# EFFECTIVENESS OF TEACHER PROFESSIONAL DEVELOPMENT PROGRAMMES: LITERATURE REVIEW

**Dorcas Phetla, University of Limpopo, Polokwane, RSA, South Africa**
**Wadesango Newman, University of Limpopo, Polokwane, RSA, South Africa**

## ABSTRACT

*This study presented a review of relevant literatures on the perceptions of teachers on the TPD programmes offered for the teachers in schools. Various aspects such as an overview of TPD programmes, purpose of TPD programmes, characteristics of TPD programmes, methods used by TPD facilitators to teach teachers, the extent of TPD practice in schools and ways to improve TPD programmes in schools were explored. It was found in literature that TPD programmes are widely organised for all schools. However, the programmes do not fully cover a large number of aspects that are important for teachers for their professional development.*

**Keywords:** Teacher Professional Development, High Schools, Principals, Teachers, Workshops.

## INTRODUCTION

Day (1999) explains Professional Development as all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute, through these, to the quality of education in the classroom. The TPD program is a process of innovation where the feedback of the teachers is regarded as significant to provide an improved product, service, process, business models, or policies in an existing context or adapting them from one context to another to achieve desired impact (Botha & Herselman, 2018). TPD courses are developed for teachers in schools so as to improve their innovation and teaching skills and an observed enhancement in classroom practice (Botha, 2014).Qualitative professional development programmes are the key components in almost every modern proposal for improving education (Guskey, 2002).

Professional development develops the teacher's skills, knowledge, expertise and other professional behavior according to Department of Higher Education (DoE, 2007). The roles and functions of every school in many countries is to ensure that the teachers are professionally developed, and the items taught in TPD programs can be effectively implemented for a better learner's performance according to Organization for Economic Co-operation and Development (2005). Teachers are expected to teach in increasingly multicultural classrooms to: place greater emphasis on integrating learners with special learning needs in their classrooms; make more effective use of information and communication technologies for teaching; engage more in planning within evaluative and accountability frameworks; and do more to involve parents in schools (OECD, 2005). Therefore,

*"Effective professional development is on-going, includes training, practice and feedback, and provides adequate time and follow-up support. Successful programmes involve teachers in learning activities that are similar to ones they will use with their students, and encourage the development of teachers' learning communities. There is growing interest in developing schools as learning organizations, and in ways for teachers to share their expertise and experience more systematically" (OECD, 2009).*

TPD is most successful when teachers are actively involved and reflect on their own teaching practice. When teachers' developmental activities are well coordinated and sustained leadership and support are present, the TPD system essentially strives to contribute to the improvement of teacher's teaching skills. It does so by equipping them to effectively execute their essential and demanding tasks. This is done to continually improve their professional competence and performance to enable and empower them by improving their professional confidence, learning area/subject knowledge, skills and classroom management, to improve their professional status and assist them in identifying suitable professional development (PD) programmes that may contribute towards their professional growth (Department of Education, 2007).

According to the European Commission (2012), knowledge about teaching and learning has changed tremendously, taking into consideration the time the experienced teacher now takes to acquire initial teacher training. In-service TPD is a mechanism which the DoE uses to update the skills of teachers in the country. TPD programmes are offered using formal approaches (courses and workshops) and informal approaches (with other teachers or by participation in extracurricular activities) (OECD, 2013).

The South African Council for Educators (SACE) statutory body for professional teachers has an overall responsibility for quality assurance, implementation and management of the continuous professional teacher development (CPTD) (DoE, 2007). All teachers registered by SACE have to earn PD points by selecting approved PD activities that meet development needs (Department of Education, 2007).

The policy framework identifies four types of TPD activities, namely, school-driven activities, employer-driven activities, qualification-driven activities and others offered by approved organisations. A distinction is also made between compulsory and self-selected PD programmers. The former are paid by the education authority involved, while teachers may receive bursaries for self-selected PD Programmes (Department of Education, 2007:3).

