

A Pilot Study: The Effectiveness of Teamwork Training on Work Team Cohesiveness

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ABSTRACT

The company's development is also accompanied by changes in organizational structure, and the addition of staff numbers. Organizational change causes changes in working groups, and leads to low group cohesiveness. One way to increase group cohesiveness is to provide teamwork training. This study aims to determine the effectiveness of teamwork training in improving the cohesiveness of working groups. This study used quasi experimental with one group pre-test-post-test design. Group cohesiveness was measured by the Group Environment Questionnaire (GEQ) questionnaire. Teamwork training was followed by 12 employees who were less able to work in groups. Research data was processed by using paired sample t-test. The result of this study indicates that team work training can improve the working group cohesiveness ($T = -4.114$, $p < 0.05$). Teamwork training can be one way to improve team cohesiveness.

Keywords: teamwork, cohesiveness, teamwork training

1. Introduction

Changes in the company are inevitable. The growing company will also experience a change in work culture. PT Cahaya Tirta Rasa (PT CTR), a subsidiary of Tong Tji or PT Dua Burung, producer of teabags, has changed in line with changes in organizational structure. These changes bring about a variety of changes in the field of human resources such as: increasing number of employees, increasing the number of divisions, and changing responsibilities and authority, as well as increasing workload (Akmal, 2015).

Changes in organizational structure, change of responsibilities and authority; an increase in the number of employees, are causing problems in teamwork. One of the problems that occurred was the lack of coordination and misunderstanding between the divisions that one with the other divisions, which led to team performance within a division less than optimal, and between divisions.

Another problem is the lack of unity between members in a division because every member who has not known each other deeply, so that team performance is less than optimal. When members within a division are not yet united, it will have an impact on the interaction within it. Individuals within each division must be united so that each individual can feel each other connected, so the work is no longer done individually but in a team that supports each other. Less than optimal team performance will affect the overall performance of the company, and become obstacles to further corporate development.

Coordination processes that are not accompanied by effective communication are often sources of conflict within the work teams of divisions and between divisions. The emerging conflicts are not only within the context of work, but also in friendships. This unfavorable relationship makes the work atmosphere felt uncomfortable, even there are employees who are in groups and less willing to mix with other colleagues. Lack of coordination, miscommunication, to the occurrence of conflicts within the work team, and conflicts between divisions, indicates a lack of teamwork cohesiveness. The cohesiveness of the

working group is a feeling of togetherness among group members (Greenberg, 2005). When a group has a high degree of group cohesiveness, the group members have good interaction, understanding of group goals, and can resolve conflicts within the group. A working group is said to be cohesive by interdependence among group members, stability among group members, responsible feelings of group performances, and has resistance to interferences (Arifin, 2015).

Sanders and Schyns (2006) stated that cohesiveness is important in group characteristics because group members will volunteer to cooperate with one another. This is because group members will tend to be more sensitive to their peers and will be willing to provide assistance and guidance. According to Man and Lam (2003), discussion and interaction among group members will result in many alternative solutions that will facilitate a working group facing the existing problems.

Lack of team cohesiveness will prevent the growth of Organizational Citizenship Behavior (OCB) on employees. OCB is an important behavior to grow in the company. OCB can improve the effectiveness and success of the organization, such as more efficient operational costs, higher productivity, and optimal use of human resources. Employees with OCBs are able to provide constructive feedback on the workplace, willing to help others voluntarily, and care about the company's progress. Employees with OCB work well and strive to maintain peace at work (Konovsky & Organ, 1996; Organ, et al., 2006; Organ & Ryan, 1995; Podsakoff, et. al., 2000).

PT. CTR needs to foster group work cohesiveness to support OCB growth in employees. OCB can improve the effectiveness and success of the company. One way to improve cohesiveness is to provide teamwork training for employees. Teamwork training is an intervention in organizational development that focuses on improving team operations (Levi, 2001). Teamwork training is a learning process with experiential approach that aims to improve group functions such as cooperation, communication, and resolve conflicts among members of the organization (Kreitner & Kinicki, 2008).

Covin and Kilmann (as cited in Darokah & Setianingtyas, 2015) showed that team work is one of the most widely used intervention techniques in organization development (OD), especially to face the challenges of organizational changes. Reic (2010) revealed that the establishment of team work as a process of building a reliable team can help create cohesiveness and trust among team members. This study aims to determine the effectiveness of team work training in improving group cohesiveness in work teams at PT Cahaya Tirta Rasa Surabaya. Teamwork training is expected to improve the cohesiveness of working groups in PT. CTR.

