Improving Classroom Climate of the Course of Educational Administration and Supervision

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Abstract
This classroom action research aims to improve the classroom climate as preferred by students in the course of Administration and Supervision of Education. The research was conducted in one class consisting of 52 students from various study programs at Universitas Negeri Padang. Data was collected using a modified instrument called College and University Classroom Environment Inventory (CUCEI) which was previously validated by 1,244 students from various universities in Indonesia. After two month improvement treatment, it was found that there is a significant increase in the scale of cohesiveness and scale of innovation. It can be concluded that the lecturers succeeded in improving the climate of both scales based on what students preferred. This research can be replicated by other lecturers to improve the classroom climate in order to improve the quality of learning in higher education.

Keywords:classroom climate; university; treatment; cohesiveness; innovation

Introduction
Research on classroom climate in elementary and secondary schools in Indonesia has begun to be implemented, for example by (Silalahi, 2008),(Saptiawati & Hadiyanto, 2009), (Amelia, 2016), (Hadiyanto & Pransiska, 2017), all conducted by students for completion of studies at the undergraduate, master and doctoral levels, or carried out by college lecturers. However, this amount is still very minimal compared to the study abroad as implemented by (Gascoigne, 2012),(Ryder et al., 2015),(Fraser, 2015), and as reported by(Hadiyanto, 2016). The classroom climate research in Indonesia has been carried out to a limited extent in exploratory studies or correlational studies that link the classroom climate as a free variable with other dependent variables. Though research on classroom climate can actually be used to improve the classroom climate itself so that it is useful for improving the quality of learning which will ultimately improve student achievement.

As a first step in comprehensive research, research on the development and validation of primary school classroom climate measurement tools has begun(Hadiyanto & Kumaidi, 1998), and the classroom climate in universities (Hadiyanto, Syahril, Arwildayanto, & Sumar, 2018). The initial research produced a validated classroom climate meter. Further research on the use of these gauges to improve the classroom climate in supporting the learning process in elementary schools has begun (Hadiyanto & Martini, 2018). The research can be replicated for other classes in elementary school. Meanwhile, (Hadiyanto et al., 2018)has also developed a university classroom climate measurement tool and validated it to 1,244 students in various universities in Indonesia.

By looking at such facts, a further study is needed on the use of classroom climate measurement tools in universities that can be used to improve the classroom climate for the lecturers concerned so that they can be used to improve student achievement. For this reason, this research was carried out in order to improve the classroom climate in the Administration and Supervision of Education at UniversitasNegeri Padang.

The relationship between classroom climate and other variables starts from the study of the relationship between classroom climate with students' behavior which states that behavior is a result of the interaction between one's personal and the environment(Lewin, 1935).The concept of person

environment fit (Fraser, Seddon, & Eagleson, 1982), believes that students who study in the classroom climate as desired, then they will get better learning achievement than they are in the class they do not want. For this reason, this study seeks that the lecturers create the classroom climate as desired by their students so that they can learn in an atmosphere that is fit with their wishes.

Relationship between Classroom Climate and Other Variables

Several studies have proven that classroom climate is an independent variable related to other dependent variables. Classroom climate has a relationship with student learning achievement. The results of the study prove that adversity quotient, classroom climate, has a significant effect on learning habits (Amelia, 2016). Other research also shows a positive influence between classroom climate and student learning achievement (Djigic & Stojiljkovic, 2011), classroom climate and performance(Gascoigne, 2012), classroom climate and academic achievement (Brackett, Reyes, Rivers, Elbertson, & Salovey, 2011). The conclusion of some of the studies mentioned above is that student learning achievement is also determined by the quality of the classroom climate in which they experience. A further implication of the study is that student learning achievements can be improved by creating a conducive and better classroom climate(Saptiawati & Hadiyanto, 2009).

The variable that is also related to the classroom climate is the learning motivation of students. The research conducted by Aryani and Alsa entitled the relationship between classroom climate and student learning motivation shows that there is a very significant positive correlation between classroom climate and learning motivation (Aryani & Alsa, 2016). In addition, other studies also found a significant influence on classroom climate on the learning motivation of class X students in Office Administration majoring in Office Vocational Competency Administration subjects at 13.03% (Sari, 2013).

