



EDUCATION CHALLENGES AFFECTING RESEARCH AND SKILFUL TEACHING-LEARNING (PEDAGOGIES) IN ZIMBABWE

Lincolyn Moyo¹,
Lillie Beth Hadebe²ⁱ

¹Department of Teacher Education
Hillside Teachers' College,
Bulawayo, Zimbabwe
²Senior Lecturer,
Zimbabwe Open University,
Zimbabwe

Abstract:

Although Zimbabwe has tried devoting resources to address educational challenges, literature reviewed has indicated that Zimbabwe education system still needs priority towards the consolidation and improvement of both quality and quantity. Even though both quantity and quality issues are interrelated this study focused more on qualitative challenges affecting research and skilful teaching-learning (pedagogies) in the classroom. Through data collection and analysis four major challenges affecting skilful teaching were deduced, teacher incompetency, teaching being more teacher-centred preparing students to pass examinations, limited critical thinking teaching-learning activities and ineffective initial teacher training. Quantity challenges directly linked to skilful instructing are mainly, inadequate schools-infrastructure and insufficient resources. The above research findings were reached through qualitative analysis of published literature sources on challenges affecting research and skilful teaching. This research concluded that, the solution to most qualitative classroom based challenges can be solved by teacher competency gained through rigorous teacher training and consistent research/application of innovative pedagogies. Besides realigning teacher education, research funding, consistent teacher in-service and incentives for teachers were recommended.

Keywords: research, skilful teaching, quality and quantity in education, innovative pedagogies

1. Introduction

Despite significant progress in certain quantitative aspects of education like general access at all levels, there has been relatively limited reforms and innovation on the

¹ Correspondence: email lbhadebe@yahoo.co.uk

quality of deliberate teaching for critical thinking, research, technological design and invention in the Zimbabwe education system (UNESCO, 2010; Fisher, 1995; Costa, 1985; Nickerson et al., 1986; Chance, 1986). Hence, some researchers like (Adentwi, 2002; Moyana, 1989; Mudzamba, 1982; Mudimbe, 1988; Nziramasanga, 1999; Verspoor, 2004; Machingaidze et al., 1998) have criticized the African education systems including Zimbabwe as irrelevant, for its lack of producing learners who are critical thinkers and who are capable of liberating Africa from western knowledge dependency. That academic liberation can only come from a research orientated education system supported by skilful teaching. Quality teaching also known as skilful or effective teaching is interrelated to relevance of an education system and teacher education aspects, of which both are major considerations today worldwide as a yardstick to judge the competitiveness of an education system. So to speak, the determinants of quality education include diverse quantitative and qualitative expectations and provision such as teacher competency, learners' attitudes, built learning environment and other general facilities for learning and the curricula organisation, access to education, cognitive equity issues, and social dynamics, to mention but a few.

2. Theoretical Framework

Considering quality aspects of education such as provision of adequate resources-including both soft skills and material resources, the key challenge in Zimbabwe today according to researched evidence remains the issue of improving the quality of education (SIDA, 1989; Treffgarne, 1986; Colclough, 1990; Maravanyika, 1990; UNESCO, 2010; Chikomba, 1988). In addition to quality challenges, are challenges on how to teach effectively majority students who come from challenged and diverse socio-economic backgrounds? Where to source funding to construct adequate and well equipped schools in proximity to their neighbourhoods as part of meeting quality? How to attract qualified and competent teachers who are effective in teaching critical thinking skills to these disadvantaged communities? Above all, in addition to these challenges and questions, the current Zimbabwe education system needs to be updated to meet and embrace 21st century quality educational demands. All these questions pose as challenge indicators faced by the current Zimbabwe education system. They also could be a possible link between how quality and quantity challenges are interconnected affecting the cultivation of a research culture and skilful teaching from an early learning stage in the current Zimbabwe education system.

3. Purpose of the paper

Out of several quantitative and qualitative education challenges haunting the Zimbabwe education system today, this research aims to find out qualitative classroom challenges affecting the promotion of research/discovery driven learning backed by skilful teaching to cultivate critical thinking. Skilful teaching is also termed by some

scholars (Bahruthand Steiner, 2000; Balland Bass, 2000; Munby, et al., 2001; Glass and Wong, 2003) as ‘teacher capacity or competency’, ‘innovative teaching’, or general application of innovative pedagogies in the classroom. The research’s assumption is that, some teaching challenges can be addressed at national level and some at school level. The major thesis in this research is that these challenges could be addressed or at list mitigated, whatever level they may be found. These challenges are interconnected and given birth by ‘power-politics’ decision making. The purpose of the study was to find out skilful teaching challenges and possible solutions.

