

The Implications of Learning and Development for Teacher Professionalism¹

*Deisi C. Yunga**

This paper elaborates on the different concepts of professional learning and professional development in an effort to illustrate their importance in the improvement of the teaching profession and attainment of teacher professionalism. This study uses a narrative literature review approach on an array of available sources from available literature, which comprises scholarly materials, published and peer-reviewed articles, books, and reports from education institutions. The study shows that remaining informed about the changes in the teaching profession is core in attaining professionalism in teaching, proving the need for professional development programs to ensure the update of teachers' skills and knowledge. Furthermore, the study advocates for a clearer academic distinction between professional learning and professional development, with professional learning facilitated by professional learning communities and workplace learning programs. Lastly, we discuss elements of effective professional learning and development and examine their importance.

Keywords: professional development, professional learning, teacher professionalism, professional learning communities, workplace Learning

The Implications of Learning and Development for Teacher Professionalism

Technological development and globalization have brought transformations and change in institutions and have created a disruption in consumer choices, tastes, and preferences (Ertmer & Ottenbreit-Leftwich, 2010). As organizational and institutional changes occur, employees are also expected to demonstrate a similar dynamism, and this has created a dilemma within the teaching profession. The role of teachers is constantly changing as they face groups of new students each year with different backgrounds and educational needs (Hord, 2009) Also, teaching is a profession that is constantly evolving including changes in teaching frameworks, curricula, and policies that teachers need to adopt and adapt to in the course of their teaching career. Due to these changes and challenges, Labone and Long (2016) note that in the 21st century, teachers are likely to face more challenges than before as they handle teaching and learning on both the school and the system level; hence, there is a need for more intensive and updated training within teacher training colleges.

However, several researchers (Webster-Wright, 2009; Stewart, 2014) have questioned the adequacy of the pre-service training provided to teachers in anticipation of their future professional roles. The author argues that the training may have prepared teachers for anticipated challenges, but this preparation is not sufficient enough to address the current and potential challenges in the teaching profession. The need for ongoing learning is vital because teaching challenges are dynamic and student demographics are always changing alongside the ever-widening knowledge base. As such, if teachers are to work and adapt effectively, they

1. This paper is part of a project that has received funding from the European Union's Horizon 2020 research and innovation program under the Marie-Sklodowska-Curie grant agreement number 676452.

* Associate researcher, Universidad Técnica Particular de Loja, e-mail: dcyunga@utpl.edu.ec

should also undertake continuous learning to increase their knowledge base, widen their understanding, and refine their skills to meet the learning needs of their students (Darling-Hammond, Hylar & Gardner, 2017).

In an effort to bridge the gap between pre-service training and on-going professional requirements, educational institutions, the government, and non-governmental bodies have proposed opportunities through which the teachers' learning process can be embedded in their everyday practice. These opportunities are introduced through programs, activities, and events whose objectives are to reach a high standard of teaching and a high-quality teacher workforce. Collectively, these efforts are elements of professional learning and development and this paper focuses on these main themes.

By examining the factors, features, and elements associated with effective teacher professional development, this paper seeks to enhance understanding the concepts of professional learning and professional development as forms of pre- and in-service development efforts by respective stakeholders.

Methodology

This paper used a narrative literature review approach to examine both theoretical and empirical studies conducted using quantitative and qualitative design methodologies in the topics of professional learning and professional development. Narrative or traditional literature review is a comprehensive narrative synthesis of previously published information (Green, Johnson & Adams, 2006. P.103) Narrative reviews use non-statistical techniques which integrate, evaluate, and interpret findings of multiple qualitative studies, identify common core elements and themes; may use findings from phenomenological, grounded theory, or ethnographic studies; and involves analyzing and synthesizing (Baker, 2016, p. 269) as key elements.

Although it should be noted that the absence of systematic selection criteria can result in methodological shortcomings leading to a bias of the author's possible interpretations and conclusions (Pae, 2015). However, using a narrative review, an author is free of choosing seminal works or any type of literature that may be excluded if a rigid systematic approach is used.

