Instructors' Responsiveness to Peer Led Team Learning pedagogical Initiative and Its Contributing Factors in Higher Education Institutions.

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ABSTRACT

This manuscript was intended to investigate instructors' responsiveness to cooperative learning or PLTL change initiative and its contributing factors such as instructors' attitude, work culture, leadership styles, and instructional delivery models. The study employed mixed method research design. 91 instructors were participated to fill in 5 point Likert and rating scale item questionnaires. An interview with key informants were conducted. The three HEIs instructors' responsiveness to PLTL overall mean 2.8254 rested in disagree scale which implies instructors' responsiveness to cooperative learning or PLTL was below average expectation. Thus, cooperative learning/PLTL pedagogical model application by the three HEIs did not achieve desired learning goals on learners . Transformational and servant leadership styles as well as communal culture showed more prediction and relationship with instructors responsiveness to cooperative learning and PLTL. Positive interdependence, individual and group accountability, interaction, and group process principles of cooperative learning were not implemented in the right way and did not result in desired learning goal. Pre, during and post instruction task categories were poorly implemented. Hence, instructors' responsiveness to PLTL needs attention of instructors and institutional leaders for its improvement. Adjustments on instructors' attitude, institutional leadership and culture styles with other situational factors may enhance PLTL practice and performance.

Keywords: Cooperative learning, Instructors’ responsiveness to PLTL, PLTL and modular instruction pedagogical initiatives, leadership and culture styles, instructors' perception and attitude to PLTL
INTRODUCTION

Background and Description of the Problem

Organizational changes involve reforms, transformative or innovative change initiatives. The implementation and performance of change initiatives depends on how much instructors, leaders and students are change responsive (MoE, 2004). Several change initiatives in the education system failed due to resistances coming from stakeholders like instructors, students, educational leaders, parents and so on. Educational change initiative responsiveness of instructors depends on determinant factors in the system. For instance, the character of the change initiative in terms of its relevance to stakeholders, less risk and no threat brought to stakeholders, and promote the interests of both owners and stakeholders influence stakeholders' responsiveness. Stakeholders’ awareness and attitude about the change initiative plays great role for accepting and practicing the desired initiative. Change agents are responsible to make clear the change initiatives for stakeholders, so that stakeholders develop positive attitude and commitment to the desired change initiative. The dynamics of organizational culture with types of culture exercised influence stakeholders' responsiveness to change initiative. Mercenary, networked, communal and fragmented culture dimensions are common depending on the nature of leadership exercised in the institution. Several leadership styles and change management strategies exercised which affect stakeholders responsiveness to education change initiatives.

Instructors' responsiveness to cooperative learning or peer led team learning in HEIs is generally surrounded by external environment that involve the institutional system. Institutional system begin with the owners or top executives then extended to the bottom grass root teachers and students with particular institutional initiatives like PLTL. Leadership Educational initiatives which are generated and practiced in HEIs are many in the form of reforms or innovations. For instance Modular instruction model, cooperative learning model, Peer led team learning model, experiential learning model etc are some of pedagogical change initiatives. Design based research, Balance score card, Kaizen principle etc are also some of change initiatives in HEIs. This study particularly focuse on Cooperative learning and PLTL models as change initiatives in HEIs. Formal cooperative learning or in other words PLTL is one of the main social cognitive constructivist learning approaches that contribute more improvement on cognitive and non cognitive abilities achievement through zone of proximal development" or ZPD (Vygotsky, L. 1987; social interdependence theory of Kurt Lewin,1930’s; with his colleagues and Gestalt psychologists.) However the practice of PLTL pedagogical initiative is not as expected in many HEIs in Ethiopia. Actual grass root field observations revealed that university students do not exercise PLTL in the right way so as to effect desired learning goal achievement. Nevertheless, many scholars proved that cooperative learning as pedagogical model can better effect higher order thinking abilities, interpersonal and social skills, leadership skills, moral, ethical and pro-social behaviors on learners in education system. Therefore, This study focus on investigating the status of cooperative learning pedagogical model in HEI and the factors causing the identified low status of PLTL with suggesting solutions to the problem.

