

DRIVING QUALITY INSTRUCTION THROUGH TEACHER CONTINUOUS IMPROVEMENT PROGRAMMES IN ZIMBABWEAN PRIMARY SCHOOLS

Omega Maunganidze
Department of Humanities and Languages
omemaunganidze@gmail.com
Seke Teachers College, Zimbabwe

Abstract

Globally, the continuous growth of professionals' knowledge and skills is an essential part of improvement in all professions and teaching in particular. Conventional wisdom dictates that engaging in teacher continuous improvement programmes (TCIPs) drives quality instruction. Despite this observation, teacher continuous improvement programmes are still largely under researched particularly in developing countries such as Zimbabwe, where there seems to be an apparent disconnect between teacher continuous improvement programmes and quality instruction. Hence, the purpose of this study is to explore how teacher continuous improvement programmes are driving quality instruction in primary schools in Zimbabwe. The study documents experiences from a selected education district in Harare, Zimbabwe. Guided by Beer's Viable System Model, the study utilises the exploratory case study research design. Data collection techniques included interviews, focus group discussions and document analysis. One of the key findings of the study is that models of continuous improvement programmes directly influence quality instruction. It further concludes that both institutional and personal factors significantly impact on the character of teacher continuous improvement. It recommends continual interaction among programme parts so that the programmes fully address what schools require.

Keywords: Continuous improvement programme, teacher, quality instruction, Zimbabwe

1.0 Introduction and background

Continuous growth of knowledge and skills for professionals is an essential part of global improvement in all professions including teaching (Boyle, Lamprianou & Boyle, 2005). In any education system, continuous growth focuses on teachers as they are the central players in improving learners' performance (Smith & Gillespie, 2007; Desimone, Smith & Ueno, 2006; Knight & Wiseman, 2005). The belief is that engaging teachers in improvement programmes results in quality instruction. Teachers have the mandate to pass on current, relevant pedagogical content knowledge, skills, attitudes, beliefs and behaviours to learners to achieve good performance. It is for this reason that teachers continuously involve themselves in various Teacher Continuous Improvement Programmes (TCIPs) to stay abreast with professional developments such as innovation and challenges in teaching and learning process and to realise quality instruction (Starkey, Yates, Meyer, Hall, Taylor & Stevens, 2009).

Definitions of TCIPs are various, multifarious and used interchangeably. Craig, Kraft and Du Plessis (1998) state that some refer to this teacher learning as staff development, professional development, refresher courses, in-service training (INSET), continuous professional development (CPD) or teacher continuous improvement (TCI). TCI is a newly crafted term which Gray (2005) claims was coined by Richard Gardner who was in charge of professional development for building professions at New York University in the mid-1970s. Justifying its operation, Gray (2005)

emphasises that it was used because it did not differentiate between learning from courses and learning on the job. Constant fluxes of terminology show that TCIP is a social construct and fluid in nature having a distinctive feature of contextuality (Pitsoe & Maila, 2012). The overarching goal is seeing the students succeed in school and life.

Bolam (1993) defines TCIPs as on-going processes building upon initial teacher training (ITT) and induction, including development and training opportunities throughout a career and concluding preparation for retirement. Coetzer (2001, p.78) defines it as, “any activities aimed at enhancing the knowledge and skills of teachers by means of orientation, training and approaches”. In this article, TCIPs are defined as systematic, designed learning and teaching programmes to make teachers better, suitable and relevant as a result of renewing the existing curriculum knowledge, teaching skills and attitudes to suit the current contexts and needs of learners. However, a number of authorities concur that quality as a concept was elusive and relative, and hence difficult to define (Machingura, Magudu, Maravanyika, Moyo & Musengi, 2012; Sallis, 1996; Whitaker, 1998). In addition, Sallis (1996) argues that quality is determined by the passive observer or critic of the service/teaching instruction that is being delivered, the way the customer and the service is delivered.