4. Design and Methodology

This research took the form of a qualitative research design. Sources of data comprised of published literature-textbooks and journals from libraries and the internet on the challenges affecting research and skilful teaching in the Zimbabwe education system. Sources of literature were selected through purposive sampling using the maximum variation sampling technique (Taylor, 2011; Grey, 2010; Paul, 2004) where the researcher targeted literature sources thought to be relevant to the research at hand.

True to the canons of qualitative research, in this study the researchers were the sole instruments for collecting and analysing data. Data was collected and analysed using content analysis methodology (Esterberg, 2002) on the research question at hand. Data collection and analysis took place simultaneously as true to the research design used here (Corbin and Strauss, 2008). The analytical model of ‘constant comparison’ formulated by Glaser and Strauss as cited in Lincoln and Guba (1985) through note taking, open coding and summarising literature judged relevant to the research according to data gathered was used to reach research findings and conclusions about the challenges affecting research and skilful teaching in the Zimbabwe education system.

5.0 Data Analysis and Discussion

5.1 Challenges in the Current Zimbabwe Education System

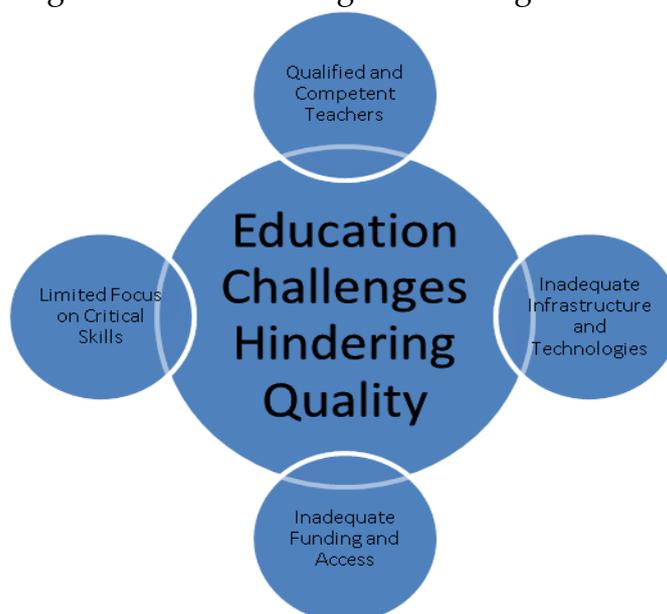
Current Zimbabwe education system quality has been criticized for deteriorating from prestigious praise of the 80s (World Bank, 2000; UNESCO, 2010). General criticism of the education system gives impetus to seek analysis of challenges affecting or have affected the quality of education (Gboku and Lekoko, 2007). Contemporary studies have revealed that the single most important factor affecting quality education or in deciding a child’s education is the quality of the teacher the child is exposed to (Darling-Hammond, 2005). In addition to Darling-Hammondthey (Welch, 2010; Fleisch, 2008; Lewin, 1985; Darling-Hammond, 2000; Ma, 1999), argue that, teachers should carry the major part of the ‘blame’ when poor academic achievements are obtained. Teachers become mostly criticised especially when their teaching becomes routinized, pre-activated, or scripted in advance without considering children’s diverse cognitive

capabilities, rather than being reactive, or responsive to different student's intellectual capacities.

Quality challenge today in most Zimbabwe classrooms is the extent to which classroom life is dominated by the teacher as the fountain of all knowledge (Tornand Bennett, 2011; Freire, 1970; Fullrand Snyder, 1991; Stuart, 1986). Not only are teachers dominating the teaching-learning process, in some cases teachers in that unbalanced dominance lack use of innovative and critical pedagogies-which is the essence of skilful teaching. From teaching practice supervision observations, in most classrooms there seem to be more teaching for memorization and dictation of knowledge dominated by the teacher in comparison to teaching students how to research for information, teaching for critical thinking development and critical examination of knowledge.

