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Organizational Learning Culture and its Effects on Critical Thinking Skills on Female Teachers of Public Sector Higher Education Institutions

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Abstract

Present study determines the effects of organizational learning culture on female teacher's critical thinking skills of public sector higher education institutes (HEI) of the Punjab, Pakistan. The questionnaire from Yang (2003) (21-item) of organizational learning culture and from Naieni (2005) (30-1tem) questionnaire on critical thinking skills was adopted. All items are developed on five point likert scale. The values of Cronbach's alpha computed for both constructs are high which represent that data on both constructs are reliable**.** The KMO measure of sample adequacy and Bartlett s' test of spehericity authenticate that our data are appropriate for the use of factor analysis. The study employed principal component analysis in order to find the validity of the measure of organizational culture and critical thinking skills. This study collects data from 250 full time female permanent teachers in higher education institutes of Punjab, Pakistan. The findings represent that organizational learning culture significantly affects the critical thinking skills of female higher education female teachers of Punjab.

***Key words*:** Organizational learning culture, critical thinking skills, higher education institutions

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Introduction

Teaching is the holy profession, generally associated with females. A female teacher is closer to the students in understanding his/her interests, feelings, apprehensions and likewise fears. These characteristics reinforce the importance of female teachers and their role in teaching (Katharina, 2006). Worldwide, and for several decades, the critical role of female teachers in reducing the gender gap in primary and secondary education has been well established (Human Development Centre, 1998). Numerous studies indicate that girls in developing countries "learn better and stay in school longer when their teachers are women" (UNESCO, 1993, p. 13). The participation of Pakistani female teachers in higher education institutes is moderate but growing rapidly. The rapid growth of the female teachers in the universities in Pakistan is due to high job aspirations and strong parental supports. Halx and Reybond (2005) opined critical thinking skills are the mantra of education. According to SADOE (2002) suggest that the learners of critical thinking skills are able to "identify and solve problems and make decisions using critical and creative thinking"

Nowadays the need to inculcate critical thinking skills among students has become most important and principal aim among educators. Jacobs and Gawe (1998),Gyalyam and Grange (2005) describe that in educational institutions the development and improvement of critical thinking skills is the responsibility of the teachers because if we want our youth to be self dependent and confident then the critical thinking skills are inevitable for teachers as they have much influence on their students. Developing critical thinking skills in the students is the primary objective of the universities and a frequently discussed issue in the higher education institutes (Collins and Mangieri (1992): Sonn (2000): Schraw and Olafson (2003). The teachers with good critical thinking skills may inculcate their skills and abilities in the students. These skills help students make effective decisions regarding their lives and careers. According to Potterton (2008) change can't come through designing new curriculum or paper work. In fact this activity engages the teachers to concentrate on the development of the creative and critical thinking skills of the students.

Ayisi (1992) defines culture as the set of belief, norms, language, actions, assumptions, knowledge, morals, habits, and values. Gauvain (2001) describes that the socio cultural environment and assumptions of culture affects the cognitive, creative, critical thinking skills and abilities of the teachers which ultimately increase the cognitive abilities of the students in the organization (Beyer 1998; Paul et al. 1989; Nisbet 1993; Nisbet et al. 2005; Costa 1991; Burden and Williams 1998;

Celuch and Slama, 1999; Hatcher 2006; Kokdemir 2003;, Semerci 1999 Solon 2007). Although researchers provides evidence for the effects of organizational learning culture on critical thinking skill (Beyer 1998; Paul et al. 1989; Nisbet 1993; Nisbet et al. 2005; Costa 1991; Burden and Williams 1998; Celuch and Slama, 1999; Hatcher 2006; Kokdemir 2003;, Semerci 1999 Solon 2007). Wills 2005 yet the above studies are not sufficient for the clear explanation about why where and under what circumstances organizational learning culture affects critical thinking skills. To date academics have not put forward any suggestions to describe different affects of culture on critical thinking skills and this dynamic is still unknown. In this research paper I attempt to fill the gap and suggest that the supportive organizational learning culture enhances the critical thinking skills of the female teachers in the higher education institutes. The primary aim of this study is to find out the effects of organizational learning culture on critical thinking skills of female teachers in higher education sector in Punjab.