In the Zimbabwean context, participation in improvement programmes can be traced back to the colonial period (1900-1979), where, racially motivated models dominated the system. Improvement programmes mostly targeted school heads. The belief was that good, strong and knowledgeable leadership would translate into an efficient school workforce. Hence, selected experts in the white person’s perception, organised workshops and cascaded information regarded as relevant mostly to white pupils. Only a few black teachers were selected to attend workshops or staff development meetings. The programmes were more of remediation and enrichment; hence deficit-models or standards-based models were employed. After independence, the numbers of teachers who applied for manpower development leave increased steadily as confirmed in the Ministry of Education Circular Ref: A/231/12, on *Implementation of Manpower Development Leave Quota System* (2002). The Government also expanded the number of teacher training colleges offering in-service diplomas in infant education or special needs education to include Masvingo, Seke, Mutare, and United College of Education (UCE) with UCE offering Special Education as well. Opportunities for Primary School teachers to go for degree programmes were increased in 1993 when the then only university, University of Zimbabwe (UZ), through the then Centre for Distance Education, started to offer the Bachelor of Education in Educational Administration Planning and Policy Studies (B.Ed.EAAPS). Although initially it targeted at improving the managerial skills of school heads, later non-managerial teachers also participated in the programme.

As a result of the overwhelming response from School Heads and teachers, there was a massive expansion of institutions of higher learning offering TCIPs. The government established more state universities which included Masvingo State University, now Great Zimbabwe University or (GZU), Midlands State (MSU) and Gwanda. Private universities such as Solusi, Africa University and Women’s University in Africa (WUA) also responded to the demand. Overall participation was self-directed which Van Eekelen, Vermunt and Boshuizen (2006) describe as TCIP arising from the teacher’s own initiative. Bouchard (1996), however, observed that self-directed TCIPs appear to be most prominent when teachers or professionals operate in deprived environments. Thus teachers and School Heads went on to embark on self-sponsored and self-initiated programmes after realising that it would take years before one was granted study leave.

2.0 Statement of the problem

Pursuing continuous improvement programmes by workers in general and Zimbabwean teachers in particular are not a new phenomenon. Zimbabwe Primary School teachers have historically pursued different types of TCIPs at various levels, up to degree level. The problem that confronts the Zimbabwean education system is continued poor academic performance despite an intensified TCIP programme, though research findings in other contexts have indicated a positive association between students' achievement and teacher continuous improvement (Johnson & Fargo, 2010). Thus, the purpose of study is to explore how TCIPs are driving quality instruction in Zimbabwe Primary Schools. The significance of this study is to bring forth information that may help in providing programmes that drive quality instruction in Zimbabwean Primary Schools and those in similar contexts.

3.0 Research questions

The study is guided by the following questions:

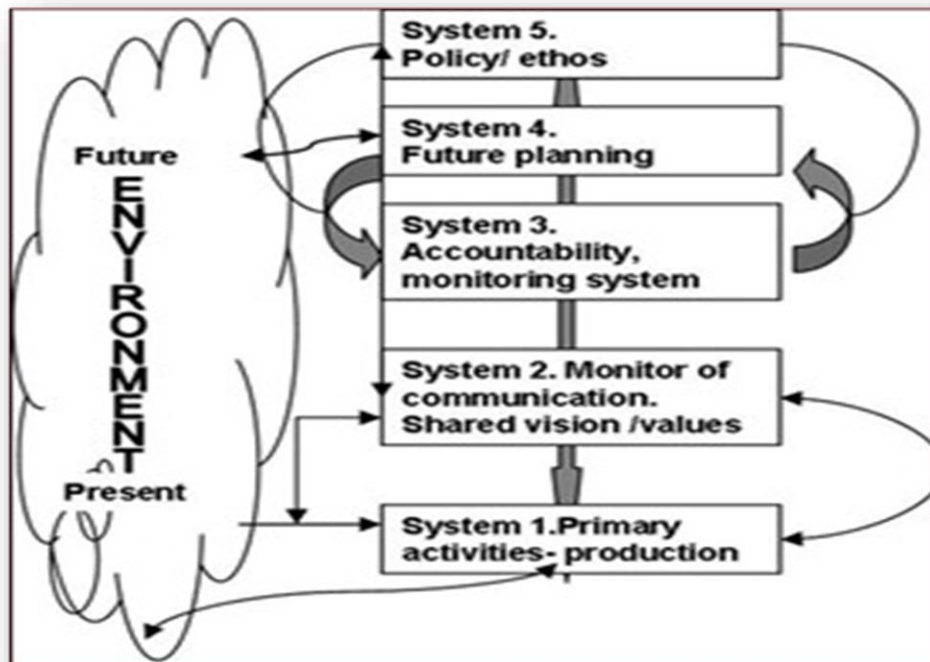
- a) Which TCIP models do Primary School teachers engage in?
- b) What are the purposes of the improvement programmes?
- c) How are TCIPs driving quality instruction in Primary Schools?

