

# Relationship Among Cooperative Learning, Trust and Team Effectiveness

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## Aim

Past studies on teamwork learning or team effectiveness (Hackman, 1990; Halfhill et al., 2005; Shea & Guzzo, 1987; Stewart & Barrick, 2000) pointed out that sharing mental models, trusting each other, and monitoring each other in a learning team were the key variables, and they were also the basic conditions that affected the effectiveness of the team. Fransen, Kirschner, & Erkens (2011) proposed that mutual performance monitoring is a key factor in adjusting the variables for team effectiveness. In other words, sharing of the mind and mutual trust are conditional situations where there is sufficient mutual performance monitoring and prevents misunderstandings arising from mutual performance monitoring. This study was to explore the relationship among cooperative learning, trust, and team effectiveness in collegiate sports teams.

## Theoretical Background

Since the purpose of mutual monitoring is to improve team efficiency, this is related to the concept of team learning behavior. Because mutual performance monitoring makes the interdependent relationship more important. The learning behaviors each team member mentioned (sharing, constructive conflict, and/or co-construction) formed the basis for discerning the three team types (Koeslag-Kreunen, Van der Klink, Van den Bossche, & Gijsselaers, 2018). According to literatures, team effectiveness will vary with time. In the facet of the shared mental model, the research dimensions cover team effectiveness and team behavior (Edmondson, 1999; Van den Bossche et al., 2006). The focus is on the role-playing and team vision of the members of the team. In addition, in the low level of mutual trust of the learning team, members tend to reduce interaction with teammates, and even reduce positive communication, that is, the concept of trust is felt in the team organization (Edmondson, 1999), because team members must feel safe to exchange information and communicate freely. Based on this theory, all team members should share things and feelings about the team while they feel safe. Therefore, there were 3 assumptions about the path relationships between the overall model facets of this study: Hypothesis 1: In the learning community, mutual trust has a significant impact on mutual monitoring. Hypothesis 2: Sharing mental models and task levels in the learning team is influential for mutual monitoring. Hypothesis 3: When environmental needs change and workload allocation problems do not occur, mutual monitoring can effectively predict team effectiveness in the learning team.

## Methodology and Data Analysis

This study was to exploring the relationship among cooperative learning, shared mental models, mutual trust, mutual performance monitoring, and team effectiveness. The survey instrument integrated from Fransen, Kirschner, and Erkens (2011); Edmondson (1999); and Van den Bossche, Gijsselaers, Segers, and Kirschner (2006). A total of 465 sports team students from 6 universities were recruited. Questionnaires were distributed at the end of regular training. Prior to data collection, the participants were briefed on the purpose of the study. All participants were informed that their responses would be confidential and used for research purposes only. Participants who did not want to respond after reading the consent form and questionnaire had the option of returning a blank questionnaire. This study used

SPSS for Windows 17.0 and LISREL 8.54 software packages for statistical analysis and statistical analysis with  $\alpha = .05$  as a significant level. Depending on the purpose of the study, the study was based on the recommendations of Hair, Anderson, Tatham, and Black (1998), with measures of absolute fit, incremental fit measures, and parsimonious fit measures.

### **Results, Discussion and Implications**

This research used confirmatory factor analysis (CFA) to understand the main aspects of the structural aspects such as shared mental models, mutual trust, mutual performance monitoring, and team effectiveness in sports teams. According to the overall model standardization and structure model parameter estimates, it is found that in the learning community, mutual trust has a significant impact on mutual monitoring. However, the results showed that mutual trust did not directly affect the relationship between mutual monitoring, and the fully standardized path coefficients ( $r = -.03$ ,  $t = -0.22$ ,  $p > .05$ ) did not reach a significant level. Therefore, this study assumes that  $H_1$  was rejected. Sharing mental models and task levels in the learning team had a direct impact ( $r = .97$ ,  $t = 7.75$ ,  $* p < .05$ ) on mutual performance monitoring, and mutual monitoring can effectively predict team effectiveness in learning teams ( $r = .92$ ,  $t = 10.62$ ,  $* p < .05$ ) so this study assumes that  $H_2$ ,  $H_3$  was accepted. The findings are not only support the university sports team through learning team to enhance team effectiveness but also support related sport hobbies to organize cooperative learning group for promoting sports.

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