



# Understanding extra-role behavior in schools: the relationships between job satisfaction, sense of efficacy, and teachers' extra-role behavior

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Received 19 January 1999; received in revised form 13 October 1999; accepted 22 November 1999

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## Abstract

The purpose of the present study was to explore the construct of extra-role behavior in schools, and to examine the relationships between extra-role behavior and three factors: job satisfaction, self-efficacy, and collective efficacy. Subjects were 251 Israeli teachers. A factor analysis revealed three distinctive facets of extra-role behavior, corresponding to three levels of the school system: the student, the team, and the organization as a unit. In addition, the results demonstrated positive relations between job satisfaction and extra-role behavior at all three levels of the school system; self-efficacy was positively related to extra-role behavior towards the team and the organization; and collective efficacy was positively related only to extra-role behavior towards the team. These results enhance the multidimensional approach to extra-role behavior, and also emphasize the importance of examining the determinants of each construct separately. © 2000 Elsevier Science Ltd. All rights reserved.

*Keywords:* Extra-role behavior; Job satisfaction; Self-efficacy; Collective efficacy; Teachers

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## 1. Introduction

With the dawning of the next millennium, educational systems face new challenges as they move into an era of reorganization stressing site-based management, teacher empowerment, and the importance of the work team (Lee, Dedrick & Smith, 1991). Reconsideration of the teacher's role becomes obligatory under such conditions. Moreover, during organizational changes, when job definitions are ambiguous, organizations will have

to be more dependent on teachers who are willing to contribute to successful change, regardless of formal job requirements. The present study focuses on those behaviors which go beyond delineated role expectations but are important and even crucial for a school's survival, namely, extra-role behavior (e.g., Brief & Motowidlo, 1986; George, 1990; Katz & Kahn, 1966).

For many years, scholars have recognized the significant impact of extra-role behavior on the success of an organization. As several authors have noted (e.g., George, 1996; Katz & Kahn, 1966; Organ & Konovsky, 1989), extra-role behavior provides the organization with additional resources and removes the need for expensive formal mechanisms otherwise crucial to successful restructuring

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processes. It is only recently, however, that those behaviors have been the focus of concrete empirical effort (e.g., Brief & Motowidlo, 1986; George, 1990; George & Bettenhausen, 1990; McLean Parks, 1990; O'Reilly & Chatman, 1986; Organ, 1988; Organ, 1990; Organ & Konovsky, 1989; Puffer, 1987; Staw & Boettger, 1990; Van Dyne, 1993).

In this study, extra-role behavior is defined as:

*those behaviors that go beyond specified role requirements, and are directed towards the individual, the group, or the organization as a unit, in order to promote organizational goals.*

This definition stresses three main features of extra-role behavior. First, the behavior must be voluntary, that is, neither role-prescribed nor part of formal job duties. It is not formally rewarded, and failure to engage in the behavior cannot be formally penalized. Second, this definition highlights the multidimensional nature of extra-role behavior. This means that theory and research should address extra-role behavior at all three levels of the organization: the individual level (e.g., donating behaviors), the team level (e.g., sharing and cooperative behaviors), and the organizational level (e.g., volunteering for unpaid tasks). Moreover, the predictions of the antecedents and the consequences of extra-role behavior should be level-dependent. This multidimensional approach should clarify the inconsistent findings in the literature on extra-role behavior (George, 1996). Third, the focus is on behaviors that benefit the organization from the organizational perspective. This view illuminates the important point that extra-role behaviors are not simply those that happen to occur within an organization, but those that are directed towards or seen as benefiting the organization (Van Dyne, Cummings & McLean Parks, 1995).

A review of school research reveals only indirect interest in extra-role behavior as one component of school effectiveness (e.g., Fullan, 1985). Nonetheless, within the context of the current reform movement in education (e.g., site-based management, focus on the work team), extra-role behaviors directed towards the student, the team, and the organization as a unit are essential to accomplish the movement's new objectives. Hence, the first pur-

pose of this study was to examine extra-role behavior in schools, and more specifically, to explore the fundamental components of teachers' extra-role behavior on the three organizational levels, and to identify the factors that may be related to such behaviors.