According to OECD (2009), the TPD programs include aspects such as:

- courses/workshops (e.g. on subject matter or methods and/or other education-related topics);
- education conferences or seminars (at which teachers and/or researchers present their research results and discuss education problems);
- qualification programme (e.g. a degree programme);
- observation visits to other schools

It remains a concern that teachers in some schools do not fully get the majority of these programs. Others indicated that the TPD do not cater for all aspects of the programs (OECD, 2009).

## METHODOLOGY

This is a desktop review where data was collected from circulars, internet, policy documents and research articles.

## OBJECTIVES

The purpose of the study was to establish the effectiveness of the TPD programmes offered for the teachers in schools.

## THE EXTENT OF TPD PROGRAMMES BEING OFFERED IN SCHOOLS

The post-2015 development agenda for schools is focused on the ability of schools raising quality teachers for good teaching and learning (UNESCO, 2014). There is increasing consensus that African teacher education needs to focus on more effective and culturally appropriate pedagogical practices, both in the classroom, and in TPD initiatives. However, prevailing TPD models tend to focus on one-off 'top-down' teacher development 'interventions' that are now recognised as being ineffective (Moon et al., 2013; Bett, 2016). This means that schools offered TPD programmes but do not cover required aspects needed for proper teacher development.

Orr et al., (2013) mentioned that an ongoing classroom trialling and sufficient scaffolding sustained are favourable regarding cost, scalability and effectiveness of TPD programmes. TPD must recognize "*everyday realities of the classroom, and motivation and capacity of teachers to deliver in the classroom*" (Hardman et al., 2011). Guskey (2002) indicates that TPD is important, and its main purpose is to facilitate the enhancement of teacher quality through engagement in a systematic programme geared to bring about change in three main areas.

Various researchers on TPD programmes consistently make the point that many TPD programmes are ineffective and will continue in this vein unless these programmes are realigned to the needs of teachers (Hunzicker, 2010). Guskey (2002) also indicates that the majority of TPD programmes are ineffective because they do not take into account two crucial factors:

1. What motivates teachers to engage in professional development and

2. The process by which change in teachers typically occurs.

Field (2011) warns that unless the TPD programme involves a systematic process of reflection, its impact on professional learning is compromised, and this, in turn, compromises the sustainability of any change on the teachers' part.

Van Niekerk (2009) mentioned that the provision of TPD programmes should be emphases in schools with more emphasis Professional development, change in teachers' classroom practices, change in student learning outcomes and change in teachers' beliefs and attitudes. This will help the teachers to understand the process of teaching and learning and aspects that inculcate teaching and learning in school.

## CHARACTERISTICS OF EFFECTIVE TPD LEARNING

Effective TPD is seen as structured learning that leads to drastic change in teachers' knowledge and practices and improvement in learning outcomes (Darling-Hammond et al, 2017). Thus, formal PD represents a subset of the range of experiences that may result in professional learning.

Publications of TPD in the last decade have shed light on effective TPD programmes that develop teachers' knowledge and skills, improve teaching practice and raise learners' performance (Desimone et al., 2006; Wanzare & Ward, 2000). In support of this, Hirsh's study on effective PD reveals two important characteristics of TPD learning:

1. Individual beliefs of a teacher play an important role in the development process and

2. A detailed plan for introducing new content and practices and facilitations of follow up action is required.

Traditional approaches of TPD included: workshops, seminars and conferences that adopted a technical and simplistic view of teaching and believed that teachers' knowledge and skills could be improved by using experts from outside the school system (Boyle et al., 2005; Lee, 2005). These proved not to be effective because they did not sufficiently change teachers' subject knowledge or pedagogical skills (Newborn & Huberty, 2004), which explains why some authors suggest that the provision and sponsoring of ineffective TPD programmes that do not lead to the improvement of teaching and learning should be discontinued (Mundry, 2005; Desimone et al., 2006).

In addition, effective TPD will enable teachers to analyze any subject taught, teaching and improve pedagogy, illustrates job-embedded and content-focused (Roth et al., 2011). In a program studied by Allen et al., (2011), teachers collaborated with a one-on-one coach as an example of an effective TPD. TDP programmes that are successfully implemented are those that changes teachers' attitudes and beliefs. They believe it works because they have seen it work, and that experience shapes their attitudes and believes. This, according to Guskey (1989), is the key element in teacher development. Guskey (1989) further states that significant change in teacher's attitudes and believes becomes clearly evident in the improvement of the outcomes of their learners. The next section of the study will review literatures relating to the purpose of TDP.