The classroom climate is also a variable that affects student learning outcomes. Husna stated that there was a significant influence on classroom climate and learning interest on the learning outcomes of XI IPS 1 students, XI IPS 2 class and XI IPS 3 class at Muhammadiyah 1 Pontianak High School at 15.3% (Husna, Buwono, & Matsum, 2013). This means the classroom climate has an effect on student learning outcomes. In another study, it was found that there was a positive and significant influence of learning styles and school climate on the class VIII Integrated Social Studies learning outcomes of SMP Negeri 3 Bandar Lampung Academic Year 2015/2016 (Antika, 2016). With the meaning that if the learning style and classroom climate are good then the student learning outcomes will also be good, and vice versa. From these statements, it can be concluded that the classroom climate plays a role and influences the learning outcomes of students.

To make the climate better, there are five steps to improving the classroom climate by comparing the climate of the class experienced and desired by students. The five steps are: assessment, feedback, reflection and discussion, intervention or intervention and reassessment(Fraser et al., 1982), (Fraser, 1986).

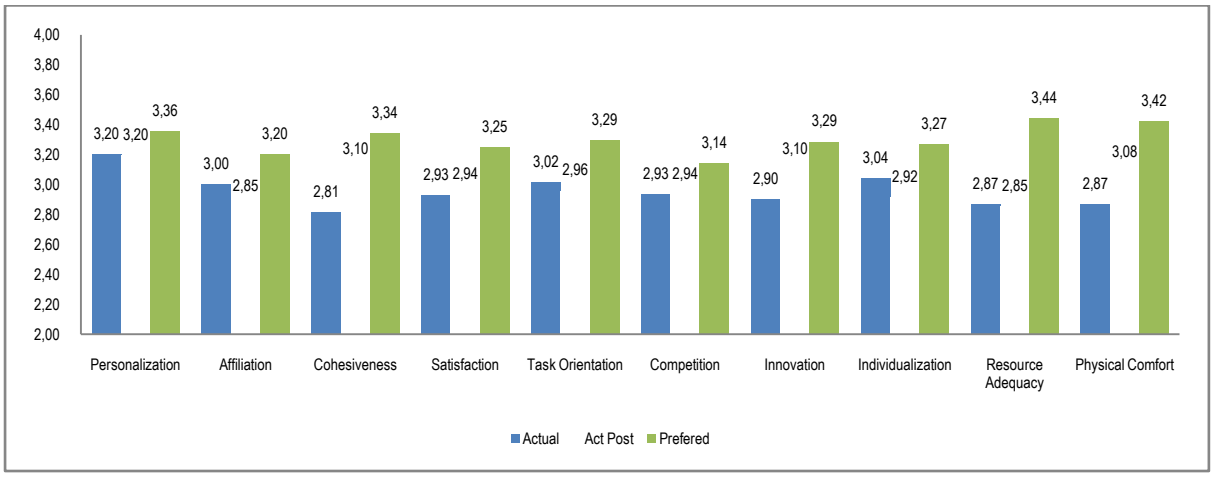
Method

This study is a classroom action research that is inspired by the steps of action research on classroom climate carried out (Fisher & Fraser, 1982), by following five steps, namely 1) assessment, 2) feedback, 3) treatment, 4) Reflection and discussion , 5) Reassessment. This research was carried out in the Administration and Supervision of Education at UniversitasNegeri Padang, consisting of 52 students, who were taught by Dr. Hadiyanto, M.Ed. and Hade Afriansyah, S.Pd. M.Pd. The study was conducted for one semester, from July to December 2018. In the first stage data collection was conducted using a college classroom climateinventory which was validated by 1,244 students from several universities in Indonesia, showing that coefficient alpha is more $\geq$ 0.70. This step is to find out the gap between the actual and the preferred classroom climates.The next step is to seek feedback by comparing the actual and the preferred classroom climate. After reflexing and discussion, it was known that there were quite striking differences between actual and preferred climate on the cohesiveness and innovation scales, so the lecturer treats interventions to improve both scales for the bettercondition. Treatment for repair is carried out in one cycle for approximately two months. The

next step is to re-assess the actual classroom climate and compare these conditions between before and after the repair intervention. Data were analyzed using a formula t-test from the SPSS application. The results of data analysis are displayed in graphical form that is easy to understand.