Memorization and dictation of knowledge or teacher-centred pedagogy according to (Gamoran et al., 1995; Goodlad, 1984; Hemmings and Metz, 1991; Jackson, 1968) is "prevalent in Africa", including Zimbabwe. What Paulo Freire called "banking concept in education?" Teacher-centred dominance in teaching and learning has also received a fair share of criticism by a number of Progressivists (Dewey, Kilpatrick, Parker, and Johnson). They oppose and associate authoritarian teaching with exclusively book-based instruction, passive memorisation of factual information, hindering innovative thinking and the intrinsic drive to have curiosity to seek knowledge and question existence. Progressivism and other modern philosophies of education (Perennialism, Essentialism, Critical Theory) see teacher-centred pedagogies as an obstacle to the intellectual liberation and empowerment of the learner, consequently to the development of economically viable and politically democratic communities and nations. Teacher-centred pedagogies or 'deposition' of knowledge to students by teachers stifles African child's creativity, research and questioning culture, scepticism, and their ability to be problem solvers, self-directed productive citizen.

Figure 1: Summarising Education Challenges hindering Skilful Teaching and Quality



5.2 Education Today

According to teaching-learning theorists and Marxism (Fisher, 1995; Costa, 1985; Nickerson, 1986; Chance, 1986; Ruggiero, 1988), traditionally schools have tended to discourage thinking, and limited questioning or discovery learning also known as research. Generally, teachers have expected children to learn and to reproduce traditionally accepted wisdom. Education today has changed. Even though that change is not yet effected in most African classrooms. Today, teaching goes beyond basic skills of 3Rs, passing examinations to qualify for further education and employment. The focus is now or should be, on technology invention not appreciation or how to use it. Learning is now not for passing examinations but on gaining knowledge for effective problem-solving, reasoning and thinking.

Zimbabwe and other African countries long before their independences realised that, the type of education quality inherited from colonial 'masters' did not address critical thinking, mental liberation for reflective education (Carnoy, 1977; Entwistle, 1993; Ruth et al., 1995). Africans had to remain servants not inventors in colonial times. However, the situation hasn't drastically changed. Today Africans are oppressed by other Africans who want Africans to remain ordinary thinkers for political control. Various education committees and policies have emphasised the above abnormality and proposed remedies through reforms and curricula change (UNESCO, 1990; Adentwi, 2002; Moyana, 1989; Mudzamba, 1982; Mudimbe, 1988; Nziramasanga, 1999; Verspoor, 2004; Machingaidze et al., 1998). Despite these dialogues, poor education quality is still prevalent today in most African countries. UNESCO and Ministries of Education reports (1980-2014) on education indicate that, while schools have been built and school attendance in sub-Saharan Africa has increased, millions of children remain illiterate. Some remain illiterate because they are not taught to think, research and question, while others do not attend and access formal schooling affected by poverty and diverse socio-economic hindrances.

Education challenges in Zimbabwe today are not yet fully addressed. Some of these challenges include inadequate classrooms, inadequate schools-double session schools being indicators, also bussing of pupils from high-density areas to schools in the low-density areas believed to have more skilled teachers and better facilities, schools too far apart-situation being worse in new resettlements and rural areas, high pupil-teacher ratio, low income for teachers, lack of adequate and relevant up-to-date textbooks, lack of 21st century teaching and learning technologies. These challenges according to (World Bank, 2000; UNESCO, 2010) do indeed affect skilful teaching and quality of education especially to children who attend government schools.

Given these kinds of reality challenges, 21st century education reform dialogue in Zimbabwe should seek ways to address these challenges. Some challenges require government intervention while some of these challenges could be solved at sector level. One of the challenges that could be addressed at school-classroom level is teacher competency. According to (Dimitridis et al., 2006; Avalos, 1980; Hoyle, 1983; McPhail, 1992; Chakradhara et al., 2006), teacher competency is a solution in cultivating reflective

thinking in students. Their assumption is based on the view that, “*trained teachers manning schools are more effective than untrained teachers.*” They further argue that, some teaching methods learnt during teacher training are effective in promoting positive changes. Teaching methods like, case studies and use of participatory discovery, research teaching approaches and use of modern aids enhance critical thinking in students, according to the above mention scholars.