4.0 Theoretical framework

The relationship between TCIPs and quality instruction in Zimbabwean Primary Schools is explored through the Viable Systems Model (VSM) (Beer, 1985). According to Zlatanovic (2012), the Viable Systems possess capabilities that include solving problems, adapting to the demands of the environment and putting them under the organisation control and lastly, keeping constant interactions between its dynamic, relatively autonomous subsystems. Thus, a viable system can be defined as a system that is able to create its independent existence through adapting to the needs of its environment. Hilder (1995) outlines that the hallmark of a viable system as its capacity to adapt and thrive in unpredictable changing local or external environments. The viable system is therefore not rigid like the traditional top-down command structure. There is room for the subsystems to restructure activities, goals or processes in response to the environmental demands as long as they contribute to the organisational targets of high productivity of quality results.

According to the VSM (See Figure 1), the following five systems are of central importance to the viability of an organisation: operations or implementation, coordination, control, intelligence and policy. If these are present and working together within any organisation, then the basic functions needed for viability are present (Leonard, 2009; Stephens & Harslett, 2011; Walker & Espinosa, 2011). According to Beer (1985), the operation function is where the main activities are implemented. More than one operation could be available in that box but what is important is each operation to observe its boundaries. In this case the TCIP should maintain its function of driving quality instruction through responding and adjusting to the needs of its clients and other relevant stakeholders (see Figure 1).

Figure 1. The Viable System Model (Espejo & Gill, 1997).



5.0 Literature review

5.1 Exploring TCIP models and objectives

The TCIPs are varied in nature, process and quality. There are two dominant paradigms of TCIPs namely the traditional and constructivist paradigm. Pitsoe and Maila (2012) explain that improvement programmes of traditional orientation follow the positivist and behaviourist approach. The programmes are underpinned by the idea of cascading or transfer of knowledge rather than the construction of knowledge. These are availed in the form of workshops, seminars, conferences and in-service training programmes as they maintain the “one size fits all” approach (Pitsoe & Maila, 2012: 320).

The constructivist paradigm is more compatible with the beliefs and assumptions of the emerging world-view which is the reverse of the traditional approach (Pitsoe & Maila, 2012). This site-based approach is a good example of an approach rooted in the constructivist paradigm. Site-, school- or practice-based approach is based on the understanding that learning occurs within normal working environment (Engelbrecht, Ankiewicz & Swardt, 2007). It is largely managed by teachers in order to fulfil their direct and specific professional needs. The approach draws upon methodologies of reflective practice, action research, adult learning, and community of practice, teacher/educator portfolios, collegial development, peer coaching and mentoring, as well as formal and informal professional networks (Engelbrecht et al., 2007). According to site-based approach, TCIP needs are identified through a participatory process that involve teachers or educators in identification of their own needs (Ono & Ferreira, 2010).