Conceptual framework model which guide theoretical conceptualization of the problem.
in the institution. Transformational and servant leadership styles with communal and mercenary work cultures are suggested as effective for goal achievement and institutional success (Cameron & Quinn, 1999; Kavanagh & Ashkanasy, 2006). Therefore, instructors' responsiveness to PLTL is a function of instructors, perception and attitude towards PLTL, work culture and leadership styles exercised, and the general environment. The principles of cooperative learning and the pre, during and post instruction tasks implementation integrated with instructors' attitude, work culture and leadership substantially affect the achievement of cooperative learning/PLTL goals. The institutions system in juncture of implementing educational or pedagogical change initiatives encountered considerable gaps which have been observed in the process of carrying out various change initiatives for instance cooperative learning pedagogical initiatives in HEIs. Investigating how to address and solve this problem was initiating the researcher to conduct this research.

To this end, these research questions were drawn to be answered by the research investigator.

1. What is the status of HEI instructors' leadership influence, work culture, perception, attitude and responsiveness to PLTL pedagogical initiative? What leadership and organizational culture styles exercised for improvement of instructors' responsiveness to PLTL pedagogical initiative?

2. Are there a significant difference on instructors' responsiveness to cooperative or peer lead team learning among CEBSs in Bahr Dar, Gondar and Dilla universities?

3. Do Instructors responsiveness to cooperative learning significantly correlate with instructors' attitude, modular approach learning, leadership styles and organizational culture in Bahr Dar, Gondar and Dilla universities?

4. Do instructors' attitude, modular approach learning, leadership styles and work culture significantly predict instructors' responsiveness to cooperative learning with in
Bahr Dar, Gondar and Dilla universities? 

5. How do instructors promote cooperative learning/peer led team learning in HEIs of Bahr Dar, Gondar and Dilla universities? 

**Delimitation:** The scope of this study is delimited to instructors' responsiveness for cooperative learning or PLTL including its status and causal factors for improving cooperative learning and PLTL pedagogical models in HEIs of college of education and behavioral sciences specifically Gondar, Dilla and BahrDar universities. The study was also delimited to 2017-2018 academic year education and data. 

**Operational Definition of Terms**

**Change:** Any alteration or variation (positive or negative) in the existing fields of force (institutional internal and external environments) which tend to affect the equilibrium between two points of time. Modifications in the way certain jobs are performed; changes in rules and procedures; bringing in new technology; alterations in the organizational structure; change in leadership etc do affect the internal equilibrium. 

**Organizational change:** The process by which an organization identifies, examines and implements a new idea. It can be fundamental departure from existing practice (radical reorientation, non routine, ultimate, core, transformative and high risk) or minor adjustments to existing practices (routines, instrumental peripheral, incremental, low risk (Austin and Claassen,2008).

**Innovation:** Fundamental, deliberate and planned new ideas, objects, or practices rather than reordering of existing idea, object or practice and intended to bring about improvement in relation to achieving desired objectives.

**Transformation:** More comprehensive planned change of a system or organizational culture for better growth, improvement and success.

**Stakeholders' responsiveness to change initiatives:** Willingness of change agents, users and implementers to accept and practice change initiatives or innovations such as Modularizations, Peer led learning, BSC, DBR, etc as desired so as to attain goals and bring institutional success. It can be measured through measuring the perceptions, attitudes and practices of stakeholders( students, instructors and leaders) towards reform, transformative and innovative change initiatives. The determinant factors that affect acceptance or responsiveness otherwise resistance of stakeholders to change initiatives can be also identified and measured using scale.

**RESEARCH DESIGN AND METHODS**

**Research Design**

Mixed method research design specifically concurrent parallel mixed method was employed to analyze both quantitative and qualitative data at a time. Instructors' responsiveness to PLTL is the dependent variable measured through instructors' practice of PLTL. The independent variables were organized in 6 dimensions as Perception, attitude, OC, LS, and modular versus conventional instruction.

**Population and Sample Size Decisions**

Three sample universities were selected randomly from 9 first generation universities such as Bahr Dar, Gondar and Dilla universities. The total populations of the study were 85, 40 and 55 instructors in Bahr Dar, Gondar and Dilla universities' College of Education and Behavioral Sciences respectively. 91 instructors to whom 49 from Bahr Dar, 21 from Gondar and 21 from Dilla universities were participants involved in the study. The participants were selected using stratified random sampling technique by university.

**Instruments and Data Collection**

Questionnaire, key informants interview and field observation notes were the major data collection tools used in the study.
collection instruments. Field observations were done during data collection for Dilla and Gonder universities while frequent detail ethnographic observations occurred in BDU since the researcher is part of it.