Hypothesis of Study

Based on the above discussion following hypothesis is derived

- There is a positive and significant relationship between organizational learning culture and critical thinking skills of female teachers.

Significance of the study

In higher education institutions quality of performance of the female teachers matter a lot in attaining millennium development goals in developing countries. This research will help to make understanding that organizational learning culture significantly helps to improve critical thinking skills of female teachers in Punjab. Moreover it will help the policy makers to develop such polices which provides supportive and conducive culture which ultimately foster the critical thinking skills of the teachers. Rest of the study is designed as follows: Section two represents review of the important studies; Section three discusses the data and methodology, section four and five present empirical findings and conclusion.

Literature review

Sullivan (2001), and Wood (2001) defined organizational culture as “transmitted patterns of values, ideas, and other symbolic systems that shape behavior of an organization”. The word “Culture” has been used by different people to explain the mixture of events. Bud (2005) explained that organizational culture is the traditional and customary doing things in which people share their values, norms,

customs, traditions and incidents. Forehand and Gilmer (1964) and Cloke and Goldsmith (2002) explained that culture is the collection of various characteristics which represent the organization and distinguish the organization or institution from other organizations. Wiesner (2002) defined the organizational culture in a way that management must identify the values, norms of the organization as well as the employees. He also suggested that the culture should be developed in such a way to enhance the performance and commitment of the employees for the organization. Thomas & Tung (2003) suggested that culture of the institutes should be organized in such a way that it would help the employees to take the decision on the basis of their cognitive thoughts. Swartz and Jordan (1980) explained organizational culture as "pattern of beliefs and expectations shared by members that produce norms shaping behavior". According to Hofsted (1980) & Anthon (2004) organizational culture is the collective encoding of minds or values, belief and thoughts which distinguish the members from one another. Deal and Kennedy (1982) and Naicker (2008) defined organizational culture as "the way things get done around here". Schein (1992) and Taylor (2004) explained that organizational culture is the set of basic assumptions (norms, values and traditions). According to Faerman (1994) Holloway (2004) and Varner (1996) the culture of the organization serves as the exchange structure in which people from different backgrounds share their values, norms and information collectively. Wagner (2005) and Brooks (2006) concluded that organizational culture is normative glue which represents the whole organization. Cloke and Goldsmith (2002) stated that organizational culture acts as glue which holds the organization through shared values, and pattern of thoughts. According to Steelworker (1983) and Stewart (2006, 2007, 2010) organizational culture strongly affect the values of the employees who involve in it although these values are invisible still the performance of the employees has been strongly affected by the culture of the organization. Uttal (1983) explained organizational culture as the shared values of all groups including social and older groups. Deal and Kennedy (1985) argued that culture of the organization plays important role to reduce the gap and develop the strong association between the employees in the institutions. Moreover, they concluded that culture with the weak values influences the objectives of the employees and goals of the organization. Bass (1985), Collins and Porras (2000) and Mcewan (2001) stated that employees due to their (values, norms, customs and attitude) behave in the organization in different ways and represent the culture of the organization because the characteristics of the employees were defined by the culture of the institutions. Moreover, the management plays important role in the organizations but the employees in the organizations add the values and much more. Kilman et al. (1985) defined organizational culture as the unique characteristics and qualities of the

organization. Roskin (1986) & Robbins (2003 explained that for the representations of collective meanings of the organizations culture acts as a permanent response in the organizations or institutions. Gibson (1995) viewed critical thinking skills as a philosophical concept related to good human thoughts. Furthermore, Goffee and Jones (1996) describe that culture of the organization can be viewed through the sociology and the terms sociability and solidarity. Where sociability refers to cooperation and sincerity among the members in the society and solidarity explains the ability of the members to achieve the organizational goals. Halpern (1998) and Kuhn (1999) explain critical thinking skills as psychological concept related to high order thoughts which represents the effective and efficient learning process and strategies. Martins and Martins (2001) define how individuals in the organization perceive the culture. According to Jansen (2002) supportive organizational culture helps teachers to achieve their educational goals affectively. Jones and George (2003) and Hargreaves (1992) describe organizational culture as a set of collective belief, norms, behavior, expectations of groups, individuals, and teams in which they interact with each other in the society. Keup et al. (2003) describe that culture of the organization influences or affects the member or employee from each and every aspect of life. Floors (2004) points out that teacher in the organization could provide the sound culture which fosters the critical thinking skills in the society. Hellriegel et al. (2004) relate the culture of the organization with the personality of the individuals because the individuals are characterized with unique features in their personality. Hellreiegel et al. (2004) and Kruger (2003) provide some insight, which shows that culture of the organization have some potential to affect the individual performance as well as the objectives of the organization.

