

Role Conflict and Role Ambiguity Impact on Collective Efficacy – towards Team Cohesion: A France Youth Football Team Analysis

¹ Ilkay Cevik, ² Bin Wang

^{1,2} Central China Normal University, Wuhan, China

Abstract: This study attempts to investigate the relationship between Collective Efficacy and Team Cohesion in the performance of youth football teams in France. Also, we are going to examine the influence of role ambiguity and role conflict on collective-efficacy. Furthermore, we will evaluate the significance of collective-efficacy impacting team cohesion, and will provide a deeper insight into the study of French football teams. Moreover, the goal was also to describe and specify the profile of the questionnaire respondents that were included in the study and indicated why they were selected in the data collection process. Role ambiguity was found to be significant in affecting the players' perception of efficacy but in positive way. However, that contradicts to our theoretical assumption, stating that role ambiguity has a negative impact on collective efficacy. Individual perceptions of the players' regarding their role do not seem to change the collective perception, taking into account ambiguity factor. The sample of young football shows that there is a limited number of studies on this relationship among this age group. Therefore, it can be tested as a moderating factor of forming efficacy-cohesion relationship and more research should be provided in this topic, as it is new in contemporary studies.

Keywords: Collective-efficacy, Team cohesion, Role conflict, Football teams

1. Introduction

In our study, we primarily aimed to evaluate the effect of various psychosocial factors (i.e., role conflict and role ambiguity) in predicting the collective efficacy. Throughout our research, the players' approaches and perceptions of these factors during the season are shown to explain the concept of collective efficacy within their groups. In general, the fluctuations observed in collective efficacy during a season can be explained by some group processes such as team cohesion, which is included in our research. To put it differently, role ambiguity and role conflict seem to affect confidence levels of team members, though role ambiguity did not mainly appear as a negative determinant for this factor.

Our hypotheses explain that role ambiguity and role conflict have a negative impact on collective efficacy, whereas collective efficacy has a positive impact on team cohesion and it is a mediator between conflicts, ambiguity and cohesion. Main issues that we have intended to resolve are misperception about collective efficacy and difficulty to acknowledge its major role in the success of youth teams.

Furthermore, the study may contribute to the theoretical and practical knowledge as the research tries to discover the discrepancy of role conflict and role ambiguity when applied in individual and collective levels.

2. Literature Review

2.1 Team Cohesion and Collective-Efficacy

Stronger cohesion in group sports correlates with better sport performance as experimental studies show. This relation was shown in many sports: baseball (Boone et al., 1997). (Carron et al., 2002), Soccer Murray, 2006). It is assumed that collective cohesion enhances performance and achievement (Gardner et al., 1006). Cohesion and team performance influence each other positively and equally (Carron et al. (2002). While Grieve (2000) found that the achievement-to-cohesion relationship is stronger than the relationship of cohesion-to-achievement. The results of Fox (1984) show that the connection between cohesion and achievement is not of much importance and has been found incompatible as it can be positive or negative. Other previous studies, on the other hand, suggest that group efficacy impacts collective performance. Hodges and Carrons' (1992) findings show that performance of teams after failure depends on the level of collective efficacy. It increases in groups with strong collective efficacy and decreases in groups with weak collective efficacy. Lirgg et al. (1994) found that the collective performance is positively influenced by collective efficacy. In line with that, Spink's (1990) study of elite volleyball teams emphasizes that influence, as it found that high efficacy team's performance was much stronger in competitive tournament comparing with those with low collective efficacy.

2.2 Role Conflict and Role Ambiguity Relationship with Collective-Efficacy

The aim of this study is to set a way to predict team cohesion by the application of two components. These components are the interrelationship between players' role and the level of collective-efficacy among teams (Carron & Eys, 2012). It also aims to combine two similar notions related to interpersonal relationships in a team, such as inconsistency and cohesion, which work together when founding relationships within a group (Marks et al., 2001). The ultimate aim of this study is expanding the current literature concerning changes in group procedures that emerge in a multilevel analysis of male professional football teams along the period of playing season. In this concern, and according to previous studies, a number of factors were assumed would appear as precedents that affect the concepts of collective efficacy which are the role ambiguity (Beauchamp et al., 2005; Eys & Carron, 2001), role conflict (Beauchamp & Bray, 2001), and negativity (Tekleab et al., 2009), as well as cohesion factors (Heuz. et al., 2006; Leo et al., 2010).

"Some of the variables that have been associated with self efficacy are role ambiguity (Beauchamp, Bray, Fielding, & Eys, 2005; Eys & Carron, 2001), defined as the lack of clear and coherent information respecting a particular function, and role conflict (Beauchamp & Bray, 2001), which refers to the presence of incongruent expectations within the performances (Beauchamp & Bray, 2001; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Tubre & Collins, 2000)." However, it is unknown if these variables can impact the collective efficacy development. Chow and Feltz (2007) pointed out that the confidence of a team may increase to deal with particular situations in a competition when players understand their roles clearly. Based on the self-efficacy theory, Bandura (1997) stated that "efficacy influences the course of action an individual chooses, the amount of effort expended, the degree of perseverance demonstrated, and the thought patterns regarding performance."

