

Curriculum Leadership in the Terrain of Curriculum Changes: A Case of Primary School Principals in Vhumbedzi Circuit in Limpopo, South Africa

E.K. Klu¹, R.M. Makhwathana¹, L.M.P. Mulaudzi¹, M.J. Maluleke¹,
M.R.M. Molefe² and P.E. Matshidze³

¹*Department of English, SHSS, University of Venda, South Africa*
E-mail: asongkwesi@gmail.com

²*Tshwane University of Technology, South Africa*
E-mail: mrmolefe@gmail.com

³*Department of IKS, SHSS, University of Venda, South Africa*
E-mail: Pfarelo.matshidze@univen.ac.za

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ABSTRACT The paper reports on an empirical data collected from primary schools principals on the effect of curriculum changes in the South African education system. Using both quantitative and qualitative research approaches, the paper explores the roles of principals as curriculum leadership. The paper situates the roles of principals within critical theory propositions to determine the extent to which the principals embrace change. The findings of the paper indicate that for successful implementation, principals should be able to question their position as curriculum leaders. However, if no effort is made to enhance the interest of the principals during curriculum development, the schools will operate on a presumed consensus apparently led by principals.

INTRODUCTION

The dawn of democracy in South Africa in 1994 has been characterized by a series of policy changes which included curriculum changes in schools to redress the imbalances of past policies. Glatthorn et al. (2015) describe ‘curriculum’ as all the learning which is planned and guided by the school regardless of who the targets are, individuals or groups, or where learning takes place, inside or outside the school. According to Harvey (2004) a working definition of curriculum is a combination of all activities, experiences and learning opportunities for which an institution or a teacher takes responsibility. In their view of critical reflection towards curriculum, Lovat and Smith (2003) describe the curriculum as a problem-solving process, in which the teacher processes a complex variety of stimuli and information and uses this to make decisions and solve problems. This means that the teacher’s key roles with regard to curriculum are those of information processor, manager, decision-maker and problem-solver. Accordingly, Blackmore and Kandiko (2012) stated that implementation of a new curriculum does not simply entail following a set of curriculum instructions or replacing old practice with new practice, but it is a process of aligning the curriculum in such a way that it becomes part of the teacher’s way of being.

Using the critical theoretical prepositions, the paper shed light on the perspectives of principals towards curriculum change. Understanding and analysing the linkages between day-to-day practices in schools and larger domains, and values that are often linked to social and political realities is central to the generation of critical theory (Li and Lappan 2014). In relation to curriculum, critical theory is concerned with critical meanings of experiences as they relate to curriculum development. According to Cohen et al. (2000), critical theorists acknowledge that curriculum is a selection of what is deemed to be worthwhile knowledge. However, because the justification for that selection reveals the ideologies and power in decision making in society and through curriculum, participants in curricula should question the cultural and dominating messages contained in curricula and replace them with a language of possibility.

Habermas’ (1987) critical cognitive interest offers another apparent definition of critical theory approaches to curriculum. The practical implications, is that curriculum could be considered useful so long as it involved the development of critical thinking skills, included open enquiry methodologies, furthered personal autonomy and stressed the historical, cultural, political and economic contexts of individual and

group action. In support of this assertion, Yeung et al. (2012) indicate that the critical or self-reflective type of human interests means that our interest in showing autonomy will make us reflect critically on our subject matter, as well as ourselves.

Framed within the critical theory prepositions, the paper explores the three interrelated aspects; sense of purpose, sense of commitment and sense of fulfilment to determine the enthusiasm of principals with regard to curriculum change.

Curriculum Leadership

With the development of curriculum reform and further studies on curriculum issues, curriculum leadership has become an interesting field in the studies of curriculum theories. Chappuis (2006) argues that school leaders do not need to have the vision. The term curriculum leadership is used to define those whose roles are to provide others with the knowledge and skills needed to accomplish curriculum development at several levels and in many roles. But all the school leaders need to be able to work with others to set and achieve clear goals for the school and staff, and most importantly, clear learning targets for students. Chappuis asserts that knowing the right thing to do is the central problem of school improvement. Thus, the role of leaders is not about checking off what action was taken during the course of the day, but it is more about seeking and taking advantage of the opportunities to enhance effective implementation of curriculum.

