

ORGANIZATIONAL CLIMATE, ORGANIZATIONAL LEARNING AND RESEARCH  
SELF-EFFICACY OF FACULTY MEMBERS

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**Abstract:** The study examined the role of Organizational Climate (OC) and Organizational Learning (OL) as predictors to Research Self – Efficacy (RSE) among university professors. It also explored the impact of socio-demographic variables to Research Self – Efficacy (RSE). The study utilized a researcher-made questionnaires adapted from previous studies supported by psychometric soundness and further confirmed by validity and reliability tests determined through Cronbach alpha with a composite alpha value of 0.97 respectively. Quantitative methodology was employed with statistical population of ninety-five (95) professors from a local university in Manila recruited through total enumeration. Analyses of data were accomplished through descriptive statistics, ANOVA and multiple regressions.

The findings indicated that there is a meaningful correlation among the three variables namely, organizational climate (OC), organizational learning (OL) and research self – efficacy (RSE). However, only organizational learning (OL) construct singly predicted research self – efficacy (RSE) whereas organizational climate did not. Further results showed no significant difference between RSE scores and socio –demographic variables of the respondents.

The study suggests that future research takes strides towards understanding RSE by exploring further the many features of organization learning as well as the roles of other mediating variables. Research Self – Efficacy (RSE) would be greatly enhanced through skills enhancement programs in different platforms such as developmental activities, trainings and formal education.

This study contributes to educational research by highlighting organizational learning as predictor of teacher research self-efficacy (RSE). Faculty development programs crafted include KOCI, LEAP and SET DATE. Educational policy implications include the need to strengthen faculty development programs, improving research self – efficacy and productivity, as well as tailoring policies related to research incentive system towards a stronger research culture in the university.

**Keywords:** Organizational Climate (OC), Organizational Learning (OL), Research self–efficacy (RSE), Faculty Members, Faculty Development Programs: KOCI, LEAP AND SET DATE.

**INTRODUCTION**

New dynamics have emerged in higher education in the past decade. These include increasing demand for knowledge systems in which higher education, research and innovation activities have converged and become strategically interlinked. There are changing lifelong learning needs, and growing use of information and communication technology as well as enhanced networking and social engagement within the academic community.

The advent of academic revolution in the 21<sup>st</sup> century made research a university function to advance knowledge and transform lives (Archer, 2017). Research by universities remains a prime source of knowledge and innovation. It continues to be the basis for sustainable development in today’s highly technological milieu. As a result, universities now face growing demands to strengthen their capacities for research and knowledge production, despite vastly different political, socio-economic and cultural contexts and varying capacities to respond (Kearney, 2016). A great number of higher educational institutions are confronted with the dual challenge of training highly skilled human capital to get involved in research while ensuring adequate investment in high – level research and pursuing reforms to build education systems with quality teaching and research. These necessitated urgent efforts to renew higher education as knowledge-oriented institutions to become relevant in today’s knowledge economy. Reinforcing research

in higher education multiplies pressures on the funding, content and structures of knowledge systems which challenges low-income countries like the Philippines.

Universidad de Manila (UDM) as a local university in the country is no exemption. It has to overcome the same challenges to survive in a fast-changing technological environment. The University Research Center, although, still in its infancy stage, has to perform its tasks in establishing research policies and in implementing the university research agenda which are significantly instrumental and relevant in keeping abreast with the demands of global knowledge economy. This is crucial for the pivotal compliance of UDM to be accredited as Higher Educational Institution (HEI) by the CHED. Under the National Higher Education Research Agenda 2 (NHERA), research is one of the major functions of higher educational institutions. Thus, the university is mandated to institutionalize the conduct of researches that are locally responsive but globally competitive. This serves as a strong basis to assess existing research – related activities of the university both for teachers and students alike. Assessment of research competencies is considered indispensable for teachers' quality performance.

Also, the demand for internationalization is of growing importance worldwide. The economic, political and social changes drive the transformation of global knowledge economy. Such internationalization initiative will affect universities and need to comply to international strategies in fostering a culture of innovation through research engagement and collaborations. Hence, institutional appraisal relevant to research is vital for global competitiveness.