If the above authorities suggest solutions to challenges, a key question is, why then don't teachers in Zimbabwe adapt and make use of these solutions? Closely associated with the discussion of quality education reforms is the relevance of education and competencies for life and the debate on how it is transmitted in terms of teaching methods. The role of the teacher and basic teaching resources availed cannot be ignored as part of education relevance. Also related to scarce resources and poverty is the question of –what kind of pedagogies should be applied by a Zimbabwe teacher starved with basic resources and work in an education system haunted by a plethora of education challenges. This requires a 21st century Zimbabwe teacher not only to be a facilitator of skilful teaching and learning but, both a social and critical pedagogy researcher to mitigate diverse educational challenges. The ability by an effective teacher to utilise pedagogy measures beyond ‘chalk-and-talk’, ‘call and respond’, rote drills, memorization for examination passing. But facilitating diverse learner centred learning approaches. Learner centred approaches should be dove-tailed to address contemporary needs like the need to develop research skills in learners, ability to think and to reason well and creatively for socio-economic transformation and development.

Relevance of offered education heavily depends on the application of innovative pedagogy in education, and preparing calibre of teachers who can be equal to the task. In other words, 21st century teacher training and teaching is a reflective thinking activity. According to this metaphor, a skilful teacher should possess a body of specialised realistic knowledge acquired through research. Research permits exchange of pedagogy ideas and the comparison of experience, which encourages innovation. Research also improves understanding of essential teaching skills, knowledge of curriculum, teaching methods, subject matter and child behaviour challenges and other particular information in the education context. So to speak, research becomes an essential tool to creativity for both the teacher and the student.

6. Research Findings

In the analysis of gathered information on challenges affecting research and skilful teaching-learning four major qualitative challenges surfaced, teaching and learning in Zimbabwe is currently more teacher-centred aiming at drilling students to pass examinations, there is limited focus in deliberate planned teaching for creative, critical, knowledge invention thinking, there is lack of innovative teaching-learning activities in schools, above all there is a critical shortage of self-motivated reflective teachers. These

four will be summarised under two major challenges namely, teacher competency and lack of innovative pedagogy application in teaching-learning.

6.1 Teacher Competency

Major challenges faced by the Zimbabwe education system since 1980 at all levels has been attributed to two key factors: colonial legacy and current government failure to place relevant resources to address challenges (Fafunwa and Aisiku, 1982; Zvobgo, 1998). This research brings in the third factor affecting research and skilful teaching. At the apex of diverse education challenges across all levels of schooling is poor quality of teaching complimented by ineffective class management according to a number of education reports (UNESCO, 1985; UNESCO, 2010). A number of researchers (Avalos, 1980; Husen et al., 1978; Schiefelbein and Simmons, 1979) do not blame teachers only for reducing quality education; they have blamed non-performance of teachers to low quality of student trainees enrolled into teacher training institutes in the first place, lack of rigorous academic and thorough initial professional training, including lack of academic honesty and pride leading to plagiarism and cheating, lack of teachers who devote their full time on research and rationalised mastery of theories of education.

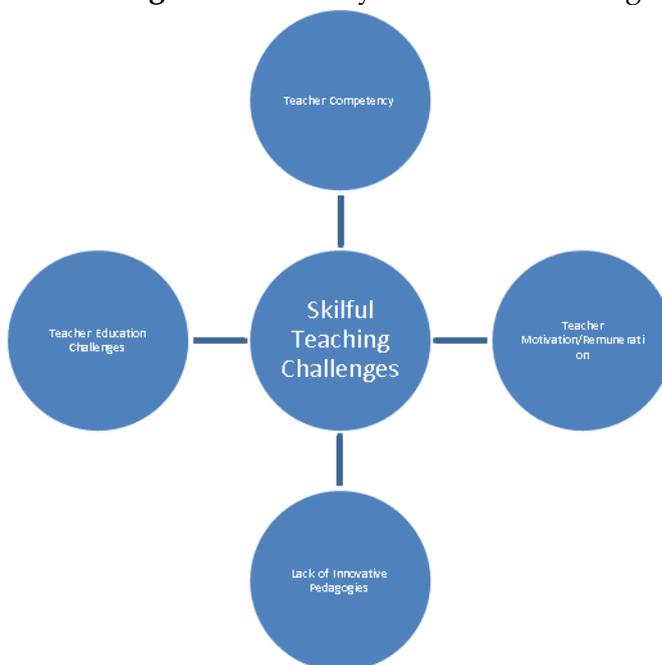
Non-performance of a teacher reduces quality of education (Torn and Bennett, 2011; Beyer, 1991; Howard and Aleman, 2001; Shaw, 1995; Monk, 1994; Erickson, 2002). Non-performance can also be further worsened by lack of knowledge on how to apply theories of education in classroom practice, lack of pedagogical skills required in teaching and to handle new directions of the curriculum not taught in teacher institutes, and lack of mastering subject matter beyond teacher training qualification requirement. Yet subject matter and pedagogy knowledge has been the focus of expected teaching ability from time immemorial (Darling-Hammond, 2005). The challenge has always been clear: teachers should have a deep knowledge of the subject matter that they teach (Shulman, 1987; Munby et al, 2001; Wilson, 2001). A Competent Teacher should not be guided by a single philosophical influence to be effective, a teacher with strong background knowledge in both content and pedagogies complimented by verbal ability produce higher quality outcomes in student learning. Effective teachers also teach for diverse ends-teach for understanding and critical thinking, passing examinations, life-long learning, societal functionality, core knowledge and conventional teaching, all relevant for holistic education.