Different educational practices, conditions and needs of different countries influence the purpose of the TCIPs within a country. Friedman and Woodhead (2007), Gordon (2004) and Madden and Mitchell (1993) came up with the following core purposes:

- a) updating and extending the professional knowledge and skills to ensure continuing competence in the current job,
- b) training for new responsibilities and for a changing role,
- c) developing personal and professional effectiveness and increasing job satisfaction.

Although these different functions noted by different people have some common elements, their differences can be compared on a continuum of levels which include knowledge and skills expansion, transformative roles and competences at current roles. Thus a number of research studies were conducted to ascertain the noted functions in different contexts using different methodologies, and these include Desimone, Porter, Garet, Yoon and Birman (2002), Lessing and de Witt (2007) (Gauteng in South Africa) and Parise and Spillane (2010) in the USA.

5.2 Expansion of knowledge and skills base

Lessing and de Witt (2007) conducted a survey to establish teachers' perceptions on the value of professional development programmes. During the initial stages of the programme, the planning stage, teachers were asked to identify their shortcomings in teaching and on the basis of that suggest workshop items. The facilitation process included demonstrations and discussions and teachers were not regarded as passive recipients—they took active roles in their learning. During the evaluation stage, 95% of the participants valued the programme citing that they acquired the most needed knowledge about learners with special needs and skills to teach them. Besides that, they noted an improvement in pedagogical skills citing that facilitators reconciled theory with practice during presentations. Teachers observed and evaluated demonstration lessons and were also given room to try out the demonstrated strategies. Thus, when teachers are actively involved in their learning, they improve on their knowledge, skills and commitment to the work.

In two different researches, Desimone et al. (2002) and Parise and Spillane (2010) studied the effects of improvement programmes on teacher's instruction in different contexts in order to deduce the purpose of TCIPs. Participants who worked with Desimone et al. (2002) were engaged in a three-year longitudinal study whilst Parise and Spillane (2010) conducted a survey study with Mathematics and Science teachers in the USA. Both teams discovered that positive change occurred in instruction if the teacher's experience consisted of high-quality professional improvement programmes. Furthermore, change does not just happen naturally; rather, it depends on the nature or form of the programme and quality of teachers' experiences (Desimone et al., 2002, Mokhele, 2013). This confirms the observation of the aforesaid studies that when teachers are not actively engaged, the impact is minimal.

According to Parise and Spillane (2010), collaborative discussion is the strongest predictor of teacher change. This signifies the importance of selecting activities for the programme that are associated with teacher needs, experiences and with learners' requirements, since learners' voices are heard through their teachers. The observation stresses the need to assess, identify teacher, learner and environmental needs before rolling out the programmes. The qualities of a programme determine whether teachers would gain new knowledge and skills. To illustrate this, Nath, Sikka and Cohen (2013) and Hine (2013), and also carried out qualitative case studies and confirmed that teachers who

were involved in action research experienced improved knowledge or skills. This came as a result of people learning from each other within their work settings. Findings confirmed the need for participation if a teacher is to expand his or her knowledge base. In addition, Nath et al. (2011), like Parise and Spillane (2010) bring up a very crucial aspect of collaborative learning as it places teachers in situations to share views and ultimately exchange knowledge.

5.3 Empowerment tool and transformation

Studies by Desta et al. (2013) in Ethiopia and Mokhele (2013) in South Africa confirmed that by expanding teachers' knowledge and skills base, some improvement programmes become empowering tools. The study concluded that when teachers acquired necessary skills and knowledge needed in different subject areas, they became confident in their teaching. Such teachers would not be threatened by or hesitant to teach new content to learners. Instead, they would possess a strong belief that their updated knowledge and skills are relevant to the context (Bolam, 2000).