Another important key to impacting effectiveness and outcomes in schools is to further expand teachers' knowledge in ways to enhance their research self – efficacy. Yet faculty interest and research engagement in the academic community is bleak. To date, there are only a few numbers of faculty members who are committed to pursue research endeavors. Various reasons identified based on observations and studies include lack of research funds and incentives, low competence, lack of interest, and inadequate research training to do research.

The scenario is compounded by the limited literature on research capacities involving the teaching workforce. Themes and foci seem to be concentrated only to a few variables such as research training and involvement, research-related tasks and activities, and higher research productivity. Many more remained unexplored. In particular, the impact of organizational climate and organizational learning on research self – efficacy are not yet understood and remain to be investigated. Little is known about research self – efficacy and its correlates to organizational features including the impact of demographic variables on research self - efficacy.

While several studies have looked at each variable individually, or the relationships of the two of them, none exists examining the three variables together. Moreover, the previous studies focused on research competencies in highly established state academic institutions but not locally funded universities. The notion that faculty research capacities may reflect differences at a varying degree between institutions cannot be overlooked. The knowledge will provide better understanding on the real picture of the respondents' capabilities with respect to research and will shed light to the role of organizational climate and organizational learning in a different cultural and contextual environment. The assessment will serve as basis for training and faculty development program.

Finally, the study addressed the void in local teacher education literature regarding the predictors of research self–efficacy. Also, the interest in research and research development and the advocacy to promote research engagement among faculty members gave the researcher the impetus to conduct the study.

The primary objective of the study is to investigate the association between organizational climate (OC), organizational learning (OL) and research self – efficacy (RSE). It initially determined the present organizational climate, organizational learning, and research self–efficacy of faculty members and further explored existence of significant difference on respondents' research self – efficacy (RSE) level when grouped according to socio – demographic profile. This study supports the notion that no significant relationship exists between organizational climate, organizational learning and research self-efficacy nor RSE demonstrate significant difference when clustered based on individual characteristics. The null hypotheses were tested at 0.05 level of significance.

## THEORETICAL CONSIDERATIONS

The theoretical foundations for this study are grounded on Bandura's Social Cognitive Theory, Kurt Levin's Force Field Theory and the Three Building Blocks of Organizational Learning by Garvin et al. (2008). These theories serve as the scientific and theoretical basis for much of the argument that research self – efficacy is a function of organizational climate, organizational learning and possibly influenced by personal variables. The concept of self-efficacy is proposed by Albert Bandura where he coined the term Social Cognitive Theory. In this theory, he defined self – efficacy as one's judgment of his or her ability to implement courses of action to attain certain types of performance. A growing literature has documented the role of self – efficacy in the domain of research. Reviews by Lei (2008) and Uranus & Beck (2005) described research self – efficacy as the confidence in carrying out research activities from organizing a research plan to carrying out the research process from library research and reading to writing and publication.

The environment in which a teacher works is closely linked to the organizational climate and learning practices of the school which ultimately impacts research capacity level. Supportive learning environments enable leaders and employees to execute concrete learning processes and practices smoothly and efficiently. Concrete processes provide opportunities for leaders to behave in ways that foster learning and cultivate that behavior in others (Garvin, Edmondson & Gino, 2008). The interrelationships of these variables provide a model for the construct of research self – efficacy among faculty members. This study provides a revealing way to explore research self – efficacy through linkages with teachers' perceptions of organizational climate and organizational learning.

## METHODOLOGY

The researcher utilized quantitative research method specifically descriptive – correlation design to determine if the variables of interest are associated with one another by explaining their relationship. The setting is a locally funded university that aims to promote free and quality tertiary education for the underprivileged youth of Manila. Total enumeration method was utilized in selecting the respondents which comprised of ninety – five (95) professors, associate professors, assistant professors and instructors with full time permanent work status, active final teaching assignment and a two (2) – year tenure of service. The entire population was considered because the size is typically small and possesses only a focal set of characteristics, thus, reducing the risk of missing potential observations.

The researcher utilized four set of questionnaires based on extensive review of literature and studies to collect data. The first part was intended to collect information about the demographic profile of the respondents as to their age, gender, level of educational attainment, teaching experience and academic rank. The remaining three, namely OC, OL, and RSE tools measured the major variables of interest through the application of survey research in a Likert format with equal weighted mean ranges and the transformation of linguistic responses to exact numerical values that are precisely spaced, such that 4 – values per question is said to approximate the pre – set response in each of the dimension of interest.