Curriculum leadership plays a vital role in the implementation of curriculum. However, curriculum leadership and management lack a whole-school perspective and tend to be fragmented and easily disjointed (Blackmore and Kandiko (2012). Blackmore and Kandiko (2012) further argue that, as simple and straightforward as the process of implementing a new curriculum might seem, when it comes to actual practice, recent research shows that at least three key factors that are often overlooked are important: (1) a realization that various types of actions that support teachers will be required; (2) identification of who is responsible for facilitating the changes that teachers will make; and (3) an understanding on the part of facilitators that change takes a great deal of time and that, even under

the best of circumstances, implementation takes several years. Similar observations were made by Mullen (2007) who found that effectiveness in facilitating change process result as an increase from responder to manager to initiator styles.

As curriculum reforms have turned to principals to be accountable for better schools, researchers have been studying the principal's roles. But while there has been much learned, the findings have typically identified only the general characteristics of effective principals. Piek (1991) pointed out that the success of curriculum change depends on the quality of the teachers, the principal and school inspector including their knowledge, background and progressiveness that will guarantee success. Chau (2013) noted that the internally-initiated change is more prevalent than assumed. This view is supported by Rogan and Grayson (2003) who highlighted that the process of change is context-specific and usually plays out differently in each and every school.

Curriculum Change in South Africa

The South African society has experienced radical policy changes since the dawn of democracy in 1994, which included educational transformation. A new school system, Curriculum 2005 was introduced in 1997. It is based on outcomes-based education principles and it marked a complete departure from the existing system which was content-based and an examination oriented approach. Curriculum 2005 was guided by critical and developmental outcomes and supported the transformation of the South African society. Schools started implementing Curriculum 2005 in 1998. However, given the nature of difficulties experienced by teachers with the implementation of Curriculum 2005, the principals could not excel in their leadership roles to achieve curriculum goals.

In 2000, a committee was appointed to review the structure and design of Curriculum 2005, teacher training and development, learning support materials, provincial support to teachers in schools as well as implementation time frames (Department of Basic Education 2011). The Curriculum review committee recommended that Curriculum 2005 be strengthened by streamlining its design features, simplifying its language, aligning curriculum and assess-

ment, improving teacher orientation and training, learner support material and provincial support. The Revised National Curriculum was then developed to address the weaknesses of Curriculum 2005 and it became a policy in 2002 (Chisholm 2003). However, the revised curriculum was built on the vision and values of the Constitution and Curriculum 2005, that is, it followed the principles, purpose and trust of Curriculum 2005. The principles included: social justice, a healthy environment, human rights and inclusivity; outcomes-based education; a high level of skills and knowledge for all, clarity and accessibility; and progression and integration (Department of Basic Education 2012).

The Revised National Curriculum Statement was completed in 2002, for implementation in January 2004. However, there were a number of shortcomings associated with its implementation. Disparities in resources and teacher preparedness made this modern, high knowledge, resource intense curriculum an inappropriate model in the South African context (OECD 2008). For instance, in a study on the challenges facing teachers in historically disadvantaged schools in the Western Cape in the implementation of Curriculum 2005 the following factors were found to be hindering the implementation process:

- Large class sizes—which affects the learner-centred approach as an educator has to deal with large classes.
- Lack of appropriate and sufficient resources and learning material.
- Discipline problems—learners and teachers having problems with commitment to work and adherence to rules, including frequent absenteeism.
- Unstable management and governance structures (De Waal 2004).

Teacher professionalism, that is, teachers themselves, their training, their level of confidence as well as their commitment to teaching was also noted as one of the major challenges in South African schools (Fleisch 2008). Learners are also the subject of curriculum change. The learner factors influence the teacher's choice of learning experiences as they have to take into consideration the diversity of learners in curriculum implementation. In identifying challenges faced with the curriculum implementation, De Waal (2004) highlighted that all efforts to provide teachers with the necessary support

through the process of change will be rendered futile if both teachers and learners are ill-disciplined and lack commitment towards their work.

The implications of these challenges put to test the principals' managerial and leadership skills. As it is indicated, the principals are responsible and accountable for a variety of tasks and activities that make the school function effectively (Department of Basic Education 2012). Thus, curriculum implementation can be achieved only if the principal as the head of the school performs his/her supervisory function.