Results and Discussion

The results of this study compare the actual and preferred classroom climate before the corrective action (pretest), as well as the actual classroom climate after the corrective action (posttest). The results of the college climate data analysis are outlined in the following graph.



Graph 1. *Actual* Classroom Climate (*Pre-test*) and*Prefered*Classroom Climate of the Course of Educational Administration and dan Supervision

From the graph above it can be seen that there is a striking difference between the actual climate with the preferred climate by students on almost all the climate classes of the college class. However, the scale of cohesiveness, innovation, source adequacy and physical comfort are scales that have more striking differences. For example on the scale of cohesiveness 2.81 (actual) and 3.32 (preferred). On the scale of innovation 2.90 (actual) and 3.26 (preferred).

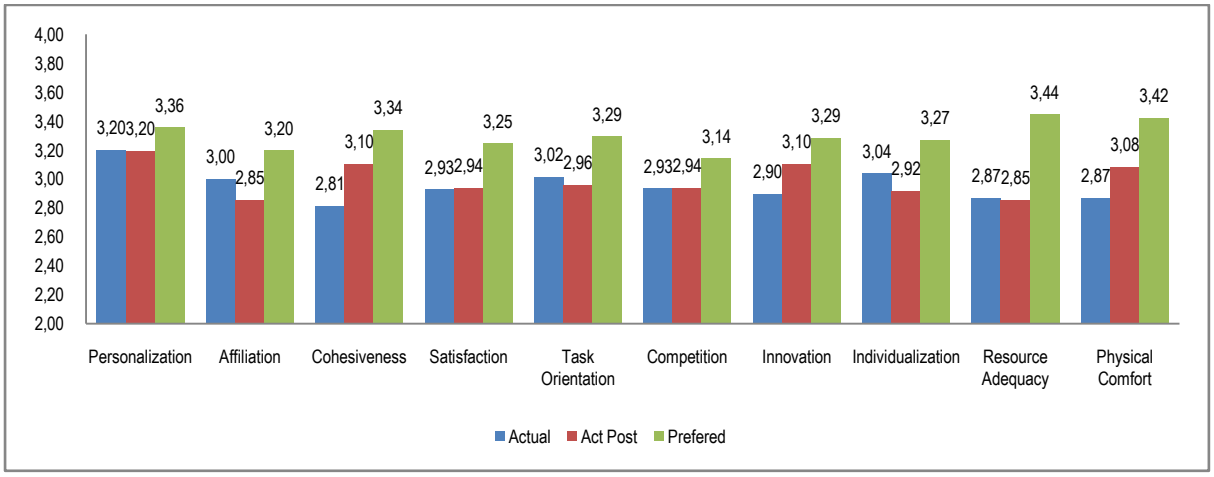
After knowing the results of the initial assessment, and there are quite striking differences between the actual classroom climate and the preferred scale of cohesiveness and scale of innovation, several steps or efforts made by the lecturers to increase the scale of cohesiveness are the following activities:

1) Forming small groups of class members, this group is a permanent group, where each group is given the task of discussing the topics to be discussed at each meeting;
2) In addition to conducting lectures with the lecture method, lecturers always give time to students to conduct class discussions, thus providing opportunities for students to interact with each other in class discussions;
3) Emphasize to each group member so that one member and another group member must know each other intimately, because each student at first does not know each other because they come from various study programs from different faculties at the State University Padang.
4) Make variation of group member, that is by making new groups at certain meetings, so that students can get to know each other from different group members.
5) Establishing intimate communication between students and lecturers through WhatsApp groups so it is very possible for group members to interact about academic and non-academic issues because each student already knows the identity and cellphone number of each student and lecturer.

While the efforts made to increase the scale of innovation, lecturers carry out the following activities:

1) Display exposure material by using LCD as the main base for presentations both by lecturers and students;
2) Using IT-based learning media through e-learning portals and WhatsApp groups to share group exposure material to be distributed to all class members;
3) Utilizing as optimal as possible the e-learning facilities as a means and learning media to communicate with students; In the e-learning portal lecturers store learning tools, such as Learning Plans or syllabus, teaching materials, reference books, and learning videos;
4) Using e-learning facilities to create learning innovations, for example making assignments online, online quizzes, midterms online;
5) Using WhatsApp social media to familiarize group members or classes to communicate learning problems, for example sharing the presentation material of groups that will perform, or sharing lecture material used by students to complete the assignments given by the lecturer.