Although some researchers (Goldhaber and Brewer, 2000; Darling-Hammond, 2000) have maintained that, *"...mastery of subject matter is essential for teacher capacity."* Others (Grossman et al., 2005) add that, *"...mere knowledge of subject matter alone, without critical thought, wide and wise researching is insufficient for skilful teaching."* They go further to add an intrinsic aspect to effective teaching. Hence, the importance of intrinsic will to be a teacher should be in combination with mastering of subject content and pedagogy studies. In this case, skilful teaching is seen as both an art and a science.

In effective teaching, not only should teachers focus on pedagogy research, they also ought to consider how to contextualise research findings in the classroom or to

improve their teaching inefficiency. Any discussion of classroom fundamental capacity or essential teaching knowledge should pay careful consideration to the relevance of how content is delivered or made accessible to diverse learners. Considering that, the issue of pedagogy research in teacher training and after training is an important attribute of teacher effectiveness (Shulman, 1986). Shulman’s motion of pedagogical content knowledge was predicated in his contention that subject matter and pedagogy were often treated as two different domains. He suggested for the intersection of the two concepts provided a clear blending of how subject matter content and concepts within it could be organised in a manner that improves a child’s understanding of taught material. Considering Shulman’s opinion, the key to quality teacher training is to give the practical side of teacher preparation and research greater weight.

Figure 2: Summary of Research Findings



As far as pedagogy research to improve teaching is concerned, the current challenge in Zimbabwe teacher education especially during teaching practice is lack of research culture in student teachers. This cultivates a culture of fearing research carried forward to class teaching-learning. Yet effective learning and teaching depends on continuous learning and criticism of existing Knowledge, as well as the skills to contextualize researched theories for contemporary benefits. Currently, most descriptions of Zimbabwe teacher education and capacity rely much on mainstream learning theories such as behaviourism, information processing and cognitive constructivism, which in most situations fail to take into specific consideration contextual social, political and economic realities and their immediate effects in the classroom.

In other words another aspect of skilful teaching involves the 21st century teacher to consider detailed information on culture and environment of people being taught and application of appropriate learning pedagogies (Rogoff, 1990; Tharpand Gallimore,

1988). They further say, “...culture shapes student thinking.” Meaning students can never have the culture of researching if not promoted by the education system’s ideology and official curriculum. Incompetency in socio-cultural research in teacher training and after training hinders application of dove-tailed pedagogy to suit socio-cultural cognition. Socio-cultural theories purport that children’s development cannot be understood simply by studying theories of education by Plato, Bruner, Piaget, et al., or the individual child. But that effective teaching must be understood within the participation of activities that require cognitive and communicative functions (Brown, et al., 1996; Vygotsky, 1986). An innovative teacher with breadth and depth in research, understand and appreciate culture and historical background aspects of the student, has the potential of being influential and effective, also likely to teach consequentially.

6.2 Lack of Innovative Pedagogies in Improving Quality Education Standard

The role of innovative pedagogy within the essence of being an effective teacher is to know how to make a student a better thinker, an inventor, a creator of wanted outcomes, a contributive being for domestic, regional and international benefits, to foster pupil’s learning attitude based on social dynamics and being able to do it with precision and highest competency. Innovative pedagogy works hand in glove with effective teaching. These learning expectations are also imbedded in African philosophy theories of functionalism, humanism, communalism and essentialism. Where effective teaching is viewed as inclusion of both out of class experience and in class experience, learning so to speak should be situational, it should address needs and issues emanating from real world lived by the learner (Bao, 1987; Beyer, 1991; Howard, et al., 2001; Gutierrez, 2002; Erickson, 2002, Cole, 1996; Doyle, 1986). The role of innovative pedagogy is to produce a learner who has unique traits informed by social-cultural background and contemporary existential conditions.