### *1.1. Determinants of extra-role behavior*

In recent years, several empirical studies have sought to identify the affective and cognitive antecedents of extra-role behavior, including: satisfaction (Bateman & Organ, 1983), commitment (O'Reilly & Chatman, 1986), perceptions of fairness (Farth, Podsakoff & Organ, 1988; Folger, 1993; Martin & Bies, 1991; Moorman, Niehoff & Organ, 1993), perceptions of pay equity (Organ & Konovsky, 1989), intrinsic and extrinsic job cognition (Williams & Anderson, 1991), moral development (Brabeck, 1984), contextual factors (Karambaya, 1990; McLean Parks & Conlon, 1991), group cohesiveness and socialization experiences (George & Bettenhausen, 1990).

The study reported here chose to focus on three variables: job satisfaction, which was found to be the most robust correlate of extra-role behavior in organizations; self-efficacy; and collective efficacy. Although the last two have not been a target of extra-role behavior research, both were found to be crucial predictors of in-role behavior of school teachers (e.g., Ashton & Webb, 1986; Ross, Cousins & Gadalla, 1996; Soodak & Podell, 1996). As for job satisfaction, little if any research has related this factor to extra-role behavior in schools. Therefore, the second purpose of the present study was to investigate the relationship between job satisfaction and teachers' extra-role behavior towards the student, the team, and the school as a unit.

#### *1.1.1. Job satisfaction*

Job satisfaction relates to positive attitudes and beliefs towards several aspects of the job or the profession (Organ, 1990). This factor proved to be the most robust correlate of extra-role behavior. Several studies have focused on the relationship between job satisfaction and extra-role behavior towards individuals inside and outside the organization. Puffer (1987) found a correlation of 0.27

between a measure of satisfaction and an index of extra-role behavior of appliance salespeople towards their clients. Motowidlo (1984), in a study of 134 managers in a utility company, reported a correlation of 0.27 between job satisfaction and extra-role behavior towards subordinates. Other studies have emphasized somewhat different types of extra-role behavior, both towards the team and towards the organization, as related to job satisfaction. Smith, Organ & Near (1983) reported correlations of 0.33 and 0.29 between job satisfaction and altruism towards co-workers and compliance, respectively. Bateman and Organ (1983) found a correlation of 0.41 between employee satisfaction and extra-role behavior towards the organization in a group of 77 nonacademic university employees.

Interestingly, these correlations exceed those usually found between job satisfaction and measures of in-role behaviors (Iaffaldano & Muchinsky, 1985; Petty, McGee & Cavender, 1984; Vroom, 1964). It has been shown that a person's productivity does not follow directly from effort. Rather, it depends on personal characteristics (e.g., aptitudes, skills) and context characteristics (e.g., availability of the appropriate resources, organizational culture). Extra-role behavior, on the other hand, pertains to gestures and actions that are more likely to be a direct function of effort (Organ, 1990).

### 1.1.2. *Self-efficacy*

Self-efficacy in psychological terms refers to a person's perceived expectation of succeeding at a task or obtaining a valued outcome through personal effort (Bandura, 1986). For teachers, efficacy is based on their perceived ability to affect students' learning (e.g., Ashton & Webb, 1986; Ross et al., 1996; Soodak & Podell, 1996). A teacher's sense of efficacy will determine the amount of effort he or she puts into teaching, the degree of persistence when confronted with difficulties, and the task choices made (Ross et al., 1996). Teachers with higher self-efficacy set more ambitious standards for themselves by focusing on student development rather than on content coverage (Brookhart & Loadman, 1993) and for the students by promoting student self-management rather than relying

on custodial methods of control (Midgley, Fedlaufer & Eccles, 1989; Woolfolk, Rosoff & Hoy, 1990). Teacher efficacy has been found to predict the success of program implementation (Berman & McLaughlin, 1977), as well as to distinguish teachers in less effective schools from those in more effective schools (Brookover & Lezotte, 1979). Further, a growing body of research suggests that teacher efficacy may underlie critical instructional decisions, such as the use of time, choice of classroom management strategy, and questioning techniques (Gibson & Dembo, 1984; Skalofske, Michayluk & Randhawa, 1988; Woolfolk et al., 1990).

