

## **Teacher Leadership for the Twenty First Century: The Power of Collaboration**

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Across different societies in the knowledge era, it is imperative to prepare the future citizens to the twenty-first century's ever ending change. Due to the shifting paradigm in the teacher's role where teachers are required to work in teams, teacher collaboration has received more attention from scholars (Lima, 1998; Wenger & Wegner-Trayner, 2007). Collaboration is a widely used term nearly in every aspect of life. Morse (2000) argues that collaboration is an educational reform imperative: "Educators will recognize they are not alone in searching for new modes of human exchange. The fact is, this quest for a new way of human exchange is endemic in the social order...Rejecting collaboration is not an option" (p. xi).

Collaboration in education appears, however, among education scholars in various forms, such as teacher teams (Bryk, 2010; Lester & Evans, 2009), teacher communities (Chan & Fai Pang, 2006; McLaughlin & Talbert, 2006), social network in teaching (Lima, 2005, 2010), community of practice (Wenger & Wegner-Trayner, 2007), professional learning communities (Brook, Sawyer & Rimm-Kaufman, 2007; DeMatthews, 2014; Vescio, Ross & Adams, 2008), enhanced collegiality and collaboration (Goddard, Goddard & Tschannen-Moran, 2007), culture of professional collaboration (Hargreaves & O'Connor, 2017) and more.

In the knowledge society teachers are required to work together cooperatively and take more responsibility on their teaching. Since professional teachers cannot avoid working together in teams, they need, however, a set of values, principles, and some common goals to achieve. In essence, working together, requires more than just to meet, it needs commitment, willingness to share and compromise, true collaboration, and leadership. For the twenty first century skills, the literature remarkably address five key components: critical thinking, creativity, motivation, metacognition, and collaboration (Lai & Viering, 2012).

For this chapter, collaboration is being highlighted as an important factor in teachers' work and professional development. I will first define the term collaboration and discuss its importance in teacher leadership in the modern age of shared knowledge, and then present its advantages and barriers in professional collaborative communities. In the final part of this chapter, I will briefly elaborate on ways to foster collaborations among professionals and teachers in educational organizations.

### **What is Collaboration**

Collaboration is quite complex and seems there is no one single definition that is fully comprehensive enough to describe what the term “collaboration” is. As Lima (2001) points out, ‘despite the important work that has been developed over the last two decades, there is still wide controversy about exactly what teacher collaboration is’ (p. 98). There is, however, common ground to the various definitions suggest that collaboration is fundamental to deep, true and effective leadership, teaching and learning.

Roschelle and Teasley (1995) define collaboration as a “coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem” (p. 70). They define the shared problem as a shared knowledge structure that supports problem-solving by integrating goals, descriptions of the current problem state, and awareness of potential strategies, as well as the links between them. Roschelle and Teasley explain that collaboration takes place within this joint problem space, which provides the structure needed to allow for meaningful conversations about the problem being targeted. To create a joint problem space, partners should be able to introduce and accept knowledge among them, monitor exchanges for evidence of divergent meanings, and repair any divergences identified.

Kayser (2014) defines collaboration as: a joint effort between two or more people, free from hidden agendas, to produce an output in response to a common goal or shared priority. Often this output is greater than what any of the individuals could have produced working alone. From the perspective of organizational theory, Bolman and Deal (2003) describe collaboration as a form of mutual coordination and sharing that can enhance organizational performance by fostering “creativity and integration around specific problems” (Bolman & Deal, 2003, p.55).

Goss and Hunter (2015) contend that “collaborative professional practice has a clear moral purpose: to increase student learning. It creates a culture of improvement, underpinned by a shared commitment to, and understanding of, high quality teaching practice. A common language of learning standards and progress enables teachers to work together to challenge and support each other, and track student progress over time (p. 41)”.

Scholars tend to describe collaboration within different types of contexts. Poulos, Culberston, Piazza and D’Entremont (2014) describe collaboration within the term “effective teacher collaboration”. It is defined as “engaging in regular routines where teachers communicate about classroom experiences in an effort to strengthen pedagogical expertise<sup>5</sup> and push colleagues to try new things” p. (8).

There is a variety of approaches, both formal and informal, in which collaboration can take place in professional communities, especially at schools. A school principal may construct a team of teachers to solve academic issues in the school, or form teams of special education and general education teachers working together in co-teaching within the school system. Others may view collaborative as a form of strategic planning for the entire school or between schools within one specific district (Friend & Cook, 2000).