Given the intensive curriculum reform processes and the challenges in revising Curriculum 2005 to produce the National Curriculum Statement, there was a level of uncertainty and confusion in the system, and a fair amount of criticism of curriculum delivery and implementation. Therefore, another review was made in 2009 specifically addressing primarily the issue of implementation, and how this has raised certain limitations with respect to the clarity of the curriculum and the authority it bestows on teachers in confidently understanding their mandate in the classroom (Department of Basic Education 2012). The school management's capacity to mediate the curriculum was a disturbing issue that was highlighted. The two aspects related to management of curriculum were; first, mediating the demands and systematizing administrative procedures to lighten the burden of teachers and second, mediation of interpretation of curriculum documents for implementation in the classroom. The supporting argument for this claim was further supported by the large-scale research that has shown that principals do not regard the management of the curriculum as their primary responsibility. Effort should be directed at ensuring that principals teach, as directed in policy, and that their role as curriculum and instructional leaders be asserted (Department of Basic Education 2011).

In as much as the schools management is identified as the crucial factor towards effective curriculum implementation, the principals are expected to play a critical part in creating and sustaining successful curriculum implementation. In other words, effective curriculum implementation cannot take place where the principal is incapable of executing supervisory functions. Given these perspectives, this paper, amongst others, attempts to reveal the leadership tactics of school principals in embracing curriculum reform.

RESEARCH METHODOLOGY

The data reported here was collected from twelve school principals; the twelve schools were randomly selected. There were seven females and five males with their ages ranging between 35 and 56. Their teaching experiences ranged from 10 to 30 years, with the lowest academic qualification being a Primary Teachers diploma coupled with a matric certificate and the highest being a primary teachers' diploma plus a Bachelor of Arts degree. The study was undertaken two years after the launch of the RNCS. Data was collected from principals using the following data collecting techniques: questionnaires and interviews. In drawing the importance of using both questionnaires and interviews together, Sarantakos (2005) argue that questionnaires give a good picture of the surface elements and examine feelings towards events, but they could not be described as probing or providing rich sources of data in which the voices of the participants are heard. The centre of the onion is reached with interviews. In support to this, O'Leary (2004) states that the purpose of the interview is to obtain the present perceptions of activities, roles, feelings, motivations, concerns and thoughts, to obtain future expectations or anticipated experiences, to verify and extend information obtained from other sources and to verify or extend hunches and ideas developed by the participants. In this study, the principals' feelings and perceptions for change; a need for support and dynamism towards change were gathered using questionnaires. Interviews were conducted with the principals to determine: the effects that curriculum changes have on teachers; the role of the school management team on curriculum changes as well as the government policy regarding curriculum changes.

RESULTS

As indicated earlier, the paper is rooted in critical theory approaches with regard to curriculum. In alignment with critical approaches, the findings of the study are grounded in the three interrelated themes to analyse the principals' enthusiasm with regard to curriculum change. The three themes are sense of purpose, sense of commitment and sense of fulfillment. The three themes when taken together provide a fuller pic-

ture of the principals' determination with regard to curriculum change.

Sense of Purpose

The purpose of the theme was to elicit the responses from the principals with regard to their understanding or the value they place on curriculum change.

The responses on questionnaires distributed to principals suggest that principals acknowledge that there is a need for curriculum change at schools and therefore they promote curriculum changes in their respective schools. The principals consider change as important so that the schools as institutions of learning keep on track with educational developments taking place globally. In terms of policy documents as a means of support, ten principals admitted that the government provides schools with policies that help them deal with curriculum changes, with the exception of two who did not respond. The principals also pointed out that the policy clearly state that curriculum is meant for life-long learning and therefore all should be prepared to make modifications to meet the challenges of the curriculum.

Other than the policy, the principals through the school management team also motivate and provide the required materials for teachers so that they can teach the new curriculum without any difficulty. Although one of the twelve respondents indicated that there was no involvement of school management in the implementation of curriculum changes in his school, the other eleven were positive about their involvement. The data show that school principals recognise the importance of school management involvement in key issues including implementing curriculum changes. This has the potential of going a long way in ensuring that there is continued development as these schools possess elements of team work.

Sense of Commitment

The sense of commitment refers to the principals' willingness and determination to provide internal support to teachers in dealing with curriculum changes. The data for this theme is grounded from the kind of support the principals offered and the strategies they employ in

dealing with challenges experienced in their schools, specifically by teachers.