Thus, the above findings demonstrated the relationships between self-efficacy and teachers' effectiveness at both class and school level. Furthermore, high self-efficacy individuals seek experiences that might enhance their self-perception (Bandura, 1993). In line with extra-role behavior literature (e.g., George, 1990, 1996), engaging in extra-role behaviors may offer opportunities for teachers to enhance their positive self-perception, and in return strengthen their self-efficacy. Accordingly, we hypothesized that self-efficacy perceptions will be positively related to extra-role behavior towards the student, the team, and the organization.

### 1.1.3. *Collective efficacy*

Recently, several authors have suggested that the self-efficacy concept can also be applied to teams (e.g., Bandura, 1993; Jex & Gudanowski, 1992; Parker, 1994). Riggs (1989) defined collective efficacy as "each individual's assessment of their team's collective ability to perform job-related behaviors" (p.7).

Though not extensive, organizational research has begun to show some consistent relationships between collective-efficacy beliefs and team effectiveness. As examples, several studies have shown that collective efficacy fosters team cohesiveness and improves attainment of team goals (e.g., George & Feltz, 1995; Lindsley, Brass & Thomas, 1995). Hodges and Carron (1992) found that high collective-efficacy teams improved their collaborative performance following failure, whereas low collective-efficacy teams exhibited a diminution in collaborative performance.

In educational settings, Bandura (1993) found that team members' beliefs in their collective instructional efficacy contributed significantly to their schools' level of academic achievement. This suggests that collective efficacy perceptions predict performance at the organizational, as well as at the team level. Unfortunately, like self-efficacy conceptions, collective efficacy has been associated mainly with in-role performance. Therefore, the present study focused on the relationship between collective efficacy and extra-role behavior in schools. More specifically, we hypothesized that collective efficacy perceptions would be positively related to extra-role behavior towards the team and the organization as a unit, but not towards the student.

### 1.2. Hypotheses

The present study focused on the multidimensional definition of extra-role behavior, and examined the relationships between job satisfaction, self-efficacy, and collective efficacy, and the three levels of extra-role behavior: towards the student, the team, and the organization as a unit.

Therefore, our hypotheses were:

- (1) *The concept of extra-role behavior in schools is expected to contain three distinctive dimensions:* extra-role behavior towards the student, extra-role behavior towards the team, and extra-role behavior towards the organization as a unit.
- (2) *The relationship between job satisfaction and extra-role behavior:* Based on earlier research (e.g., Organ, 1990; Organ & Konovsky, 1989), job satisfaction is generally and undistinctively correlated with extra-role behavior at all levels in different kinds of organizations. Therefore, we hypothesized that the relationships between job satisfaction and extra-role behavior at all three levels, student, team, and organization, will be positive.
- (3) *The relationship between self-efficacy and extra-role behavior:* In line with extra-role behavior literature, individuals with high self-efficacy seek opportunities to enhance their positive self-perception. Engaging in extra-role behaviors may offer these opportunities, and in return strengthen self-efficacy. Given this reciprocal

process, we hypothesized that the relationships between self-efficacy and extra-role behavior at all three levels, student, team, and organization, will be positive.

- (4) *The relationship between collective efficacy and extra-role behavior:* Collective efficacy refers to the individual's assessment of his or her work-team ability. Therefore, we speculated distinctive relations between collective efficacy and the different levels of extra-role behavior:
  - (a) The relationships between collective efficacy and extra-role behavior towards the team and the organization will be positive.
  - (b) No relationship will be found between collective efficacy and extra-role behavior towards the student.

## 2. Method

### 2.1. Population and sample

The study encompassed 251 teachers at 13 elementary schools in the northern part of Israel, including 231 women and 20 men. Their average age was 34, with an average of 8 years of school seniority and 13 years of seniority as teachers. Fifty-one percent had a Bachelor's degree, 12% had a Master's degree, and 37% had a 'professional' degree (equivalent to a junior college diploma, with teaching credentials).