The narrative literature review approach follows four steps in which an author (a) critiques and summarizes a body of literature, (b) draws conclusions about the topic, (c) identifies gaps or inconsistencies in a body of knowledge, and finally leads the reader to (d) a sufficiently focused conclusion (Baker, 2016, p. 267) and possibly further research.

The data and information used were acquired from the available literature, scholarly published and peer-reviewed articles, books, and reports from education institutions. The search for research materials was not limited by date to capture relevant, if not the recent content on professional learning and development. The research scope was multicultural and varied across countries with the understanding that teaching is "inherently cultural and varies across nations" (Kennedy, 2016, p. 4).

Literature Review

This section provides a more in-depth understanding of the concepts of professional development (PD) and professional learning (PL) in the context of the teaching profession. This section provides a background review on the utilization of PD and PL as strategies in maintaining a relevant teaching workforce, despite the changes in the field. Also, this section explains the elements of teaching professionalism and the desired expectations of professional teachers that PD and PL aim to foster.

Teacher Professionalism

As educational institutions work towards the professional development of teachers, their goals and objectives should be aligned and guided to the needs, standards, and requirements of teaching professionalism to create best practices and assure high operational quality (Demirkasımoğlu, 2010). The definition of teacher professionalism ranges across contexts but it mostly encompasses aspects such as excellence in what the teachers do, meeting the standards set by the concerned bodies, and producing the best student outcomes (Helterbran, 2008). For instance, Baggini (2005) reports that teacher professionalism is assessed based on the outcomes and results as influenced by teachers' skills and experiences and their application in handling job-embedded difficulties. Tichenor and Tichenor (2005) define professionalism at a basic level such as a trained teacher who teaches following the needs of seniors and at a higher level for those following the best standards. Phelps (2006) concurs that teacher professionalism compliments and is aligned with best practices.

The concept of teacher professionalism has evolved and is a core principle of many professional development programs. For instance, Hargreaves (2000) asserts that teacher professionalism has undergone four historical phases including the pre-professional age where teachers simply followed directives, the age of autonomous professional where teachers made their own choices, the age of collegial profession that encouraged collaboration, and the post-professional age where postmodern principles of professional learning and professionalization were applied (Whitty, 2000). Demirkasımoğlu (2010) reports that based on the literature one can classify teacher professionalism as old and new, whereby the old definition encompasses features such as "exclusive membership, conservative practices, self-interest, external regulation and reactive" while the new definition revolves around features such as "inclusive membership, public ethical code of practice, collaborative and collegial, activist orientation, flexible and progressive, self-regulating, policy-active, inquiry-oriented, and knowledge building" (p. 2049).

Due to these variations and definitions, teacher professionalism varies across countries and within educational districts, but the emphasis is made on the need for standardization of procedures and processes in the course of teacher professional development (Birman, DeSimone, Porter & Garet, 2000). Frameworks of best practices should be instituted as standards for the establishment and sustenance of teacher professionalism so that the qualities of effective teachers such as knowledge-based practices, autonomy, and peer networking become the new standard. Some studies have shown that students perform better when taught by a teacher with a high degree of professionalism (Gustafsson, 2003; Rice, 2003). This paper aims to discuss some of the best practices that foster teacher professionalism for professional development.

Professional Development

Besides the training offered to teachers in the course of their studies, professional development (PD) is the next key step in the improvement and achievement of teacher professionalism. There are many definitions of PD and they focus on the structured effort that results in changes to teacher knowledge and practices, and improvements in student learning outcomes (Darling-Hammond, Hylar & Gardener, 2017). The Glossary of Educational Reform refers to Professional Development as the wide variety of specialized training, formal education, or advanced professional learning intended to help administrators, teachers, and other educators improve their professional knowledge, competence, skill, and effectiveness (Glossary of Educational Reform, 2013).