2. Method

2.1 Participant

The selection of participants was done by purposive sampling method. Each supervisor chose his or her staff to meet the criteria: (1) less able to work with their teams; (2) less able to communicate effectively, (3) less caring staff with their teammates, and (4) limit themselves and do not want to mix with other group members. A total of 31 employees were assigned by their supervisors for training. The first training was attended by 28 participants. The second training was attended by 19 participants. The third training was attended by 15 participants.

The data that could be processed was data from 12 participants who attended training from beginning to end. The data from 3 participants could not be used because the participant did not attend the first meeting and the second meeting.

Table 1
Characteristics of Participants

Characteristics	N	Percentage (%)
Gender		
Male	3	25
Female	9	75
Total	12	100
Age		
18-24 years	9	75
25-30 years	2	17
> 30 years	1	8
Total	12	100
Division		
Administration	2	16,67
Purchasing	1	8,33
Seeding production	3	25
Team leader	4	33,33
Warehouse	2	16,67
Total	12	100
Length of work		
1-3 months	1	8,33
4-6 months	2	16,67
7-11 months	2	16,67
1-2 months	5	41,67
3-5 months	0	0
> 5 years	2	16,67
Total	12	100
Education		
Junior high school	1	8,33
High school	3	25
Vocational high school	5	41,67
Diploma	2	16,67
Bachelor	1	8,33
Total	12	100
Marital status		
Single	9	75
Married	3	25
Total	12	100

The majority of participants in this team work training are female (75%). Most of the participants (33.33%) worked as team leaders, some of the participants (41.67%) were employees who had been working for 1-2 years at PT. CTR. Most of participants (41.67%) were graduated from vocational high school.

2.2 Teamwork training

Teamwork training is structured on the basis of four core dimensions put forward by Baker and his colleagues (1999). The four core dimensions of the teamwork are communication, interpersonal relations, group decision making and planning, and adaptation or flexibility. This training used a variety of methods, namely games, lectures, role plays, and action plans.

Table 2
A Brief Overview of Team Work Training

Stage-1		
Session	Implementation Strategy	Methods
1. Communication	<ol style="list-style-type: none"> 1. Participants are provided with games and lecture about the importance of communication in the work, communication constraints, and the importance of listening in the process of communicating. 2. Participants are given insight into the 6 principles of communications, effective communication barriers, how to overcome barriers to effective communication, and how to listen actively. 3. Participants will reflect on how their usual communication process during work and obstacles are experienced. 4. The games, lecture, and reflection will bring a new perspective about an effective communication. 5. The goal of this communication session will be achieved if they can evaluate themselves and make action plans. 	Games, lecture discussions, role-play, self-assessment, and action plans.
2. Interpersonal Relations - Conflict Management	<ol style="list-style-type: none"> 1. Participants will be given an overview of the process of conflict occurring within a work team. 	Games, discussions, lectures, self-assessment and action plans.

Session	Implementation Strategy	Methods
	<ol style="list-style-type: none"> 2. Participants will be encouraged to understand how to manage the conflict, so that conflict can be transformed into an opportunity for group development. 3. Participants will be trained to give the right response in a conflict, so that the relationships within the working group can function optimally. 4. Participants will learn about 5 types of conflicts, the sources of the conflict, and 5 actions to deal with the conflicts. 5. The goal of this interpersonal-communication session will be achieved if they can evaluate themselves and make action plans. 	

Stage-2		
Session	Implementation Strategy	Methods
1. Group Decision Making - Planning	<ol style="list-style-type: none"> 1. After participants learn how to communicate effectively and manage conflict in stage 1, participants will focus on the decision-making process within the group. 2. Participants are given the opportunity to explore the role of team members who are experiencing a critical situation and how to take a decision on that problem. 3. The process of cooperation, effective communication, trust, courage to take risks, leadership, and skills in group decision making are important points in this session. 4. The goal of this group decision making session will be achieved if they can evaluate themselves and make action plans. 	Games, discussions, lectures, self-assessment and action plans.

Session	Implementation Strategy	Methods
2. Group Decision Making - Problem Solving Strategy	<ol style="list-style-type: none"> 1. Participants are trained to sharpen their sensitivity in identifying alternative solutions. 2. Participants learn about the problem-solving steps to strengthen their understanding in problem-solving strategies 3. The goal of this problem-solving strategy session will be achieved if they can evaluate themselves and make action plans. 	Games, discussions, lectures, self-assessment and action plans.
Stage 3		
Session	Implementation Strategy	Methods
Adaptability and Flexibility	<ol style="list-style-type: none"> 1. In the work environment, participants often experience various changes. This session begins with an activity that can give an idea that change is a normal thing to happen. 2. After the participants get a bigger picture about the change, the participants will be brought to an understanding of the effect of perspective on behavior in the face of change. 3. The participant will learn the importance of adaptability and flexibility, and the steps that can be taken in the face of change. 4. Participants will be trained to gain the spirit and positive concepts of change. 5. The goal of this problem-solving strategy session will be achieved if they can evaluate themselves and make action plans. 	Games, discussions, lectures, self-assessment and action plans.