Innovative pedagogy also favours inclusion of essential skills such as having a wide array of grouping strategies and assessment techniques. A teacher in appreciating innovative pedagogies will develop dispositions that foster positive attitudes toward educational change as well as a commitment to effective learning for all. Influenced teacher will also develop an attitude and commitment to the paramount perspective that all students can learn, can be teachable, above all can be taught to be intelligent and inventive. In other words today’s innovative teacher should have deeper and flexible understanding of the role schooling has to effect on society, the social and economic values that have influenced or are to influence educational policies and school curricula for sustainable intelligence and the developmental characteristics of the young.

7. Conclusions

From the findings of this study, there are four major qualitative educational challenges affecting research and skilful teaching-learning in Zimbabwe: teacher competency, lack of innovative pedagogies in daily classroom management, more teacher-centred

teaching-learning approaches, and shortage of dedicated skilful teachers. Some of Zimbabwe's qualitative education challenges such as teacher incompetency, according to this research could be mitigated, by rigorous research and innovative pedagogy appreciation and application. There are numerous factors that influence a person to become a skilful teacher, this research was of the opinion that, the most effective way to become a reflective teacher is good training and good research skills. Research is argued to influence detailed understanding of one's responsibilities, promote an understanding of a wide range of issues on professional practice and develop a repertoire of supervising strategies appropriate to diverse students with vast academic requirements and challenges.

In agreement to teacher competency, it was also the major argument in this research that, teachers play a central role in the delivery of quality education at all levels of any education system. Provided, they are trained well and have an intrinsic culture of consistent research and learning about their profession. The critical issue confronting the Zimbabwe education system today according to this research arises from the post-independence expansion of the system creating over-large classes that require innovative teaching approaches and skilful teachers, who are no longer produced by most teacher training institutes. Skilful teaching focusing on student intellectual empowerment and critical thinking is a great challenge today in most Zimbabwe classrooms dominated by teacher-centred pedagogies.

8. Recommendations

From the findings of this study, the following recommendations are made:

- There is need to realign teacher education towards innovative pedagogy research studies focus.
- Teachers should be in-serviced consistently.
- Introduction of incentives for dedicated teachers should be encouraged and implemented.

There is also a need for sponsored publication funding to promote a research culture for teachers at all levels especially considering that teachers practically experience all the occurrences of the education system and therefore can contribute meaningfully to the system.

References

1. Adentwi, K.I. (2002). *Principles: Practices and Issues in Teacher Education*. Kumasi: Skies Printing Works.
2. Avalos, B. (1980). 'Teacher effectiveness research in the third world highlights of a review' *Comparative Education*, 16 March, p45-54.

3. Bahruth, R. & Steiner, S. (2000). *Upstream in the mainstream pedagogy against the current*, in S, Steiner; H, Krant; P, McLaren & R, Bahruth (eds.), *Freirian pedagogy, praxis and possibilities projects for the new millennium*, pp-119-146. New York: Falmer.
4. Ball, D.L. & Bass, H. (2000). *Interweaving content and pedagogy in teaching and learning to teach: Knowing and using mathematics*, in J, Boaler (ed.), *multiple perspectives on the teaching and learning of mathematics*, pp.83-104. Westport, CT: Ablex.
5. Bao, K.S. (1987). *An introduction to curriculum studies in Africa*. London: Macmillan.
6. Beyer, L.E. (1991). "Schooling, moral commitment and the preparation of teachers". *Journal of Teacher Education*, 42(3), 205-215.
7. Brown, J.S., Collins, A. & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), pp.32-42.
8. Calderhead, J.S. (1987). *Exploring teachers 'thinking*. London: Cassel Education.
9. Chakradhara, S.Y. & Rao, D. B. (2006). *Techniques of teaching science*. Sonali Publications: New Delhi.
10. Chance, P. 1986. *Thinking in the classroom: A survey of programs*. Columbia University: Teachers' Press.
11. Carnoy, M. (1977). *Education as cultural imperialism*. Longman: New York and London.
12. Chikomba, C. (1988). *Education in Zimbabwe since independence*. University of Stockholm: Stockholm.
13. Costa, A.L. (1985). *Developing minds: A resource book for teaching thinking*. Association for supervision and curriculum development: Virginia.
14. Colclough, C., Lofstedt, J-I., Moyo, M., Maravanyika, O.E. & Ngwata, W.S. (1990). *Education in Zimbabwe: Issues of quantity and quality*. SIDA: Stockholm.
15. Cole, M. (1996). *Cultural Psychology: A once and future discipline*. Cambridge, MA: The Belknap Press
16. Darling-Hammond, L. (2001). *Teaching quality and student achievement: A review of state policy evidence*. Education Policy Analysis Archives, 8(1), retrieved from <http://epaa.asu.edu/epaa/v8n1>. Accessed 09 May 2014.
17. Darling-Hammond, L. 2005. *Teaching as a profession: Lessons in teacher preparation and professional development*. Phi Delta Kappan, 87(3), 237-240.
18. Doyle, W. (1986). *Classroom organisation and management*, in M.C, Wittrock (ed.), *Handbook of research on teaching*, (3rd Ed.). New York: MacMillan.
19. Erickson, F. (2002). Culture and human development. *Human Development*, 45(4), 299-306.
20. Entwistle, N. (1993). *Styles of learning and teaching*. David Filton Publishers: London.
21. Esterberg, K. K. (2002). *Qualitative methods in school research*. McGraw-Hill Higher Education: Boston.