Teachers' professional development is not mandatory in many countries but there exist certain skills and knowledge that are considered fundamental for operational quality. The existence of compulsory PD programs in an institution can be an indicator of a system with more managerial and supervisory involvement and there-

fore the teachers having less autonomy in their choices. However, both autonomy and compulsory professional development prescriptions have their advantages (Peña-López, 2009). For PD to be effective, it must be continuous and involve ideologies and activities that the teacher uses with their students (Hannay & Ross, 2001).

Classification of Professional Development

There are several definitions and classifications of the concept of professional development and these definitions are embedded within PD programs because they are the core elements that comprise professional development. According to Eraut (2010), PD may be approached through formal vocational education (post-secondary or poly-technical training), pre-service, and in-service professional development programs. PD may also be further classified into Initial Professional Development (IPD) and continuing professional development (CPD). The former refers to PD aimed at developing and maintaining competence necessary for autonomous operations expected of a professional, while the latter refers to PD aimed at maintaining knowledge and skills through continuous education (Watty, 2014). While IPD ends with an acknowledgment of achieving appropriate competences, this paper defines continuous professional development as the constant process that ensures that teachers' capabilities, knowledge, skills, understanding, and competence are effective, relevant, and up-to-date (Watty, 2014).

There are many approaches to professional development and associated programs and reviews are always trying to sort them depending on various criteria such as similarities and differences. For example, Kennedy (2016), notes that some authors have compared PD programs based on differences such as pedagogy (Sher & O'Reilly, 2009) while others classify them according to the program design features such as "active learning methods, collective participation, and substantive attention" (Kennedy, 2016, p. 2.). The opportunity for PD varies depending on the system requirements and resources available but the most common approaches include case studies, consultation, communities of practice, mentoring, reflective supervision, and technical assistance (Sher & O'Reilly, 2009).

Although teacher professional development is widespread, it has also received criticism regarding its adequacy and methodology (Stewart, 2014). Most of the programs involve teachers in learning activities that are similar to those they will use with their students; however, due to the rapid changes in education and the need to update skills make setting sufficient time aside for PD programs a challenge. Due to this concern, the paper explores professional learning as a dimension of professional development and as a key component of teacher professionalism (Stoll, Bolam, McMahon, Wallace & Thomas, 2006).

Professional Learning

Professional learning (PL) is centered on the concept that teachers learn as they teach to keep up to date with ongoing school and system requirements. The "Every Student Succeeds Act" (ESSA) defines PL as "activities that are sustained, intensive, job-embedded, data-driven, and classroom-focused." (Act, 2015 p. 295). ESSA comprises activities that allow the stimulation of teacher's thinking and professional knowledge and to ensure that their practice is critically informed and up to date (Hagreaves, 2000). PL includes several constituents including teachers, staff, and administration and ensures that after pre-service training, teachers acquire, enhance, and refine their knowledge and skills to facilitate teacher professionalism. In this definition of professional learning, the central focus is on the teacher as a learner and the impact of the relationship be-

tween the various stakeholders to produce the best outcomes for students, however it doesn't give enough importance to informal learning.

There are several models on the concept of professional learning and the accompanying processes. For instance, Watson and Fox (2015) assert that PL should be challenge-oriented so that it can stimulate thinking and increase understanding. Their assertions are echoed by Easton (2008) who says that professional learning should include opportunities for acquiring and developing inquiry skills, critical thinking, collaborative learning through interactions and reflection, and should be within the framework of professional standards and policies. Also, Timperley, Wilson, Barrar, and Fung (2008) propose that PL should entail three processes. First, professional learning should consider teachers' prior knowledge and experience through retrieval and consolidation. Second, it should involve developing awareness of new information through training so that the teacher can acquire new skills and knowledge. The third process is known as creating dissonance when the current practices and teachings are in conflict with the teachers' experience and orientations resulting in philosophical tension (Smagorinsky, Cook, Moore, Jackson & Fry, 2008).