2.3 Measures

Cohesiveness. The questionnaire used to measure the cohesiveness is adapted from the work-adapted version of the Group Environment Questionnaire (GEQ). The questionnaire measures the four dimensions of group cohesiveness as proposed by Carron, Widmeyer, and Brawley (1985): group integration-task, group integration-social, individual attraction to group-task, and individual attraction to group-social. The questionnaire consisted of 18 items filled with five choice of ranged answers from strongly agree to strongly disagree. This questionnaire has been tested to 31 employees of PT. CTR. The questionnaire has good reliability ($\alpha = 0.881$).

Postintervention Manipulation Checks. Manipulation check was done by asking participants to evaluate the course of the training. Training evaluation was done three times, at the end of each session. Training was evaluated in terms of materials, activities, facilitators, tools, and overall training. The evaluation sheet consists of 14 items of statement with a choice ranged from strongly disagree to strongly agree.

2.4 Procedures

The method used in this research is quasi experimental with one group pre-test post-test design. This design can measure changes in a situation, phenomenon, problem or attitude and is appropriately used to measure the effectiveness of a program (Kumar, 2010). The training was conducted in three stages or meetings once a week for three consecutive weeks. The participants' cohesiveness was measured at the beginning before the participants took part in the training, and ended at the end of the third session. At the end of each session, participants are asked to evaluate the course of the training by filling out the training evaluation sheet. The training was held in the meeting room of 2 offices of PT CTR Surabaya.

2.5 Data Analysis

Pre-test and post-test data were analyzed by two stages: assumption test, and then followed by hypothesis test. The assumption test used was the normality test with Shapiro-Wilk (Santoso, 2012). Hypothesis testing was using paired sample t-test. The T-test was used to measure the effectiveness of team work training to improve group cohesiveness.

3. Results

3.1 Descriptive Statistics

After the employee attended the training, employees experienced an increase in cohesiveness as indicated by increase in mean cohesiveness scores at pre-test and post-test.

Table 3
Mean and Standard Deviation of Cohesion

Statistics	Pre-test	Post-test
Mean (μ)	70.58	73.92
Standard Deviation (σ)	4.62	4.58

3.2 Hypothesis testing

Test assumptions. Assumption test was using normality test. The data used were 31 samples. Normality test will be more accurate using Shapiro-Wilk if the sample data is less than 50. Normality test results showed the value of $p = 0.266$ ($p > 0.05$) with the value of $z = 0.917$ on the pre-test score and $p = 0.244$ ($p > 0.05$) with Value $z = 0.915$ on the post-test score. It can be concluded that the data is normally distributed.

Hypothesis testing. Hypothesis testing was done by using paired sample t-test with SPSS program. The hypothesis of this study is that there is a difference in group cohesiveness score after being given training. The results showed the difference between pre-test score and post-test. The value of significance (p) is 0.002 ($p < 0.05$), it can be concluded that the hypothesis was accepted, there is a difference in group cohesiveness score in the participant after being given a team work training.

Table 4
Paired Sample T-Test Between Pre-test and Post-test Condition

	Paired Differences			T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
Pre-test- Post-test	- 3.333	2.807	0.810	-4.114	11	0.002

Postintervention Manipulation Check.

Evaluation results showed that the training has been going well. Selection of materials and activities is considered useful. The facilitator was quite capable of bringing the material well. Training equipments help with the proper course of training. A number (72%) participant suggested that the training provided a useful experience for their personal development. A total of 17% of participants suggested that training enabled participants to gain a new attitude, and 11% participant suggested that they had acquired new knowledge.

4. Discussion

The teamwork training that has been given succeeded in increasing group cohesiveness to all training participants ($T = -4.114$, $p < 0.05$). The increased of group cohesiveness affects the four components of group cohesiveness: group integration in tasks, social group integration, individual interest in group tasks, and individual interest in social groups (Carron, Widmeyer, & Brawley, 1985). The task cohesion dimension consists of two components: group integration in task and individual interest in group task, while in the social cohesion dimension consists of two components: social group integration and individual interest in social group (Carron et al., 1985; Carless & Paola, 2000). Improvement in the aspect of group integration in tasks shows a change of group members' perceptions of team closeness in completing tasks. This means that if the employee of the team is lacking the task and achieving the goal, then after training the employee is more able to work with the work group. The individual's interest in the group's task will affect the group's tasks and achieving common goals of working groups.

