.97	.01	.07
2: (CB and TA)	2.6	.93	.91	.93	.95	.04	.08
3: (CB and SD)	3.0	.92	.86	.94	.93	.02	.06
4: (TA and SD)	2.3	.91	.92	.95	.95	.01	.07

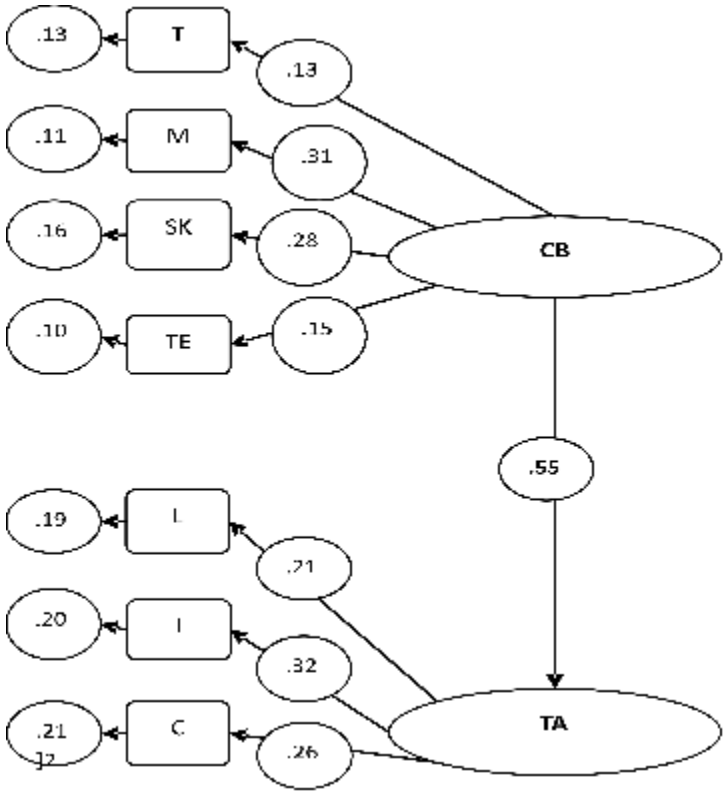
n =285.Analysis of alternative models

Initially, questionnaires were submitted to 20 staff members of 3 universities i.e. Peshawar Kohat and Bannu to find out whether the queries were understandable, plain and reasonable. Moreover, senior research scholars were requested to critically criticize about questionnaire format i.e. whether the items in questionnaire were suitable for the study need or some additional material required. Veteran staff members of the university reported that all the statements of questionnaire were clear and in logical order. For measuring the construct validity of the questionnaire CFA's statistical tool was incorporated and model was tested by 7 fit indices namely (X^2/d.f, AGFI, GFI, RMSEA, RMSR, CFI, NNFI,). All the computed values were in the adequate ranges. In addition, 3-factor model i.e. (CB, TA and SD), all the correspondence on their own factors had significant loadings. In the 2 factor models i.e. (CB and SD), (TA and SD) and (CB and TA) respectively had also considerable loadings. The test of model found that CB and TA have undeviating impact on SD of education sector of KP, Pakistan.

Models Structural Analysis

Confirmatory Factor Analysis (CFA) for Model 1 (CB and TA)

Two factor model results i.e. CB and TA is as follows



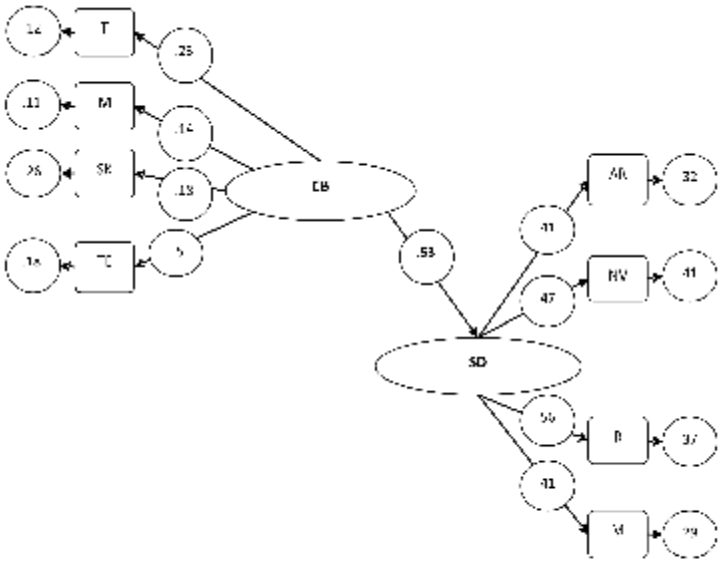
Chi-Square=112.72, RMSEA=0.06 df =49, P-value=.000,