The reliability of the questionnaire items were checked with Alpha reliability tests. The dependent variables i.e. instructors' responsiveness to PLTL change initiative comprised 10 items with $\alpha= .881$. The independent variables include: organizational culture scale include 13 items with $\alpha= 0.821$ ), leadership scale consisted of 9 items ($\alpha=0.936$ ) modular instruction scale 20 items ($\alpha=0.960$) instructors' perception scale 6 items( $\alpha= .861$ , instructors' attitude scale 5 items ($\alpha=.871$ ). According to Kerlinger (1986) Cronbach Alpha reliability test results are well accepted if $\alpha$ value is greater than or equal to 0.70 for each scale variable measurement. Therefore, the Alpha values obtained for each scale rest in the range of (0.821-0.960) indicated that instruments are reliable and consistent. The above scale items are adapted from literature and other researchers questionnaires.

Data Analysis Tools

Data were analyzed using descriptive statistics like mean and SD. In addition, inferential statistical significance tests were also computed using analysis of variance like ANOVA, Bi-variate correlation, and Hierarchal regression. Qualitative data were thematically analyzed and interpreted in the study.

RESULTS, INTERPRETATION AND DISCUSSION

Data Cleaning Issues

As soon as data collection were completed, First round pre-data analysis activities like mechanical data cleaning, avoiding incomplete questionnaire, correcting simple respondent errors were carried out, then data were entered into a computer with the help of the 20th version Statistical Package for Social Sciences(SPSS).

After completion of data entering in to the SPSS, second round data cleaning activities were done using statistical tools like skewness and kurtosis tests, histogram, missing cases, Outliers, and multicolinearity tests before running descriptive or inferential statistical computation.

The findings revealed that there is no risky missing for each variables and cases in the data.

The skewness and histogram statistics for normality test indicated the data was normal that is in between -1and 1. The Kurtosis test in the data indicated that the distribution is normally distributed from the mean value zero at the center of normal probability curve. Extreme low and high values exist for some variables although not that much risky. Univariate outlier test of the data indicated that some variables involve few outliers that did not bring risk so that tolerated for analysis. The Mahlenobis distance test showed that few multivariate outliers exist which are not risky so that tolerated in the analysis. Multi-co linearity test of the data indicated that all variables involved VIF statistic value less than 10. and tolerance value greater than 0.1. Hence , the researcher is confident that there is no excessive correlation coefficient or relationship between the variables used. The graph of scatter dots showed that the data are evenly distributed from the mean with no pattern. Hence decided confidently to run inferential computation in the analysis. linearity check also indicated existence of linearity rather than pattern distribution of score. Homoscedastisity check indicated that data are evenly distributed from the mean so the researchers are confident that there is no risk in the analysis.

What is the status of HEI instructors' leadership influence, work culture, perception, attitude and responsiveness to PLTL pedagogical initiative?
Table 1: One Sample t-test for determining the status of predictors and the DV.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N=91, test value=3.00,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Instructors responsiveness to PLTL</td>
<td>2.8254</td>
</tr>
<tr>
<td>Instructors attitude to PLTL</td>
<td>2.9121</td>
</tr>
<tr>
<td>Instructors' perception towards PLTL</td>
<td>3.3077</td>
</tr>
<tr>
<td>Institutional Work culture</td>
<td>3.1057</td>
</tr>
<tr>
<td>Leadership</td>
<td>2.9031</td>
</tr>
<tr>
<td>Modular instruction model</td>
<td>2.6588</td>
</tr>
</tbody>
</table>

As indicated in the above table the status of predictors and the DV in the three HEIs were computed using one sample t-test. The results revealed that three variables showed statistically significant difference from the test values used as expected mean. For instance, there is statistically significant difference between instructors perception to PLTL(actual mean=3.3077, t (90)=3.207, P<0.05) and the test value used as expected mean(3.00) in the positive dimension while modular instruction(actual mean=2.6588, t(90)=-3.881, P<0.001) demonstrate statistically significant status difference below the test value(3.00). Likewise, instructors responsiveness to PLTL(actual mean=2.8254,t(900=-2.278, P<0.05) illustrated statistically significant status difference below the test value (3.00) in the negative dimension. The remaining predictors(instructors attitude to PLTL, institutional work culture and leadership ) did not show statistically significant status difference from the test value used as expected mean. this implies their status were around the lower or upper margins of test value(expected mean, 3.00).

Are There a Significant Difference of Instructors' Responsiveness to Cooperative or Peer Lead Team Learning among CEBSs in Bahr Dar, Gondar and Dilla Universities?