The tools were subjected to face and construct validity by a panel of three experts comprised of educators with extensive background in educational research and whose specializations focus on educational policy and administration. This cadre of experts provided professional judgment on the semantics, structure and content of the questionnaires used. A pre – testing of the said tools was also conducted through a pilot study to determine its statistical viability. Data processing was accomplished by employing the Cronbach alpha coefficient to assess internal consistency of the items within a given category. The result of the Cronbach alpha coefficient revealed a composite reliability value of 0.97 indicating that the instruments have a very high reliability index. Taken individually, the Cronbach alpha coefficients of the tools are as follows: OC 0.93, OL 0.91, and RSE 0.98.

The study was guided by ethical principles. The respondents were given information pertinent to the study and were made to understand that their participation is completely voluntary and have the right to withdraw at any time. Non – maleficence was also observed by discussing any possible risks or discomforts while guaranteeing privacy and confidentiality of data.

## RESULTS AND DISCUSSION

The respondents were comprised of 95 faculty members. Age characteristics of the sample included a majority of middle adult and younger generation teachers (75%) while a quarter of them account those with advancing age (25%). Male teachers (54%) dominated over their female (46%) counterparts yet still depicted a well-balanced gender representation. Educational level ranges from Masters Units to Post-doctoral degrees with Masters' degree obtaining the highest bulk of respondents (54%). A number of them are currently pursuing their Doctoral degrees (24%) while some (11%) were identified as full pledged Ph.D. or Ed.D. holders and MA takers (11%) in progress. A great representation (44%) of teaching career experience falls within the category of 12 – 21 years while the least (11%) belonged to the bracket of 32 – 41 years. Academic rank described as professional teaching position are clustered well within the lower ranks signified as Instructor I, Instructor II and Instructor III garnering an enormous 78% while the rest accounts to higher positions ranging from Academic Professor to Professorial status (22%).

Table 1 Weighted Mean and Descriptive Equivalent of Organizational Climate

Organizational Climate	Weighted Mean	Interpretation
Role Clarity	3.18	Very Satisfactory
Leadership	2.92	Very Satisfactory
Work Processes	2.91	Very Satisfactory
Peer Relations	2.98	Very Satisfactory
Work Environment	3.07	Very Satisfactory
Communication	2.90	Very Satisfactory
<b>Grand Mean</b>	<b>2.99</b>	<b>Very Satisfactory</b>

It is highlighted that under organizational climate (OC), the role clarity dimension gained the highest weighed mean of 3.18, followed by work environment (3.07) and peer relations (2.98). The bottom three comprise the dimensions of leadership (2.92), work processes (2.91), with communication having obtained the lowest mean (2.90) among all the subscales of organizational climate. All variations were considered minimal thereby making the entirety of organizational climate rated as very satisfactory.

Table 2 Weighted Mean and Descriptive Equivalent of Organizational Learning

Organizational Learning	Weighted Mean	Interpretation
Learning Environment	2.73	Very Satisfactory
Learning Practices	2.88	Very Satisfactory
Leadership that reinforces learning	2.88	Very Satisfactory
<b>Grand Mean</b>	<b>2.83</b>	<b>Very Satisfactory</b>

Organizational learning (OL) was notably evaluated, very satisfactory by the respondents as well. Leadership that reinforces learning as well as learning practices equally garnered a weighted mean of 2.88 while learning environment gained a weighted score of 2.73. Of particular interest, the learning environment dimension indicated two items rated only as satisfactory among all indices across the three main subscales. The identified indicators were “employees easily speaking up what are on their minds” (2.48) and “employees are usually comfortable telling about their problems and disagreements” (2.46). Having obtained the lowest scores, these areas may necessitate management interventions related to organizational development.

Table 3 Weighted Mean and Descriptive Equivalent of Research Self – Efficacy

Research-Self Efficacy	Weighted Mean	Interpretation
Research Design Skills	3.05	Very Satisfactory
Data Analysis Skills	3.02	Very Satisfactory
Writing Skills	3.01	Very Satisfactory
Research Management Skills	2.97	Very Satisfactory
<b>Grand Mean</b>	<b>3.01</b>	<b>Very Satisfactory</b>

The composite research self – efficacy of the respondents garnered the lead weighted mean (3.01) among the three main variables. Generally, the faculty members rated themselves very satisfactory across all the dimensions of RSE and are presented from highest to lowest weighted mean: research design skills (3.05), data analysis skills (3.02), writing skills (3.01), and research management skills (2.97). The findings highlighted that articulating research objectives, developing logical rationale for the study, evaluating validity and reliability of instruments and the application of research ethics were derived as the top indicators denoting competence of the respondents. On the other hand, the subcategories signifying abilities to utilize computer software, interpret statistical print outs as well as research management skills obtained the bottommost weighted means.