22. Fafunwa, A.B. & Aisiku, J.U. (1982). *Education in Africa: A comparative survey*. London: George Allen and Unwin.
23. Fisher, R. (1995). *Teaching children to think*. Stanley Thornes Publishers Ltd: Cheltenham.
24. Fleisch, B. (2008). *Primary education crisis: Why South African school children underachieve in reading and mathematics*. Cape Town: Juta & Co.
25. Freire, P. (1970). *Pedagogy of the oppressed*. New York: Continuum Publishing Corporation.
26. Fuller, B. & Snyder, C.W. (1991). Vocal teachers, silent pupils? Life in Botswana classrooms. *Comparative Education Review*, 35(2), 274-294.
27. Gboku, M. & Lekoko, R. N. (2007). *Developing programmes for adult learners in Africa*. Pearson Education: London.
28. Glass, R.D. & Wong, P.L. (2003). Engaged pedagogy: Meeting the demands for justice in urban professional development schools. *Teacher Education Quarterly*, 30(2), 69-87.
29. Gray, D. E. (2010). *Doing research in the real world*. (2ndEd.). SAGE: London.
30. Goldhaber, D.D. & Brewer, D.J. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation and Policy Analysis*, 22(2), 129-145.
31. Grainger, I.P. (1986). *Literacy participation in Zimbabwe*. Harare: University of Zimbabwe.
32. Grossman, P.L., Schoenfield, A. & Lee, C.D. (2005). *Teaching subject matter*, in L. Darling-Hammond & J. Bransford (eds.), *Preparing teachers for a changing world*, (pp.201-231). San Francisco: Jossey-Bass.
33. Gutierrez, K.(2002). Studying cultural practices in urban learning communities. *Human development*, 45(4), 312-321.
34. Hoyle, E. (1983). *The professionalization of teachers: A paradox*. Bedford way paper No. 15 UCEI Tinga Tinga: Heinemann Education Books.
35. Husen, T., Saha, L. J. & Noonan, R. (1978). *Teacher training and student achievement in less developed countries*. World Bank Staff Working Paper, No. 310 December. Washington D C: World Bank.
36. Howard, T.C., Aleman, P. & Grants, G.R. (2001). *Teacher Capacity for diverse learners: What do teachers need to know?* In M.C, Wittrock (ed.), *Handbook of research on teaching*, (3rd Ed.). New York: MacMillan.
37. Lewin, K. (1985). Quality in question: A new agenda for curriculum reform in developing countries. *Comparative Education*, 21(2).
38. Ma, L. (1999). *Knowing and teaching elementary mathematics: Teachers' understanding of fundamental mathematics in China and the United States*. Mahway, N.J: Erlbaum.
39. Maravanyika, O.E. (1986). *'School management and nation building in a newly independent state'*. World year book of education 1986: London: Kegan Page.
40. Maravanyika, O.E. (1986). *Critical issues and problems in primary and secondary education in Zimbabwe*. London: Kegan Page.