The assumptions to be considered for ANOVA are checked before the analysis such as participants responded independently within each groups so every data are independent of one another and sufficient number of participants at least 20 in each group used. Homogeneity of variance assumed within each groups i.e. the Leven's test of within group variance statistic .027, α= .927) is not significant., The distribution of data was typical to normal curve distribution. Therefore ANOVA test analysis was done as followed.

Table 2: Descriptive statistics and One Way ANOVA test on instructors' responsiveness to PLTL change initiative by university.

<table>
<thead>
<tr>
<th>University</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Sources of variation</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDU</td>
<td>49</td>
<td>2.6440</td>
<td>.71936</td>
<td>Between Groups</td>
<td>3.918</td>
<td>2</td>
<td>1.959</td>
<td>3.900</td>
<td>.024</td>
</tr>
<tr>
<td>GoU</td>
<td>21</td>
<td>3.1376</td>
<td>.69113</td>
<td>Within Groups</td>
<td>44.209</td>
<td>88</td>
<td>.502</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DU</td>
<td>21</td>
<td>2.9365</td>
<td>.70059</td>
<td>Total</td>
<td>48.127</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: N=91, overall mean=2.8254, scale options: 1=strongly disagree, 2= disagree, 3= slightly agree, 4= agree, 5= strongly agree
The idea of collaborative learning corresponds to a new belief that knowledge is constructed by learners: “The fundamental assumption of constructivism is that knowledge is actively built by learners as they shape and build mental frameworks to make sense of their environment” (Cross, 1998). The one way ANOVA test finding in table 1 demonstrated that instructors’ responsiveness to PLTL change initiative in CEBS of Bahr Dar, Gondar and Dilla universities showed statistically significant difference. As seen from post hock comparisons, Gondar university instructors' responsiveness to PLTL was significantly better than Bahr Dar university while insignificant for Dilla university. Dilla and Bahr Dar universities did not demonstrate statistically significant difference. Even though, field observations and interview data triangulations did not support this finding that the status of PLTL in the three universities is almost similar. Formal student peer groupings were not effectively carried out their planned activities in every week. Mentor instructors for PLTL in each class did not devote sufficient time on consulting, supporting and guiding PLTL towards improvement of achievement. Mentor assignments and follow ups of PLTL were more frequently exercised in BDU than GoU and DU as interview informants witnessed and observed by the researcher during field work. Instructors share their professional knowledge, pedagogical, psychosocial and moral thoughts, principles and research works through weekly, bi-monthly, and monthly designed seminars for academic staff. Researches were also conducted by forming peer groups consisting of 3 to 8 members who are responsible for carrying out the research proposal activities to come up with solution for the research problem i.e. their common goal. In this regard, the three universities(Gondar, Bahr Dar and Dilla HEIs) demonstrated relatively moderate status of applying cooperative learning and PLTL pedagogical models in CEBSs as field work evidences and interviews witnessed. The overall obtained mean 2.8254 and mean comparison of each college revealed that the responsiveness performance was within the interval of disagree and slightly agree scale which implies instructors' acceptance and practice of PLTL was below "agree" scale which is considered as desired expectation of leaders and the organization. Hence, it needs attention of both instructors and the educational leaders to think critically towards improvement of instructors’ responsiveness to PLTL change initiatives in all universities.

Do Instructors Responsiveness to Cooperative Learning Significantly Correlate with Instructors’ Attitude, Modular Approach Learning, leadership Styles and Organizational Culture in Bahr Dar, Gondar and Dilla Universities?

Table 2: Correlation of Predictor variables and instructors’ responsiveness towards PLTL change initiative. N=91

<table>
<thead>
<tr>
<th></th>
<th>Responsiveness to PLTL</th>
<th>Organizational culture</th>
<th>Leadership Styles</th>
<th>Instructors’ Perception PLTL</th>
<th>Instructors’ Attitude to PLTL</th>
<th>Modular instruction</th>
<th>Responsiveness PLTL</th>
<th>TMOC</th>
<th>Leadershi p Styles</th>
<th>Perceptio n</th>
<th>Attitude</th>
<th>Mod Instroct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsive</td>
<td>(.881)</td>
<td>(.821)</td>
<td>(.936)</td>
<td>(.861)</td>
<td>(.871)</td>
<td>(.960)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
</tr>
<tr>
<td>Leadership Styles</td>
<td>.613**</td>
<td>.728**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
</tr>
<tr>
<td>Instructors’ Perception PLTL</td>
<td>.573**</td>
<td>.385**</td>
<td>.443**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
</tr>
<tr>
<td>Instructors’ Attitude to PLTL</td>
<td>.723**</td>
<td>.537**</td>
<td>.611**</td>
<td>.680**</td>
<td></td>
<td></td>
<td></td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
</tr>
<tr>
<td>Modular instruction</td>
<td>.529**</td>
<td>.445**</td>
<td>.575**</td>
<td>.487**</td>
<td>.615**</td>
<td></td>
<td></td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
<td>(.821)</td>
</tr>
</tbody>
</table>