## PURPOSE OF CONTINUED TDP

Continuous growth of professional knowledge and skills is an essential part of improvement in all professions, and teaching is no exception (Boyle Lamprianou & Boyles, 2005; Fletcher & Zuber-Skerritt, 2007). In education, it focuses particularly on the teacher as the key to improving learner performance (Gold, 1998), King & Newman (2001) believe that as "*teachers have the most direct, sustained contact with students, as well as considerable control over what is taught and the climate of learning, it is assumed that improving teacher's knowledge, skills and dispositions is one of the most critical steps of improving student achievement*". It is very important to, therefore, find appropriate TPD approaches to ensure that all teachers, even experienced ones, are equipped with the necessary knowledge and skills for improving learners' performance (Hirsh, 2005; Shaw, 2003; Bonanno, 2012).

The following are identified by the DoE (2018) as the general purpose of TPD:

- Professional development transforms teachers into better and more apt educators by enabling them to create relevant and tailored course instructions for today's students;

- Helps to create better learning outcomes;

- Good implementation plans;

- Teachers learn better ways to teach;

- Teachers develop better organizing and planning skills;

- Teachers gain more knowledge and other insight; and

- To create lifelong learning for teachers.

Hirsh (2005) asserts that education is a never-ending process that does not stop after earning a degree and starting a career. Through continuing education, career-minded individuals can constantly improve their skills and become more proficient at their jobs. Therefore, it is of utmost importance that TPD programs are organized to improve the knowledge of the teachers. James et al., (2013) identified the following as a reason for teachers to participate in TPD programmes:

## FACTORS MILITATING AGAINST SUCCESSFUL IMPLEMENTATION OF TPD

In the first two decades, TPD developments were a one-size-fits-all model; this is now changing to more continuing, content and pedagogically-focused programmes (Brandt, 2003; Mundry, 2005; Silverman, 2011). The importance of teachers' experience and knowledge with regard to student learning is increasingly being realized (Knight & Wiseman, 2005). It is also unfortunate that most TPDs concentrate rather on the content or on teaching methods said (Van Eekaln Vermunt & Boshuizen, 2006, Bless & Higson-Smith, 2000)

Research has also indicated that many continuous professional development (PD) programmes for teachers are unsatisfactory and have not met intended goals (Boyle, 2005; Newborn & Huberty, 2004). Steyn (2008) blames ineffective TPD programmes on research, since many programmes are based on faulty assumptions of such research, or even no research at all.

For education to be transformed in South Africa, it is necessary for teachers to be appropriately equipped to meet its evolving challenges and needs (DoE, 2007). The President's education initiative research project reports that the most critical challenge for teacher education in South Africa is the limited conceptual knowledge of many teachers (Department of Education, 2007).

The Ministerial Committee of Rural Education (2005) also identified teachers' limited access to TPD (Department of Education, 2007). The National Policy Framework attempts to appropriately equip teachers to meet the challenges and demands of a democratic South Africa in the 21st century. It is underpinned by the principle that teachers are the essential drivers of education (Department of Education, 2007). Its ultimate aim is to enable learners to learn well and equip themselves for further learning and for satisfying lives as productive citizens.

Botha & Herselman (2018) mention lack of integration of technology in the TPD programme as a factor mitigating the success of the program. Technology and, in this instance, mobile tablets are often regarded as the magic wand needed to facilitate technology-enhanced, student-centered teaching environments. Teachers should be exposed in the TPD on how to use these gadgets in teaching learners to make learning interesting. In those cases, the TPD program should include some kind of training component, the focus might be on computer literacy, rather than how to use the technology as a tool for teaching and learning (Were., Rubagiza & Sutherland, 2011)

The next section will review methods used by TPD programme facilitator to impart knowledge and skills to the teachers.