Communities, Workplace, and Continuity affecting Professional Learning

The following section discusses the role of learning communities (PLCs), Workplace Learning, and Continuous Professional Learning (CPL) in the development of teacher professionalism.

PLCs

Professional Learning Communities are collaborative learning platforms that foster the attainment of professionalism through learning when a group of educators meet regularly to share expertise and work collaboratively to improve teaching skills and students' academic performance (Glossary of Education Reform, 2014). The term was popularized by Shirley Hord who defines PLC as extending classroom practice into the community, bringing community personnel into the school to enhance the curriculum and learning tasks for students, and engaging students, teachers, and administrators simultaneously in learning (Hord, 2009). PLC has also been described as professional learning groups, communities of practice, and collaborative learning communities while in places such as Japan, it is referred to as learning study or lesson research (Stoll et al., 2006).

PLCs have been discussed extensively in the literature in terms of their elements and features that contribute to teacher professionalism. Hord outlines the need for shared leadership and vision as well as shared practices that foster collective learning and application of the content (Hord, 2009). The Ontario Ministry of Education outlines the desired characteristics of PLCs as those that have shared vision and values, encourage continuous improvements based on outcomes, active rather than reactive, and searching for solutions and questioning of the status quo (Zwozdiak-Myers, 2018). Additionally, ESSA also specifies four components to ensure alignment of PLC with the professional development of teachers, for instance, PLCs should be classroom and student-focused, be conducted for a sustained duration for effectiveness, be aligned with the teacher's career, and be data-driven with a focus on outcomes rather than routine practices (Act, 2015).

Workplace Learning

Workplace Learning refers to the acquisition of knowledge or skills by formal or informal means that occurs in the workplace (Cacciattolo, 2015). This form of learning is not limited to the school work setting but embraces other collaborative environments such as when primary and secondary schools cooperate with universities and colleges of higher education to create a platform for learning while working or conducting research

(Geldens & Popeijus, 2014). Besides being a platform for collegial or collaborative learning, workplace learning also acts as a “two-way representation” in which the teachers and their respective employers can mutually address professional development guided by the forces of social discourse (Cacciattolo, 2015, p. 244).

Continuous Professional Learning

Continuous professional learning is defined as “the systematic and intentional maintenance, enhancement and expansion of the knowledge, skills and ethical values and behaviors necessary to ensure ongoing quality professional practice throughout a member’s career” (College of Early Childhood Educators, 2017, p. 6.). CPL is necessary for teachers, especially for early childhood educators, to increase their knowledge and skills throughout their career lifecycle. Continuous professional learning emphasizes self-reflection through practices and experiences, self-directed learning where teachers identify, plan and engage in learning activities while monitoring their professional growth and progress, and enhancing teachers’ understanding of the code of ethics and standards of practice (Lessing & De Witt, 2007).

Effective Professional Development and Professional Learning

A review of the literature reveals that there are various factors, concepts, and elements associated with effective professional development and professional learning systems that facilitate the improvement of teacher professionalism. First, the concept of leadership has been established as critical for the success of PL and PD programs with theorists asserting that effective leaders establish a thriving culture of PLCs (Zwozdiak-Myers, 2018). According to Jones, Stall & Yarbrough (2013), effective leaders prioritize the curriculum, mobilize resources to meet the goals of PD, create an environment that fosters unity and respect for all the key players, and continuously monitor student progress. Also, effective leaders infuse teachers with confidence and increase teachers’ autonomy (Harris, 2003).

The second crucial element is a collaboration among teachers. Wagner and Phillips (2003) assert that collaboration is necessary as it brings about collegiality and efficacy. Efficacy produces satisfactory work and improves student outcomes. For efficacy to happen, participants must experience ownership of their work environment and have to be given opportunities to participate in decision-making within the school (Jones, Stall & Yarbrough, 2013). Studies have shown that collaboration through participation makes teachers work harder and take responsibility for the processes as well as to increase accountability. The collaborative approach also provides a broader base into learning by inquiry and reflection and allows teachers to take risks, make choices, and solve problems (Darling-Hammond, Hyler & Gardner, 2017).