Mokhele (2013) also observed that teachers who had little or no knowledge of teaching Science ended up with changed beliefs attitudes, confidence and knowledge to teach the subject once rated as difficult. The teachers, however, confirmed that such a situation is reached after engaging in a variety of workshops, cluster meetings and networking with institutions of higher learning as one of the teachers who was not a Science teacher at first ended up teaching Natural Sciences and treating it as a very easy discipline, bringing about the impact of duration on TCIPs. Effective programmes are sustained over a longer period. Depending on the goals, however, some need more time to allow teacher participation.

There are certain times when external expertise is required to enrich the usual local knowledge. The results also confirm the idea of having improvement programme training teachers for new roles or responsibilities (Madden & Mitchell, 1993). From Mokhele's study, teachers were continuously engaged in connected activities even when they had visits. That confirmed the importance of coherence of content and activities to the participant's usual roles when doing the programmes. When chunks of disconnected knowledge are given to the teachers they will not attach any value but continuously express dissatisfaction.

The foregoing reflects a close link between the TCIP models, their purpose and implementation. Also, the support systems contribute heavily on how the TCIPs drive the quality of instruction in primary schools.

6.0 Methodological overview

This research employed the qualitative approach and used exploratory case study design. Five TCIP graduate cases were purposively selected from primary schools in Chitungwiza Education District, Harare. While the first case was purposively and conveniently determined, snowball sampling was then used to locate the rest of the hard to reach cases.

Data was collected using individual semi-structured interviews from TCIP graduates so that rich details of teachers' views and experiences could be recorded in real life contexts (Yin, 2008). The interviews also enabled in-depth probing of interviewees until data saturation. Questionnaires were administered to school heads of the five graduate teachers who were expected to provide information on the teachers' performance before and after the programme. Document analysis was employed to

validate the information provided. Documentary evidence was also sought from teachers' record books and pupils' work books, focussing on the changes in work preparation, quality of work given to learners and supervision. Through triangulation of data collection methods, information provided was near truth and authentic. This approach recognises the value of the complementarity of various techniques in collecting information related to people's views, observations and interpretations (Kottak, 2006).

Qualitative data analysis methods were adopted. Thematic approach was used in analysing data from the interviews, documents and questionnaires. To ensure reliability, audio-taped data was transcribed with the help of the research assistant.

7.0 Results and discussion

7.1 Models

Since the main purpose of the study was to establish how TCIPs are influencing quality instruction in schools, there is need to establish the model under implementation first. All participants from different institutions indicated that their improvement programmes could be categorised under models of the traditional philosophy. The programmes are centrally designed and controlled as universities decided on what to offer and lecturers determined the content without considering participants' needs. Information was cascaded to students by lecturers who considered themselves experts while teachers adopted a passive role of information consumers. Furthermore, participants concurred that models were 'one-size-fits all' as teachers from different geographical environments and with different shortcomings received the same training. These descriptions buttress top-down explanation or cascading model where programmes come as impositions and surprises from the top, neglecting the teacher's voice (Bailey & Rowland, 2011; Mathekga, 2005; Newton & Riveros, 2012). Study findings also concur with Moncada (2007) that processes are centrally initiated and controlled. Consistent with the Viable System Model, participants argued that as a result of not consulting on the real needs of teachers at times the programmes were not 'scratching where it itches' as some courses were a repetition—leaving out their needs unaddressed. Their observation reinforces findings by McDevitts (1998) and Dichaba and Mokhele (2012) that models that excluded teachers in pre- and pro- implementation were in most cases ineffective. Such observations reinforce systems approach by Senge (1990) which suggests that systems should bring on board stakeholders and beneficiaries when coming up with programmes or implementing policies. The main emphasis is on practising the interactional approach so that universities would know what was covered during initial training and where to take the (improving) teachers to. The participants recommended the implementation of the hybrid model where both top-down and bottom-up approaches are blended and adopted.

Further questioning unveiled how the programmes are rolled out to the participants. The designs lacked the practicum phase which according to participants could be used as an evaluation tool to determine whether the theoretical knowledge can be put into practice. This is in support of Edmonds and Lee (2002), cited in Kryvonis (2013), who argued that models dominated by the lecture style of teaching appear unclaimed by teachers who choose more active and practical styles of learning.