** Correlation is significant at 0.01 significance level. r>0.20
* Correlation is significant at 0.05 significance level. r<0.20

(α= ) reliability coefficient, internal consistency of the scales in the diagonal bracket
The bivariate correlation table demonstrated that statistically significant relationship were found between the dependent variable (instructors' responsiveness to PLTL) and independent variable such as: work culture, leadership styles, modular instruction, instructors perception and attitude of PLTL initiative. For example, instructors' attitude to PLTL, $r=.723$, $r^2=52.27%$ common variance with instructors' responsiveness to PLTL. Likewise, Organizational culture $r=0.572$, $r^2=32.72%$ by 32.72% explain instructors responsiveness to PLTL change initiative. Similarly, leadership style $r=.613$, $r^2=37.57%$ which explain 37.57% instructors' responsiveness to PLTL. Last but not least, modular instruction, $r=.529$, $r^2=27.98%$ implies 27.98% common variance with instructors' responsiveness to PLTL.

All independent variables which are mentioned above revealed statistically significant moderate relationship between one-another. For instance, leadership styles demonstrated moderate and direct relationship with organizational culture i.e. $r = 0.72$, instructors' attitude, $r= 0.611$ and with modular instruction $r= 0.575$.

Do Instructors' Attitude, Modular Approach Learning, Leadership Styles and work Culture Significantly Predict Instructors' Responsiveness to Cooperative Learning with in Bahr Dar, Gondar and Dilla Universities?

Multiple Regression analysis was conducted to test the degree of contribution effected by each scale on responsiveness to PLTL change initiative. Hierarchal multiple regression was carried out with scales such as instructors' responsiveness as dependent variable and all other scales as independent (predictor) variables. Tabachnick & Fidell (2007) define multiple regression as a statistical analysis model that relates one dependent variable to a linear combination of one or more independent variables. They further explain that this procedure enable researchers to determine how much each independent variable explains or relates to the dependent variable. Ordinary least squares regression was computed in sequence using hierarchal multiple regression.

1. Leadership style predictor is the source to influence the DV (PLTL) with strong correlation other than others. Leadership style has primary theoretical support to the DV. Hence, entered first sequentially in the equation. 2. Organizational work culture follows since it is immediate effect of the leadership exercised on PLTL. Hence it has conceptual priority to be entered second in the equation. 3. Instructors' perception of PLTL sequentially follows work culture exercised on PLTL. Hence, entered third. Finally, instructors' attitude to PLTL become following their awareness to PLTL. Thus, sequentially entered fourth in the equation.

### Table 3: Hierarchical multiple regression analysis on Instructors responsiveness to PLTL change initiative.

<table>
<thead>
<tr>
<th>Model</th>
<th>Variable</th>
<th>Unstandard B</th>
<th>Standardized Beta</th>
<th>t-value</th>
<th>Sig.</th>
<th>Correlation</th>
<th>Zero Order</th>
<th>Partial</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Constant</td>
<td>.220</td>
<td>.667</td>
<td>.507</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Leadership styles</td>
<td>.264</td>
<td>.295</td>
<td>2.609</td>
<td>.011</td>
<td>.613</td>
<td>.269</td>
<td>.196</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizational culture</td>
<td>.287</td>
<td>.219</td>
<td>1.988</td>
<td>.050</td>
<td>.572</td>
<td>.208</td>
<td>.149</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instructors' Perception to PLTL</td>
<td>.286</td>
<td>.358</td>
<td>4.262</td>
<td>0.00</td>
<td>.573</td>
<td>.416</td>
<td>.319</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Instructors' Att. to PLTL</td>
<td>.394</td>
<td>.442</td>
<td>4.113</td>
<td>0.00</td>
<td>.723</td>
<td>.405</td>
<td>.283</td>
<td></td>
</tr>
</tbody>
</table>

Note: Model summary: $R=0.769$, $R^2=0.592$, adjusted $R^2=0.573$, $P<0.001$, ANOVA: df=4,86, $F=31.158$, $P<0.001$. 