Mcpeck (1981) describes critical thinking skills as "a propensity and skill to engage in an activity with reflective scepticism". Atkinson (1997) defines that critical thinking skill is not just a set of teaching pedagogical assumptions in fact a socially constructed concept which practices social issues and covers the societal aspects or societal challenges. Browne and Meuti (1999) define that critical thinking skill is the most often cited learning objective. Halpern (2002) defines critical thinking skills as "cognitive skill and strategies that increase the likelihood of desired outcomes. According to Tsui (2002) critical thinking means to "assess and scrutinize knowledge prior to its consumption". Vandermensbrugghe (2004) categorizes the definitions of critical thinking into two broad categories; the ability to think logically and the ability to challenge the existing knowledge or theories. Barnes (2005) concluded that critical thinking means questioning. Kong and Seng (2006) identify that there are many kinds of thinking but in the educational community critical thinking highly attracts the attention of the educational community. Carr, (1990), Mcdade, (1995) and Paul et al. (1989) suggested that for developing critical thinking skills, different activities like,

thought provoking questions, discussion, case studies, decision making, analyzing, experiences, reading, writing and transfer of knowledge are very important. Facione (1990) presented that centre of critical thinking is interpretation, analysis, evaluation, inference, explanation, and self- regulation. King, Wood and Mines (1990) find an important and positive effect of critical thinking skills on the individuals or find different impact of critical thinking at college levels, university level and on gender vise. Pascarella and Terenzini (1991) defined critical thinking as "the individual's ability to do some or all of the following: Identify central issues and assumptions in an argument, recognize important relationships, make correct inferences from data, deduce conclusions from information or data provided, interpret whether conclusions are warranted on the basis of the data given, and evaluate evidence or authority." Paul (1995) believed that critical thinking is " a unique and purposeful thinking in which the thinker systematically and habitually imposes criteria and intellectual standards upon the thinking, taking charge of the construction of thinking, guiding the construction of the thinking according to (critical thinking) standards, assessing the effectiveness of the thinking according to the purpose, criteria, and the standards. Beyer (1995) concluded that critical thinking is important for reasoned judgment and every day decision making not only for the individual not only in the educational institutions but also beyond the classroom. Rudd and Baker et al. (2000) defined the critical thinking as "critical thinking is a reasoned, purposive, and introspective approach to solving problems or addressing questions with incomplete evidence and information and for which an incontrovertible solution is unlikely". Beyer (2001) explains critical thinking skills plays very important role in learning and teaching strategies. Ennis (2003) defines critical thinking as "reasonable and reflective thinking focused on deciding what to believe or do". Walker (2004) describes that for developing critical thinking skills in the teachers; open-mindedness, whole heartedness and responsibility have been seen or viewed the most important qualities. Cottrell (2005) describes critical thinking is the process to think in the most appropriate way by using cognitive skills or using psychological process like interest, curiosity, collection and conclusion. Borich (2006) identify key elements of critical thinking skills as comparing, classifying, analyzing, predicting and evaluating. Facione (2006) explained that critical thinking is a process of useful thinking or thinking with an objective or purpose. Paul and Elder (2006) defined critical thinking as "thinking explicitly aimed at well-founded judgment, utilizing appropriate evaluative standards, in an attempt to determine the trustworthy, merit or value of something". Porter (1998) describes critical thinking as "looks beneath the surface of knowledge and reason in order to see how that knowledge and reason are distorted in an unequal and exploitative society and in doing so, to point the way to less distorted forms of knowledge and reason". Facione (2006), Mcpeck (1981), Gambrill (2006), Ennis (1996), describes that critical thinking is a procedure which includes both