Collaboration creates a community working to achieve a common goal through the sharing of practice, knowledge and problems (Brook et. al., 2007). Collaboration involves a joint effort to create something new in support of a shared vision. Fullan and Quinn (2016) indicate that collaboration requires some fundamental key components, including joint effort, creating something new, and sharing a common vision. They contend, it is “not about creating a place where people feel good but rather about cultivating the expertise of everyone to be focused on a collective purpose” (Fullan & Quinn, 2016, p. 48).

Effective collaboration encourages ongoing observation and feedback among colleagues where a culture of professional sharing, dialogue, experimentation and critique becomes commonplace. Collaboration can encompass a range of activities, from teachers working together in an informal, unplanned way to the implementation of more formal collaborative approaches, such as professional learning communities (PLCs). Effective collaboration is frequent and ongoing and, when most successful, an integral part of daily routines. Schools that effectively collaborate “create a base of pedagogical knowledge that is distributed among teachers within a school as opposed to being held by individual teachers” (Brook et al 2007).

These findings by Brook and colleagues (2007) resonate with a synthesis conducted by Stoll, Bolam, McMahon, Wallace and Thomas (2006). Stoll et al. (2006) draw upon five features that operate simultaneously: (a) shared values that emphasize a focus on student learning; (b) shared responsibility for student learning that assist to maintain commitment and put collegial pressure on colleagues to engage, learn, and improve; (c) reflective professional inquiry that manifests through conversations about vital issues, the application of new knowledge, and the identification of solutions to support students and their needs; (d) collaboration that moves beyond superficial interactions of help, support, or assistance; and (e) an emphasis on group and individual learning where teachers develop as professionals, but also sustain a vision toward inquiry and its benefits for improving their own practice in their own school (Stoll et al., 2006).

Little (1990) distinguished four different types of collaboration situated on a continuum ranging from independence to interdependence and include: storytelling and scanning

for ideas, aid and assistance, sharing, and joint work. An important characteristic of collaboration appeared to be its task-related focus, including working and reflecting together for job-related purposes (in James, 2007). In the case of collaboration, this working together includes the partners in the process doing all their work together as opposed to cooperation in which partners split the work and combine each of their partial results into the final outcomes (Sawyer, 2006).

James (2007) developed a model for collaboration and described it as “collaborative practice”. In this model James (2007) divided collaborative practice into three essential components: a) collaboration, b) reflective practice, and c) a focus on the primary task. James (2007) argues that all three components are imperative and important. The first component (collaboration) defines “what is to be done now”, the second component (reflective practice) defines “what is to be done to improve the future work”. Reflective practice and collaboration without a focus on the primary task as stated by James (2007) may result in avoiding the focus on the primary task. Whereas, collaboration and a focus on the primary task without considering reflective practice may lead to dealing with unimportant and not improving collective practice. Finally, James (2007) argues that initiating reflective practice and a focus on the primary task without the collaboration would result in the scope and capacity for reflection being limited.

Collaboration, has been used interchangeably with another term, cooperation. Although, both terms resonate with shared work between two parties or more, they do not, however, hold the exact meaning and outcomes. Therefore, it is important to briefly highlight the difference between the two terms.

### **Collaborative vs. Co-Operative**

Panitz (1999) defined the terms as: Cooperation is a structure of interaction designed to facilitate the accomplishment of a specific end product or goal through people working together in groups; Collaboration is a philosophy of interaction and personal lifestyle where individuals are responsible for their actions, including learning and respect the abilities and contributions of their peers (p. 3).

Although there is no universal agreement among scholars on accepted definition of the two terms, the commonalities between the two terms are greater than the differences. Kirschner (2001) described some common components between cooperative and collaborative learning:

- Learning takes place in an active mode; the teacher is more of a facilitator than a “sage on the stage”; Teaching and learning are shared experiences between teachers and students; Students participate in small-group activities; Students must take responsibility for learning; Discussing and articulating one’s ideas in a small

group setting enhances the ability to reflect on his or her own assumptions and thought processes; Students develop social and team skills through the give-and-take of consensus- building; Students profit from belonging to a small supportive academic community (p. 4).