7.2 Driving quality instruction through detailed subject knowledge or content

Various ways in which TCIPs drive quality instruction in schools were identified. The driving methods were exposed through self-assessment, outlining how the improvement programmes

enhanced their quality instruction. All the participants indicated that the programmes equipped them with detailed content in specific curriculum subjects. However, the general thinking was that specialising in one area was insufficient as compared to teaching requirements in Primary Schools where they teach thirteen subjects. Acquisition of adequate content in specialised subjects created room for teachers to understand and interpret the syllabi and content demands. This confirms findings by Parise and Spillane (2010), Lessing and de Witt (2007) and Desimone et al. (2002) that teachers who acquired the most needed knowledge confessed improvement of pedagogical skills. The point of departure is that for participants of this study, knowledge was not generated through collaborative learning; rather, it was cascaded from experts. This also buttresses the observation that cascading in itself is not to blame but how activities are designed and implemented (Mokhele, 2013; Mathekgga, 2005).

In this study it is reflected that having adequate knowledge even with no practicum allowed teachers to understand, select and tailor down content to the grade level of learners and their learning abilities. Content could be aligned with the most suitable teaching methods which could help them teach the content in an understandable manner. It can be concluded that cascading relevant detailed content could be a prerequisite of an effective TCIP.

7.3 Confidence as a driving tool

The other driving strategy of improvement programmes drawn from findings is that they build confidence among teachers. Participants of previous studies (Desta, Chalchisa & Lemma, 2013; Mokhele, 2013) explained that instruction improved because of confidence building in their teaching. School Heads also confirmed that teachers who participated in improvement programmes were confident in their execution of duties as they feared neither teaching nor the supervisors. Confidence resulted from covering adequate and relevant content. With the evidence on the ground, the programmes covered what and how, which Sallis (1996) perceives as quality as he claims that quality is determined by the way the customer, in this case the learner, views the service and the way the service, thus teaching instruction, is covered.

7.4 Transformation as a driving tool

One of the study findings is that TCIPs drive quality instruction through transforming teachers. TCIP prepares teachers to function in other sectors as entrepreneurs, counsellors or remedial consultants. This results from gaining detailed content that responds to various needs of the socio-economic environment. Participants confirmed that as a result of implementing what they acquired during training one can hardly find a non-reader in their classes while another confirmed performing both administrative roles and consultancy role in Physical Education. Similarly, the findings buttress the conclusion reached by Madden and Mitchell (1993) that TCIPs prepared teachers for new roles and responsibilities. This illustrates the role played by the interconnectedness of parts in confronting systemic challenges (Senge, et al. 1994), and as espoused by the VSM.

8.0 Conclusions and recommendations

The study concludes that various TCIP models could be adopted based on the purpose or objectives of the programme. Teachers participate in self-directed programmes, implying a specific motive to address a specific goal. This usually motivates a teacher to implement what was acquired. The traditional model that is dominated by the lecture method with the 'one size fits all' is most common in the Zimbabwe context. Although the model's weaknesses outweighs its strengths, it has

proved to be effective in some aspects as it is regulated by personal motives, concurring with the argument raised by Mathekga (2005) that failure depends on the quality of planning and implementation rather than weaknesses of the model itself. Also, the study concludes that improvement programmes that do not change the teacher's curriculum knowledge and quality of instruction are doomed. The presence of quality instruction should manifest in improved learner performance and the teacher's discharge of main roles. However, unless TCIPs fulfil their purposes and teachers are supported, quality instruction would remain a dream.

The study recommends the adoption of the hybrid model so that the designed TCIP curriculum does not meet the needs of teachers, school or learners by coincidence but be a resultant product of stakeholders' contributions as recommended by the Viable Systems Model. The study also recommends that programme designers infuse the practicum phase into the curriculum so that participating teachers are adequately prepared for transfer of knowledge and skills to their respective schools.