cognitive and affective domains of reasoning. Gambrill (2005), and Mason (2007) concluded that critical thinking is all about problem solving, emotional intelligence, emotional well being, belief, values and human functioning. Fisher (2007) defines critical thinking as "a kind of evaluating thinking which involves both criticism and creative thinking and which is particularly concerned with the quality of reasoning or argument which is presented in support of a belief or a course of action". Fisher and Fisher (2007) and Scriven (1997) suggested critical thinking skills are the requirement of the educational institutions. Mason (2007) defined that critical thinking creates the abilities in individuals to understand the people of different cultural background. Nosich (2009) opined that critical thinking skills as meta-cognitive thoughts or high order thinking. Brookhart (2010) concluded through his research that critical thinking skills in the teachers enhance the performance and efficiency of the students in the educational institutions.

Relationship between organizational learning culture and critical thinking skills

Brooks et al. (1990) argued that the assumptions of organizational learning culture (value, belief, custom and workplace) affect the critical thinking skills and outcomes of the organization. Perkins (1992) concluded that for the implementation of critical thinking skills in the institutions, environment and organizational culture play a very important role. Brookfield (1993) defined that organizational culture is positively associated with critical thinking skills and enables the individuals to take the right decision. Kember (1996) Marton Watkins and Tang (1997), Peng and Nisbett (1997) cultural dimensions, differences positively affect critical thinking skills in institutions. According to Atkinson (1997) some cultural elements prevent the growth of critical thinking skills in the institutions. The role of teachers in the development of critical thinking skills has been emphasized in many studies (Beyer 1998, Paul et al. (1989) Nisbet(1993), Nisbet et al. (2005), Costa (1991), Burden and Williams (1998). Celuch and Slama, (1999), Hatcher (2006), Kokdemir, (2003), Semerci (1999) Solon, (2007) concluded that the teachers with critical thinking skills enhance the thinking skills and abilities of the students. Gauvain (2001) argued that there is positive relationship between critical thinking skills and the culture of the organizations. Moreover, he suggested that critical thinking skills and culture are correlated with each other as internal and external factors so the development of both critical thinking and organizational learning culture is important. Lombard and Glosser (2008) described that socio; cultural constraint causes the lack of critical thinking skills in the individuals.

Data and Methodology

This study uses structured questionnaire on organizational learning culture and critical thinking skills for the collection of data. The questionnaire covers the demographic variable and questions on critical thinking skills and organizational learning culture. For this purpose the present study adapts the questionnaire from Yang (2003) (21-item) of organizational learning culture and from Naieni (2005) (30-1tem) questionnaire on critical thinking skills. We collect data from female teachers of public sector higher education institutes and universities of Punjab, Pakistan. McQuitty, (2004) described that for achieving adequate statistical power sample size is considered very significant or very important. A minimum sample size is required for estimated method and normality of the data (Schreiber et al. 2006). Nunnally (1967) and Scheriber et al. (2006) advocate for every free parameter a general rule of ten observation is required. For the aim of collection of the data we distributed 270 questionnaires among randomly selected university female teachers of Punjab Out of which 250 properly filled questionnaires were returned Table 1 represents the demographic profile of the respondents.

Table 1

Demographic Profile of Respondents

Respondents' Demographics	Frequency (N)	Frequency (%)	Cumulative Frequency (%)
Age (N=245)			
Under 30	102	41.64	41.64
30-39	88	35.92	77.56
40-49	34	13.88	91.44
50-59	14	5.73	97.17
60 and above	07	2.86	100.03
Qualification(N=247)			
Bachelor's Degree	06	2.49	2.49
Master's Degree	171	69.24	71.73
M. Phil. or PhD	65	26.33	98.06
Others	5	2.03	100.09

Descriptive Summary

This research paper uses 21 item questionnaire on organizational learning culture and 30 item questionnaire on critical thinking skills. All items are develop on five point likert scale.