http://escipub.com/american-journal-of-educational-research-and-reviews/
Based on ENTER method as indicated in the above table, 57.3% of instructors’ responsiveness to PLTL change initiative was explained by the combination of leadership style, work culture, instructors' perception to PLTL and instructors' attitude to PLTL, at the fourth model, $F(4,86)=31.158, \ p<.001$. Leadership styles ($t=2.609, \ p<.05$, work culture($t=1.988,\ P<.05$), instructors' perception to PLTL($t=4.262, \ P<.001$) and instructors' attitude to PLTL, $t=4.113,\ p<.001$) are found to be statistically significant predictors of instructors responsiveness to PLTL. Multiple regression correlations depicted the value of unique contributions for each predictor as indicated by zero order, partial and semi partial correlations. Partial correlation values are used for this hierarchal regression analysis such as leadership ($Pr=.269, 26.9\%)$, institutional work culture($\beta=.208, 20.8\%)$, instructors perception to PLTL (.416, 41.6\%) and instructors attitude to PLTL (.405, 40.5\%) contributions with statistically significant probability value at $P<.05$.

3.5. Univariate Analysis of Variance by instructors' experience

Do covariates and experience levels interaction effect demonstrate statistically significant mean difference on instructors' responsiveness to cooperative learning or PLTL?

Table 4 :Descriptive statistics for between subjects factors on instructors responsiveness to PLTL.

<table>
<thead>
<tr>
<th>Instructors' Work Experience Levels</th>
<th>Frequency</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>O- 5 years</td>
<td>33</td>
<td>2.8956</td>
<td>.89578</td>
</tr>
<tr>
<td>6-8 years</td>
<td>23</td>
<td>2.8164</td>
<td>.65358</td>
</tr>
<tr>
<td>9 years and above</td>
<td>35</td>
<td>2.7651</td>
<td>.61261</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>2.8254</td>
<td>.73126</td>
</tr>
</tbody>
</table>

The Leven's test of equality of error variances of instructors' responsiveness to PLTL $F(2,88)=2.926, \ P=.059$ revealed that the groups are equal in terms of error variance involved in the analysis that do not affect the findings of alternate hypothesis.

The univariate analysis of variance test of between subjects effect intercept model $F(1,91)=916.217, \ P<.001, \eta^2=.913$ demonstrated statistically significant and good intercept model for testing interaction effect of covariates and work experience on instructors responsiveness to PLTL. The covariates and work experience levels interaction effect model $F(3,87)=21.832, \ P<.001, \eta^2=.429$ illustrated statistically significant and strong interaction effect.

Table 5 : Parameter estimates of univariate analysis by work experience levels.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.409</td>
<td>.080</td>
<td>30.269</td>
<td>.000</td>
<td>.913</td>
</tr>
<tr>
<td>[Experience=1.00] * TMAAttLTL * TMcLTL * TMCmC * TML * TMMd</td>
<td>.001</td>
<td>.000</td>
<td>6.837</td>
<td>.000</td>
<td>.350</td>
</tr>
<tr>
<td>[Experience=2.00] * TMAAttLTL * TMcLTL * TMCmC * TML * TMMd</td>
<td>.001</td>
<td>.000</td>
<td>4.814</td>
<td>.000</td>
<td>.210</td>
</tr>
<tr>
<td>[Experience=3.00] * TMAAttLTL * TMcLTL * TMCmC * TML * TMMd</td>
<td>.001</td>
<td>.000</td>
<td>4.535</td>
<td>.000</td>
<td>.191</td>
</tr>
</tbody>
</table>
The parameter estimates test revealed that instructors’ responsiveness to PLTL at work experience level 1 (0-5 years) $t=6.837$, $P<.001$, $\eta^2=.350$ illustrated statistically significant and strong interaction effect than the interaction effect of other work experience levels.

Pair wise comparisons of univariate analysis of variance demonstrated that instructors with work experience level 0-5 years ($M=2.687$), 6-8 years ($M=2.718$) and 9 years and above ($M=2.694$) did not show statistically significant mean difference of responsiveness to PLTL.