Two factor model i.e. (CB and TA) result depicts that all the tabulated values are in normal range which further envisage that the variables have their own significant loadings and there is no need for factor loading. Path show 55% variation exists in response variable by predictor. All the calculated values of 7 indices are in normal ranges (Usluel, Asker and Bas, 2008).

Fit Index	Standard Value	Actual Value
X^2/df	<3.00	2.3
GFI	>0.90	.91
AGFI	>0.80	.90
NNFI	>0.90	.92
CFI	>0.90	.97
RMR	<0.10	.02
RMSEA	<0.06	.06

4.3 CFA for (CB and SD)

Result of CB and SD is as below.



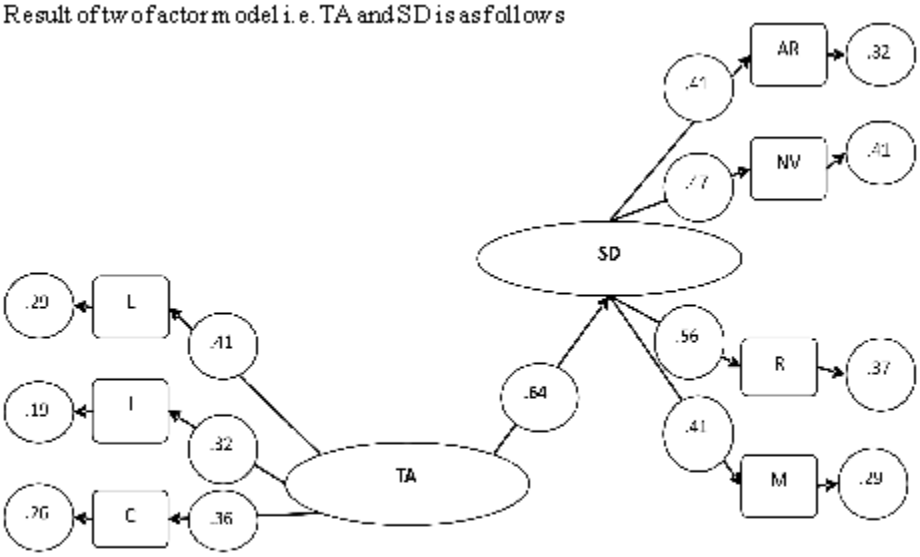
Chi-Square=102.12, df=42, P-value=.000, RMSEA=0.07

The result of first 2 factor models i.e. (CB and SD) depicts that all the tabulated values are in normal range which further envisage that the variables have their own significant loadings and there is no need for factor loading. Path shows 53% variation in response variable. All the calculated values of 7 fit indices are in normal ranges (Usluel, Asker and Bas, 2008).

Fit Index	Standard Value	Actual Values
X^2/df	<3.0	2.6
GFI	>.90	.93
AGFI	>.80	.90
NNFI	>.90	.95
CFI	>.90	.91
RMR	<.10	.03
RMSEA	<.06	.07

CFA for Model 3 (TA and SD)