Research has shown that the process of learning used in the PD and PL programs is vital for the success of these initiatives. Timperley et al. (2008) assert that it is important to follow the procedural process that acknowledges the three steps of teacher learning: cueing prior knowledge, integrating new knowledge, and creating dissonance. The first process plays a critical role in informing teachers on how students learn, the best methods, and the desired outcomes, as well as the appropriate tacit and routine approaches to problems. The second process results in substantive development and change in teachers by equipping them with new skills and information (Timperley et al., 2008). Lastly, creating dissonance challenges teachers’ existing beliefs and this process is one of the most advocated tools for gaining tacit knowledge in the teaching profession.

Also, PD and PL should comprise active learning initiatives using interactive strategies and activities where the teacher designs and tries strategies as they teach the students (College of Early Childhood Educators, 2017). PD and PL should use content-focused curricula for specific disciplines to address the diverse needs of

the students and use models of effective practice such as lesson and unit plans to anchor practices (Darling-Hammond, Hylar & Gardner, 2017). Moreover, PD and PL programs should have coaching and expert support to address teachers' needs in the course of the continuous development learning programs, while giving them constructive and supportive feedback. Finally, the programs should be of sustained duration rather than the one-off solutions to facilitate cumulative learning that include several opportunities for teachers to learn (Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009).

Discussion

Professional development and professional learning are both important in improving teaching as a profession and to allow teachers to attain high standards of professionalism. Both play a critical role in the attainment of teacher professionalism and improving the teaching profession. First, research findings have shown that professional development enables teachers to be better in terms of skills such as record keeping, technical skills, analytical skills, and quantitative skills, which can be used to analyze student performance data for appropriate amendments. Moreover, teachers can gain specialized skills to handle students requiring special attention, which makes the school more accommodating to the community needs (Rice, 2003). Second, teachers learn through PD programs about new teaching strategies and presentation styles that match students' learning styles. Postholm (2012) asserts that acquiring metacognitive strategies "means that teachers can plan, lead, regulate and control their learning" and it is essential for determining which strategies to use under different circumstances (p. 408).

Third, teachers have an opportunity to learn new skills within their subject domains and areas of interest to help them increase their knowledge and make their teaching easier and more effective. PD has played a crucial role in ensuring that teachers, administrators, and education systems can apply changes effectively (Peña-López, 2009). Fourth, PD has been shown to increase the confidence and credibility of teachers. Kennedy (2016) asserts that professional development gives teachers the confidence to facilitate the enactment of new ideas as they undergo their teaching practices through three ways: prescription, strategies, and insight. Fifth, teachers can add additional certifications in their portfolios after completion of their PD programs and events. Some can acquire advanced certifications when they partner with advanced institutions of learning, such as university research centers.

Professional learning provides multiple benefits for development through learning teams, professional learning communities, workplace learning, and continuous professional learning (Webster-Wright, 2009). In particular, PLCs play a key role in the questioning, evaluating refining, and improving a school's system through discussion of teachers' work, student work, and student data. PLCs use action research models to determine effective practices, to engage educators at all levels in collective, consistent, and context-specific learning, and to address inequalities in teaching and learning (Jones, Stall & Yarbrough, 2013). Hord asserts that PLC is a powerful staff-development approach that reduces social isolation for teachers, leads to better informed and committed teachers, and demonstrates academic gains for students (Hord, 2009).