Improvement in the social cohesion dimension appears to change the two components, ie social group integration and individual interest in social groups. After the employee attended the training, the social cohesion dimension score experienced a considerable increase compared to before the training. This affects how employees can unite socially within their workgroups, where they feel that the group has a close and intimate relationship in terms of socializing. In addition, employees also feel involved in the formation of interpersonal relationships among members within the work group, so they are more interested in interacting with colleagues in the workgroup.

The results of this study are in accordance with the results of research conducted by Prichard, Bizo and Stratford (2006) that teamwork training can improve the cohesiveness of working groups. The results of this study are also supported by previous research which stated that through training team building can improve group cohesiveness (Prichard, Bizo and Stratford, 2006). This team work training proved to be effective in improving group cohesiveness, such as the conclusions of Dally and Nicolle (1997), a process of team development can be accelerated through appropriate interventions, one of which is training.

The effectivity of the teamwork training is in accordance with the research of Kriek and Venter (2009). Kriek and Venter stated that the success criteria of team work training is the establishment of a good communication network, the development of team synergy, and the ability to find solutions. This increase in group cohesiveness indicates participants' success to alter the experience and learning gained during the training, thereby enhancing positive emotions for his team. Positive emotions can be shown through the emergence of feelings of togetherness, which affects the formation of social attachment and duty.

Johnson and Johnson (2001) argued that experiential learning is an effective training method to increase participant skills and skills in specific domains. Providing training through experiential learning method provides an opportunity for the participant to experience the proper learning process to be able to train and improve adult development (Prihadi, 2004). This experiential learning-based training process emphasizes direct experience as a means of conceptual learning and the existence of a reflective stage to precipitate and associate experiences with a concept, so that participants can gain insight that is useful for development in the daily work situation.

In this training, the participant has undergone a concrete experience through the game and various activities, then enters the reflective observation stage through debriefing, and concluding with the abstract conceptualization stage, in which the participant thinks and integrates the results of his reflection into concepts. In the end, the participant experienced an increase in group cohesiveness, so they experienced the last stage of active experimentation, ie they have processed in the conduct of new behaviors that are the expected goals of this training activities (Johnson & Johnson, 2001).

Some of the factors that support effective teamwork training is seriousness and activity of participants while attending all training sessions. The results of training evaluations also show that trainees rated the training materials, methods, and facilities used during the training, quite well. This is consistent with the statement from Salas and Cannon-Bowers (2001) that the effectiveness of the training is influenced by the initial conditions of participant training, the seriousness of the participant in the training, the participant's active participation in training, materials, methods, media, situational characteristics and trainer characteristics.

The team's increasing cohesiveness is characterized by the team's cohesiveness both in interpersonal relationships and in achieving team goals. Cohesiveness is an emotional experience, not just about a person's decision to stay on the team or not. Cohesiveness is the glue that binds the group together and ensures that its members will fulfill the obligation. Participants are able to adapt and become more flexible when experiencing a conflict or disturbance, both experienced within the team and outside the team. With a capable adaptability, participants can develop skills in developing a problem-solving strategy and making the best decisions within the work team.

For an organization, group cohesiveness can help create conducive atmospheres in working for employees, so that employees will be more focused when working (Davis, 2000). Based on this explanation, it can be concluded that the cohesiveness of the working group is an important thing in an organization.

5. Conclusions

The teamwork training that has been given successfully increases the cohesiveness of the employees in the working group. This teamwork training can be recommended to be implemented by HRD in improving employee cohesiveness in the company. Cohesiveness is important in supporting the effectiveness of a team, to achieve a high performing work team (Akmal, 2015). Team cohesiveness also supports the emergence of OCB behavior among employees who can support overall company performance.

Limitations of this study were the use of quasi experimental methods. The quasi-experimental method does not use the control group so we can not determine whether the cohesiveness increase is caused by teamwork training alone. In addition, the mortality of study participants led to fewer training participants. Mortality of the study participants is because the training is held in the last hour of the working day so that participants can not attend because they are doing their work, or off-duty service. The next research can apply this teamwork training to the broader settings, such as: company with international scale and Multi-national. Subsequent studies should also increase the number of participants and use the true-experiment method, so it can be determined whether the increase in cohesiveness is really due to the teamwork training itself.

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