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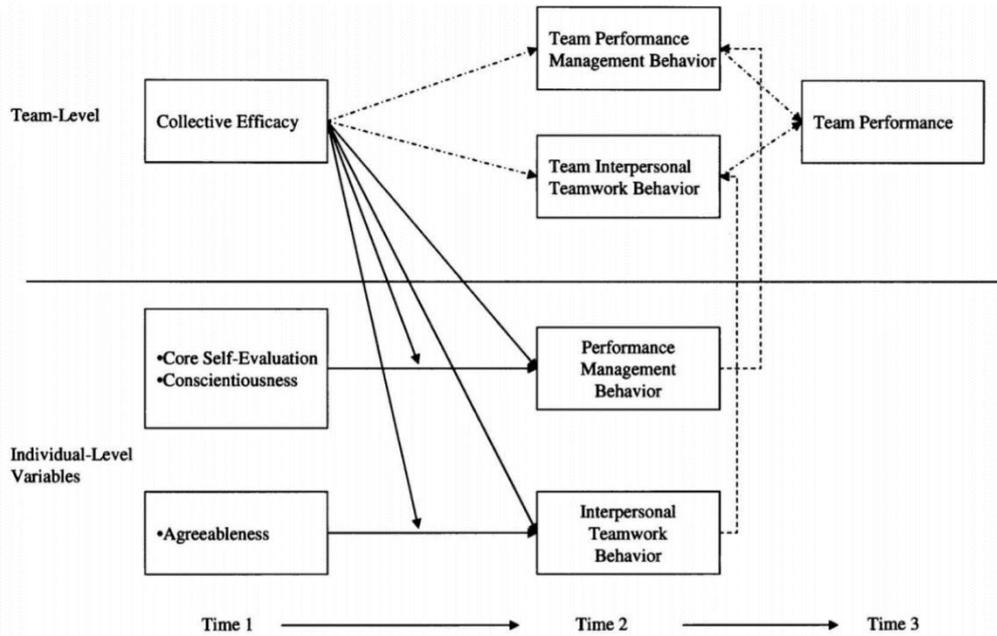


Figure 1: Multilevel model predicting teamwork behavior and performance

Team development Gersick, (1988); Tuckman, (1965) theorize that capabilities of the group members to efficaciously interact over time are affected significantly by cohesion and conflicts. Building on these models, the effective ways of dealing with conflicts can develop confidence, as a result of strategies used by players (Holt, Knight, & Zukiwski, 2012), which include meetings, negotiations, conversations, and agreements. In other words, overcoming the conflict successfully by team members enhances cohesion among them, which leads to a higher level of confidence and collective efficacy (Tekleab et al., 2009). Hence, the interaction between cohesion and conflicts form the collective efficacy. Nonetheless, the majority of the studies concerning conflict and cohesion (e.g., Holt et al., 2012; Paradis et al., 2014) have examined both of these variables separately and didn't spotlight on the influence of their interaction on collective performance (Tekleab et al., 2009).

The study done by Zellars et al. (2001) showed that when role conflict is low, those perceiving their group to be efficacious reported lower job satisfaction and higher exhaustion and intent to turnover scores.

As being prospectively important for explaining collective efficacy and group performance, different elements have been determined through a detailed and critical analysis of the literature. The current relationships were drawn from past studies and researches, and the

theory needs further studying. Lastly, the completed and reviewed model will be experimented on a sample of football teams.

2.3 Research Model and Hypotheses

The variable of collective efficacy and cohesion were chosen together with the mentor and due to its significance to team performance. The performance cohesion relationship has been well documented in existing research whereas collective efficacy-cohesion requires more review and validation.

Both of them have a positive impact on team performance in a number of studies, which together with theoretical support suggests that a direct relationship between efficacy and cohesion exists.

Hypothesized relationships are:

- Hypothesis 1 Collective-efficacy has a positive impact on team cohesion on the sample of young football players
- Hypothesis 2 Role ambiguity has a negative impact on collective efficacy
- Hypothesis 3 Role conflict has a negative impact on collective efficacy
- Hypothesis 4 Collective efficacy is a mediator between conflicts, ambiguity and cohesion

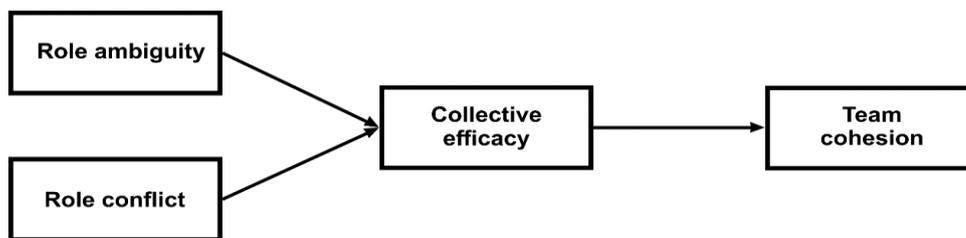


Figure 2: Research model

3. Research Methodology

3.1 Research Design

This chapter defines the methodology of the current study. The methodology is the skeleton of the study which is formed in accordance with the purpose and objectives of the study. The fundament of the research is its philosophy which in its turn is expressed through philosophy of positivism. The logic behind this philosophy is that the research is based on the observable events that are supporting the theoretical assumptions. The main advantage of observable events is the possibility to test the relationship of manipulators on dependent variable. As for research approach, the method of deduction was utilized as follows. Firstly, all the theory relevant to team cohesion and collective efficiency as well as their predictors was sorted and studied. Secondly, the relationships in the form of theoretical assumption were deduced from the previous studies and theory found. Thirdly, it was important to find the appropriate and reliable method of measurement for the chosen variables. Later, when the measurements are confirmed, the operational step was executed in form of data collection and further establishing the relationship between variables.

