www.iiste.org

The Relationship Between EFL Teachers' Perception and Practice of Collaboration and Their Self-Efficacy

Fatemeh Akhavan Kazemzadeh Abdorreza Tahriri* Jaleh Hassaskhah Department of English Language and Literature, Faculty of Humanities, University of Guilan, Iran

Abstract

The present study aimed at investigating the relationship between EFL teachers' perception and practice of collaboration on the one hand and their self-efficacy on the other hand overall. To this end, two piloted questionnaires were distributed among 125 EFL teachers in Guilan province, Iran. The participants were asked to answer two questionnaires: One including 12 paired collaboration items developed by Leonard (2002), and another one including 24 items on teachers' self-efficacy developed by Tschannen-Moran and Woolfolk Hoy (2001). The findings of the study indicated a small positive relationship between EFL teachers' perception of collaboration and their self-efficacy (rho = +.176) and a positive medium relationship between their practice of collaboration and their self-efficacy (rho = +.415). Finally, the results of the study revealed that there was a positive medium relationship between EFL teachers' collaboration with their colleagues and their sharing of experiences, expertise, and strategies can help them become efficacious practitioners while teaching in their classrooms, engaging learners, and managing their classrooms, all of which are the positive outcomes of being efficacious teachers.

Keywords: self-efficacy, collaboration, teachers, EFL

1. Introduction

In order to explain the psychological functioning of human being, plenty of theories have been proposed over years. In particular, self-efficacy is of concern to such theories; in fact, it is deeply rooted in social learning theory and social cognitive theory, both of which emphasize an individual's development of self-efficacy through interpersonal relationships and interactions (Brandt, 2015). The construct of self-efficacy pertains to the name of psychologist Bandura and his social cognitive theory. According to Bandura (1994), efficacious people consider difficult tasks as some challenges which need to be mastered rather than threats to be avoided. In simple terms, it means that if people believe they can accomplish things, they can do their best to be successful in performing or achieving them. Conversely, if they doubt their own ability, they won't be successful at all and would be confronted with failure.

Self-efficacy is the extent that a person's strong beliefs in his or her ability can result in completing tasks and reaching goals (Ormrod, 2006). In the realm of education, self-efficacy has provoked extensive and painstaking research to explore how teachers' self-efficacy beliefs are related to their own actions and to the outcomes they ultimately wish to achieve (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). It has been shown that teachers' efficacy is also related to teachers' own behavior in the classroom. For instance, it influences their investment of effort and energy in teaching, their setting of teaching goals, and their level of aspiration. In effect, teachers with a high sense of efficacy are more open to new ideas and more willing to experiment with new methods to better meet the needs of their students (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977).

The application of this construct in education has brought about a growing body of research into how teachers' self-efficacy beliefs are associated with their practice and to the educational outcomes they achieve (Tschannen-Moran et al., 1998). Other researchers (Beasley, Gartin, Lincoln, & Penner-Williams, 2013; Gebbie, Ceglowski, Taylor, & Miels, 2012) have unanimously proved that there are strong links between teachers' self-efficacy and instructional practice, that is, the way they actually teach and train students. These studies have also documented that teachers' sense of self-efficacy has strong impacts not only on various aspects of teaching but also on students' learning.

The same as the notion of teachers' self-efficacy which emphasizes teachers' interpersonal relationships and interactions, the nature of teachers' collaboration is also in need of social and professional relationships among teachers (Brandt, 2015). Moreover, in order for teachers to successfully cope with diverse needs of students arising every day, their teaching practice has to meet such various changing needs. As a result, they need to be empowered. As it is claimed by You (2015), teachers are not the same in terms of their knowledge, intelligence level, cognitive style, etc. Therefore, the way they deal with the teaching content, and choose teaching methods and the method they use for teaching are not the same, either. Hence, there should be opportunities for teachers to take part in dialogs and support or even, at times, challenge each other. As Leithwood and Steinbach (1995) pointed out, in the myriad decisions that teachers face every day, it is required that there be a deep understanding of their purposes and how to accomplish them. Successful collaborations enable teachers to exchange their effective teaching methods and improve their classroom instruction. According to Wei, Darling-Hammond,

Andree, Richardson, and Orphanos (2009), it is highly necessary to foster strong working relationships among teachers.