The principals acknowledged a need for support. Firstly, the principals indicated that the kind of support they give as the representatives of the school management is to encourage teachers to follow the policies of the new curriculum.

In determining the kind of support the principals offered to teachers, the researchers asked the principals if they help teachers solve problems related to implementation of curriculum changes. The response to this question was positive with ten of the twelve respondents giving a positive response, indicating that principals do give support. This shows that principals acknowledge the fact that teachers do experience challenges in the implementation of curriculum changes.

With regard to strategies used for assisting teachers, responses were varied. For instance, five principals cited encouraging workshops as the strategy they use to assist teachers cope with curriculum changes. Three principals indicated that they make an effort to revive teachers' attitudes towards curriculum changes. Two of the respondents mentioned provision of resources as their support strategy. The remaining two cited encouraging team work and addressing individual problems as their intervention strategies. It is evident from the above that there is support for continued professional development which could come in the form of workshops as a way of preparing teachers deal with challenges of implementing curriculum changes. However, the fact that three, the second highest number of respondents shared a view point indicated that they revive teachers' attitudes towards curriculum changes; the issue of attitudes towards the processes of change cannot be ignored.

Besides the support within the schools, another source of support mentioned was different stakeholders, most notably the principals of other schools when it comes to implementation of curriculum changes.

Sense of Fulfillment

The sense of fulfillment refers to the principals' ability to perform their roles as curriculum leadership. The data analysis reveals the current state concerning curriculum change in the schools.

Quite interesting, when asked whether they can say presently that their schools are on track regarding the implementation of curriculum changes, eight of the respondents answered 'Yes', two said 'No' and the remaining two provided no answer. If this proportion of principals is taken to represent the nation, then this should be a disturbing issue.

There are lots of factors which can be attributed to the responses given by principals. Some of the problems identified by the principals regarding implementation of curriculum changes were: inadequate training of teachers; insufficient time for training; confusion of teachers due to continuous changes as well as denial for changes. Again, in responding to the effects of curriculum changes on teachers, most of the principals indicated that teachers were affected negatively. Principals indicated that continuous change of curriculum was confusing as was excessive amount of work within a short space of time. This created additional difficulties for teachers, preventing them from efficiently applying these curriculum changes. Another problem stated by the principals was the relocation of teachers, which causes friction amongst staff. These negative effects on teachers result in rebellion, poor discipline, unpunctuality and disinterest.

Teacher morale was also reported as one of the factors that inhibit the principals to fulfill their roles as curriculum leadership. The principals maintained that the teachers' morale was negatively affected, for example, the annual staff adjustments which sometimes require teachers to change schools or relocate to another area, unsettles them. This resulted in apprehensive teacher behaviours and decline on learners' performance. Another effect to teachers' morale was the introduction of new learning areas (subjects). For instance, the principals pointed out that some teachers do not want to teach new learning areas, such as technology due to lack of adequate knowledge and confidence. This was not surprising to the principals as they were aware that their training was inadequate for that particular subject. Because teachers do not want to feel or appear incompetent, this affected their morale negatively. The principals were of the opinions that to improve the morale of the teachers relevant incentives had to be introduced. As mentioned earlier, one of the supporting strategies is through workshops, however, much of the time teachers spent attending workshops,

especially away from their families was not accepted. Hence, this was also affecting teachers' morale.

The overall conclusion drawn from this theme shows the support offered by the principals and through school management team, was overshadowed by the difficulties experienced among teachers when implementing curriculum changes. Hence, it was difficult for principals to fulfil their roles effectively. Eleven of the principals with the exception of one mentioned that they are experiencing difficulties in their schools. The principals felt that this is overwhelming as they are expected to seriously step in and apply the necessary intervention strategies so that teachers can be equipped with the skills needed to ensure that they implement the changes with confidence and enthusiasm.

DISCUSSION

The findings of the study show that the perceptions and beliefs that the principals hold about curriculum change are positive. The data suggests that principals acknowledge a need for curriculum change at schools and therefore promote curriculum changes in their respective schools. However, with any change, the possibilities are often offset with the challenges as it is the case with this current study.