## METHODS USED BY TPD PROGRAMME FACILITATORS TO IMPART KNOWLEDGE AND SKILLS TO TEACHERS

Literature review that the methods used by the TPD program facilitators depends on the subject or department of the teacher. For example, science teachers need to be exposed to

pedagogical and content knowledge relevant to the disciplines they will teach. Many teachers training colleges do not have the educational background necessary for teaching the existing teacher training curriculum effectively (Colburn & Clough, 2017). Unless science TPD facilitators take a thoughtful and strategic systemic approach to reform efforts the result will be poor (O-saki et al., 2014).

To make science learning meaningful, teaching should be explained as something that engages students with performing tasks, investigations, discoveries, inquiry and problem-solving (Tilya, 2003). For science teachers to teach in new ways, a regular re-education process is necessary to transform their knowledge and skills pertaining to the subject matter, pedagogy, their conceptions of how knowledge is constructed and their views on learning (O-saki, 2004).

A large number of international studies on professional development practices of science teachers were conducted. It was found that TPD facilitators emphasized that teachers need more continuous support in improving their knowledge and understanding the chemistry, physics and other science subjects (Alhaggass, 2015). For example, in order to evaluate the effectiveness of training programs of science teachers, Asunta (2007) investigated different types of in-service science courses for primary teachers in Finland. The researcher reported that primary teachers felt they needed more continuous support in improving their knowledge and understanding of the subject, especially in chemistry and physics, and requested more hands-on activity planning. Other teachers in different fields of study, at whatever level and irrespective of their geographical location, are faced with numerous challenges (Kitta, 2004).

He further argues that TPD facilitators device different strategies which are known by the teachers to ensure that the required knowledge is attained. Countries like Netherlands, Singapore and Sweden require at least 100 hours of teacher professional development training for every teacher per year. This is in addition to regularly scheduled time for common planning and other teacher collaborations (Barber & Mourshed, 2007). It is possible to argue that the TPD program should be incorporated in all subjects across and the facilitators of these programmes should be made readily available. This speaks directly in answering the first research question of the study explored in detail after data collection. The researcher identified science and commerce teachers and investigated from them TPD facilitators' methods used to impact knowledge to teachers. The next section will review various ways to improve TPD programmes

## WAYS TO IMPROVE THE TPD PROGRAMMES

Improving TPD programmes starts with the principal as the instructional leader in the school. Van Niekerk (2009) mentioned that principals should focus on improving effectiveness of teachers. Provision and promotion of appropriate TPD opportunities can lead to improvement of teaching and learning practices, allowing teachers to grow professionally by extending and renewing their knowledge and skills. A way that a principal can provide and sustain supportive contexts for teachers is through TPD as it influences teachers' confidence levels, their inclination toward trying out new innovative ideas, as well as their attitude towards the teaching profession and creativity in teaching (Arnold et al, 2006, Wadesango, 2020, Henning et al., 2014).

Barrera Pedemonte (2016) indicates that improving TPD follows collaborative methods between teachers and the facilitator. He indicates that TPD facilitators need to have the requisite skills in ensuring that the programme is adequately carried out. TPD creates a supportive environment, so principals should encourage and create TPD opportunities where teachers can continuously share their expertise, success, frustrations and knowledge with one another

(Theroux, 2014). Therefore, principals should assist teachers by providing the necessary time, resources, support and encouragement to enable them to work.

A study conducted by Fargo (2010) showed that the TPD programmes are effective when the teacher also shows a positive effect in improving their content and methodological teaching strategies. Van Niekerk (2009) mentioned that the TPD programme should be continuous for teachers to ensure proper development of teaching. Consequently, well-organized learning activities and teacher instructions during TPD programmes could increase the motivation of a learner. This is because self-determined learning occurs when a learning activity supports fulfillment of basic psychological needs or development of interest (Field, 2011; Rabapane & Wadesango, 2020).

TPD programmes can also be improved if teachers are able to inculcate reflection after training programmes. Most importantly, the process of reflection involves: description, reflective questioning and redeveloping practice theory (Woolgar, 2008). Reflection can be done by looking inwards to consider how experiences have influenced our thinking and learning, and how what was learnt in the training can influence teaching and learning.