**Discussion**

**Cooperative learning: Meaning, basic elements and types**

Cooperative learning is the instructional use of small groups based on social interdependence and influence among members such that members work together to maximize their own and others' learning goals (Johnson and Johnson, 1989,1999; Deutsch,1962). PLTL emphasizes the profound social nature of learning. In particular, the concept of effective teaching occur in "zone of proximal development" or ZPD (Vygotsky L., 1987). PLTL is indifferent from competitive learning (learners work against each other to achieve better than others and take grade "A" in the norm referenced grading system); and individualistic learning (students work separately to accomplish learning goals without referencing others except focusing on the criterion referenced standard or goal achievement), (Johnson, Johnson & Smith,2013). Generally, the drive for goal achievement motivates individuals as well as team members in solo (rote memory), competitive and cooperative learning behaviors (Deutsch,1962).

Instructors can use formal cooperative learning, informal cooperative learning and cooperative base teams as types of cooperative learning in universities or schools. Formal cooperative learning is pedagogical model involving students working together for one class period to several weeks to complete specific tasks or assignments jointly to achieve shared learning goals. Informal cooperative learning include students working together to achieve a joint learning goal in a temporary ad-hoc groups that last for a few minutes to one class period. Cooperative base groups are long term heterogeneous cooperative learning groups with stable membership (Johnson, Johnson & Smith,2006).

**Cooperative Learning and Peer Led Team Learning Performance Status within the Three HEIs**

Students in the three HEIs were organized in the form of PLTL groups mostly comprising 5 members with one leader and four followers from each class and every student batch in all departments of colleges, faculties or institutes in the universities. Mentor instructors were assigned for each class to guide, coordinate and facilitate peer led team learning groups to carry out their designed activities and achieve its goal. Instructors are responsible to deliver courses using these groups for various pedagogical purposes especially for active learning approaches. Assignments were given based on PLTL group. Class room seating and discussion were done using these groups. Student reactions and responses during class room discussion, assignments, project works, and researches were expected to be proportional to desired standards for achieving the learning goals. However, Placing students in a group and telling them to work together does not in and of itself result in cooperation (Johnson & Johnson,2010). Instructors role in PLTL or cooperative learning should focus on three major consecutive task categories: first pre-instructional tasks like specify academic and social skill objectives, decide on group size and composition, assign member roles, arrange class rooms and prepare text material; second during instruction tasks comprised of explain the academic tasks, monitor magnitude of understanding, structure positive interdependence, structure positive
cooperation, accountability, specify social skills in the form of forming(stay with the group), functioning(contribute, encouraging others), formulating(summarizing, elaborating) and fermenting(criticizing ideas, asking for justification) third, monitor, intervene and evaluate success( Johnson, Johnson & Smith,2016). The above three PLTL task categories have been carried out partially by many of instructors in the three universities. Hence, the performance of PLTL groupings were not as desired like demonstrated in the ANOVA descriptive statistics of 2.8254 mean value laid in disagree scale for the sampled universities. This implies that the ultimate goal of cooperative learning (PLTL,PATL, peer tutoring …) as pedagogical active learning initiative were not effect students' moral, ethical, self efficacy, pro-social and professional competence behaviors in each university. There may be several reasons for this low performance and goal achievement of PLTL initiative in HEIs as presented in the next section.

Leadership Style, Work Culture and Other Contexts for Effective Cooperative Learning and PLTL Initiatives in HEIs.

Cooperative learning or PLTL initiatives in HEIs need to be organized, structured and guided by responsible academic leaders, mentors and course instructors with applying basic principles of cooperative learning or PLTL groups. All forms of cooperative learning initiatives need systematic application of appropriate leadership and culture styles for effective implementation and goal achievement(Kavanagh and Ashkanasy, 2006; Laka-Mathebula, 2004; Goffee and Jones,1998 ). To this end, course instructors structure tasks accomplished with group efforts and provide rewards for every member based on contribution and participation. Even though PLTL groups in the sample universities demonstrated some sort of shortcomings that they demonstrated between group struggle for receiving better grade, and dependency on few clever members or attempt to change the group they belong by another to get clever students for dependency rather than believing I and my group able to share our contribution that add new knowledge, skill, moral or ethical value for our class teams as a whole which causes them to develop desired cognitive and non cognitive competences i.e. the criterion goal( Abiy,2015).

Individual (and group) accountability: The group must be accountable for achieving its goals and the individual must be accountable for contributing his/her share of the work.