As it can be already seen from abovementioned, the purpose of the study is to explain the relationship between collective efficacy and team cohesion, to establish the causal connection between them and compare the variables in different countries.

The study as well as data collection were done during particular period of time meaning that the study is related to cross-sectional studies.

As a part of our research design, we choose a quantitative study. This implies that all of the items and all of the variables of our model are numerically represented. As for the survey method research, respondents will be asked to answer questions administered through a questionnaires. The questionnaire will be composed and inserted into Survey Monkey, an online software tool that enables an easy and accessible statistical analysis and gives a thorough description of the results. In order for the survey to be both reliable and valid it is vital that the questions are envisioned and formed in a proper manner. All the questions included in the survey should be written and composed so they are clear and easy to understand. Before composing the questions, it was important to determine the type of questions that was going to be used in this specific study.

Survey (quantitative method)

The survey method used in this thesis is a questionnaire and respondents by receiving answers from the subject to special questions. A survey is one of the most popular methods for obtaining information about survey subjects. The main essence is that the respondent is asked pre-formulated questions, the answers to which allow the researcher to obtain the necessary information depending on the objectives of the study. Further, these questions are reformulated into questionnaires, which are translated into a language accessible to the non-professional.

Online surveys are one of the remote methods that are most commonly used in researches. Each question must be logical and separate. The results of the study using the survey can significantly affect the answers that do not reflect the actual beliefs of the participants. What can happen due to the incorrect formulation of questions, questions of an incorrect or personal nature, which prevent participants from answering, representatively? Also, survey participants may intentionally give incorrect answers to them, trying to specifically manipulate the survey results. It should be said about the social pressure that the respondent may feel, which does not allow him to choose a less popular answer, but he has to respond in the way that society requires, which also leads to ineffective results. Incorrect question wording plays a major role here. Very important for the results of the survey are the wording of questions, the order in which they are set, the number and forms of alternative answers. When choosing respondents, one should try to attract as many people of different quality as possible, which will vary according to gender, age, income, and so on. In the opposite case, the sample will be unrepresentative.

To solve the tasks, a complex of various methodological approaches, methods of data collection and processing were used. The complex of diagnostic methods included: 1) original author's methods developed by the author, calculating the conjugacy of factors for collective efficacy. 2) a modified method for cohesion. 3) Mathematical processing included the analysis of the significance of differences using qualitative and quantitative criteria, using correlation, qualitative-quantitative factor analysis. Data processing was carried out using the SPSS software license package.

Team cohesion

Individual perceptions of group cohesion were assessed using the Youth Sport Environment Questionnaire (YSEQ; Eys et al., 2009), a cohesion questionnaire designed specifically for individuals aged 15 -19 years. The scale measures perceptions of task and social cohesion and contains 18 items. Eight items reflect task cohesion (e.g., "We all share the same commitment to our team's goals"), eight items reflect social cohesion (e.g., "We stick together outside of practice"), and two spurious negative items are included to detect invalidating response sets (e.g., "Our team does not work well together"). Participants were asked to rate the degree to which they agreed with each statement on a 9-point Likert-type scale ranging from 1 (strongly disagree) to 9 (strongly agree). Higher scores reflect greater perceptions of group cohesion. Cronbach's alpha values were computed for the two dimensions of group cohesion at both Time

1 and Time 2. Results (Table 1) demonstrated good internal consistency for both cohesion dimensions (Nunnally, 1978). The internal consistency of these measurements was confirmed by Bosselut et al. (2012) and Nunally et al (1978).

Role ambiguity

In order to evaluate role ambiguity among young sportsmen, a 7-item scale adapted from the instrument developed by Beauchamp et al. (2001) was used. Moreover, a 7-point Likert scale was utilized as the tool to assess the answers, where 1 – strongly disagree, 7 – strongly agree. An example of role ambiguity includes “I understand exactly what my role is for the team to function effectively.”

Content validity of each of these scales was assessed ad hoc through a three-stage process. First, on the basis of conceptual definitions provided by theory (Kahn et al., 1964), items were developed that were believed to represent the four manifestations of ambiguity identified by Eys and Carron (2001). Second, elite athletes (n 9), recreational athletes (n 6), and experienced coaches (n 4) from a variety of interdependent sport teams reviewed and provided feedback on the items, in terms of both wording and content. Any items deemed awkwardly worded were rephrased. Any items that held little meaning for the athletes were reworded or removed. In Stage 3, the resulting pool of items was submitted to five experts in the field of group dynamics to assess content validity further. Consistent with procedures outlined by Estabrooks and Carron (2000), the following criteria were used to incorporate the feedback from the group dynamics experts. Items were reworded or eliminated if they were judged not to reflect the intended role ambiguity dimension. Items judged to be awkwardly worded were removed from the content pool. Items considered to possess jargon or complex terminology were eliminated. Finally, items considered to be almost identical in content were removed. The final scales are presented in the Appendix. Athletes rated their agreement with each role ambiguity statement on a 7-point Likert-type scale anchored by 1 (strongly disagree) and 7 (strongly agree). Thus, higher scores reflected greater clarity (i.e., lower ambiguity) and lower scores reflected greater ambiguity (i.e., lower clarity).