### **Why Collaboration Matters**

In the past, teachers were 'isolated' in the way they operate with groups of students in individual classrooms. This whole paradigm has dramatically shifted in the 21st century. Individual schools cannot anymore continue to operate in isolation, competing for resources, staff, and students. Fullan (2013) and Hargreaves and Fullan (2012) argue that education into the future must be fundamentally more collaborative at every level. The current practices of pedagogy lack behind and demands that teachers join forces and work in collaboration to achieve better outcomes. Sharratt and Planche (2016) argue that collaboration is a powerful way to deepen teachers' capacity, to increase the total value of the professional capital in the school, and to harness the power of the collective.

In the recent years, western and modern countries are spending more time, money, and resources than ever before on education to bridge the gap between the traditional teaching system and the technology era (Fullan & Langworthy, 2014). According to surveys in the USA about 59% of adults between 18 and 35 years of age have reported that they acquired most of their job skills beyond what they have learned at school. In another study conducted by Gallup 43% of fifth to 12<sup>th</sup> grade students expressed their desire to establish their own business one day, but only seven per cent claimed they had any relevant education that would fulfill their dreams (Fullan & Langworthy, 2014). This, as claimed by Fullan and Langworthy (2014) due to old pedagogies practices where "a teacher's quality was assessed primarily in terms of their ability to deliver content in their area of specialization" (p. 2). In contrast, the new pedagogy approach depends on the teacher's pedagogical capacity and in their ability to form partnerships with students and this of course require partnerships with other team members. This demonstrates the urgent need for new paradigms in teaching and learning. The call for learning and teaching communities, is one model that has been highly embraced by scholars (Hattie, 2016). Collaboration between professionals can lead the way to the 21<sup>st</sup> century skills.

### **Advantages and Challenges of Collaboration**

There is an immense body of work that address the benefits of professional collaboration (Hattie, 2015; Jackson, 2009; Skerrett, 2010; Levine and Marcus, 2010; Little, 2003; Imants, 2003). These findings, however, suggest that a community is a promising environment in which ongoing collaboration between teachers is stimulated. Stoll,

Bolam, McMahon, Wallace, & Thomas (2006) reviewed 55 studies on the effectiveness of communities of teachers and that there is growing evidence that supports the impact of communities on teachers' professional development. Hattie (2015) argues that purposeful, supportive collaboration extends teacher practice to heights impossible to scale alone. In collaborating with purpose teachers can reflect on their current practice to identify both strengths and areas for improvement, share their strengths with their peers, and collaboratively design more chances for improvement. Further, according to Hattie (2015) in collaboration teachers create a unit of work to develop deep learning experiences, common assessment tasks, and a consistent approach to moderating student work. Furthermore, purposeful collaboration allow teachers to gather evidence from several classrooms, including through peer observation, about how a particular subject is currently taught.

Earp (2018) suggests that "collaboration can lead to more authentic engagement of teachers, a greater sense of belonging among staff, and a way of working where teachers feel able to challenge each other to keep improving their professional practice" (p. 1). Barger-Anderson, Isherwood and Merhaut (2013) proposed six key advantages that assisted teachers and students to succeed in supportive collaborative experience in schools. The benefits are: (a) better instruction through a system of support which provided them with new ideas, (b) expanded teaching tool kit through a system of accessible resources and the promotion (c) lesson consistency, where teachers agree that they are on the same page due to their co-planning and delivering instruction (d) more inclusive teaching methods where all learners from different ability and background can learn together, (e) increased students' effort where academic rigor has been met, and (f) higher teacher responsibility through a sense of teacher accountability for promoting students success and achieving the learning long term goals.

James (2007) suggests that collaboration has an impact on three areas: (a) it "widens opportunities for enhanced reflection in relation to the primary task through dialogue and discussion with others; (b) it provides practice and cultural norms, shaped by the primary task and frame reflection in and on action; and (c) enhances the collective expertise and other resources for work on the primary task. Collaboration, however, benefits not only professionals working together, but also the learners (see Bolman & Deal, 2003; Bryk, Sebring, Allensworth, Easton & Luppescu, 2010; Goss & Hunter, 2015; McLaughlin & Talbert, 2006; McPartland, 2011).