### 2.2. Study measures

#### 2.2.1. Extra-role behavior scale

*2.2.1.1. Scale development.* A two-stage pretest was conducted to develop an extra-role behavior questionnaire based on the literature, but suitable for the elementary school system. In the first stage, five school principals and 25 elementary-school teachers were interviewed, in order to identify the contents of the extra-role behavior at school. In a semi-structured interview, they were asked to list all kinds of behaviors that teachers may perform to benefit the student, the team, or the organization as a unit. The focus was on behaviors that go beyond specific role expectations and requirements. In the

second stage, a pooled list of 60 items was distributed among 40 teachers taking part in a management-training program. In addition to checking the items on the prepared list, they could add items that they perceived as representing extra-role behavior in school.

The final questionnaire consisted of three subscales based on factor analysis (see Table 2): (a) eight items on extra-role behavior towards the student, with reliability level of  $\alpha = 0.79$ ; (b) eight items on extra-role behavior towards the team, with reliability level of  $\alpha = 0.81$ ; and (c) eight items on extra-role behavior towards the school as a unit, with reliability level of  $\alpha = 0.83$ . Each subscale was measured by the mean response to the relevant items rated on a seven-point Likert-type scale ranging from (1) “strongly disagree” to (7) “strongly agree”.

**2.2.1.2. Self-efficacy.** Self-efficacy beliefs were measured on an 11-item scale based on Riggs (1989) and adopted for use with teachers. The items reflected the degree to which subjects believed they were capable of doing their job well. Examples of items included: “I have confidence in my ability to do my job”; “I doubt my ability to do my job”; and “Few teachers in my school can do a better job than I can.” The self-efficacy score was obtained by the mean response to the 11 items rated on a five-point Likert scale ranging from (1) “strongly disagree” to (5) “strongly agree”. The internal consistency was  $\alpha = 0.71$ .

**2.2.1.3. Collective efficacy.** The collective-efficacy scale, also based on Riggs (1989), contained 10 items reflecting individual subjects’ perceptions of the extent to which their respective teams were capable of functioning effectively. Examples of these items included: “The school team I work with has above-average ability”; “The teachers of this school have excellent job skills”; and “Team teachers that can perform their jobs as well as this team are rare.” The collective-efficacy score was obtained by the mean response to the 10 items rated on a five-point Likert scale ranging from (1) “strongly disagree” to (5) “strongly agree”. The internal consistency was  $\alpha = 0.78$ .

**2.2.1.4. Job satisfaction.** This was measured by the mean response to a 10-item scale developed for teachers by Zak (1975). The job satisfaction questionnaire reflected the degree to which teachers were satisfied with various aspects of their profession. Examples of items included: “My job provides me a good opportunity to utilize my ability and skills”; “I usually enjoy my job.” Each item was rated on a seven-point Likert scale ranging from (1) “strongly disagree” to (7) “strongly agree”. The reliability level was  $\alpha = 0.88$ .

### 2.3. Procedure

The questionnaires were distributed personally to all the teachers in the sampled elementary schools. The response rate was 67% (251 out of 375).

## 3. Results

Descriptive statistics for all variables are presented in Table 1.

### 3.1. Structure of extra-role behavior in school

In order to test the first hypothesis concerning the multidimensional structure of the extra-role behavior questionnaire, we performed a factor analysis, using the maximum likelihood rotation varimax method (see Table 2). As expected, three separate factors emerged. Factor 1 appeared to represent behaviors intentionally directed at helping a specific teacher (e.g., orienting a new teacher,

Table 1  
Descriptive statistics

Alpha	SD	Mean	Variable
0.81	0.96	3.70	ERB <sup>a</sup> towards the student
0.79	0.90	5.19	ERB towards the team
0.83	1.07	3.90	ERB towards the organization
0.88	0.92	5.42	Job satisfaction
0.71	0.54	4.08	Self-efficacy
0.78	0.69	3.80	Collective efficacy

<sup>a</sup>ERB = extra-role behavior.