Every day we face a worldwide demand of individuals for learning English as a Foreign Language (EFL). Hence, there is an increasing urgent need to have more and more qualified teachers. Similarly, there has been an increase in praising collaboration as an important feature in the management of schools (Glickman, 1993; Pounder, 1998) and teachers, as well, are increasingly being warned to move away from traditional norms of isolation and autonomy toward greater collaboration with their colleagues (Marks & Louis, 1997). Tschannen-Moran et al. (1998) suggested that weak teacher quality and performance is directly related to learners' lack of achievement. Hence, it can be suggested here that in order to be effective, teachers need to take part in collaboration with their colleagues. There is an urgent need to create opportunities which can facilitate collaboration among teachers and let them benefit from it. Therefore, it is required to explore if teachers' collaboration can help them to be more efficacious or not.

Teacher collaboration has been increasingly highlighted due to the reforms in education (Brownell, Yeager, Rennells, & Riley, 1997; Louis, Marks, & Kruse, 1996). As it is claimed by Honingh and Hooge (2014), over the last three decades, teacher collaboration has been regarded as an important concept in the realm of educational policy and educational research. Moreover, the concept of teacher collaboration has received attention in a variety of different aspects including school effectiveness, teachers' effectiveness, and students' achievements (Admiraal & Lockhorst, 2010; Bezzina, 2006; Levine & Marcus, 2010). Hairon and Tan (2017) have also stated that structured teacher collaboration can potentially raise the quality of teachers, their actual teaching, and student learning.

Accordingly, with the importance of both teachers' collaboration and their self-efficacy, the present study aimed at investigating whether or not there is a significant relationship between EFL teachers' perception and practice of collaboration and their self-efficacy.

2. Literature Review

Teacher collaboration, likewise teacher self-efficacy, is grounded in the social and professional relationships of teachers which has the potential to increase teacher self-efficacy. As it is claimed by Brandt (2015), a deep investigation of social cognitive theory and social learning theory can strengthen the way that self-efficacy can develop in relation with social exchanges like those ones which occur in collaborative teams of teachers. Successful collaborations enable teachers to exchange their effective teaching methods and improve their classroom instruction. According to Wei et al. (2009), it is highly necessary to foster strong working relationships among teachers.

Darling-Hammond (1998) reported that educators who collaboratively examine teaching practices are more effective at fostering higher-order thinking skills and supporting a variety of learners in the classroom. It is through shared personal practice that teachers are most clearly able to understand and implement changes that can be made to instructional practices in their classrooms. It has also been argued that that there are some obstacles to teacher collaboration. One of the most consistent obstacles is finding time to collaborate (Darling-Hammond & Richardson, 2009; Friend & Cook, 2009). Therefore, teachers who work in any collaborative environment have a higher perception of teaching self-efficacy and are more successful teachers in the classroom and as a result face less teacher attrition and their students show better academic success (Bandura, 1993; Ebmeier, 2003; Fritz, Miller-Heyl, Kreutzer, & MacPhee, 2001; Garcia, 2004; Nadeem Anwar, 2009; Schwerdtfeger, Konermann, & Schonhofen, 2008; Tucker et al., 2005; Wolters & Daugherty, 2007).

Brandt (2015) conducted a research to investigate the correlations between teacher collaborative actiontaking and their self-efficacy. The purpose of the study was to explore the impact of teacher collaboration on their self-efficacy based on social learning theory and social cognitive theory. The researcher adopted a quantitative methodology in his study to, firstly, explore teachers' participation in particular actions of teachers' collaboration and their self-efficacy and, secondly, determine the relationship between frequency of teacher collaboration and their self-efficacy. Moreover, the researcher scrutinized specific manners of collaborative action-taking and their influence on teachers' self-efficacy. Multivariate correlational analysis confirmed that the frequency of the US teachers' participation in collaborative actions was significantly related to higher levels of teacher self-efficacy. Descriptive analysis suggested that the US teachers had an overall positive sense of selfefficacy and differences in self-efficacy and participation in collaborative action-taking were evident by participants' age, experience and gender.