During TALIS 2008, it was discovered that beginner teachers across different continents experience various work-related challenges (Organization for Economic Co-operation and Development, 2008). Beginning teachers still focused on measuring such challenges as classroom discipline, motivating learners' interest, relationship with parents, organization of classwork, supplies of support material, value of school leadership and workloads causing shortage of preparation time (Organization for Economic Co-operation and Development, 2013). Although these problem areas are associated with teachers in general and not just new teachers, special attention and support on TPD programmes should be given to new teachers (Zeru, 2013, Hodkinson & Hodkinson, 2005).

## CONCLUSION

From the findings in the study, it is evident that there are various ways in which TPD programme facilitators impart knowledge on the teachers. These include: lecturing, case study, demonstration, role play and question and answer method. All sources reviewed were of the opinion that TPD programme facilitators should try to incorporate these methods when they teach. They also indicated that these worked and were seen as good teaching strategies. Findings from literature review also depict that more training should be provided for teaching, use of technological devices and involvement of teachers in curriculum development. It was found in the study that including technology in TPD training would help enhance the training programmes.

## RECOMMENDATIONS

- Principals should organise training seminars and workshops on the application of discipline strategies/methods, management strategies and intervention programmes.

- Principals should improve on monitoring and support programmes provided for the teachers.

- Principal must make sure that healthy relationships exist between teachers and learners and that teachers guide learners with their behaviour in the classroom.

- Principals should ensure that more TPD training time is put in place so that teachers can have enough time to practice what has been learnt.

# REFERENCES

Alhaggass, Y.S. (2015). *An investigation of the effectiveness of professional learning activities for physics teachers in Saudi Arabia* (Doctoral dissertation, Victoria University).

Allen, J.P., Pianta, R.C., Gregory, A., Mikami, A.Y., & Lun, J. (2011). An interaction-based approach to enhancing secondary school instruction and student achievement. *Science, 333*(6045), 1034-1037.

Asunta, T. (2007). In-service science courses for primary teachers: implementation of different types of in-service training courses in Finland. *Science Education International, 8*(3), 8-23.

Barber, M., & Mourshed, M. (2007). *How the world's best-performing schools systems come out on top*. McKinsey & Company.

Barrera Pedemonte, F. (2016). *Teacher professional development: A cross-national analysis of quality features associated with teaching practices and student achievement* (Doctoral dissertation, UCL (University College London)).

Bett, H.K. (2016). The cascade model of teachers' continuing professional development in Kenya: A time for change? *Cogent Education, 3*(1): 1139439.

Bless, C., & Higson-Smith, C. (2000). *Fundamentals of Social Research Methods: An African Perspective*. Juta and Company Ltd, 2000 - Social sciences.

Bonanno, G. (2012). Information, knowledge and belief. *Bulletin of Economic Research, 54*(1), 47-67.

Botha, A. (2014). Teacher professional development. In Herselman, M., & Botha, A. Designing and implementing an Information Communication Technology for Rural Education Development (ICT4RED) initiative in a resource constrained environment: Cofimvaba School District, Eastern Cape, South Africa. Pretoria, South Africa: CSIR Meraka, Integrative Competency Area.

Botha, A., & Herselman, G. (2018). Situated cognition and the culture of learning. Educational Researcher, 18(1): 32-42.

Boyle, B., Lamprianou, I,. & Boyle, T. (2005). A longitudinal study of teacher change: What makes professional development effective? Report of the second year of the study. School Effectiveness and School Improvement, 16(1): 1-27.

Colburn, A., & Clough, M. (2017). Implementing the learning cycle. The Science Teacher 64, 5: 30-33.

Day, C. (1999). Developing teachers: the challenges of lifelong learning. Educational change and development series. Bristol, Taylor & Francis Inc.

Department of Education (DOE). (2007). National Education Policy Act, 1996 (Act no. 27 of 1996). Volume 502, Number 29832. Government Gazette 26 April 2007. Pretoria: Government Printer.

Fargo, J.D. (2010).Urban school reform enabled by transformative PD: Impact on teacher change and student learning of science.*Urban Education, 45*(1), 4-29.

