

# Relationship between collective efficacy and contextual performance among university athletes in Japan

Yasuyuki Hochi<sup>a,\*</sup>, Motoki Mizuno<sup>a</sup>, Takahiro Nakayama<sup>a</sup>,  
Ikuyo Kanneko<sup>a</sup> and Kaoru Kitamura<sup>a</sup>

<sup>a</sup>*Juntendo University Graduate School of Health and Sports Science, 1-1, Hiragagakuendai Inzai, Chiba, 270-1695 Japan*

**Abstract.** The purpose of this study was to clarify the relationship between collective efficacy and contextual performance among university athletes in Japan. We carried out 305 university athletes (201 males, 104 females) from 14 teams in various geographic areas in Japan. The average age of the participants was 19.91 years (SD=1.01). The kinds of sports were soccer, basketball, baseball, volleyball, and so on. Then, using Collective Efficacy Questionnaire for Sports (CEQS; Sandra E. Short et al., 2005) and Contextual Performance Scale (Ikeda, and Furukawa, 2008), we examined the relationship between collective efficacy and Contextual performance. In conclusion, this study provided the following three remarks. 1) There are relationship between collective efficacy and contextual performance. 2) Contextual performance execution level improve collective efficacy. 3) It is important to always recommend contextual performance in own team to strengthen the collective efficacy more.

Keywords: Team, University students, Collaboration, Sport

## 1. Introduction

A team was formed in various scenes. For example, job execution and business solution are performed by a team in recent years. Therefore, synergy effect is expected by combining limited resources in a team. What is the key factor of an excellent team? This proposition is eternal issue for sport teams, too. Then, collective efficacy is drawing attention for the recent years. Collective efficacy refers to a "group's shared belief in its conjoin capability to organize and execute the courses of action required to produce given levels of attainment" (Bandura, 1977). Moreover, many research showed there were positive relationship with collective efficacy and team effectiveness (Joshua, Anne & Angelo, 2010; Myers, Feltz & Short, 2004; Myers, Payment & Feltz, 2004; Rahim et al, 2009). Therefore, the purpose of this study was to clarify the relationship between collective efficacy

and contextual performance among university athletes in Japan.

## 2. Method

### 2.1. Participants

We carried out 305 university athletes (201 males, 104 females) from 14 teams in various geographic areas in Japan. The average age of the participants was 19.91 years (SD=1.01). The kinds of sports were soccer, basketball, baseball, volleyball, and so on.

### 2.2. Measure

Using Collective Efficacy Questionnaire for Sports (CEQS; Sandra E. Short et al., 2005) and Contextual Performance Scale (Ikeda, and Furukawa, 2008), we

---

\* Corresponding author. E-mail: y\_hochi@rb4.so-net.ne.jp

examined the relationship between collective efficacy and Contextual performance.

### 2.3. Analysis method

For the analysis, the method of correlation analysis and multiple regression analysis were adopted because to clarify the relationship between collective efficacy and contextual performance. SPSS (Ver. 18.0) was used to carry out statistic analysis.

### 3. Findings and Discussion

According to correlation analysis (Table1), the relation between collective efficacy and contextual performance was positive significant correlation ( $.316 < r < .443, p < .001$ ).

Moreover, to examine the influence that each sub-scale of contextual performance gave to collective efficacy, the multiple regression analysis was implemented. As the results, the standardised partial regression coefficient showed significant from cooperation for teammate, cooperation for team, concentrate on my work to collective efficacy ( $.184 < \beta < .236, p < .05$ ). On the other hand, the standardised partial

regression coefficient did not show significant from contribution to teammate's result, contribution to team's result to collective efficacy (Table2).

In other words, collective efficacy was influenced by contextual performance execution level. However, contextual performance contribution level didn't direct influence for collective efficacy. Taking these results into consideration, it is guessed that exertion of contextual performance and interaction of the contextual performance between team members became the source of collective efficacy (vicarious experiences, verbal persuasion, and past performance accomplishments). As a result, it might be contributed to occurrence of a collective efficacy, and improvement.