Heaton (2013) conducted a research to explore the relationship between professional learning community variables and participating Southwestern Ontario elementary teachers' self-efficacy. The researcher employed an online survey methodology to produce findings from the sample that could be generalizable to the population of teachers in other schools in Ontario context. The participating teachers were asked to respond to various questions about demographics, teaching experiences, Professional Learning Community (PLC) and professional learning community experiences. 84% of the participants were female and 16% of them were male. 21% of them

had five years or less experience as professional educators, 34% of them had more than ten years of experience. The instruments used in the study were two researcher-created of 'Demographic' and the 'Teaching Experiences' questionnaires, Professional Learning Community Assessment-revised (PLCA-R), Teacher Sense of Efficacy Scale (TSES), and a third researcher-created tool called Professional Learning Community Experiences Questionnaire. The 'Demographic' questionnaire was used to collect basic demographic data. The 'Teaching Experiences' questionnaire was used to collect information regarding teachers' actual teaching experiences. Based upon the findings of this study, PLC structures appeared to be linked to increased levels of teacher self-efficacy.

Chong and Kong (2012) also conducted a study to examine the role of teacher collaborative learning and teacher self-efficacy. The nature of their joint study was exploratory, so it was not designed to test out if teacher efficacy increases or decreases by using lesson study approach. The lesson study was used as an alternative for structured collaborative approach to permit teachers to work with peers and make critical instructional decisions. The researchers adopted a qualitative methodology to obtain detailed descriptions, narratives and stories of the teacher participants as they work together. The participants were ten teachers from mathematics, humanities, and science departments of an all girls' high school in Singapore who volunteered to participate in the seven-week project. The teachers were all familiar with various cooperative learning approaches and had the teaching experiences ranging from two to fourteen years. They were grouped into teams of three and four (mathematics) based on subject specialization and in each team there was a senior teacher with specialized content knowledge. Each team of teachers had its own preferred teaching approach according to the nature of the subject that the teachers were teaching and also according to the degree of collaboration of their own subject department. For instance, the science and humanities teachers were more inclined to work alone in their specialized subject area such as physics, chemistry, or biology, whereas the mathematics teachers showed a general tendency to develop lessons as a team. Finally, the study confirmed that teacher efficacy is a contextual construct and that its effectiveness as a motivating force for teacher change is tied to the broader context that includes the school community support network and the possible influence of teachers' collective sense of efficacy.

Nabi Karimi (2011) studied the effect of professional development (PD) initiatives on EFL teachers' degree of self-efficacy. The participants were 60 junior high school teachers teaching in two western provinces of Iran: Kermanshah and Ilam. The 60 participants were divided into two groups with 30 teachers in each. They aged between 21-24 female and male teachers. One of the groups was the control group and the other one was treatment (experimental) group. The teachers who were assigned to the treatment groups received professional development through 5 models of PD including In-service Training (like having workshops, etc.), Development/ Improvement Process (like making decisions and changes to organizational plans and activities), Fellow Observation (like colleagues observing fellow educators and providing comments), and Study Groups (like arriving at solutions to common problems and sharing them). Before the commencement of the study, the two groups filed out Teacher Sense of Efficacy Scale to ensure homogeneity of the groups. The result of the independent samples t-test showed no great difference between the two groups. To ensure the quality of teachers' self-efficacy, the participant teachers were observed, too. Finally, after conducting 16 sessions of professional development opportunities had a great effect on improving teachers' efficacy belief.