Professional learning offer merits such as ample time for extended opportunities and demonstrates the alignment of school goals with standards of professional learning (Labone & Long, 2016). When PL is standard-based, its effectiveness in changing and improving the teachers' knowledge and skills is high resulting in greater student success. Similarly, incorporating the workplace into models of PL boosts professionalism because the educators learn through experience-based learning (Cacciattolo, 2015). Finally, professional learning is intertwined with informal or unconscious learning as educators learn as they teach through tacit and implicit

social processes, a method that has been credited with improving work-related competencies (Rowold & Kauffeld, 2009).

Conclusion

Changes in the teaching profession and teachers' roles require teachers to meet high standards of professionalism in the 21st century. The altering student demographics, technological development, and the complexity of the future work environments have changed the school context rapidly requiring the need for professional development and learning. The paper has indicated that professional development and learning are keys to achieving teacher professionalism. Through the formal education initiatives, pre-service and in-service training, professional development produces positive results in informing teachers of recent changes and ensuring their knowledge and skills are up to date.

Moreover, the paper discussed the advantages of professional learning due to its focus on the teacher as a learner without disrupting the usual classroom activities and duties of the teachers. Through the various models of PLCs, learning teams, workplace learning, and continuous life learning, professional learning is effective in evaluating, refining, and impacting improvements in school administration, teachers, and students' outcomes. As a job-embedded practice, professional learning relies on learning communities and benefits from the valuable informal and experience-based learning model. Lastly, engagement in professional development and professional learning provides benefits due to its effective components such as shared leadership, vision and goals, collaboration, active learning, coaching, and expert support, learning standards and processes, and classroom management techniques. All these experiences result in a widened knowledge-base, enhanced skills, and increase the competencies of teachers and educators.

References

1. Act, E. S. S. (2015). Every Student Succeeds Act. Pub. L. No., 114, 95.
2. Baker, J. D. (2016). The purpose, process, and methods of writing a literature review. *AORN Journal*, 103(3), 265–269.
3. Baggini, J. (2005). What professionalism means for teachers today. *Education Review*, 18(2).
4. Birman, B. F., Desimone, L., Porter, A. C., & Garet, M. S. (2000). Designing professional development that works. *Educational leadership*, 57(8), 28–33.
5. Cacciattolo, K. (2015). Defining workplace learning. *European Scientific Journal, ESJ*, 11(10).
6. College of Early Childhood Educators (2017). Continuous Professional Learning Portfolio Cycle, Handbook 2017. Retrieved from https://www.collegece.ca/en/Documents/CPL_Portfolio_Handbook_EN.pdf (2020.03.12.)
7. Darling-Hammond, L., Hyster, M. E., & Gardner, M. (2017). Effective teacher professional development. Palo Alto, CA: Learning Policy Institute.
8. Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession. *Washington, DC: National Staff Development Council*, 12.
9. Demirkasimoğlu, N. (2010). Defining “Teacher Professionalism” from different perspectives. *Procedia-Social and Behavioral Sciences*, 9, 2047–2051.
10. Easton, L. B. (2008). From professional development to professional learning. *Phi delta kappa*, 89(10), 755–761.
11. Eraut, M. (2002). *Developing professional knowledge and competence*. London: Routledge.
12. Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of research on Technology in Education*, 42(3), 255–284.
13. Hord, S. M. (2009). Professional learning communities. *Journal of staff development*, 30(1), 40–43.
14. Geldens, J. J., & Popeijus, H. L. (2014). Teacher Education in a Workplace Learning Environment: Distinctive Characteristics of Powerful Workplace Learning Environments within Primary Teacher Education. *School-University Partnerships*, 7(2), 62–71.
15. Glossary of Education Reform (2014). Professional Learning Community Definition. Retrieved from <https://www.edglossary.org/professional-learning-community/> (2020.03.15.)
16. Glossary of Education Reform (2013). Professional Development. Retrieved from <https://www.edglossary.org/professional-development/> (2020. 04. 21.)
17. Green, B. N., Johnson, C. D., & Adams, A. (2006). Writing narrative literature reviews for peer-reviewed journals: secrets of the trade. *Journal of chiropractic medicine*, 5(3), 101–117.
18. Gustafsson, J. E. (2003). What do we know about the effects of school resources on educational results?. *Swedish economic policy review*, 10(2), 77–77.
19. Hannay, L. & Ross, J. A. (2001). Internalizing change capacity in secondary schools. *Alberta Journal of Educational Research*, 47(4), 325–340.
20. Hargreaves, A. (2000). Four ages of professionalism and professional learning. *Teachers and teaching*, 6(2), 151–182.
21. Harris, A. (2003). Teacher leadership as distributed leadership: heresy, fantasy, or possibility?. *School leadership & management*, 23(3), 313–324.
22. Helterbran, V. R. (2008). Professionalism: Teachers taking the reins. *The Clearing House: a journal of educational strategies, issues, and ideas*, 81(3), 123–127.
23. Hord, S. M. (2009). Professional learning communities. *Journal of staff development*, 30(1), 40–43. Retrieved from <https://web.archive.org/web/20061003084018/http://www.edu.gov.on.ca/eng/document/reports/speced/panel/speced.pdf> (2020. 02. 17.)