In conclusion, this study provided the following three remarks. 1) There are relationship between collective efficacy and contextual performance. 2) Contextual performance execution level improve collective efficacy. 3) It is important to always recommend contextual performance in own team to strengthen the collective efficacy more.

Table1.Result of correlation analysis

	I	II	III	IV	V	VI
I . Cooperation for teammate	—	.777**	.752**	.740**	.640**	.441**
II . Cooperation for team		—	.720**	.847**	.708**	.416**
III . Concentrate on my work			—	.676**	.650**	.444**
IV . Contribution to teammate's result				—	.792**	.352**
V . Contribution to team's result					—	.317**
VI . Collective efficacy						—

\*\* $p < .001$

Table2.Result of multiple regression analysis

	$\beta$
Cooperation for Teammate	.208*
Cooperation for Team	.185*
Concentrate on my work	.236**
Contribution to teammate's result	-.104
Contribution to team's result	-.019
R <sup>2</sup>	.231***

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

$\beta$  :standardised partial regression coefficient

## References

- [1] Bandura, A.: Self-efficacy: The exercise of control. New York: Freeman and Company. (1997)
- [2] Bandura, A.: Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, New Jersey. Prentice Hall. (1986)
- [3] Hiroshi Ikeda, Hisataka Furukawa.: The Development of the Contextual Performance Scale in Japanese Organizations. Japanese Association of Industrial/ organizational Psychology journal, Vol.22, No.1, pp15-26. (2008) (in Japanese)
- [4] Joshua B. WU, Anne S. TSUI, Angelo j. KINICKI.: Consequences of Differentiated Leadership in Groups. Academy of Management Journal, 53, 1, 90-106, (2010)
- [5] Myers Nicholas D., Deborah L. Feltz, Sandra E. Short.: Collective efficacy and team performance: A longitudinal study of collegiate football Teams. Group Dynamics: Theory, Research, and Practice. Vol 8(2), 126-138, (2004)
- [6] Myers, Nicholas D., Payment, Craig A., Feltz, Deborah L.: Reciprocal Relationships between Collective Efficacy and Team Performance in Women's Ice Hockey. Group Dynamics: Theory, Research, and Practice, 8, 3, 182-195, (2004)
- [7] Rahim Ramzaninezhad, Misagh Hoseini Keshtan, Minoo Dadban Shahamat & Shahram Shafiee Kordshooli.: The Relationship Between Collective Efficacy, Group Cohesion and Team Performance in Professional Volleyball Teams. Brazilian Journal of Biomotricity. Vol. 3, No. 1, pp. 31-39. (2009)
- [8] Sandra E. Short; Philip Sullivan; Deborah L. Feltz.: Development and Preliminary Validation of the Collective Efficacy Questionnaire for Sports, Measurement in Physical Education and Exercise Science, Vol 9, 3, 181-202, (2005)
- [9] Yasuyuki Hochi, Yasuyuki Yamada, Motoki Mizuno.: Effects of Organization Development on the Psychological Aspects among University Students: Focused on the Transformation of the Understanding for their University. News letter of Human Ergology. Vol.91, p12. (2009) (in Japanese)
- [10] Yasuyuki Hochi, Yasuyuki Yamada, Motoki Mizuno.: Effects of Organizational Development on the Psychological Aspects among University Students. International Conference for the 40th Anniversary of Human Ergology Society Program and Abstracts, pp39-40.(2010) (in Japanese)
- [11] Yasuyuki Yamada, Motoki Mizuno, Yasuyuki Hochi.: Does Organizational Development bring the Change of Self-Understanding among University Students? 25th Annual Meeting of the Japanese Association of Industrial and Organizational Psychology. pp.91-94. (2009) (in Japanese)