Group processing: Groups need to identify what member actions are helpful and unhelpful and make decisions about what behaviours to continue or change. The goal is continuous improvement of group effectiveness and the learning process through analysis of how members are working and learning together

Social /collaborative /team work skills: Social or collaborative skills need to be incorporated in the curriculum and courses taught to students
just as purposefully as academic skills. Leadership, decision-making, conflict resolution, establishing group goals and a group agenda, communication, analysis and distribution of work and other skills are needed to help groups manage both team work and the task of learning new material effectively. Mentors and course teachers have to structure tasks(workshops, seminars, project works through group discussion and discourse, so as to teach the social/team skills(transformational leadership and communal culture styles) needed to engage successfully in the class room and out of class academic group tasks(Johnson, Johnson & Smith,2006 ). However, HEIs in this study showed limitation to successfully apply this PLTL principle to develop the above skills among students and teachers themselves.

**Interaction:** Genuine and goal oriented interaction is a reflection of transformational leadership and communal culture styles(Laka-Mathebula, 2004; Goffee and Jones,1998 ). Learners desire to genuinely work together in which they share resources, help each other, mutual support, encourage each others’ efforts. Learners develop cognitive, moral, leadership and interpersonal skills as they teach each other what they know, discuss concepts, engage in group problem-solving, connect present to past learning, check their understanding etc. Mentor instructors and course instructors should build learning activities that promote this interaction. They can examine learning activities and ask: are these activities well structured so that students able to interact in order to complete the task? How equal was the participation? Hence, both members and group leaders develop feeling of belonging to the group with discharging responsibility for accomplishing tasks and achieve desired learning goals.

**Qualitative Data Protocol**

Two key informants for each sample HE institutions were conducted. Field observation notes on the actions mentioned in the table below were recorded for each HEIs by the researcher. Therefore, the findings were presented and discussed accordingly the table below.

**Table 6: Summary of the practice of cooperative learning/PLTL initiative in sample universities from interview and field observation data**

<table>
<thead>
<tr>
<th>Focus</th>
<th>Activity</th>
<th>Sample universities performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Bahr Dar University</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formal, informal and team based cooperative learning small groups formation for each class</td>
<td>good</td>
</tr>
<tr>
<td></td>
<td>Instructor mentors assigned for each class</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Do student mentors who completed the task(course) assigned as leader</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Do group clever students serve as leader?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Do heterogeneity maximized in PLTL small groups?</td>
<td>Yes</td>
</tr>
<tr>
<td>Instructors</td>
<td>Research project groupings and practice</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Chair based groupings and practice</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Academic discourse groups and practice</td>
<td>satisfactory</td>
</tr>
<tr>
<td></td>
<td>Seminar/ forum Academic discourse groups and practice</td>
<td>Good</td>
</tr>
<tr>
<td>Students</td>
<td>Positive interdependence practice</td>
<td>Low</td>
</tr>
</tbody>
</table>
As indicated in the above table, the practice of carrying out the principles of cooperative learning by students and instructors were generally low. Desired goals (objectives) of cooperative learning/PLTL were also low for students and instructors. Moreover, the practice of implementing pre-during and post instruction tasks by instructors and students were also limited to moderate to low. Hence, PLTL pedagogical initiative require rigorous efforts of stakeholders to make vital interventions as suggested in this study or further by other studies for its improvement.

CONCLUSION AND IMPLICATION

Instructors' responsiveness to Cooperative learning and PLTL pedagogical initiatives need integrated function of instructors' perception, attitude, leadership style, work culture and applying appropriate change management strategy in HEIs. The practice of cooperative learning and PLTL initiatives found to be at infant stage that needs rigorous efforts of instructors and educational leaders in HEIs. Social cognitive constructivist and social/group interdependence theories take more responsibility to direct and enhance cooperative learning and PLTL initiatives and become sources for investigating problems so as to find solutions for many shortcomings of applying cooperative learning or PLTL. Therefore, principles of cooperative learning and PLTL such as positive interdependence, individual and group accountability, group processing, collaborative work skills and face to face promotive interaction shall be strongly considered in the PLTL implementation process to achieve learning goals. Furthermore, instructors role in carrying out cooperative learning and PLTL shall involve the three consecutive task categories of pre-instructional tasks, during instruction tasks and post instruction tasks. Generally, small group learning improves retention of knowledge and higher order thinking in HEIs and schools (Quitadamo, Brahler & Crouch, 2009; Johnson & Johnson 2005). Providing workshop training for instructors and students regarding cooperative learning/PLTL principles, goals, and procedures is helpful for carrying out it successfully. Group counseling service for students and instructors about PLTL pedagogical initiative can raise responsiveness and improvement.

References

Ayetenew Abie, AJERR, 2018; 3:38