McGuire (2011) conducted a qualitative case study to explore the influence of teacher collaboration on selfefficacy of teachers who teach different subjects. The teacher participants were not just English teachers. Altogether they were 6 teachers and every two of them were English teachers, math teachers and science teachers. Since the study was a qualitative one in nature, the researcher used teacher interviews, observations and documents related to teacher collaboration. Then the experiences and perceptions of all six teachers were investigated and taken into account. For data analysis, the researcher used line-by-line coding, incident-byincident coding, category construction and explanation building to discover patterns, themes, and relationships related to Bandura's four sources of efficacy development. The key finding of the study was that individual teaching self-efficacy could increase through collaboration with both administrators and faculty members.

Mede (2010) investigated the effects of teachers' collaborative reflection on their EFL teaching. The study was conducted at a preparatory school of an English-medium Turkish university in Istanbul, Turkey. The participants were two EFL teachers who voluntarily participated in the study. The researcher gathered data through three qualitative research methods including observers' field notes, electronic journals and notes from the teachers' dialogs. The result of the study revealed that collaborative reflection among EFL teachers have positive impacts on their instructional practice and can enhance teacher dialog as well.

Williams (2010) conducted a qualitative study to examine the effect of teacher collaboration in a PLC school on teacher self-efficacy. The participants of the study were 20 teachers with different levels of teaching experience. All the participants were high school teachers in a large suburban Midwestern high school and they were also participants in a collaborative model of professional development in that school. The impact of structured teacher collaboration in that school was evaluated to see how it influences the changes in teachers'

pedagogical practice, their feelings of responsibility for learners' achievement, positive adult interdependence, and changes in teacher self-efficacy. To this end, the researcher made use of an interview which was an in-depth and structured one. After analyzing the data from the interviews, the researcher extracted three common themes from their responses: Collaboratively developed mission, vision, values, and goals, the positive interdependence of instructors and a concentration on continuous improvement. The findings of the study proved that there was a structured approach to teacher collaboration which resulted in positive outcomes including better learning of students and teachers' high self-efficacy. It was, in fact, proved that when teachers work in a system of shared leadership, their self-efficacy of the collaborative model in professional learning communities will increase.

While a large number of research on teachers' collaboration and their self-efficacy have proved its importance in the context of education, none of them has yet probed the potential relationship between EFL teachers' perception and practice of collaboration and their self-efficacy. Therefore, it is useful to investigate whether there are any relationships between them or not. As such, the present study sought to investigate the relationship between EFL teachers' collaboration and their self-efficacy. Therefore, the following research question and null hypothesis were proposed:

- RQ: Is there any significant relationship between EFL teachers' perceptions and practice of collaboration on one hand and their self-efficacy on the other hand?
- H₀: There is not any significant relationship between EFL teachers' perceptions and practice of collaboration on one hand and their self-efficacy on the other hand.

3. Methodology

3.1 Participants

Participants of the study were selected from EFL teachers working in four main language institutes including Iran Language Institute (ILI), Safir, Kish, and Shokouh in Guilan province, Iran through convenience sampling. They consisted of 125 EFL teachers including both male (n = 45) and female (n = 80) with their teaching experience ranging from 1 to 20 years of teaching. The age of the participants ranged from 19 to 38 years. From among the total 125 participants in the study, 73 of them had an MA, 48 of them had a BA, and 4 of them had a Ph.D. degree. Most of the participants' fields of study included TEFL, English literature, translation and linguistics.

3.2 Instruments

The instruments used in this study were two questionnaires, namely, Teachers' collaboration scale which was designed by Leonard (2002) which consists of 12 pairs of questions seeking answers regarding EFL teacher's perceptions of collaboration (section a) and the actual practice of EFL teachers' collaboration (section b) at the institute where they spend most of their working hours. And the second questionnaire was the long form of Teacher Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001) which includes twenty-four Likert-style items. To check the instruments' reliability, the Cronbach alpha was applied. The reliability of the 12 items on the perception of collaboration was .845, the reliability of the items on the practice of collaboration was .902 and the reliability of the items on teachers' self-efficacy was found to be .812. The values of Cronbach's Alpha for the questionnaires were all good indicating that the instruments could be considered as reliable tools for the main study. Besides, Tschannen-Moran and Hoy (2001) established validity through correlation of their testing instrument to other existing teacher efficacy measures. During their validation of the testing instrument, the authors established that the questions loaded on three factors: student engagement, instructional practices and classroom management.