Acceptable internal consistencies (Cronbach’s alpha) of greater than 0.78 were recorded for each of the role ambiguity scales (Nunnally, 1978). While in our study, the Cronbach’s alpha was above 0.85.

Role conflict

To assess role conflict, we used scale adapted from the instrument developed by Beauchamp and Bray (2001). Examples of role conflict include “I am sometimes provided with conflicting information of what my role is”.

Role efficacy. Role efficacy was assessed using procedures outlined by Bray and colleagues (Beauchamp & Bray, 2001; Bray, 1998; Bray & Brawley, 2002). Primary role responsibilities identified in the role identification process, athletes rated their confidence in their ability to perform that responsibility. Responses were provided using a 7-point Likert scale. Cronbach’s alpha was at a very high level – 0.97. Interclass correlations didn’t reveal a better Cronbach’s alpha than the above mentioned one.

Collective efficacy

Collective Efficacy Scale: Scale was developed by Riggs, Warka, Babasa and Betancour, (1994) to measure the beliefs of individual towards to his/her groups’ capacity. AND Collective Efficacy Questionnaire (Ceq, Feltz & Lirgg, 1998) Athletes’ assessment of their team’s collective efficacy was measured using the CEQ developed by Feltz and Lirgg (1998). The survey is designed to measure the athletes’ perception of their team’s abilities to organize and perform to their desired level. The different team aspects are preceded by the phrase, “Rate your team’s confidence in

that your team has the ability to..." and then followed by different items, such as, "outplay the opposing team," "keep cool under pressure," and "work hard as a team." is a 20- item questionnaire. The 20 scale items are divided into five subscales: ability, unity, persistence, preparation, and effort. The athletes are asked to rate their confidence on a 7-point Likert scale (1-7).

Previous studies have proved the acceptable level of reliability and internal consistency for CEQ measurement (RONAYNE, 2004). In the present study, Cronbach's alpha coefficient was utilized to examine the internal reliability of CEQ (r=0.987) for 20 items. The table with the results of reliability test can be found in the following chapter.

According to Hofstede dimension, it is obvious that these two countries are different. Particularly when compare the level of individualism, which can be associated with self-efficiency and thus role ambiguity. Even though, football is the international sport, the background of the sportsmen can play the role in evaluating the relationship between individual level (role ambiguity and role conflict) and collective one (collective efficacy and team cohesion.) The sample of young football is given that there is a limited number of studies on this relationship among this age group can be tested as a moderating factor of forming efficacy-cohesion relationship, as it demonstrates experience which is required for these relationships to form. The impact of age as a moderating factor can be seen when compared to other studies performed on samples of adults and other age groups.

4. Data Analysis and Interpretation

The preliminary analysis consisting of normality tests, descriptive statistic, correlation analysis was performed and the assumptions for regression analysis were met.

Table 1: Correlations

	team_cohesion	coll_eff	role_conf	role_ambg
team_cohesion	1	,700**	-,127*	,443**
Pearson Correlation				
Sig. (2-tailed)		,000	,049	,000
N	241	241	241	241
coll_eff	,700**	1	-,242**	,584**
Pearson Correlation				
Sig. (2-tailed)	,000		,000	,000
N	241	241	241	241
role_conf	-,127*	-,242**	1	-,139*
Pearson Correlation				
Sig. (2-tailed)	,049	,000		,031
N	241	241	241	241
role_ambg	,443**	,584**	-,139*	1
Pearson Correlation				
Sig. (2-tailed)	,000	,000	,031	
N	241	241	241	241

There are several options for this indicator, however, the main requirement is that it should be below 0,05. Another indicator to see the significance of the association is stars located right next to correlation indicators. N represents our sample. Upper right and lower left parts of the table /// are representing the same results. However, we will focus only on the upper right triangle with data. The analysis of team cohesion with other variables shows that it is positively associated with collective efficiency and role ambiguity. Their coefficients are 0,7 and 0,44 accordingly and with high indicators of the significance of less than 0,001. Role conflict has a negative association with other variables. All the correlative relationships are of high significance and are below 0.05 for pairs with team cohesion and role ambiguity. As for the association between role conflict and collective efficiency, its p-value is less than 0.001. The directions for the associations between collective efficiency and team cohesion and role ambiguity are also positive. A correlation for each of those relationships scores 0,7 and 0,58 accordingly. However, the correlation between role conflict and collective efficiency as well as role conflict and role ambiguity are negative and highly significant.

4.1 Reliability

The indicator for the consistency is Cronbach's alpha. In our case for team cohesion, the coefficient of reliability is very high, 0,9 for 18 items. Usually, right after the table with Cronbach's alpha there is another one showing whether the exclusion of some elements will result in the increase of the coefficient of reliability. And according to the table, the removal of the 6th and 12th components will increase Cronbach's alpha till 0,973 and 0,971 accordingly. Nonetheless, the reliability coefficient is quite high, thus no correction is needed.