Result of two factor model i.e. TA and SD is as follows



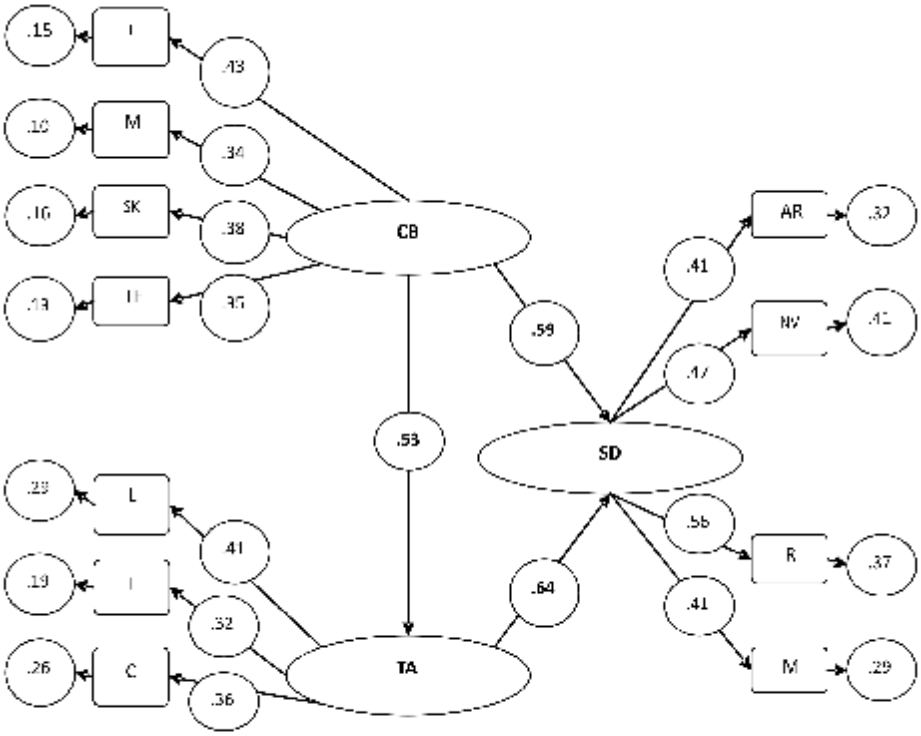
Chi-Square=101.12, df=43, P-value=0.00000, RMSEA=0.06

The result of first 2 factor models i.e. (TA and SD) depicts that all the tabulated values are in normal range which further envisage that the variables have their own significant loadings and there is no need for factor loading. Path shows 64% variation exists in response. All the computed values of 7 fit indices are in normal range (Usluel, Asker and Bas, 2008).

Fit Index	Actual Values
X^2/df	3.0
GFI	.92
AGFI	.85
NNFI	.93
CFI	.94
RMR	.02
RMSEA	.06

CFA for (CB, TA and SD)

Result of three factor model is as follows



Chi-Square=116.72, RMSEA=0.07 P-value=.000, df =41

Three factor model i.e. (CB, TA and SD) result exhibits that all the calculated values are in adequate range and have significant loadings on their own constructs. Path shows that CB-TA, CB-SD, and TA-SD indicate 53%, 59% and 64% variations in the response variables. All the values of 7 fit indices are in normal (Usluel, Asker and Bas, 2008).

Fit Index	Actual Values
X^2/df	2.8
GFI	.93
AGFI	.88
NNFI	.95
CFI	.96
RMR	.02
RMSEA	.08

DISCUSSION

This research study examines the impact of capacity building practices on teacher's attitude and student learning development. Questionnaire was used as a data collection

instrument. The measurement items for CB were taken from the study of (Awan, 2008). For TA measurement items were taken from the study of (Ranjdoust, Gahramani and Rezayi, 2013) and for SD measurement items were taken from the study of (Tuana, Chinb and Shiehc, 2005). The Cronbach's α was values were found .796, .801 and.790 respectively that depicts the measurement items were satisfactory and valid enough for data collection. The descriptive statistics shows that the majority of participants were male. Simple random sampling technique for data collection was used in this study. Total 285 questionnaires were distributed among the faculty members of 8 public sector universities of KP, Pakistan for data collection. The participant's response rate was 100%.

The hypotheses of the research study were analyzed through SPSS version 16.0. Hypothesis one states that CB has positive effect on TA and was found significant in this study. The result of hypothesis one is consistent with previous study of (Awan, 2008; Raza, Majid and Zia, 2010) which stated that those organizations which focus CB practices have results in better employee performance and greater productivity. This study also support the concept thus, employees of public sector universities can enhance their performance by CB practices within the organization. Hypothesis two states that CB has positive effect on SD and was found significant. The result of the hypothesis two is consistent with the study of (Cheung et al., 2009) which stated that CB has positive effect on student learning and development. Hypothesis three states that TA has positive effect on SD and was also found significant. This result was supported by the previous study of (Flessa et al, 2010). The overall, three factor model was found significant valid and fit.

Positive TA is mandatory for educational sector success. Drawing on the preservation of scholars (Raza, Majid and Zia, 2010; Cheung et al., 2009; Flessa et al, 2010), this study examines the consequence of CB on TA and SD. Study reveals 3 factor model hypothesized that contents of CB, TA and SD variables were examined with other models. All statistics of CFA were in acceptable range. CB has direct impact on TA with existence of 53% variation and its further impact on enhancing SD. CB and TA accounted for 59% and 64% deviation in SD. The findings of the study reveals that CB has a strong direct impact on improving TA that further leads towards improving SD in the education sector of Pakistan. Following table show the result of hypotheses acceptance or rejection.