3.3 Procedure

Through a pilot study, the appropriateness and reliability of the questionnaires were tested. The participants of the pilot study were 28 EFL teachers from among a representative sample of EFL teachers teaching in the four language institutes under study in Guilan province, Iran. They were 7 males and 21 females with their ages ranging from 24 to 38. During the administration of the pilot study, one of the researchers was present in order to respond to any questions or ambiguities which could be raised by the participating teachers. The completion of the questionnaire lasted about 10 minutes for each participant. As a result, valuable feedback was received and recorded. Based on the feedback received from the pilot study and making the necessary amendments, the final questionnaires were prepared, and administered to 125 EFL teachers including both male (N = 45) and female (N = 80) teaching in four language institutes already stated.

4. Results

Spearman Rank-Order Correlation Test was run to the results of the parts (a) and (b) of the collaboration questionnaire and the teachers' self-efficacy questionnaire. The output generated from this procedure (Spearman results) is presented in table 1 below:

			Teacher self-efficacy
Spearman's rho	Total collaboration	Correlation Coefficient	.388**
		Sig. (2-tailed)	.000
		N	125
	Perceptions	Correlation Coefficient	.176
		Sig. (2-tailed)	.050
		N	125
	Practice	Correlation Coefficient	.415**
		Sig. (2-tailed)	.000
		N	125

Table 1. Spearman rank-order correlation for the teachers' self-efficacy and their perceptions and practice of collaboration

The correlation coefficient between EFL teachers' self-efficacy and their total collaboration as well as the correlation between self-efficacy and perception and practice of collaboration were given in the above table. For the EFL teachers' self-efficacy and their perception of collaboration, Spearman rho value was computed (rho =.176) which was indicative of a positive correlation between the EFL teachers' self-efficacy and their perceptions of collaboration. This value indicated the strength of the relationship between these two variables. The results of the Spearman Rank-Order were interpreted based on Cohen's classification (See Table 2).

Table 2. Cohen's guidelines for interpreting the results of the correlation coefficient

Interpretation	Correlation value	
Small correlation	.10 to .29	
Medium correlation	.30 to .49	
Large correlation	.50 to 1.0	

Cohen's (1988) guideline was applied to interpret the *rho* value found in the present study. There was a small correlation between teachers' self-efficacy and their perceptions of collaboration (rho = .176). Furthermore, the results of the Spearman's rho showed that the association between the teachers' self-efficacy and their perceptions of collaboration was not statistically significant ($p \ge .05$). The insignificant relationship (rho =.176, n = 125, $p \ge .05$) meant that EFL teachers' perceptions of collaboration could account simply for 3.097% of the variance of their self-efficacy {(.176*.176) * 100}.

For the EFL teachers' self-efficacy and their practice of collaboration, Spearman rho value was positive (rho = +.415), indicating a positive correlation between the EFL teachers' self-efficacy and their practice of collaboration. The results of the Spearman Rank-Order were interpreted based on Cohen's classification (See Table 2). There was a medium correlation between teachers' self-efficacy and their practice of collaboration. The results of the Spearman's rho showed that the association between the teachers' self-efficacy and their practice of collaboration was statistically significant ($p \le .01$). Positive significant relationship (rho = +.415, n = 125, $p \le .01$) meant that EFL teachers' practice of collaboration could account for 17.22% of the variance of their self-efficacy {(.415*.415) * 100}.