Team cohesion

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
,881	18

Collective efficacy

Table 3: Reliability Statistics

Cronbach's Alpha	N of Items
,963	20

Role conflict

The reliability test for role conflict shows 0,97 for ten items. Moreover, the exclusion of item 8 can result in 0,98. However, the corrected correlation, in this case, is quite low. Notwithstanding, as reliability coefficient is still higher than 0,7, we can ignore the exclusion of any items for role ambiguity.

Table 4: Reliability Statistics

Cronbach's Alpha	N of Items
,968	10

Role ambiguity

Table 5: Reliability Statistics

Cronbach's Alpha	N of Items
,320	7

4.2 Regression

In this part, the regression analysis was done to confirm the relationship between our variables but already for French sample.

Collective efficacy and team cohesion

Firstly, we analyzed the relationship between team cohesion and collective efficiency solely. Here, we can see that 49% of the variance in team cohesion is predicted by collective efficiency. R=value is 0,7 and Adjusted R square is slightly less 0,5. The significance of F-test is high with p-value less than 0,001.

The regression table states that the relationship between collective efficiency and team cohesion is positive and significant, meaning that predictor positively impact on team cohesion (β -value=0,65 and p-value<0,001).

Table 6: Coefficients^a

(F-test= 229,7; p= .001; R2= ,49)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,382	,272		5,074	,000
coll_eff	,650	,043	,700	15,157	,000

a. Dependent Variable: team_cohesion

Role ambiguity, role conflict and collective efficacy

In order to confirm the theoretical assumption, stating that there is a negative impact of role ambiguity and role conflict on collective efficacy, the regression analysis was performed. According to the table below, the variance of collective efficacy is predicted by role ambiguity and role conflict only on 37%, where R is equal to 0.61 and Adjusted R is almost the same as variance value 0.36. When it comes to F test, the significance is on a high level with p-value less than 0,001.

The results of multiple regression can be found on the table 7, which represents p-value of less than 0.001 for role ambiguity and collective efficacy. That means that the relationship with collective efficacy are of high significance and beta value of 0.77. However, interestingly that role ambiguity has a positive impact on collective efficacy.

Table 7: Coefficients^a

(F-test= 69,3; p= .001; R2= ,37)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2,593	,377		6,883	,000
1 role_conf	-,061	,019	-,165	-3,164	,002
role_ambg	,769	,071	,561	10,790	,000

a. Dependent Variable: coll_eff

Collective efficacy is negatively predicted by role conflict with β -value -0.06 as it was predicted in the hypothesis. The relationship is highly significant.

Role conflict, ambiguity and team cohesion

a. Dependent Variable: team_cohesion

b. Predictors: (Constant), role_ambg, role_conf

The significance of role conflict as the predictor of the team cohesion is relatively low, p-value is higher than 0.05. Even though, unstandardized beta coefficient is quite low, it is still negative (-0.02). As for role ambiguity, it has an opposite effect on team cohesion. Unstandardized beta value of 0,6 indicates that it positively predicts team cohesion and their relationships are highly significant. Given this, it is possible to conclude that role ambiguity has a positive impact on team cohesion.

Table 8: Coefficients^a

(F-test= 29,9; p= .001; R2= ,2)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2,751	,393		7,001	,000
1 role_conf	-,023	,020	-,067	-1,146	,253
role_ambg	,552	,074	,434	7,417	,000

a. Dependent Variable: team_cohesion

We added another variable along with role ambiguity and role conflict, collective efficiency. The same as in the previous model, the impact on team cohesion was investigated. As it can be seen from the model summary, R square increased till 0,5 meaning that 50% of the variance in team cohesion is explained by three independent variables. Interestingly that introduction of collective efficiency increased that indicator more than twice. When it comes to adjusted R square and R, they also increased their value. Thus, 0,49 and 0,7 accordingly. F-test has high significance and is below 0,001.

- a. Dependent Variable: team_cohesion
- b. Predictors: (Constant), coll_eff, role_conf, role_ambg

Multiple regression itself is represented in the table above. As it can be seen, the significance level is acceptable only for the relationship between team cohesion and collective efficiency, p-value less than 0,001. Their beta value is equal to 0,63.

The direction of the relationship between role conflict and team cohesion is positive, however, the significance level is low to be accepted. Thus, the null hypothesis should be accepted. Role ambiguity positively effects on team cohesion with beta value 0,06. Their regressive relationship does not meet the requirement to be accepted.

Table 9: Coefficients^a

(F-test= 77,07; p= .001; R2= ,49)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,114	,343		3,244	,001
role_conf	,015	,016	,045	,945	,345
role_ambg	,066	,072	,052	,909	,364
coll_eff	,632	,054	,681	11,711	,000

a. Dependent Variable: team_cohesion

4.3 Summary of Hypotheses for French Sample

Hypothesis 1 stating that collective-efficacy has a positive impact on team cohesion on the sample of young football players was confirmed with $\beta = 0.65$ and p-value <0.001.

Hypothesis 2 expressing that role ambiguity has a negative impact on collective efficacy was rejected due to the fact that $\beta = 0.77$. Nonetheless the positive impact on collective efficacy was of high significance.

Hypothesis 3 Role conflict has a negative impact on collective efficacy was confirmed and significant. This can be judged from the results of regression analysis (β -value = (-0.06), p-value <0. 005).