Table 2  
Factor analysis of extra-role behavior

Item	Factor 1 Team <sup>a</sup>	Factor 2 Organ. <sup>b</sup>	Factor 3 Student <sup>c</sup>
Volunteer for school committee	0.47	0.18	– 0.02
Stay after school hours to help students with class materials	0.28	0.13	0.41
Orient new teachers even though it is not required	0.48	0.06	0.04
Arrive early for class	– 0.11	0.37	0.50
Organize social activities for school	0.03	0.74	– 0.01
Volunteer for roles and tasks that are not required	0.33	0.45	0.19
Acquire expertise in new subjects that contribute to my work	0.08	– 0.05	0.34
Stay in class during breaks in order to listen to my students	0.28	0.08	0.44
Offer my colleagues work sheets that I have prepared for my class	0.60	– 0.16	– 0.04
Go to school on my free days to prevent problems in my class	0.22	0.15	0.67
Assume responsibilities that are not a prescribed part of my job	0.23	0.38	0.28
Prepare special assignments for higher and lower level students	0.26	0.07	0.40
Prepare learning programs for substitute teachers	0.51	0.11	0.10
Participate in private celebrations of my students (e.g., birthdays)	– 0.09	0.27	0.39
Make innovative suggestions to improve the school	0.22	0.52	0.17
Attend functions not required but which help the school's image	0.22	0.58	0.09
Invite students to my home	0.02	0.29	0.46
Help other teachers who have heavy work loads	0.56	0.13	0.16
Organize joint activities with parents above the norm	0.13	0.56	0.16
Decorate the school	0.14	0.52	0.03
Help an absent colleague by assigning learning tasks to the class	0.41	0.14	0.06
Participate actively in teachers' meetings	0.43	0.23	– 0.09
Assist the principal in my free hours	0.22	0.58	0.09
Work collaboratively with others (planning assignments, joint projects, etc.)	0.53	0.27	– 0.12

$X^2 = 2617.86, p < 0.0001$

<sup>a</sup>Team = extra-role behavior towards the team.

<sup>b</sup>Organ. = extra-role behavior towards the organization.

<sup>c</sup>Student = extra-role behavior towards the student.

assisting a teacher with a heavy workload). Thus, this dimension referred to extra-role behavior towards team members. Factor 2 pertained to a more impersonal form of behavior, which did not provide immediate aid to any one specific person but rather was directed towards the benefit of the whole team or the school as a unit. These behaviors seemed to represent innovative and initiative activities (e.g., making innovative suggestions to improve the school; volunteering for roles that are not a part of the job). Thus, this factor referred to extra-role behavior towards the organization. Factor 3 seemed to capture behaviors directly and intentionally aimed at improving the quality of teaching (e.g., learning new subjects that contribute to the work) and helping students to improve their

achievements (e.g., staying an extra hour, helping disadvantaged students). Thus, this dimension referred to extra-role behavior towards the student.

### 3.2. Correlation analyses

Pearson correlations were computed to test hypotheses 2–4 (see Table 3).

The second hypothesis concerned the relationships between job satisfaction and three levels of organizational extra-role behavior: the student, the team, and the organization. All of the correlations were positive and significant ( $r = 0.48, p < 0.0001$ ;  $r = 0.46, p < 0.0001$ ;  $r = 0.33, p < 0.0001$ , respectively). Thus, the results supported the second hypothesis, namely, that the relationships between job

Table 3  
Pearson correlations of ERB subscales with study factors<sup>c</sup>

	1	2	3	4	5	6
1. ERB <sup>a</sup> towards the student		0.19 <sup>a</sup>	0.20 <sup>a</sup>	0.48 <sup>b</sup>	0.05	0.13
2. ERB towards the team			0.17 <sup>a</sup>	0.46 <sup>b</sup>	0.35 <sup>b</sup>	0.27 <sup>b</sup>
3. ERB towards the organization				0.33 <sup>b</sup>	0.19 <sup>a</sup>	0.09
4. Job satisfaction					0.16 <sup>a</sup>	0.21 <sup>a</sup>
5. Self-efficacy						0.24 <sup>a</sup>
6. Collective efficacy						

<sup>a</sup>ERB = extra-role behavior.

<sup>b</sup> $p < 0.05$ .

<sup>c</sup> $p < 0.0001$ .

satisfaction and the three levels of organizational extra-role behavior would be positive.

The third hypothesis concerned the relationships between self-efficacy and extra-role behavior. Positive and significant relationships were found between self-efficacy and extra-role behavior towards the team ( $r = 0.35$ ,  $p < 0.0001$ ) and towards the organization ( $r = 0.19$ ,  $p < 0.01$ ). However, no significant relationship was found between self-efficacy and extra-role behavior towards the student ( $p > 0.05$ ). Thus, the results supported the third hypothesis insofar as positive relationships between self-efficacy and extra-role behavior were found towards the team and the organization, but they did not support that part concerning the relationship between self-efficacy and extra-role behavior towards the student.