In sum, for the EFL teachers' self-efficacy and their total collaboration, Spearman rho value (rho = +.388) was positive indicating a positive medium correlation between the EFL teachers' self-efficacy and their total collaboration. The results of the Spearman's rho showed that the association between the teachers' self-efficacy and their total collaboration was statistically significant ($p \le .01$). Positive significant relationship (rho = +.338, n = 125, p $\le .01$) meant that EFL leaners' extent of collaboration could account for 11.42% of the variance of their self-efficacy {(.338*.338) * 100}. Therefore, the null hypothesis was partially rejected implying that there was statistically significant relationship between EFL teachers' self-efficacy and their practice of collaboration. However, the relationship between teachers' self-efficacy and perceptions of collaboration was not statistically significant. The following figure displays the relationship between EFL teachers' self-efficacy and their practice of collaboration.

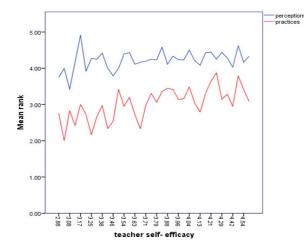


Figure 1. The Correlation between Self-efficacy and 'Perceptions and Practices of Collaboration'

5. Discussion and Conclusion

To test the null hypothesis, Spearman Rank-Order Correlation Test was run to the results of the parts (a) and (b) of the collaboration questionnaire and the teachers' self-efficacy questionnaire. In the light of findings of the statistical analysis, it was shown that the relationship between the teachers' self-efficacy and their total collaboration was statistically significant ($p \le .01$). Therefore, the null hypothesis was partially rejected implying that there was statistically significant relationship between EFL teachers' self-efficacy and their practice of collaboration. However, although the relationship between teachers' self-efficacy and perceptions of collaboration was positive, it was not statistically significant.

The findings indicated that there was a small correlation between teachers' self-efficacy and their perceptions of collaboration (rho = .176). In fact, the results of the Spearman's rho showed that the association between the teachers' self-efficacy and their perceptions of collaboration was not statistically significant ($p \ge .05$). The insignificant relationship (rho = .176, n = 125, $p \ge .05$) meant that EFL teachers' perceptions of collaboration could account simply for 3.097% of the variance of their self-efficacy. This finding is not the same as the results of study by Leonard (2002) who investigated teachers' both perception and practice of collaboration in ten public schools in Louisiana and found out that teachers' perception of collaboration was high.

Furthermore, there was a medium correlation between teachers' self-efficacy and their practice of collaboration. The results of the Spearman's rho showed that the association between the teachers' self-efficacy and their practice of collaboration was statistically significant ($p \le .01$). Positive significant relationship (rho = +.415, n = 125, $p \le .01$) meant that EFL teachers' practice of collaboration could account for 17.22% of the variance of their self- efficacy. This finding also supports the research studies conducted by McGuire (2011) and Chong and Kong (2012) who found a positive relationship between EFL teachers' collaboration and their self-efficacy. This can suggest that the more teachers collaborate, the more they might become efficacious in their teaching practice like student engagement, classroom management, selection of instructional strategies, etc. It can also highlight the benefit of collaboration and dialogues among teachers; that is, if teachers are allowed to learn from each other and share experiences and expertise, they receive more feedback, know their strength and weaknesses, and can cope with daily needs of students more easily. This can, per se, make them believe that they are more capable practitioners and more efficacious when facing difficulties in their classrooms.

Eventually, the results of the Spearman's rho showed that the association between the teachers' self-efficacy and their total collaboration was statistically significant ($p \le .01$). Positive significant relationship (rho = +.338, $n = 125, p \le .01$) meant that EFL leaners' extent of collaboration could account for 11.42% of the variance of their self- efficacy. The finding of this study, however, do not support that of Leonard (1998) who found out a number of inhibitors to teacher collaboration including issue of teacher efficacy, time constraints, fragmented vision, competitiveness, and conflict avoidance. That is, either teachers could not take part in professional collaboration due to the issues stated or preferred to think and work independently to achieve efficiency. Although the results of the study by Leonard (1998) could be worthwhile, it seems necessary to resort to those studies which have been conducted more recently.