Table 6: Result Summary

Hypotheses	Accepted/Not Accepted
H1: CB has positive effect on TA.	**Accepted**
H2: CB has positive effect on SD.	**Accepted**
H3: TA has positive effect on SD.	**Accepted**

RECOMMENDATION AND THEORETICAL CONTRIBUTIONS

Study makes two vital contributions towards CB, TA and SD literature. The 1st one is that the prior research studies on this context were not focused primarily on TA through CB in Pakistan vibrantly. So, this study augments the literature on CB interference towards TA and students development in Asian countries predominantly in Pakistan. Moreover, result of the study depicts that CB have straight insinuation on the improving teachers' attitude and student's social development in Asian countries. Education sector of Pakistan either private or public should have to focus on making strategies for improving teacher's attitude and students learning through capacity building practices. Improving TA through CB practices motivates students towards academia and learning which the positive sign for the literacy development is this will automatically reduce the ratio of unemployment and poverty. This study suggests that the TA should be improve and rectify by CB practices in every education organization. So the educationalist and society will get favorable output around the globe.

Future Research and Limitations

Study sample was taken only from public sector universities of KP, Pakistan because of that this study was incompletely generalized. So, this study recommended that the current hypotheses ought to be tested in different samples from diverse organizations. Study nature was cross-sectional so in future longitudinal study would be nature of the study that would be performed in different industries of Pakistan.

RECOMMENDATIONS

The study outcome divulged that there was shortage of highly qualified teachers in the higher education sector of KP, Pakistan; resulting in little amount of pass proportion in students. So it is recommended that in order to increase the pass parentage of student's appointment of highly qualified teachers in public sector universities of Pakistan is essential. Secondly, teacher's income level is not up to standard that is why they concentrate more towards home tuition instead of giving proper lecture at university. It is therefore, suggested that teacher's remunerations should be improved so that they need not take interest in other activities to increase their income. The universities may increase their income by conducting research projects with the collaboration of industries and other departments. It is recommended for the students to point out reasonable deficiencies of their teacher's. In this way undesired behaviour of teachers could possibly be reduced, resulting in the amplification of academic accomplishments of the students. Undue preferential treatment should be discouraged. There should be a proper system of checks and balances by the head of the department to make it possible that student may not be privileged with what is not due

CONCLUSION

The development of teacher's positive behavior should be stressed in training a teacher. The training should be based on mental guidance that can improve the teacher's performance. Before appointment, the teacher should go through a meticulous behavioral measurement process, which can result in the creation of positive behavioral attitude in students, which in turn enhances their academic accomplishments. The three factors model (CB, TA and SD) reveals burly relationship among variables. Whereas, TA and CB have strong relationships with SD. Functioning of CB for TA found momentous values. Further CB has a constructive impact on TA and SD that results in strengthening the organization to endure in the competitive period, increase profitability, make goodwill and increase in employment opportunities. The study make obvious that CB has strong effect on TA and SD in education sector of Pakistan.

REFERENCES

Abbott, L. (2006). Northern Ireland head teachers' perceptions of inclusion. International Journal of Inclusive Education, 10 (6), 627-643.

Adesoji, F.A. (2008). Students ability level and effectiveness of problem-solving instructional strategy. Journal of Social Science, 17(1), 5-8.

Awan, S. (2008). Capacity building intervention towards employee development of garment and apparel sector of Pakistan. NUML University Islamabad, Pakistan.

Bennett E.M.,Reed-Andersen T., Houser J.N., Gabriel J.G., & Carpenter, S.R. (1999). A phosphorus budget for the Lake Mendota watershed. Ecosystems 2, 69–75.

Brinker, R. P., & Thorpe, M.E. (1984). Integration of severely handicapped students and the proportion of IEP objectives achieved. Exceptional Children, 51, 168-175.

Camblin, L. D., & Steger, J. A. (2000). Rethinking faculty development. Higher Education, 39(1), 1-18.