The fourth hypothesis concerned the relationships between collective efficacy and extra-role behavior. While a positive and significant relationship was found between collective efficacy and extra-role behavior towards the team ( $r = 0.27$ ,  $p < 0.001$ ), no significant relationships were found between collective efficacy and extra-role behavior towards the student or towards the organization ( $p > 0.05$ ). Thus, the results supported the part of the fourth hypothesis concerning a positive relationship between collective efficacy and extra-role behavior towards the team, as well as that part concerning no significant relationship towards the student. However, the results did not support

a positive relationship between collective efficacy and extra-role behavior towards the organization.

#### 4. Discussion

The study reported here addressed the issue of extra-role behavior in the schools. The educational system, like other service organizations, faces difficulties in setting and supervising specific quantitative goals for teachers. Therefore, behaviors that go beyond in-role duties become a fundamental component for achieving effectiveness in schools.

The findings have demonstrated three distinctive facets of extra-role behavior, corresponding to three levels of the school system: the student, the team, and the organization as a unit. These results provide primary support for the multidimensional approach to the conceptualization and measurement of extra-role behavior. In the past, extra-role behavior was not always well defined, and research focused mainly on a more global construct (Organ, 1988). The results of this study provide some grounds for believing that extra-role behavior is expressed differently in different facets of the organization. For example, extra-role behavior towards the organization is expressed mainly in initiative behaviors for the benefit of the organization as a unit, while extra-role behavior towards the team is exhibited primarily in helping behaviors towards team members.

A further contribution of this study is in examining the relationships between three factors — job satisfaction, self-efficacy, and collective efficacy — and extra-role behavior within the context of the schools. First, consistent with previous research in service organizations, our results demonstrated a positive relation between teachers' satisfaction and extra-role behavior at all three levels of the school system: the student, the team, and the organization. Second, and of more interest, was the finding about the different relations of self-efficacy and collective efficacy with extra-role behavior in the school. While self-efficacy was positively related to extra-role behavior towards the team and the organization, collective efficacy was positively related only to extra-role behavior towards the team. These results enhance the multidimensional

approach to extra-role behavior and also emphasize the importance of examining the antecedents and determinants of each construct separately.

#### 4.1. *Extra-role behavior towards the student*

In line with our hypothesis, our findings demonstrated a strong positive relationship between job satisfaction and extra-role behavior towards the student. This finding is not surprising, as other researchers have already indicated that the major factor influencing teachers' satisfaction is the student (Lee et al., 1991). According to Lortie (1975), teachers' motivation is based on the characteristics of their class. For example, the classroom serves as the main source for gaining a sense of control, which was found to be a major contributor to job satisfaction. The freedom and flexibility in controlling the classroom environment included selecting materials, planning the daily agenda, and exerting classroom discipline (Cooper, Burger & Seymour, 1979; McNeil, 1986).

However, the results of the present study did not support the hypothesis of a positive relationship between self-efficacy and extra-role behavior towards the student. One possible explanation is that teachers refer to behaviors included in this subcategory as in-role behaviors, as part of their job. Based on earlier literature (e.g., Lee et al., 1991), teachers perceive their main role as promoting students' learning and well-being. For example, Blase (1993) suggested that teachers, as professionals, work normatively to improve their classroom performance, to enhance their ability to deal with students' discipline, and to strengthen their awareness of students' needs. Therefore, these behaviors may be perceived as belonging to prescribed in-role behaviors. Further research is needed to differentiate between behaviors towards the student that are perceived as extra-role and as in-role.