First and foremost, as teachers are important in inspiring students and helping them improve, it is important to know how their collaboration is related to their efficacy. Having efficacious teachers is highly required, since it can lead to having better schools and more successful learners. Therefore, collaborative situations should be created and time should be given to teachers to talk and share their expertise and skills. It is especially necessary for novice teachers to take part in collaboration and select the best strategies and experiences in their own classrooms. In fact, policy makers should consider the effect of collaborative environment for teachers and provide effective opportunities for teachers to share ideas and become efficacious.

References

- Admiraal, W., & Lockhorst D. (2010, April). *A Delphi study to further ideas on a model of teacher communities*. Paper presented at the annual meeting of the American Educational Research Association, Denver, the US.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117–148.
- Bandura, A. (1994). Self-Efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (vol. 4, pp. 71-81). New York: Academia Press. (Printed in H. Friedman (Ed.), Encyclopedia of Mental Health. San Diego: Academic Press, 1998.)
- Beasley, J., Gartin, B., Lincoln, F., & Penner-Williams, J. (2013). Teacher efficacy and practice in meeting the needs of diverse learners: How do partnerships support teachers? *SRATE Journal*, 22(2), 1–7.
- Berman, P., McLaughlin, M., Bass, G., Pauly, E., & Zellman, G. (1977). Federal programs supporting educational change. Vol. VII: Factors affecting implementation and continuation (Report No. R. 1589/7-HEWO. Santa Monica, CA: The Rand Corporation (ERIC Document Reproduction Service No. 140432).
- Bezzina, C. (2006) 'The road less travelled': Professional communities in secondary schools. *Theory into Practice*, 45(2), 159–167.
- Brandt, T. B. (2015). Catch the bus: Investigating the correlations between teacher collaborative action-taking and self-efficacy (Doctoral dissertation). Retrieved from http://scholarworks.umass.edu/dissertations 2
- Brownell, M. T., Yeager, E., Rennells, M. S., & Riley, T. (1997). Teachers working together: What teacher educators and researchers should know. *Teacher Education and special Education*, 20(4), 340–359.
- Chong, W. H., & Kong, C. A. (2012). Teacher collaborative learning and teacher self-efficacy: The case of lesson study. *The Journal of Experimental Education*, 80(3), 263–283. doi: 10.1080/00220973.2011.596854
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Darling-Hammond, L. (1998). Teacher learning that supports student learning. *Educational Leadership*, 55(5), 6–11.
- Darling-Hammond, L., & Richardson, N. (2009). Teacher learning: What matters? *Educational Leadership*, 66(5), 46-53.
- Ebmeier, H. (2003). How supervision influences teacher efficacy and commitment: An investigation of a path model. *Journal of Curriculum and Supervision*, 18(2), 110–141.
- Friend, M., & Cook, L. (2009). Interactions: Collaboration skills for school professionals (6th ed.). Upper Saddle River, NJ: Prentice Hall.
- Fritz, J. J., Miller-Heyl, J., Kreutzer, J. C., & MacPhee, D. (2001). Fostering personal teaching efficacy through staff development and classroom activities. *The Journal of Educational Research*, 88(4), 200-208.
- Garcia, D. C. (2004). Exploring connections between the construct of teacher efficacy and family involvement practices Implications for urban teacher development. Urban Education, 39(3), 290–315. doi: 10.1177/0042085904263205
- Gebbie, D., Ceglowski, D., Taylor, L., & Miels, J. (2012). The role of teacher efficacy in strengthening classroom support for preschool children with disabilities who exhibit challenging behaviors. *Early Childhood Education Journal*, 40(1), 35–46.
- Glickman, C. G. (1993), Renewing America's schools: A guide for school-based action. Jossey Bass, San Francisco, CA.
- Hairon, S., & Tan, C. (2017). Professional learning communities in Singapore and Shanghai: Implications for teacher collaboration. *Compare: A Journal of Comparative and International Education*, 47(1), 91–104.
- Heaton, M. (2013). An examination of the relationship between professional learning community variables and teacher self-efficacy (Doctoral dissertation, University of Windsor, Ontario, Canada). Retrieved from http://scholar.uwindsor.ca/etd
- Honingh, M., & Hooge, E. (2014). The effect of school-leader support and participation in decision making on teacher collaboration in Dutch primary and secondary schools. *Educational Management Administration* and Leadership, 42(1), 75–98. doi:10.1177/1741143213499256
- Leithwood, K., & Steinbach, R. (1995). *Expert problems solving: Evidence from schools and district leaders*. State University of New York, Albany, NY: SUNY Press.
- Leonard, L. J. (2002). Schools as professional communities: Assessing the collaborative challenge. *International Electronic Journal for Leadership in Learning*, 6(17), 2–17.
- Leonard, P. E. (1998). Understanding collaborative cultures: Examining values and inhibitors. In V. Robinson (Chair), *Values, action, and organizational theory*. Symposium conducted at the Annual Conference of the American Educational Research Association, San Diego.
- Levine, T., & Marcus, A. (2010). How the structure and focus of teachers' collaborative activities facilitate and