The relationship between role conflict, role ambiguity and team cohesion was tested in regression. Unlike the results presented above, the effect of role conflict and ambiguity on team cohesion is different to the relationship with collective efficacy. Thus, role conflict had $\beta = (-0.02)$, but with low significance. Meanwhile, role ambiguity is a positive explanatory variable of team cohesion with regression coefficient equal to 0.55 and p-value <0.001.

Hypothesis 4 stating that collective efficacy is a moderator between conflicts, ambiguity and cohesion was confirmed. This can be seen from the last regression, where the relationship between variables changed once the collective efficacy was integrated in the regression. Thus, the significance of the relationship between role conflict and team cohesion decreased notably from 0.000 to 0.35. Although the direction of the relationship remained to be negative, p-value

is still low. Role ambiguity managed to remain only positive direction in the relationship with the team cohesion. However, its β decreased till 0.07 and level of significance increased till 0.36 which means that the impact of role ambiguity on team cohesion can be ignored. When it comes to collective efficacy and team cohesion, their relationship was also slightly altered but remained to be both positive and significant. Hence, regression coefficient is equal to 0.63 and p-value <0.001.

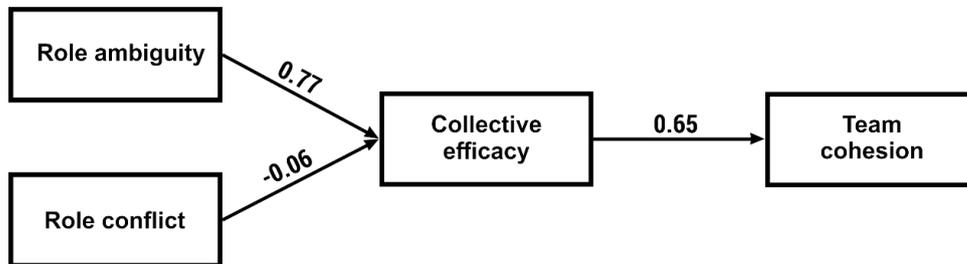


Figure 2: Research model regression analysis of French sample

5. Data Analysis and Interpretation

5.1 Theoretical Implications of the Study

Collective efficacy is suggested to be an addition to the self-efficacy, and it also has been proposed that collective efficacy should be considered as a further supplementary to the degree of individual efficacy in a team (Bandura, 1986). Athlete's perceptions of the team's performance abilities are associated with collective efficacy. Therefore, Bandura proposed that particularly for tasks which necessitate reciprocal action among team members to achieve success, the reliance on collective efficacy has a considerable amount of implication for group accomplishment and fulfilment. (1990).

According to the results of our study, team cohesion and collective efficacy are mutually correlated (Zaccaro et al., 1995). In that respect, team cohesion is regarded as an outcome of collective efficacy. When a team often talks about their capabilities, it is highly possible that their unity will develop as well. Many researchers were investigating the vice-versa relationship, where team cohesion is predicting the collective efficacy. Additionally, the cohesiveness is another element that increases when the sense of being useful in a team increases. Bandura portrayed the term cohesion as the outcome of the collective efficacy considering the previous approaches (1997). On the hand, other psychologists regard the term cohesion as the cause and effect of collective efficacy (Zaccaro et al., 1995).

Considering Bandura's studies and findings of the relationships between the team members and their backgrounds (1997), it has been claimed that the six self-efficacy determinants might function as the self-efficacy sources and antecedents. In short, the six sources are the team cohesion, mutual experiences, squad size, previous performance, verbal encouragement, and leadership manners. According to Ronayne's statement, group (or team) cohesion, which is a dynamic antecedent of collective efficacy, can be defined as a team's ability to stand together and its capability to oppose negative impacts (2004). If there is an increase in team cohesion, the capacity and ability of each team member will also enhance.

The cohesion, which is often regarded as an antecedent, is associated with some beneficial effects. Higher approval of accomplishment standards, allocated roles, and team norms, better endurance to disturbance during a game are among the positive changes affiliated with cohesion. Therefore, cohesion can foster greater collective efficacy and increase the productivity in terms of group capabilities (Bandura, 1997; Zaccaro et al., 1995). Consequently, those who

have a better understanding of the collective efficacy can enhance their attraction of a group and its cohesion (Zaccaro et al., 1995).

5.2 Research Contributions and Innovative Points

The purpose of our research is to present how role ambiguity and role conflict could be used in order to estimate collective efficacy, bearing in mind that there is a strong correlation between the athletes' role and the bonds within their team (Eys & Carron, 2012). Furthermore, our study is to synthesize these similar concepts in order to handle interpersonal issues within a team or a group, e.g., conflicts or devotion, to establish stronger relationships (Marks et al., 2001). We conducted the analysis of these factors to reach this aim, in order to assess the variations of players' confidence levels through a season using a multilevel study approach.

Moreover, the study contributes to the theoretical and practical knowledge as the research is done in two dimensional forms. It covers both the individual level by investigating the importance of role conflict and role ambiguity, and the collective level represented by collective efficacy and team cohesion. When results are assessed, it is seen that collective efficacy has an impact on team cohesion. As the perception of that particular type of players on collective competence in group tasks increases, their involvement with the team's goals and activities also improves both individually and as a group.