Methodology

This study employs principal component analysis (PCA) to extract factors from various items of both of the constructs used in this study. PCA develops the principal components as the linear combination of the scores of the manifest variables using the optimal weights. The suggested equation of PCA takes the following form…

$$Y_1 = b_1 (X_1) + b_2 (X_2) +\ldots\ldots\ldots\ldots\ldots\ldots..+b_n(X_n)$$

Where $Y_{i,}$ X_{ni} and $b_n$represents score on principal component in i^{th}case, score on $n^{th\ manifest}$ variable in i^{th} case score and weight of n^{th} variable simultaneously. Further Kaiser-Meyer-Olkin (KMO) and Bartlett's test have been used in this study in order to check the sampling adequacy and data sphericity. For the preserve of the principal components KMO criterion has been used in this research paper. KMO recommends the retention of the components which appear with Eigen value over 1. The study also computes factor loadings to observe that how each item is loaded in extracted factors. Cronbach's alpha has been computed to test the reliability of the data. In order to determine the effects of organizational culture on critical thinking skills the study has used multiple regression analysis. The specified model of multiple regressions for this study is given as follows:

$$CTSji= b_{1j} (OLC1_i) + b_{2j} (OLC2_i) +b_3 (OLC3_i) +Ɛ_i$$

In the above equation (CTSji) represents scores of ith individual on jth factor of critical thinking skills and OLC1, 0LC2, and OLC3 represents three components of organizational culture.

Empirical Findings

In order to check internal consistency and reliability for each measure this study restrains values of Cronbach s' alpha for each factor. The data is internally consistent, acceptable and reliable if the value of Cronbach s' alpha is above 0.80. The value of Cronbach s' alpha which is computed for each construct is highly reliable and c consistent**.** Cronbach s' alpha for the construct organizational learning culture 0.89where as the value for construct critical thinking skills 0.91. This reveals the data on both construct are internally consistent.

Table 2
KMO and Bartlett's Test

Constructs	No. of Items	KMO Measure of Sample Adequacy	Bartlett's Test of Sphericity Chi-square	Bartlett's test of Sphericity Sig.
Organizational learning culture	21	0.84	6123.0	0.000
Critical thinking skills	30	0.89	12210.0	0.000

Table 2 revealed that the test KMO measure of sample adequacy and Bartletts' test of spehericity authenticate that our data is appropriate for the use of factor analysis. The p-value of Bartlett s test is less than 0.001 in case of the both construct critical thinking skills and organizational learning culture which rejects the null hypothesis of no correlation between the constructs.

Table 3
Eigen values and Total Variance Explained

Construct	Components	Initial Eigen values		
		Total	*% of Variance explained*	*Cumulative % of Variance explained*
Organizational learning culture	Comp 1	7.629	46.331	46.331
Organizational learning culture	Comp 2	2.800	12.887	59.218
organizational learning culture	Comp 3	1.120	7.332	66.550
Critical thinking skills	Comp 1	13.478	44.926	44.926
Critical thinking skills	Comp 2	1.925	11.416	56.342
Critical thinking skills	Comp 3	1.160	5.868	62.210

Table 3 represents the percentage of variance which is explained by the each component and Eigen values of the extracted components. According to Straub et al. (2004) and Hinton et al (2004) for principal component analysis the factors are retained as principal component which are extracted with the magnitude of Eigen values above 1.