In collaboration environment, students develop positive attitudes toward learning, higher level of thinking skills and problem solving, and it creates an environment of active, involved, exploratory learning (Chatterjee, 2015). Further, in collaborative context, students learn self-management skills, become more responsible for their own

learning, and they practice leadership skills (Lai & Viering, 2012). At the social level, collaboration facilitates students' social interaction, a stronger social support exchange, and students' responsibility for each other (Blatchford, Kutnick, Baines & Galton, 2003; Sharratt & Planche, 2016). Emotionally, when professionals collaborate with each other, they reduce classroom and learning anxiety, especially when the learning skills is gradually becoming complex (Eccles & Wigfield, 2002; Eisenberg, 2010).

Goddard et al., (2007) constructed a collaboration scale to examine the extent to which collaboration affect the learning outcomes of fourth graders in 52 elementary schools in mathematics and reading. The five category scale concerned with the following areas:

1. Planning school improvement
2. Selecting instructional methods and activities
3. Evaluating curriculum and programs
4. Determining professional development needs and goals
5. Planning professional development activities (Goddard et. al., 2007).

The researchers concluded that schools with higher level of collaboration have yielded greater level of student learning achievement.

Although, collaboration between professionals has been endorsed by most researchers (Nevin, Thousand & Villa, 2007, 2009), there are however, some challenges that hinder the ability to produce effective collaboration (Hargreaves, 1994). York-Barr, Ghore and Sommerness (2007) reported that collaboration shortages come in the form of differing "philosophies," which was the term often used to describe differences between teachers related to orientations or beliefs about instruction and professional practice."(p. 318). Some teachers feel insecure because teaching become public and teachers are requested to work with more diverse students than they used to in the past. Further, teachers become more confused because of the role shifting as to what they should teach and to whom. Furthermore, collaboration between teachers may decrease flexibility and creativity due to the presence of another partner in the classroom (York-Barr, Ghore & Sommerness, 2007).

Stoll et al. (2006) in agreement York-Barr et al. (2007) pointed out a number of factors that hinder the construction of effective professional collaboration, including: individual orientations to change, group dynamics, and school context (i.e., school size, phase of school reform, school age and history, group dynamics, and existing professional learning infrastructure). The researchers added that schools that are larger tend to present numerous barriers to change, including a greater diversity of teachers and

students, and lack of organizational inertia for change. Hargreaves (1994) reported that teachers in two districts that were under study in Canada used their planning time to point to how some kind of collaboration that were forced, imposed and artificial, could be harmful and laid to reduce teachers' motivation to engage in collaboration themselves.

### **Fostering collaboration among professionals**

Collaboration needs more than just a sharing work among professionals. Scholars have laid the ground for best practices for effective teacher collaboration. Internationally, educational reforms call for an "increase in collective action between teachers include collective teaching, development of comprehensive lesson plans, coherence between subject materials, and distributed decision making" (Main & Bryer, 2005). Vescio and colleagues (2008) argue that community should be seen as a way to embed teacher collaboration into the culture of the school. This approach may assure that the collaboration will not be seen as merely an exchange between teachers. Rather, collaboration will become inclusive, genuine, and ongoing.

According to Gensen (2014) collaboration requires improvement in allocating quality time for teachers to work together by cutting back on things that teachers do that don't directly improve teaching, allow teacher to do things that they are accustomed to do more efficiently, and finding resources within their broader school budget to hire more teachers. Further, Gensen (2014) suggests that school administrators should be able to allocate time for professional learning within the curriculum timeframe by setting the right priorities. In several studies conducted around the world, it has been documented that school systems that construct teacher mentoring programs heavily invest in teacher training. For example, Shanghai has intensive mentoring program that assures quality teaching and teacher community collaboration. The Shanghai mentoring programs target not only novice teachers, but also veteran teachers are enrolled in such programs (Smith & Ingersoll, 2004).

In a thorough study conducted by Brouwer (2011) based on literature review documented on professional collaborative communities, the author proposed a set of intervention types to foster collaboration. Among those intervention elements are the following: a) determine shared goals and visions of the organization, b) map individual goals which lead the way for clear communication, c) develop norms and routines agreed upon the community of teachers, d) developing guidelines to deal with conflict and decision making, e) make agreement on non-functional behavior of the learners throughout the different indoor and outdoor activities, f) organize leadership roles among teachers who will take responsibility of a previously agreed upon tasks, g) share leadership to make way for authentic collaboration and accountability, h) stimulate reflection and



feedback among the team members, i) develop trust within the community of teachers, j) enable a positive atmosphere of caring for each other, and k) promote collaboration among colleagues.