Cheung, W.W. L., Lam, V. Y., Sarmiento, J. L., Kearney, K., Watson, R., Zeller, D., & Pauly, D. (2010). Large-scale redistribution of maximum fisheries catch potential in the global ocean under climate change. Global Change Biology, 16(1), 24-35.

Ebenezer, V.J. & Zoller, U. (1993). Grade 10 students' perceptions of attitudes toward science teaching and school science. Journal of Research in Science Teaching. 30 (2), 175–186. Educational loan repayment program. (2013).

Fink, L. D. (2006). Improving the evaluation of college teaching. Supporting of faculty in developing 21st century learners, Program for Instructional Innovation, University of Oklahoma. Retrieved February 28, 2007, from http://www.ou.edu/idp/tips/ideas/evaluation.html.

Flessa, J., Gallagher-Mackay, K., & Ciuffetelli-Parker, D. (2010). Good, steady progress: success stories from Ontario elementary schools in challenging circumstances. Canadian Journal of Educational Administration and Policy, No. 101.

Gray, P., & Drew, D. E. (2008). What they didn't teach you in graduate school: 199 helpful hints for success in your academic career. stylus publishing.

Hargreaves, A., & Shirley, D. (2009a). The fourth way: the inspiring future for educational change. Thousand Oaks, CA: Corwin.

Hsiao-Lin, T., Chi-Chin, C. & Shyang-Horng, S. (2005). The development of a questionnaire to measure students' motivation towards science learning, International Journal of Science Education 27(6), pp. 639–654.

Igwe, U. O. (2005). Harnessing information technology for the 21st century: library education in Nigeria. Library Philosophy and Practice 7(2).

Kasowitz-Scheer, A., & Pasqualon, M. (2002). Information literacy instruction in higher education: trends and issues. (eric digest). Retrieved july 1, 2007, from http://ericdigests.org/2003

Kern, E. (2006). Survey of teacher attitude regarding inclusive education within an urban school district, Philadelphia College of Osteopathic Medicine.

Kilgore, K. L., & Griffin, C. C. (1998). Beginning special educators: problems of practice and the influence of school reform. Teacher Education and Special Education, 21(3), 155-173.

Matsumura, L. C., & Pascal, J. (2003). Teachers' assignments and student work: Opening a window on classroom practice. CSE Report 602. Los Angeles, CA: National Center for research on Evaluation, Standards, and Student Testing.

Okpala, P. N. & Onocha, C.O. (198). Measurement and Evaluation in Education, Jatu–Uzairue:Sterling – Harden Publishers.

Olatoye, R.A. (2002). A causal model of school factors as determinants of science achievement in lagos state secondary schools. Unpublished Ph.D. Thesis. University of Ibadan, Nigeria.

Pakistan Literacy Survey. (2010). Retrieved from http://www.finance.gov.pk/survey/chapter_10.

Qaraqish, S. R. (2008). Attitudes of special education teachers and general education teachers towards inclusion in regular classrooms in light of some variables (in Arabic). The Arabic Journal for Special Education, 13, 175-231.

Ranjdoust, S., Gahramani, J., & Rezayi, M. (2013). The survey of teacher's attitude towards the effectiveness of teaching methods, European Journal of Experimental Biology, 3(1), 279-284.

Raza, S. A., & Majid, Z., Zia, A. (2010). Perceptions of Pakistani university students about roles of academics engaged in imparting development skills: implications for faculty development. Bulletin of Education and Research, 32(2), 75-91

Raza, S. A. & Naqvi, S. A. (2011). Quality of Pakistani university graduates as perceived by employers: implications for faculty development. Journal of Quality and Technology Management, VII (I), 57- 72.

Riazuddin (1998). Pakistan Physics Centre. ICTP. Retrieved 2011.

Rivkin, S.G. (2005). Cumulative nature of learning and specification bias in education research. Mimeo. Department of Economics, Amherst College, Amherst, MA.

Sekaran U (2003). Research methods for business: A skill-building approach. USA, John Willey and Sons.

Tuana, H., Chinb, C., and Shiehc, S. (2005). The development of a questionnaire to measure students motivation towards science learning, International Journal of Science Education, 27(6), 639-654.

Ukoha O. & Igwe, U. O. (2005). Harnessing information technology for the 21st century: library education in Nigeria. Library Philosophy and Practice 7(2).

Usluel, Y. K, Askar, P., & Bas, T. (2008). A structural equation model for ICT usage in Higher Education. Education Technology Society, 11(2), 262-273.

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