Field, K. (2011). Reflection at the heart of effective continuing professional development. *Professional Development in Education, 37*(2), 171-175

Fletcher, A.F., & Zuber-Skerritt, O. (2007). Professional Development through Action Research: Case Examples in South African Higher Education. *Systemic Practice and Action Research, 21*(1): 73-96.

Gold, A. (1998). School-Based Continuous Professional Development: Schools Leaders' Responsibilities.

Guskey, T.R. (1989). Attitude and perceptual change in teachers. *International Journal of Research. 13*(4), 439-453.

Guskey, T.R. (2002). Professional development and teacher change. Teachers and Teaching: Theory and Practice. 8(3/4), 381-391.

Henning, E., Rensburg, W.V., & Smit, B. (2014). *Finding your way in qualitative research (1ˢᵗ Edn.)*. Pretoria: Van Schaik Publishers.

Hirsh, S. (2005). Professional development and closing the achievement gap. *Theory into Practice, 44*(1), 38-44.

Hodkinson, H., & Hodkinson, P. (2005). Improving school teachers' workplace learning. *Research Papers in Education, 20*(2), 109-131. Retrieved from: http://www.homerweb.com/cache.html.

Hunzicker, J. (2010). Characteristics of effective professional development: A checklist. *South African Journal of Education, 3,* 13-48.

Kitta, A. (2004). *Enhancing Mathematics Teachers Pedagogical Content Knowledge and Skills in Tanzania*. Enschede: PhD thesis, University of Twente.

Knight, S.L. & Wiseman, D.L. (2005). Professional development for teachers of diverse students: a summary of the research. Journal of Education for Students placed at Risk, 10(4):387-405.

Lee, H.L. (2005). Developing a professional development programme model based on teachers' needs. The Professional Educator, XXVII (1 & 2):39-49.

Organisation for Economic Co-operation and Development (OECD). (2008). Teaching and Learning International Survey: The experience of new teachers - results from TALIS 2008. Paris: OECD Publications.

Organisation for Economic Co-operation and Development (OECD). (2013). Teaching and Learning International Survey, TALIS 2013 - An international perspective on Teaching and Learning. Paris: OECD Publications.

O-saki, K. (2004). Tanzania: reflections on the Secondary Education analysis and secondary education development programme: Paper presented at the World Bank Conference on Secondary Education in Africa, Dakar, 6-9 June 2004.

O-saki, K.M., Hosea, K., & Ottevanger, W. (2014). Reforming science and mathematics education in Sub-Saharan Africa obstacles and opportunities. University of Dar es Salaam: TEAMS project

Rabapane, V., & Wadesango, N (2020). The Effectiveness of Community Education Services in Influencing Socio-Economic Issues in the Gravelotte Community. *Journal of Educational and Social Research, 10*(6), 302-314.

Steyn, G.M. (2008). Continuing Professional Development for Teachers in South Africa and Social Learning Systems: Conflicting Conceptual Framework of Learning. *Koers, 73*(1), 15-31.

Theroux, L. (2014). Communities of practice. Third annual National Qualifications Framework Colloquium, 5 June 2007, Velmore Conference Estate.

Van Eekaln Vermunt & Boshuizen, (2006). How does it feel? Teachers' emotions in context of change. *Journal of Curriculum Studies, 38*(1), 85-111.

Van Niekerk, M.P. (2009). *Principals' influences on teacher professional development for the integration of information and communication technologies in schools*. Doctoral dissertation, University of Pretoria.

Wadesango, N (2020). Professionalisation of Teaching in Higher Education in South Africa. *Baltica 33*(11), 109-122.

Were, E., Rubagiza, J., & Sutherland, R. (2011). Bridging the digital divide? Educational challenges and opportunities in Rwanda. *Development, 31*(1), 37-43.

Woolgar, S. (2008). *Knowledge and Reflexivity: New Frontiers in the Sociology of Knowledge*. London: Sage.

Zeru, T.Z. (2013). *Teacher induction and the continual professional development of teachers in Ethiopia: Case studies of three first-year primary school teachers*. Doctor of Philosophy - Curriculum Studies, University of South Africa