To conclude, collaboration is complex, perceived by different organizations in different ways, takes time and sincere effort, demands commitments, builds upon mutual trust among professionals, and value shared and distributed leadership. True collaboration is possible among professionals. Teachers and professionals in any given organization can succeed when careful planning, allocated quality time, shared values with one goal in mind, improving students learning achievement have been set forward.

### Reference

- Blatchford, P., Kutnick, P., Baines, E., & Galton, M. (2003). Toward a social pedagogy of classroom group work. *International Journal of Educational Research*, 39, 153-172.
- Bolman, L. G., & Deal, T. E. (2003). *Reframing organizations: Artistry, choice, and leadership*. San Francisco: Jossey-Bass.
- Brook, L, Sawyer, E, & Rimm-Kaufman, S. (2007). Teacher collaboration in the context of the Responsive Classroom approach. *Teachers and Teaching: theory and practice*, 13(3) 211-245.
- Brouwer, P. (2011). *Collaboration in teacher teams*. Interuniversity Center for Educational Research (ICO).
- Bryk, A. S. (2010). Organizing schools for improvement. *Phi Delta Kappan*, 91(7), 23-30.
- Bryk, A. S., Sebring, P. B., Allensworth, E., Easton, J. Q., & Luppescu, S. (2010). *Organizing schools for improvement: Lessons from Chicago*. University of Chicago Press.
- Chan, C. K., & Fai Pang, M. (2006). *Teacher collaboration in learning communities*.
- Chatterjee, R. (2015). *Exploring the relationship between attitude towards collaborative learning and sense of community among college students in online learning environments: a correlational study*. Graduate Theses and Dissertations. 14308. <https://lib.dr.iastate.edu/etd/14308>
- DeMatthews, D. (2014). Principal and Teacher Collaboration: An Exploration of Distributed Leadership in Professional Learning Communities. *International Journal of Educational Leadership and Management*, Vol. 2(2), 176-206.

- Earp, J. (2018). *Sharing good practice: Gonski and professional collaboration*. Available online at: <https://www.teachermagazine.com.au/articles/sharing-good-practice-gonski-and-professional-collaboration>
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53, 109–132.
- Eisenberg, N. (2010). Self-regulation and school readiness. *Early Education and Development*, 21(5), 681-698.
- Friend, M., & Cook, L. (2000). *Interactions: Collaboration skills for school professionals (3rd ed.)*. New York: Addison Wesley Longman.
- Fullan, M., & Langworthy, M. (2014). *A rich seam: How new pedagogies find deep learning*. MaRS Discovery District. Available online: [http://www.newpedagogies.nl/images/a\\_rich\\_seam.pdf](http://www.newpedagogies.nl/images/a_rich_seam.pdf)
- Gensen, B. (2014). Making time for great teaching. Grattan Institute Report No. 2014-3, MARCH 2014
- Goss, P., & Hunter, J. (2015). *Targeted teaching: How better use of data can improve student learning*. Grattan Institute.
- Goddard, Y., Goddard, R., & Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record*, 109 (4), 877-896.
- Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*. Teachers College Press.
- Hargreaves, A. & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. New York, NY: Teachers College Press.
- Hargreaves, A., & O'Connor, M. T. (2017). Cultures of professional collaboration: their origins and opponents. *Journal of Professional Capital and Community*, 2(2), 74-85.
- Hattie, J. (2016). *Third Annual Visible Learning Conference (subtitled Mindframes and Maximizers)*, Washington, DC, July 11, 2016.
- Imants, J. (2003). Two basic mechanisms for organizational learning in schools. *European Journal of Teacher Education*, 26(3), 293–311.