The general evaluation of institutional OC, OL and RSE of the respondents interestingly revealed a very satisfactory level. Remarkably, among the three variables, RSE obtained the highest grand mean (3.01) followed by OC (2.99) and subsequently OL (2.83).

**Table 4 Z – Test and ANOVA Results of Socio – demographic Variables**

Profile	Computed Value	Significance (.05)	Decision
Sex	0.215	Not Significant	Accept Ho
Age	0.742	Not Significant	Accept Ho
Educational Attainment	0.658	Not Significant	Accept Ho
Teaching Experience	0.426	Not Significant	Accept Ho
Academic Rank	0.821	Not Significant	Accept Ho

The results also provided evidence demonstrating no significant difference on the respondents’ RSE tested at  $p < 0.05$  level when grouped according to socio–demographic variables. Personal characteristics showed little variance, thus, making the impact on RSE enormously negligible and therefore was considered not significant. The findings supported earlier research done by Garavand et al. (2014), Ashrafi – Rizi (2015) and Bierer et al. (2015) which revealed no significant difference in RSE scores when respondents were classified into gender. This is also analogous with the study by Jaafari et al. (2012), where results show no difference between experienced and inexperienced teachers, between older and younger teachers and between educational degrees with regard to their influence on teachers’ self – efficacy. Other studies, however, contradict the results in terms of age and advancing degrees. A significant positive correlation was seen between age and RSE as well as advancing degree possibly due to higher ages which play a key role in increasing RSE due to longer experience and learning opportunities (Tiyuri, Saberi et al., 2018; Rezaei and Zamani-Miandashti, 2013). Interestingly, this correlation was not found meaningful in the study of Lambie and Hayes et al. (2014). Also, research productivity was found not significantly associated with academic rank among faculty members in the study of Alghanim&Alhamali (2011). It is surprising to note that higher ranking teachers did not reveal a higher productivity in terms of research capacity and output. Others claimed that years of experience is not a consideration of being more competent but rather it is the willingness to learn (Alshammari et al., 2017).

Teachers are generally mandated by CHED (2018) to adapt to sustainable development goals in education through innovation. To comply, teachers need to immerse themselves into knowledge production through research engagement whether young or old, male or female, novice or expert and without regard to teaching experience or academic rank. As such, RSE enhancement is imperative among faculty members to improve educational quality and outcomes irrespective of their socio – demographic background.



**Table 5 Multiple Regression Equation Model of OC, OL and RSE**

Regression Matrix			
Statistics	Computed Value	Significance (.05)	Decision
Multiple Regression	0.467	Significant	Reject Ho
R Square	0.218		
Adjusted R Square	0.201		
Standard Error	0.521		
Observations	95		

RSE Predictor				
Variable	Coefficients	Standard Error	t Stat	P-Value
Intercept	0.909601	0.425744762	2.136494	0.035293
OC	0.248277	0.201071399	1.234769	0.220061
OL	0.478919	0.198989732	2.406751	0.018093*

It can be gleaned from the results that a moderate positive relationship exists among the variables. The value of R is 0.467, proving the fitness of model up to 46.7% level. The total variation caused by OC and OL on the outcome variable, RSE is 21.8% as  $R^2 = 0.218$ . The beta values reveal that all the relationships are positively significant, however, among the predictor variables, only organizational learning (OL  $p = 0.02$ ) statistically predicted research self – efficacy (RSE) while organizational climate (OC  $p = 0.22$ ) did not. Organizational learning ( $p < 0.018$ ) yields to be the sole predictor of RSE in this study. This remarkably proves that learning practices, learning environment and leadership that supports learning were positively associated with RSE. In other words, teachers RSE are directly impacted by perceptions of organizational learning. Since correlation subsists among the three variables, the null hypothesis is therefore rejected based on the statistical calculations where cross sectional data were tested at  $p < 0.05$ .