24. Jones, L., Stall, G., & Yarbrough, D. (2013). The importance of professional learning communities for school improvement. *Creative Education*, 4(05), 357.
25. Kennedy, M. M. (2016). How does professional development improve teaching?. *Review of educational research*, 86(4), 945–980.
26. Labone, E., & Long, J. (2016). Features of effective professional learning: A case study of the implementation of a system-based professional learning model. *Professional Development in Education*, 42(1), 54–77.
27. Lessing, A., & De Witt, M. (2007). The value of continuous professional development: teachers' perceptions. *South African Journal of Education*, 27(1), 53–67.
28. Pae, C. U. (2015). Why systematic review rather than narrative review? *Psychiatry Investigation*, 12(3), 417–419.
29. Peña-López, I. (2009). Creating effective teaching and learning environments: First results from TALIS. Paris: OECD.
30. Phelps, P. H. (2006). The three Rs of professionalism. *Kappa Delta Pi Record*, 42(2), 69–71. Retrieved from <https://files.eric.ed.gov/fulltext/EJ724634.pdf> (2020. 06. 02.)
31. Postholm, M. B. (2012). Teachers' professional development: a theoretical review. *Educational Research*, 54(4), 405–429.
32. Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes*. Economic Policy Institute, 1660 L Street, NW, Suite 1200, Washington, DC 20035.
33. Scher, L., & O'Reilly, F. (2009). Professional development for K–12 math and science teachers: What do we really know? *Journal of Research on Educational Effectiveness*, 2(3), 209–249.
34. Smagorinsky, P., Cook, L. S., Moore, C., Jackson, A. Y., & Fry, P. G. (2004). Tensions in learning to teach: Accommodation and the development of a teaching identity. *Journal of teacher education*, 55(1), 8–24.
35. Stewart, C. (2014). Transforming professional development to professional learning. *Journal of Adult Education*, 43(1), 28–33.
36. 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.
37. Tichenor, M. S., & Tichenor, J. M. (2005). Understanding teachers' perspectives on professionalism. *Professional Educator*, 27, 89–95.
38. Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2008). Teacher professional learning and development.
39. Watson, C., & Fox, A. (2015). Professional re-accreditation: Constructing educational policy for career-long teacher professional learning. *Journal of Education Policy*, 30(1), 132–144.
40. Watty, K., Sugahara, S., Abayadeera, N., Perera, L., & McKay, J. (2014). Towards a global model of accounting education. *Accounting Research Journal*, 27(3), 286–300.
41. Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of educational research*, 79(2), 702–739.
42. Whitty, G. (2000). Teacher professionalism in new times. *Journal of in-service education*, 26(2), 281–295.
43. Zwozdiak-Myers, P. (2018). *The teacher's reflective practice handbook: Becoming an extended professional through capturing evidence-informed practice*. London: Routledge.