Our findings, the same as Zaccaro et al. (1995) state that task cohesion is predicted by the factor of collective efficacy. This finding implies the task dimension aspect of group cohesion being an influencer to collective efficacy factor. Also, Heuzé et al. (2006); Paskevich et al. (1999); and Kozub & McDonnell (2000) found that these variables are connected to each other. They pointed out that task cohesion has a positive effect on collective efficacy, while they found that the social dimension of group cohesion does not have any significant contribution. Our data and these authors' arguments show that the team players' motivations towards their team tasks and activities as well as their desire to continue to be a part of the team makes a positive contribution to their shared perception of competence. According to our data, total team cohesion is correlated to collective efficacy with a factor $r=0.7$, which is also consistent with the findings of Ronayne (2004) and Zaccaro et al. (1995). As a result, it seems that the players' capability and desire to be bonded with their teammates, and their motivation to stick together around the team objectives has an influence on their perception of group competence.

6. Conclusion

Most of the hypotheses were confirmed while those which were rejected are in the line with the previous studies and the results of other researchers. Nonetheless, there are several limitations that could effect on the results of the current study.

Primarily, the correlation between the understanding of the collective efficacy and group cohesion was investigated to provide an insight into the relationship between these two phenomena. Secondly, it has been attempted to understand if the correlation is affected by a specific group. If we assume that the recreational players did not score as good as the elite athletes because of this reason, their understanding of cohesiveness is very much likely to be neglected regarding collective efficacy. According to the players' cohesiveness, in reality, can be considered as a termination, instead of a useful tool in achieving an aim, which is likely to be the matter with the professional clubs. In support of this hypothesis, eventually, there was not a significant difference in average scores between the amateur teams with low and high collective efficacy concerning YSEQ levels.

The results of our research can be practically used in two distinct ways. Firstly, we argue that when a team's success is evaluated, the target which it should have theoretically reached is

essential as well as its actual final achievement. By this means, it would be possible to measure not only the bottom and top teams' successes (which is common now) but also those of all others in the division. Second, the determinant for being successful at the end of the league is to use resources efficiently rather than a team's potential, because some teams that had limited resources compared to others succeeded in remaining in the First-Division, and the different cases also exist. Our study showed that it is essential that resources be used effectively in order to achieve successful results; therefore, it is recommended to include some techniques to enhance the efficiency of sports teams in the future studies. It is found that efficiency is affected by the factors associated with the team coordination.

For this reason, future research should also be concerning the possible actions or methods to advance that coordination and provide an environment that enables efficiency to be contributed by it. This study is to emphasize that the number of resources and whether they are used efficiently are both critical in terms of the final scores of Spanish First-Division football teams. Since the evaluation presented here is only concerning the second part of the production function of teams, our advice for future studies would be the first stage, whose outputs are the resources mentioned above, being analysed. There would be two purposes of such an analysis: the first is to investigate the key factors which are useful in some teams getting similar results despite having different amounts of resources; the second is to find alternative ways for teams which cannot get good scores because of not having enough resources despite using them efficiently. Ultimately, allocative efficiency can be regarded as a reason for disparities in the economic results of teams, because when the performance is to be analysed, the money paid for the resources is also a significant element. Since winning are highly critical in soccer, there is a strong need to investigate effective playing strategies and anything that team coaches can benefit in order to win additional victories. By this means, such a team coach would be regarded as a successful manager as well as a person who can objectively judge the performance of a team in terms of its ability to apply any determined (old or new) strategy. If the results of such playing strategies are quantified through a reliable methodology, it would be highly useful both for people interested in an overall playing style and for ones concerned in particular tactics. By now, there have been rough descriptions of the content and components of a strategy while developing the evaluation methodology. Our expectation for future studies is that there were more specific and deliberate definitions for these strategies and also more statistic-based approaches for efficiency estimates in which, for instance, intervals of confidence could be provided.

References

- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of social and clinical psychology*, 4(3), 359-373. [Crossref](#)
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Beauchamp, M. R., & Bray, S. R. (2001). Role ambiguity and role conflict within interdependent teams. *Small Group Research*, 32, 133e157.
- Beauchamp, M. R., Bray, S. R., Fielding, A., & Eys, M. A. (2005). A multilevel investigation of the relationship between role ambiguity and role efficacy in sport. *Psychology of Sport and Exercise*, 6, 289e302.
- Beauchamp, M. R., Bray, S. R., Fielding, A., & Eys, M. A. (2005). A multilevel investigation of the relationship between role ambiguity and role efficacy in sport. *Psychology of Sport and Exercise*, 6, 289e302. [Crossref](#)
- Boone, K. S., Beitel, P., & Kuhlman, J. S. (1997). The effects of the win/loss record on cohesion. *Journal of Sport Behavior*, 20(2), 125.