Factor loading

Table 4

Component Matrix

Constructs	Components	Items	Loading
Critical Thinking Skills	CTS1	I develop notes of the key points of people's arguments or propositions.	0.60
		I test the assumptions emphasizing on argument or proposition.	0.79
		I present my rationale regarding acceptance and rejection of arguments and propositions.	0.73
		To enhance my understanding, I convert my read or seen material into my own words.	0.75
		I make clear difference between facts and opinions.	0.71
		I cross check the precision of facts for accuracy.	0.81
		I examine the understanding of people related to matter.	0.73
		I employ a set of criteria to assess the strength of the argument or proposition.	0.64
		I derive conclusion after analyzing data to make decision regarding acceptance or rejection of suggestion or argument.	0.72
		I seek input of other people to enhance my understanding of a subject.	0.71
		I examine suggestions to check if the strength of a logic.	0.52
		I exclude my biasness to access opinion in a neutral and objective way.	0.61
		I make a clear difference between major and minor points.	0.64
		I prefer to look for what is not there rather focusing on what is there.	0.70
	CTS2	To confirm my proper understanding, I conclude whatever I read or hear.	0.68
		I split material into various components to check the order of ideas and how they are raised.	0.84
		I evaluate the credibility of the person presenting the material that is assessed.	0.61
		I perform the role of devil's advocate to improve my understanding of an argument or proposition.	0.88
		I preclude emotive language to avoid my biases and dogmatic statements.	0.61
		I assess the evidence presented for argument or proposition to see if its strength enough to warrant belief.	0.62
		I object proposals and arguments having the dearth of rigour.	0.86
		I assess the reliability of people's point of view.	0.84
		I question for strengthening my understanding regarding the issue.	0.80
		I develop the assumptions upon which an argument depends.	0.42

	CTS3	I develop my own conclusions rather than basing them on the opinions of others.	0.80
		I research a subject in order to improve my understanding.	0.84
		I develop the fundamental of a case or proposal.	0.51
		I study new information to reassess my previous conclusion.	0.69
		I explore ambiguous statements to avoid their misinterpretation.	0.54
		I look for parallels and similarities between various issues.	0.67
Organizational Learning Culture	OLC1	People enhance open and honest feedback with each other in my institution.	0.61
		People facilitate each other in learning at my organization.	0.88
		In my institution leaders act as mentor and coach of their team.	0.60
		In my organization, leaders extend their support to the request made for learning prospect and training.	0.86
		My organization encourages resourcefulness of people.	0.67
		My organization measures the output of the time and resources provided for training.	0.81
		My organization ensures the availability its learned lesson for all employees.	0.62
		My organization develops systems to measure gaps between current and probable performance.	0.61
		In my organization, team/groups change their thinking on the basis of group discussions or information collected within organization.	0.60
		In my organization, people take time out to develop trust among them.	0.75
	OLC2	In my organization, groups are confident that their recommendations will be considered.	0.61
		In my organization, teams are free to allow their goals as needed.	0.73
		My organization cooperates with outside community to fulfill mutual needs.	0.71
		Leaders ensure that the organization is acting in accordance with its values in my organization.	0.56
		People are provided time to support learning in my organization.	0.68
		Employees are encourages who take calculated risks in my institution.	0.51
		My organization motivates people to think globally.	0.73
		leaders continue seeking for learning opportunities in my organization	0.70
	OLC3	My organization encourages people to take answers across the organization to solve problems.	0.66
		In my organization people seek for the opinions of other whenever they present their own views.	0.49
		My organization encourages people who take initiative.	0.71

Extraction Method: *Principle Component Analysis.*

Rotation Method: *Varimax with Kaiser Normalization*

Table 4 represents the details of factor loading and principal component factor loading with their respective values. According to Straub et al. (2004) minimum acceptable values of factor loading is 0.40 with all cross loading less than 0.4. In this study three apparatus of critical thinking skills have been used named as CTS1, CTS2, and CTS3 and on the other hand the components of organizational learning culture have been given the named as OLC1, OLC2, OLC3. 14 items were loaded on CTS1, 6 items on CTS2, and 4 items on CTS3 in case of critical thinking skills. Factor loading on CTS1 varied from 0.52 to 0.81 and for CTS2 factor loading varied from 0.42 to 0.88 and from 0.51 to 0.84 for CTS3.

In case of organizational learning culture on OLC1 10 items were loaded, 8 items for OLC2 and 2items for OLC3. Factor loading varied for OLC1 from 0.60 to 0.88, for OLC2 from 0.51 to 0.75 and for OLC3 from 0.49 to 0.71. All the values of factor loadings are above 0.4 and Eigen values are above 1 which shows that the data attained on two construct is valid.

This study conducts the multiple regression analysis in order to find out the effects of organizational learning culture on critical thinking skills of female teachers of higher educational Institutions of Punjab.