After the improvement treatment has been carried out with the aforementioned activities for approximately six meetings, the results of the comparison between the actual pre-terst, post-test and preferred climates are as stated in the following graph.



Graph 2. *Actual Classroom Climate(Pre-test* and *Post-test)* and *Preferred* on the Course of Educational Administration and Supervision

From the graph it can be understood that on a scale of cohesiveness and scale of innovation there is a significant increase in classroom climate conditions. On the scale of cohesiveness the classroom climate score moves from 2.81 (or pretest), to 3.10 (actual post-test) to get the cohesiveness (3.32) that students want (preferred pre-test). It can be said that the efforts made by the lecturers as well as researchers at the time of the treatment of improvement interventions, by doing a level of cohesiveness and making various innovations in the learning process, can be said to produce results, namely an increase in cohesiveness and innovation in the class concerned.

On the scale of the source adequacy there was no change between pretest (2.87) and posttest (2.85). On a physical comfort scale, there is a slight increase from 2.87 (pre-test) to 3.08 (post-test). On both scales the lecturers concerned cannot carry out treatment to make the two scales better, because this is the domain of leaders and policy makers to do so. Whereas on the physical comfort scale there was a difference between pretest (2.87) and posttest (3.08), this was possible because air conditioning (AC) functioned better than during the pre-test.

Discussion

The graph above shows a striking difference in the score between the actual climate with the preferred climate by students, especially on the scale of cohesiveness and scale of innovation. Improvements to these two scales can be carried out by the lecturers concerned as reported by

(Hadiyanto & Martini, 2018) and(Kessler, 2018).In the above study it can be seen that new lecturers make improvements to 2 out of 10 classroom climate scales. This really depends on the data requirements and the ability of each lecturer to make changes to the improvement. If the lecturer concerned is able to make improvements to more than 2 scales, it is better than just doing improvement on 2 scales.

If further researched on classroom climate scales on instruments that have been used, there are two scales whose capacity of policy makers lies with the leaders of universities. For example, the scale of source sufficiency and physical comfort is not the domain that can be done by lecturers. The lecturer in question cannot carry out improvement treatments on both scales. The task that can be done by lecturers is to inform policy makers/decisions to reduce the gap by improving the class facilities and infrastructure needed. The task that can be carried out by lecturers is to make the scale of cohesiveness, and scale of innovation to be better as expected by students. For subsequent studies, researchers can choose other scales, two, three or more other scales, the difference between actual and preferred is more striking.

Conclusions

On the basis of data analysis and after conducting the discussion above, some conclusions from this study are: First, In general there is a difference between the actual classroom climate and the classroom climate desired by students on the course of Educational Administration and Supervision; Secondly, Interventions for classroom climate scale improvement can be chosen by the lecturer concerned in accordance with the needs and abilities of the lecturer concerned to carry out interventions for improvement;Third, there are classroom climate scales that lecturers cannot intervene in because the classroom climate scale improvement interventions are the task of the decision-making leader, they are the scale of cohesiveness and innovation; Fourth, in the experimental class, there were significant changes in the two classroom climate scales that were carried out by the lecturer concerned about the improvement intervention. This shows that researchers succeeded in carrying out interventions to improve the classroom climate scale; Fifth, in the control class, there was no change between the climate of the pre-test and post-test classes because there was no improvement intervention in the control class.

Recommendation

1. Improvement of the classroom climate is only carried out on two scales. Because there are quite striking differences between actual and expected class climates on other scales, the improvement of class climate can still be done on these other scales.
2. Improvement of the classroom climate in other classes can be carried out by other lecturers in the course of Educational Administration and Supervision and other courses by replicating corrective steps as has been done in this study.

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References

Amelia, M. (2016). Pengaruh Adversity Quotion, Iklim Kelas dan Kebiasaan Belajar terhadap Prestasi Belajar Ekonomi Siswa Kelas XI.IS SMA Negeri di Kabupaten Tanah Datar. *Journal of Economic and Economic Education*, *4*(1).

Aryani, A. N. D., & Alsa, A. (2016). Hubungan antara Iklim Kelas dengan Motivasi Belajar pada Mahasiswa. *Jurnal of Psychology*, *2*(2).