- Jackson, T. O. (2009). Towards collective work and responsibility: sources of support within a freedom school teacher community. *Teaching and Teacher Education*, 25(8), 1141–1149.
- James, C. (2007). Collaborative practice: the basis of good educational work. *Management in Education*, 21(4), 32-37.
- Kayser, T. (2014, April 18). *True collaboration is a partnership: Six ingredients for making it so*. Online blog: <https://www.linkedin.com/pulse/20140418191855-78767208-true-collaboration-is-a-partnership-six-ingredients-for-making-it-so>
- Kirschner, P. A. (2001). Using integrated electronic environments for collaborative teaching/learning. *Learning and Instruction*, 10, 1-9.
- Lai, E. R., & Viering, M. (2012). *Assessing 21st Century Skills: Integrating Research Findings*. Pearson.
- Lester, J. N., & Evans, K. R. (2009). Instructors' experiences of collaboratively teaching: Building something bigger. *International Journal of Teaching and Learning in Higher Education*, 20(3), 373–382.
- Levine, T. H., & Marcus, A. S. (2010). How the structure and focus of teachers' collaborative activities facilitate and constrain teacher learning. *Teaching and Teacher Education*, 26(3), 389–398.
- Lima, J. A. (1998, April). *Improving the study of teacher collegiality: Methodological issues*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- Lima, J. A. (2005). Forgetting about friendship: using conflict in teacher communities as a catalyst for school change. *Journal of Educational Change*, 2, 97-122.
- Lima, J. A. (2005). *Social networks in teaching*. In F. Hernandez & I. F. Goodson (Eds.), *Social geographies of educational change* (pp. 29-46). Dordrecht: Kluwer Academic Publishers.
- Lima, J. A. (2010). Thinking more deeply about networks in education. *Journal of Educational Change*, 11(1), 1-21.
- Little, J. W. (2003). Inside teacher community: representations of classroom practice. *Teachers College Record*, 105(6), 913–945.
- Main, K. M., & Bryer, F. K. (2005). *What does a 'good' teaching team look like in a middle school classroom?* Paper presented at the third International Conference on Cognition Language, and Special Education, Gold Coast, CA.

- McLaughlin, M. W., & Talbert, J. E. (2006). *Building school-based teacher learning communities: Professional strategies to improve student achievement* (Vol. 45). Teachers College Press.
- McPartland, J. M. (2011). *Organizing Schools for Improvement: Lessons from Chicago*. 16-17.
- Morse, W. C. (2000). Foreword. In M. Friend & L. Cook, *Interactions: Collaboration skills for school professionals* (3rd ed., pp. xi–xii). New York: Addison Wesley Longman.
- Nevin, A. I., Thousand, J. S., & Villa, R. A. (2009). Collaborative teaching for teacher educators: What does the research say? *Teaching and Teacher Education*, 25, 569-574.
- Nevin, A. I., Thousand, J. S., & Villa, R. A. (2007). *Collaborative teaching: Critique of the scientific evidence*. In L. Florian (Ed.), *Handbook of special education research* (pp. 417-428). London: Sage.
- Panitz, T. (1999). Collaborative versus Cooperative Learning: A Comparison of the two concepts which will help us understand the underlying nature of interactive learning. Retrieved from <http://files.eric.ed.gov/fulltext/ED448443.pdf>.
- Poulos, J., Culberston, N., Piazza, P., & D'Entremont, C. (2014). Making space: The value of teacher collaboration. *The Education Digest*, 80(2), 28.
- Roschelle, J. & Teasley, S. D. (1995). The construction of shared knowledge in collaborative problem-solving. In C.E. O'Malley (Ed.), *Computer-supported collaborative learning* (pp. 69–97). Berlin: Springer-Verlag.
- Sharratt, L. & Planche, B. (2016). *Leading Collaborative Learning: Empowering Excellence*. Thousand Oaks, California: Corwin.
- Skerrett, A. (2010). 'There's going to be community. There's going to be knowledge': designs for learning in a standardised age. *Teaching and Teacher Education*, 26(3), 648–655.
- Smith, T. and Ingersoll, R. (2004) 'What are the Effects of Induction and Mentoring on Beginning Teacher Turnover?', *American Educational Research Journal*, 41, p 681-714.
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: a review of the literature. *Journal of Educational Change*, 7(4), 221–258.

- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education, 24*(1), 80–91.
- Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational Research Review, 15*, 17-40.
- Wenger, E., & Wegner-Trayner, B. (2007). Introduction to communities of practice. *Recuperado el, 7*.
- York-Barr, J., Ghere, G., & Sommerness, J. (2007). Collaborative teaching to increase ELL student learning: A three-year urban elementary case study. *Journal of Education for Students Placed at Risk, 12*(3), 301-335.