Table 5

Multiple Regression Analysis

Independent variables	Dependent variable		
	1	2	3
	CTS1	CTS2	CTS3
OLC1	0.23*	0.63*	0.09
OLC2	0.62*	-0.05	-0.12
OLC3	0.17*	0.21*	0.34*
Adjusted R^2	0.73	0.69	0.54
F-Statistics	274.83*	255.42*	78.41*

Note: * and ** stand for significance 0.05 respectively and less than 0.01

Table 5 reveals the results of multiple regression analysis. This table represents three multiple regression models where all of three factors of organizational learning culture have been entered as independent variables, whereas the factors of critical thinking skills has been considered as dependent variable. CTS1 appears as dependent variable in the first model. Results show that 0LC1 (β=0.23, $p<0.01$), OLC2 (β=0.62, $p<0.01$) and 0LC3 (β=0.17, $p<0.01$) are the significant and positive predictors of CTS1. The value of adjusted R^2 (0.73) suggests that 73% variations of CTS1 are explained by the three factors of OLC. The value of F-statistics (F= 274.83, p-value< 0.01) define that the effects of three factors of OLC on

CTS is positive and model is good fit. Model two in table 4.5 takes all the components of organizational learning culture as independent variable and CTS2 as dependent variable. In this model 0C1 (β= 0.63, p <0.01), OC3 (β= 0.21, P<0.01) are significant predictors of CTS2, whereas OLC2 is not a significant predictor of CTS2. It is worth noting that OLCI and OLC3 both affect CTS2 positively. In the third model of table 4.5 where CTS3 is dependent variable only OLC3 appears as significant predictor of CTS3. The effect of OLC3 on CTS3 is also positive. It is interesting to note that OLC3 is the significant predictor of all the three factors of organizational learning culture.

Conclusion and Recommendations

Above results shows that the effects of organizational learning culture on critical thinking skills of female teachers in higher education institutes of Punjab is significant and positive. As the world is been shrunk into the global village for this reason everybody is required to be perfect in his relevant field. For the sake of perfection always we do need of movement, if we get stagnant then progress is almost impossible. Results of this research papers reveals that the management supports, encourages and facilitates the female teachers in the educational institutions. In order to enhance their critical thinking skills and abilities, organization providing those resources and different source of trainings this increases their professional potentials, and capabilities. Our results support the previous findings of the researchers that organizational learning culture positively and significantly affect the critical thinking skills of the teachers Beyer 1998, Paul et al. (1989) Nisbet(1993), Nisbet et al. (2005), Costa (1991), Burden and Williams (1998). Celuch and Slama, (1999), Hatcher (2006), Kokdemir, (2003), Semerci (1999) Solon, (2007)

Results indicate that in developing countries the overall culture is supportive for the female teachers, but in some organizations the environment and the climate create the hurdles in their ways to develop their critical thinking skills. Results from the analysis represent that first component of critical thinking skills significantly effects by the all component of organizational learning culture. However the second component of organizational learning culture strongly and significantly determines all components of critical thinking skills. Therefore in order to improve the critical thinking skills of the female teacher in the educational institutions following steps are need to be taking. As our 51% population strength contains of females so we should promote their role in educational institutions morally and socially as well. First the organization should give the freedom of choice and should provide confidence to the female teachers whenever they are in the situation of argumentation. Second the

organization should value or accept and regards the role of female teachers in decision making and judgment process. Third while designing and implementation the educational, institutional policies organizations should accept the suggestions and recommendations from female teachers. Fourth the organizations should provide learning culture so that female teachers can critically evaluate the problems and their solutions. In general, all diversity around the boardroom table enhances the performance of the organization. In terms of female, studies specifically show that the more female teachers associated with the educational institutions an organization has in key leadership positions, the better it performs. The results of this analysis show that females in general have strong listening and critical thinking skills. As organizations move to a less hierarchical, more matrixes structure, these types of skills become tremendous assets. So it means that female are playing crucial role in any organization both in public sector and in private sector of higher education institutes. Our Public and Private sector are promoting this culture side by side. For this female teachers are quite lucky in this regard that they got family, organizational culture, society and institutional support with them to enhance their critical thinking skills professionally.

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