References

- Bailey, J., & Rowland, K. (2011). Continuous improvement: A top-down / bottom-up approach? *Project report: Organization Development Training and Diversity*. Manchester Metropolitan University, 1-24.
- Beer, S. (1985). *Diagnosing the system for organizations*. London: Wiley, Chichester.
- Bolam, R. (2000). Emerging policy trends: some implications for continuing professional development. *Journal for In-service Education*, 26(2), 267-280.
- Bolam, R. (Ed). (1993). *Recent developments and emerging issues*. London: GTC Trust.
- Bouchard, P. (1996). *Towards an etiological model of self-directed professional development*. Ontario: Social Sciences and Humanities Research Council of Canada. Accessed 10.October, 2010 from <www.doe.concordia.ca/girat/TowardsEtiologicalPB.pdf>
- 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, 1-27.
- Coetzer, I. A. (2001). A survey and appraisal of outcomes- based education (OBE) in South Africa with reference to progressive education America. *Educare*, 30, 73-93.
- Craig, H., Kraft, K., & du Plessis, J. (1998). *Teacher development; Making an impact*. Washington DC: US Agency for International Development and the World Bank.
- Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three year longitudinal study. *Evaluation and Policy Analysis*, 24(2), 81-112.
- Desimone, L.M., Smith, T. M., & Ueno, K. (2006). Are teachers who need sustained content-focussed professional development getting it? An administrator's dilemma. *Education Administration Quarterly*, 42(2), 179-215.

- Desta, D., Chalchisa, D., & Lemma, G. (2013). School-based continuous teacher development in Addis Ababa: An investigation of practices, opportunities and challenges. CICE Hiroshima. *University Journal of International Cooperation in Education*, 15(3), 77-94.
- Dichaba, M., & Mokhele, M. (2012). Does the cascade model work for teacher training? Analysis of teachers' experiences. *International Journal of educational Science*, 4(3), 249-254.
- Engelbretcht, W., Ankiewez, P. & Swardt, E. (2007). An industry-sponsored model for continuous professional development of technology teachers. *South African Journal of Education*, 27, 579-595.
- Espejo, R., & Gill, A. (1997). *The viable system model as a framework for understanding organizations*. New York, NY: John Wiley & Sons. Retrieved from: <http://www.moderntimesworkplace.com.good-reading/GRRRespSelf/TheViableSystemModel.pdf>.
- Friedman, A., & Woodhead, S. (2007). Approaches to CPD measurement research project. *Accounting Education: An International Journal*, 16(4), 431- 432. Retrieved from <http://www.tandfonline.com/doi/pdf/10.1080/09639280701646646>.
- Gordon, S. P. (2004). *Professional development for school improvement: empowering learning communities*. Boston: Allyn and Bacon.
- Gray, S. L. (2005). An enquiry into continuing professional development for teachers. Retrieved from <http://www.esmeefairbairn/>
- Hilder, T. (1995). Organizational viable system model. *Cavendish Software Ltd*, 3(1), 1 - 49.
- Hine, G.S.C. (2013). The importance of action research in teacher education programs. *Issues in Education Research*, 23(2), 151-163.
- Johnson, C. C., & Fargo, J. (2010). Urban school reform enabled by transformative professional development: Impact on teacher change and student learning science. *Urban Education*, 45(1), 235-246.
- 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.
- Kryvonis, M. (2013). Models and types of continuing professional development of foreign languages: Teachers in the USA. *Man and Word/Zmogusirzodis*, 15(1), 120, 123-4.
- Kottak, C. (2006). *Mirror for humanity*. New York: McGraw-Hill.
- Leonard, A. (2009). The viable systems model and its application to complex organisations. *System Practical Action Research*, 22, 223-233. doi: 10.1007/S11213-006-9126-2.
- Lessing, A., & de Witt, M. (2007). The value of continuous professional development: Teachers' perception. *South African Journal of Education*, 27(1), 53-67.
- Machingura, V., Magudu, S., Maravanyika, O.E., Moyo, P.V. & Musengi, M. (2012). Quality of education in “independent” primary schools in Zimbabwe: A national survey. *International Journal of Academic Research in Progressive Education and Development*, 1(4), 64-73.