#### 4.2. *Extra-role behavior towards the organization as a unit*

In line with our hypothesis, extra-role behavior towards the organization was related to job satisfaction, and to self-efficacy, but not to collective efficacy. As in previous studies showing the import-

ance of self-efficacy in predicting in-role behaviors (e.g., Ross et al., 1996), the present study stressed the relationship between self-efficacy and extra-role behavior toward the organization. We suggest that teachers who feel more competent in their roles will aim for experiences with a high probability of success. Extra-role behavior can provide an opportunity for gaining a positive sense of self. The significant contribution of the self-efficacy factor to both in-role and extra-role behaviors seems to necessitate the identification of ways to develop and enhance teachers' sense of efficacy. Bandura (1982, 1993) identified four information sources that influence self-efficacy. From most to least influential, they are: inactive mastery, vicarious experience, verbal persuasion, and emotional (physiological) arousal.

Within the context of schools, the literature describes two sources of information, intrinsic and extrinsic, upon which teachers enhance their own efficacy. While the intrinsic source (the classroom) is available, the extrinsic one (feedback from the principal and the other teachers) is missing. Teachers work in isolation from their supervisors and also from their peers, which limits their knowledge of school activities outside their own classrooms (Lortie, 1975). Weick (1976) defined as loosely coupled, an organizational structure in which the activities of person A have little impact on the performance of person B, and vice versa. Educational activities constituting the technical core of instruction in a typical school are loosely connected to the school's authority system (principal and superintendent). Hence, our findings could stress the need to build a formal appraisal system, which first sets specified goals and then evaluates and gives the appropriate feedback, for strengthening the sense of efficacy that will lead to increased extra-role behavior.

Note that in our study, collective efficacy was not found as related to extra-role behavior towards the organization. Instead, initiative directed towards the organization as a unit was related to self-efficacy. This result may emphasize the loosely coupled structure of schools. Hence, increasing cohesiveness and collegial relationships in school might promote the perception of school as a unit.



#### 4.3. Extra-role behavior towards the team

Similar to our findings concerning extra-role behavior towards the organization, the results in this aspect demonstrate that both job satisfaction and self-efficacy were related to extra-role behavior towards the team. More interesting was the finding concerning the less investigated aspect of efficacy, namely, collective efficacy. Collective efficacy was found as only related to extra-role behavior towards the team. Teachers with higher collective efficacy, compared with those with lower collective efficacy, engaged more frequently in extra-role behavior towards the team. This finding may suggest that enhancing opportunities for collegial interactions and strengthening collective efficacy can have a positive effect on extra-role behavior towards the team (Ashton & Webb, 1986). Teachers generally have high social needs, but find themselves in a profession that isolates them from their colleagues, often resulting in feelings of loneliness and dissatisfaction. Strong collegial relations can counteract these feelings and contribute to the team's sense of efficacy. Hence, reducing isolation from peers through joint planning and implementation of activities would be likely to foster extra-role behavior.

### 5. Summary and conclusions

The present study focused on examining extra-role behavior in schools. Our results suggest primary support for the multidimensional approach to the conceptualization and measurement of extra-role behavior, and emphasize the importance of examining the factors that relate to each construct separately. Our study contributed to the extra-role behavior research in schools and carried several implications.

First, three levels of extra-role behavior were empirically identified: extra-role behavior towards the student, towards the team, and towards the organization as a unit. Few studies of extra-role behavior, if any, have investigated all three levels simultaneously. This approach leads to a more comprehensive understanding of the extra-role behavior phenomenon.

Second, we identified job satisfaction, self-efficacy, and collective efficacy, as key factors that were positively and distinctively related to teachers' extra-role behavior. These findings gave further support to the multidimensional structure of extra-role behavior in schools.

Third, as explorative research, the scope of the present study was to understand the concept of extra-role behavior in school. However, for theoretical and practical implications, it is important to identify the directions of the relationships between job satisfaction, sense of efficacy and extra-role behavior. Hence, further research using longitudinal designs and time-lagged correlations is needed to address this issue (Ostroff, 1992).

Finally, as with any study, this research is not without limitations. The present study used teachers' subjective perceptions of extra-role behavior. The unique structure of schools restricts the ability of principals to monitor and supervise teachers' in-role performance and, all the more, extra-role performance. Therefore, the main source of information about these behaviors was the teachers themselves. Previous research has revealed that the correlations between different raters (e.g., the principal, co-workers) are weak. Each source of ratings seems to present its own form of bias, and it is not evident a priori which source should be more valid (Organ, 1990). Further research should use other sources for evaluating extra-role behavior.

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