constrain teacher learning. Teaching and Teacher Education 26(3), 389-398.

- Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring Schools. *American Educational Research Journal*, 33(4), 757–798.
- Marks, H. M., & Louis, K. S. (1997). Does teacher empowerment affect the classroom? The implications of teacher empowerment for instructional practice and student academic performance. *Educational Evaluation* and Policy Analysis, 19, 245–75.
- Mede, E. (2010). The effects of collaborative reflection on EFL teaching. *Procedia Social and Behavioral Sciences*, 2(2010), 3888–3891. doi:10.1016/jsbspro.2010.03.610.
- McGuire, B. (2011). Exploring the influence of teacher collaboration on teacher self-efficacy: A single case study of a charter high school (Doctoral dissertation, Walden University).
- Nabi Karimi, M. (2011). The effects of professional development initiatives on EFL teachers' degree of selfefficacy. *Australian Journal of Teachers Education*, 36(6), 50–62.
- Nadeem Anwar, M. (2009, July). Self-efficacy of formally and non-formally trained public sector teachers. *Turkish Online Journal of Distance Education*, 10(3), 9–22.
- Ormrod, J. E. (2006). *Educational Psychology: Developing learners* (5th ed.). Upper Saddle River, N. J.: Pearson/Merrill Prentice Hall.
- Pounder, D. G. (1998). *Restructuring schools for collaboration: Promises and pitfalls*. Albany, NY: State University of New York Press.
- Schwerdtfeger, A., Konermann, L., & Schonhofen, K. (2008). Self-efficacy as a health protective resource in teachers? A biopsychological approach. *Health Psychology*, 27(3), 358-368. doi: 10.1037/0278-6133.27.3.358
- Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching & Teacher Education*, 17, 783-805.
- Tschannen-Moran, M., Woolfolk-Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68,* 202-248.
- Tucker, C. M., Porter, T., Reinke, W. M., Herman, K. C., Ivery, P. D., Mack, C. E., & Jackson, E. S. (2005). Promoting teacher efficacy for working with culturally diverse students. *Preventing School Failure*, 50(1), 29–34.
- Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession: A status report on teacher development in the US and abroad. Dallas, TX: National Staff Development Council.
- Williams, M. L. (2010). *Teacher collaboration as a professional development in a large suburban high school* (Doctoral thesis, University of Nebraska-Lincoln). Retrieved from http://digitalcommonsunl.edu/cehsdiss
- Wolters, C. A., & Daugherty, S. G. (2007). Goal structures and teachers' sense of efficacy: Their relation and association to teaching experience and academic level. *Journal of Educational Psychology*, 99(1), 181-193. doi: 10.1037/00220663.99.1.181
- You, H. (2015). Personalized college English teaching based on collaboration among teachers. *International Journal of English Language Teaching*, 2(2), 40–44.