- Madden, C. A., & Mitchell, V. A. (1993). *Professions, standards and competence: a survey of continuing education for the professions*. Bristol: University of Bristol.
- Mathekga, A. M. (2005). *The impact of in-service training: A reassessment of the cascade model* (Unpublished Masters Dissertation). University of Pretoria, Pretoria, South Africa.
- McDevitt, D. (1998). How effective is the cascade method for disseminating ideas? A case study in Botswana. *International Journal of Education and Development*, 18, 425-428.
- Ministry of Education Circular Ref: A/231/12, on *Implementation of Manpower Development Leave Quota System* (2002). Harare: Government of Zimbabwe.
- Mokhele, M. L. (2013). Empowering teachers: An alternative model of professional development in South Africa. *Journal of Social Sciences*, 34(1), 73-81.
- Moncada, A. G. (2007). Professional development of English for learning (EFL): Teachers in Colombia. *Between Colonial and Local Practices*, 12(18), 307-332.
- Nath, J.L., Sikka, A., & Cohen, M. D. (2005). Education students learn about case studies and action research. *International Journal of Case Methods and Application*, XVII, (2), 246-253.
- Newton, P., & Riveros, A. (2012). The impact of 2Learn.Ca Cascade model on Leadership Development in Alberta. *Report prepared by the 2Learn.CA.Education Society*.
- Ono, Y., & Ferreira, J. (2010). A case study of continuing teacher professional development through lesson study in S. A. *South African Journal of Education*, 30, 59-74.
- Parise, L. & Spillane, J. (2010). Teacher learning and instructional change: how formal on-the-job learning opportunities predict change in elementary school teachers' practice. *The Elementary School Journal*, 110(3), 323-346.
- Pitsoe, V. J., & Maila, W. M. (2012). Towards a constructivist teacher professional development. *Journal of Social Sciences*, 8(3), 318-324.
- Sallis, E. (1996). *Total quality management in education*. London: Kogan Page.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday, a division of Random House.
- Senge, P. M., Roberts, C., Ross, R. B., Smith, B. J., & Kleiner, A. (1995). *The fifth Discipline: Strategies and tool for building a learning organisation*. London: Nicholas Brealey Publishing Ltd.
- Smith, C., & Gillespie, M. (2007). Research on professional development and teacher change. *Review of Adult Learning and Literacy*, 7, 205-244.
- Starkey, L., Yates, A., Meyer, L., Hall, C., Taylor, M. and Stevens, S. (2009). Professional development design: Embedding educational reform in New Zealand. *Teaching and Teacher Education*, 25(1), 181-189.
- Stephen, J., & Haslett, T. (2011). A set of conventions, a model: An application of Stanford Beer's Viable Systems Model to the strategic planning process. *Systemic Practice and Action Research*, 24 (5), 429-452.

- VanEekelen, I. M., Vermunt, J. D., & Boshuizen, H. P. A. (2006). Exploring teachers' will to learn. *Teacher Education*, 22, 408-423.
- Walker, J., & Espinosa, A. (2011). *The viable systems model: What is it? What is its origin? How does it work? How do you use it?* Presentation. Laurel Bank Associates.
- Whitaker, P. (1998). *Managing schools*. Oxford: Butterworth- Heinemann.
- Yin, R. K. (2008). *Case study research: Design and methods*. London: Sage.
- Zlatanovic, D. (2012). Viable system model in (re)designing an organization: Case study. *Economics Themes: Year, XLIX, 1*, 101-121.