Considering earlier research findings, it was expected that organizational climate would also predict RSE. However, this study found no such connection between organizational climate (OC) and research self – efficacy (RSE) as indicated in the regression equation model. This study supports the claim that organizational learning is an essential aspect of organizational development affecting both individual and organizational performance. The result is akin to the findings of Tobin et al. (2006) indicating that participation in organizational learning was a significant predictor of self – efficacy while organizational climate was not. According to Jyothibabu, Farooq et al. (2010), team learning or group level learning has mediating effect on organizational performance. They further asserted that leadership plays an important role in the enhancement of communication and establishment of processes for shared learning vital for organizational survival.

The apparent influence of organizational learning as predictor to RSE is not surprising. Specifically, academic organizations have to focus on building a culture that incorporates a sense of organizational learning that provides employee's opportunities for professional growth orchestrated through developmental activities, trainings and educational programs to increase RSE. This is supported by Raj, Kailash et al. (2014) stating that organizations have to embrace organizational learning (OL) to enhance innovativeness. Creativity and innovativeness are both essential in research skills development, thus, considered crucial in improving RSE. The development of organizational learning capability is positively linked to high performance human resource practices, as asserted by Jerez-Gomez et al. (2017).

## CONCLUSIONS AND RECOMMENDATIONS

The evidence supports a meaningful interrelationship of organizational climate, organizational learning and research self – efficacy of faculty members in this context and the remarkable role of organizational learning as a significant predictor of RSE. The study extends educational research by emphasizing the importance of organizational learning on teacher outcomes particularly in predicting the level of research self – efficacy of faculty members which is inextricably linked to students' performance and school effectiveness. The high correlation between teacher quality and student performance is widely accepted notion. Thus, the focus on strengthening research capacities of the teaching workforce to support knowledge creation and innovation in the teaching profession is vital and relevant in today's knowledge economy.

The following recommendations were framed to address the results. Research capability training and development must be integrated as priority program in the strategic planning and development initiative of UDM to enhance research competencies of the teaching staff which is one of the most important thrusts of higher education. Research interest and engagement should be fostered by nurturing a culture of inquiry and innovation across all levels of the institution encompassing all the various aspects of research conduct, publication, dissemination and utilization. The university should also create a viable mechanism to promote, enable, and support research practice to enhance teacher competence. To support this, development of research guidelines is imperative together with the launching of a research journal to serve as a formal channel to disseminate research findings and utilize it as a springboard to a higher form of fortifying educational research. Regular research forums and colloquiums for deeper appreciation of the research process and participation to national and international research fora and conventions are also highly encouraged to provide venue for exchange of research skills and expertise. Additional strategies to strengthen the research pillar of the university include membership to recognize research related organizations, local partnership and international research collaborations to promote linkages for advancement through immersion to current trends, issues and challenges.

To motivate faculty members and students to engage in research activities, sustained budget allocation, utilization and implementation are vital for the provision of research grants to qualified applicants. To that end, reward and compensation systems should be in place for exemplary research performance. Compensation may be in the form of financial incentives, de-loading, work promotion, and privileges for international paper presentations. Along the line of resource allotment, the university may have to invest on state-of-the-art educational technology with stable internet connectivity to ensure full access to web browsers directly linked to electronic books and article sites that are peer reviewed and internationally indexed to facilitate extensive scientific literature search. Establishment of a monitoring mechanism is crucial to assess the progress of research activities against the university research agenda in terms of goals, objectives, priorities, and commitments using relevant performance indicators, benchmarks and targets.

Finally, the University should make use of the results to streamline continuing educational trainings for teachers. This requires implementation of Faculty Development Programs developed namely KOCI, LEAP and SET DATE to set the directions in improving organizational climate, organizational learning and addressing weak areas in research skills which will be critical in advancing organizational development and research competency of teachers.

Future research initiatives may need to be conducted akin to Research Self–efficacy (RSE) theme to improve its specificity, comprehensiveness and generalizability. A more critical, reflective and rigorous approach is suggested with the inclusion of a more diverse sample in multi – center setting such as SUCs and LUCs to elucidate a more robust and powerful results. Time series design through longitudinal method is a worthwhile technique to employ for the exploration of RSE changes overtime. It provides foundation for stronger assumptions about the direction of causality or association between the variables.

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