Brackett, M. A., Reyes, M. R., Rivers, S. E., Elbertson, N. A., & Salovey, P. (2011). Classroom Emotional Climate, Teacher Affiliation, and Student Conduct. *Journal of Classroom Interaction*, *46*(1), 27–36.

Djigic, G., & Stojiljkovic, S. (2011). Classroom management styles, classroom climate and school achievement. *Procedia-Social and Behavioral Sciences*, *29*, 819–828. https://doi.org/10.1016/j.sbspro.2011.11.310

Fisher, D. L., & Fraser, B. J. (1982). Use of classroom environment scale in investigating relationship between achievement and environment. *Journal of Science and Mathematics Education in South East Asia*, *5*(2), 5–9.

Fraser, B. J. (1986). *Classroom Environment*. London: Croom Helm.

Fraser, B. J. (2015). *Classroom Climate*. *International Encyclopedia of the Social & Behavioral Sciences: Second Edition* (Second Edi, Vol. 3). Elsevier. https://doi.org/10.1016/B978-0-08-097086-8.92075-0

Fraser, B. J., Seddon, T., & Eagleson, J. (1982). "Use of Student Perceptions in Facilitating Improvement in Classroom Environment." *The Australian Journal of Teacher Education*, *7*(1), 31–42.

Gascoigne, C. (2012). Toward an Understanding of the Relationship Between Classroom Climate and Performance in Postsecondary French: An Application of the Classroom Climate Inventory. *Foreign Language Annals*, *45*(2), 193–202. https://doi.org/10.1111/j.1944-9720.2012.01186.x

Hadiyanto. (2016). *Teori dan Pengembangan Iklim Kelas dan Iklim Sekolah*. Jakarta: Kencana.

Hadiyanto, & Kumaidi. (1998). *Pengembangan dan Pemvalidasian Alat Ukur Iklim Kelas di Sekolah Lanjutan Tingkat Pertama*. Padang.

Hadiyanto, & Martini. (2018). Iklim Kelas di Sekolah Dasar Negeri 10 Ganting, Koto Tangah, Kota Padang. *Jurnal Akuntabilitas Manajemen Pendidikan*, *6*(1), 38–44.

Hadiyanto, & Pransiska, R. (2017). Kindergarten Climate in Padang, *169*(Icece 2017), 128–130. Retrieved from https://www.atlantis-press.com/proceedings/icece-17/25889750

Hadiyanto, Syahril, Arwildayanto, & Sumar, W. T. (2018). *Pengembagan dan Pemvalidasian Alat Ukur serta Perbaikan Iklim Kelas Perguruan Tinggi*. Padang.

Husna, R., Buwono, S., & Matsum, J. H. (2013). Pengaruh Iklim Kelas dan Minat Belajar terhadap Hasil Belajar Siswa pada Pelajaran Ekonomi pada SMA. Pontianak: Universitas Tanjungpura.

Kessler, A. W. (2018). *Classroom Climate in a Rural School Context: Reflection, Modification, and Improvement in the Science Classroom*. Montana.

Lewin, K. (1935). *A Dynamic Theory of Personality*. New York: McGraw-Hill Book Company.

Ryder, A. J., Reason, R. D., Mitchell, J. J., Gillon, K., Hemer, K. M., Ryder, A. J., … Hemer, K. M. (2015). Journal of Diversity in Higher Education Climate for Learning and Students ' Openness to Diversity and Challenge : A Critical Role for Faculty.

Saptiawati, & Hadiyanto. (2009). Upaya Meningkatkan Hasil Belajar Biologi Siswa melalui Perbaikan Iklim Kelas. *Jurnal Manajemen Pendidikan*, *5*(2), 1–12.

Sari, J. R. (2013). *Pengaruh Iklim Kelas dan Lingkungan Keluarga terhadap Motivasi Belajar Siswa Kelas X Jurusan Administrasi Perkantoran pada Mata Pelajaran Kompetensi Kejuruan Administrasi Perkantoran di SMK PGRI 2 Salatiga*. Universitas Negeri Semarang.

Silalahi, J. (2008). Pengaruh Iklim Kelas terhadap Motivasi Belajar. *Jurnal Pembelajaran*, *30*(02), 100–105.