- Bosselut, G., McLaren, C. D., Eys, M. A., & Heuzé, J. P. (2012). Reciprocity of the relationship between role ambiguity and group cohesion in youth interdependent sport. *Psychology of Sport and Exercise*, 13(3), 341-348. [Crossref](#)
- Carron, A. V., & Eys, M. A. (2012). *Group dynamics in sport* (4th ed.). Morgantown, WV: Fitness Information Technology.
- Carron, A. V., Colman, M. M., & Wheeler, J. (2002). Cohesion and performance in sport. A Meta-analysis. *Journal of Sport & Exercise Psychology*, 24, 168e188. [Crossref](#)
- Chow, G. M., & Feltz, D. L. (2007). Exploring new directions in collective efficacy
- Estabrooks, P. A., & Carron, A. V. (2000). The Physical Activity Group Environment Questionnaire: An instrument for the assessment of cohesion in exercise classes. *Group Dynamics: Theory, Research, and Practice*, 4(3), 230. [Crossref](#)
- Eys, M., Loughhead, T., Bray, S. R., & Carron, A. V. (2009). Development of a cohesion questionnaire for youth: The Youth Sport Environment Questionnaire. *Journal of Sport and Exercise Psychology*, 31(3), 390-408. [Crossref](#)
- Feltz, D. L., & Lirgg, C. D. (1998). Perceived team and player efficacy in hockey. *Journal of applied psychology*, 83(4), 557. [Crossref](#)
- Fox, K. (1984). Causal relationship among cohesion, satisfaction and performance relationship. *Journal of Sport Psychology*, 4, 324-337.
- George, T. R., & Feltz, D. L. (1995). Motivation in sport from a collective efficacy perspective. *International Journal of Sport Psychology*, 26, 98-98.
- Gersick, C. J. G. (1988). Time and transition in work teams: toward a new model of group development. *Academy of Management Journal*, 31, 9e41.
- Grieve, F. G., Whelan, J. P., & Meyers, A. W. (2000). An experimental examination of the cohesion-performance relationship in an interactive team sport. *Journal of Applied Sport Psychology*, 12(2), 219-235. [Crossref](#)
- Heuz. e, J. P., Raimbault, N., & Fontayne, P. (2006). Relationships between cohesion, collective efficacy and performance in professional basketball teams: an examination of mediating effects. *Journal of Sports Sciences*, 24, 59e68. [Crossref](#)
- Hodges, L., & Carron, A. V. (1992). Collective efficacy and group performance. *International Journal of Sport Psychology*.
- Holt, N. L., Knight, C. J., & Zukiwski, P. (2012). Female athletes' perceptions of teammate conflict in sport: implications for sport psychology consultants. *The Sports Psychologist*, 26, 135e154. [Crossref](#)
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Occupational stress: Studies in role conflict and ambiguity*. New York: John Wiley.
- Kleinert, J., Ohlert, J., Carron, B., Eys, M., Feltz, D., Harwood, C., & Sulprizio, M. (2012). Group dynamics in sports: an overview and recommendations on diagnostic and intervention. *The Sport Psychologist*, 26(3), 412-434. [Crossref](#)
- Kozub, S. A., & McDonnell, J. F. (2000). Exploring the relationship between cohesion and collective efficacy in rugby teams. *Journal of Sport Behavior*, 23, 120e129.
- Leo, F. M., García-Calvo, T., Parejo, I., S.ánchez-Miguel, P. A., & S.ánchez-Oliva, D.(2010). Interacci. on de la cohesi. on en la eficacia percibida, las expectativas de. exito y el

- rendimiento en equipos de baloncesto [Interaction of cohesion and perceived efficacy, success expectations and performance in basketball teams]. *Revista de Psicología del Deporte*, 19, 89e102.
- Lirgg, C. D., Dibrezzo, R., & Smith, A. N. (1994). Influence of gender of coach on perceptions of basketball and coaching self-efficacy and aspirations of high school female basketball players. *Women in Sport and Physical Activity Journal*, 3(1), 1-14. [Crossref](#)
 - Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes.
 - Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review*, 26, 356e376. [Crossref](#)
 - Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
 - Paradis, K. F., Carron, A. V., & Martin, L. J. (2014). Athlete perceptions of intra-group conflict in sport teams. *Sport and Exercise Psychology Review*, 10, 4e18.
 - Paskevich, D. M., Brawley, L. R., Dorsch, K. D., & Widmeyer, W. N. (1999). Relationship between collective efficacy and cohesion: conceptual
 - Shields, D. L. L., Gardner, D. E., Bredemeier, B. J. L., & Bostrom, A. (1995). Leadership, cohesion, and team norms regarding cheating and aggression. *Sociology of Sport Journal*, 12(3), 324-336. [Crossref](#)
 - Spink, K. S. (1990). Group cohesion and collective efficacy of volleyball teams. *Journal of Sport and Exercise Psychology*, 12(3), 301-311. [Crossref](#)
 - Tekleab, A. G., Quigley, N. R., & Tesluk, P. E. (2009). A longitudinal study of team conflict, conflict management, cohesion, and team effectiveness. *Group & Organization Management*, 34, 170e205. [Crossref](#)
 - Tubre, T. C., & Collins, J. (2000). Jackson and Schuler (1985) Revisited: a meta-analysis of the relationships between role ambiguity, role conflict, and job performance. *Journal of Management*, 26, 155e169. [Crossref](#)
 - Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin*, 63, 384e389. [Crossref](#)
 - Vescovi, J. D., Brown, T. D., & Murray, T. M. (2006). Positional characteristics of physical performance in Division I college female soccer players. *Journal of Sports Medicine and Physical Fitness*, 46(2), 221.
 - Zaccaro, S. J., Blair, V., Peterson, C., & Zazanis, M. (1995). Collective efficacy. [Crossref](#)
 - Zellars, K. L., Hochwarter, W. A., Perrewe, P. L., Miles, A. K., & Kiewitz, C. (2001). Beyond self-efficacy: Interactive effects of role conflict and perceived collective efficacy. *Journal of Managerial Issues*, 483-499.