41. Matiru, B., Mwangi, A. & Schlette, R. (1995). *Teach your best: a handbook for university lecturers*. German Foundation for International Development (DSE). University of Kassel: Witzenhansen.
42. McPhail, T.L. (1992). *Human societies: an introductory in sociology reader*, In A, Giddens (Ed.). Cambridge.
43. Monk, D.H. (1994). Subject area preparation of secondary mathematics and science teachers and student achievement. *Economics of Education Review*, 13(2), 125-145.
44. Monk, D.H. & King, J. (1994). *Multilevel teacher resource effects on pupil performance in secondary mathematics and science: the role of teacher subject matter preparation*, In R.G, Ehrenberg (ed.), *Contemporary policy issues: Choices and consequences in education*, (pp.29-58).City: ILR Press.
45. Moyana, T.T. (1989). *Education, liberation and the creative act*. Harare: Zimbabwe Publishing House.
46. Mudimbe, V.Y. (1988). *The invention of Africa, Philosophy and the order of knowledge*. London: Indiana University Press.
47. Mudzamba, H.J. (1982). Grappling with the vexing questions of national relevance in the reconstruction of Zimbabwean education. *Zimbabwe Journal of Education*, 1 July 1982.
48. Munby, H., Russell, T. & Martin, A.K. (2001). *Teachers' knowledge and how it develops*, in V, Richardson (ed.), *Handbook of research on teaching* (4thEd.). (pp.877-905). Washington, D.C: American Educational Research Association.
49. Neito, S. (2000). Placing equity front and centre: Some thoughts on transforming teacher education for a new century. *Journal of Teacher Education*, (51)3,180-187.
50. Nickerson, R. S., Perkins, D. N. & Smith, E. E. (1986). *Teaching thinking*. Hillsdale New Jersey: Erlbaum.
51. Nziramasanga, C.T. (1999). *Report of the presidential commission of inquiry into education and training*. Harare: Government Printers.
52. Paul, J. (2004). *Introduction to the philosophies of research and criticism in education and the social sciences*. Prentice Hall: London.
53. Rogoff, B. (1990). *Apprenticeship in thinking-cognitive development in social context*. New York: Oxford University Press.
54. Schon, D.A. (1983). *The reflective practioner*. London: Temple Smith.
55. Shaw, R. (1995). *Teacher training in secondary schools*, (2ndEd.). London: Kegan Page
56. Shulman, L.S. (1987). *Knowledge and teaching: Foundations of the new reform*. *Harvard Educational Review*, 57, 1-22.
57. SIDA, (1989). Ministry of primary and secondary education & Ministry of higher and tertiary education. 'Joint annual education sector review April-May 1989'.SIDA: Stockholm.
58. Stoneman, C. (1988). *Zimbabwe's prospects*. London: SAGE.

59. Stuart, J. (1986). *Case studies in development studies teaching in Lesotho classrooms*. Maseru: National University of Lesotho, Centre for African Studies.
60. Taylor, J. H. (2011). *Using research in practice*. Palgrave MacMillan: London.
61. Torn, D. & Bennett, P. (2011). *Brilliant secondary teacher*. Edinburgh Gate: Prentice Hall Pearson.
62. Treffgarne, C.B.W. (1986). *Education in Zimbabwe*. DICE occasional papers No.3. London: University of London Institute of Education.
63. UNESCO, (1985, 1990). *UNESCO and education throughout the world*. Damien: Paris.
64. UNESCO, (2010). *Education for global monitoring report: Researching the marginalised*
65. Vygotsky, L. (1986). *Thought and language*. Cambridge, MA: The Mit Press.
66. Welch, T. 2010. *Sharing the garden working with OERS in Africa teacher education*. SAIDE: Commonwealth Education Partnerships.
67. Wilson, S.M., Shulman, L.S. & Richert, A.E. (1987). *150 different ways of knowing: Representations of knowledge in teaching*, in J, Calderhead (ed.), *Exploring teachers' thinking* (pp. 104-124). London: Cassel.
68. World Bank Reports on Education (1995, 2000). The World Bank: Washington DC.
69. Zvobgo, R.J. (1998). *The post-colonial state and educational reform*. Harare: Zimbabwe Publishing House.

Creative Commons licensing terms

Authors will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Alternative Education Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflict of interests, copyright violations and inappropriate or inaccurate use of any kind content related or integrated on the research work. All the published works are meeting the

Lincoln Moyo, Lillie Beth Hadebe
EDUCATION CHALLENGES AFFECTING RESEARCH AND
SKILFUL TEACHING-LEARNING (PEDAGOGIES) IN ZIMBABWE

Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).