Among the challenges which principals encountered, namely, inadequate training of teachers; insufficient time for training; confusion of teachers due to continuous changes as well as denial for change, indicate a need for support from the government. In as much as there is support from within the schools and the willingness to meet the challenges with the changes, the principals felt that this was overwhelming without the support of the government. Similar observations were also highlighted by Bantwini (2011) who found that the perceptions that teachers are resistant to change are likely determined by the nature of support the teachers receive. The supporting claim for Bantwini was that the assumptions that teachers are resistant to change are based on a lack of understanding of why teachers behave the way they did, and this resulted in a recipe for curriculum reform failure.

As reported in this study, the principals recognized the importance of policy documents as those were cited as being the most important tools to assist teachers. However, simple stating that curriculum change is a lifelong learning

experience is not enough for successful implementation. Much is needed in terms of clarity and helping the teachers to realize the lifelong learning process being imparted to them. Balckmore and Kandiko (2012) cautioned that for successful curriculum implementation, the curriculum process should be aligned in such a way that it becomes part of the teacher's way of being. Chau (2013) argues that aligning the curriculum in this manner will make teachers 'change' themselves and modify the curriculum. A similar perspective was made by Ntombela (2011) in her critical analysis towards developing the South African system for challenges of change. Ntombela (2011) noted that in driving the process of change from one system to another, it is important for the government to focus not only on making structural changes, as they do not bring about lasting change, but also changing the culture in schools. Ntombela contends that since school cultures form part of the bigger system, unless the culture of the whole system of education is turned around to work for, and not against, the development of an inclusive system of education, this policy will remain vague.

Finally, an important point to consider is the effects of change. The sustainability of curriculum change as evidenced from the principals' contradiction with their roles as curriculum leadership. Chau (2013) cautioned against this contradiction by arguing that governments can assume that policy can mandate what matters, but governments are not only social actors who influence outcomes; other social actors play a powerful role in shaping policy documents. Likewise, Yeung et al. (2013) pointed out that curriculum change like any other change is likely to cause conflict. Thus, if people are trying to bring about fundamental change in themselves, in schools or in society, they must, expect that there will be conflict; accept that conflict is a positive force for change; and plan ways to manage the conflict as part of their strategy for change. In simulating Piaget's process of re-equilibrium, (Mullen 2007) argued that the driving force of change gives prominence to uncertainty which depends on "challenges, perturbations and disruptions".

CONCLUSION

The literature has shown that the consequences of change are dynamic and the effects of change take into consideration the whole is-

sue of strategies that are employed. Any change that holds great promise for increasing teachers' competence and enhancing learning is likely to require extra work, especially at first. Furthermore, changes primarily on the experiential learning process and require both time and effort and anxiety can be very threatening. Thus, change necessitates practice within the schools so that teachers learn to identify with the new curriculum.

With regard to the effect of curriculum changes on the principals, we found that the impact of curriculum changes is to be expected especially during times of transition. The responses to these curriculum changes were the sign that the principals need continuous and immediate guidance to implement the new curriculum. Indisputably, as long as the curriculum is changing, even the expectations of the principals are no longer the same. But, expecting principals to simply facilitate curriculum change is naive, and this will bring anxiety and is also threatening to teachers.

RECOMMENDATIONS

The principals should establish Teaching and Learning Support Teams. This will enable them to provide support broadly while retaining their supervisory function.

Support given to teachers should be on two levels: improving content knowledge of the teacher and assisting them to plan for implementation, starting from work schedules of their learning programmes to lesson planning.

Principals should devise a monitoring tool and timetable. It is through class visits that the principal and the TandL support team members will identify areas of concern.

Principals should keep abreast of developments in curriculum related matters.

It is the principals' responsibility to up skill themselves so that they better understand their role as curriculum leaders. They also need to be empowered in terms of curriculum management and the Department of basic Education should provide such training.

REFERENCES

- Bantwini BG 2011. District Officials' assumptions about teacher learning and change: Hindering factors to curriculum reform implementation in South Africa. *International Journal of Education*, 3(1): 31-42.
- Blackmore P, Kandiko C 2012. *Strategic Curriculum Change: Global Trends in Universities*. USA: Routledge.
- Chappius J 2006. Helping students understand assessment. *Educational Leadership*, 63(3): 39-43.
- Chau KW 2013. *Curriculum Innovations in Changing Societies*. Rotterdam: Sense Publishers.
- Chisholm L 2003. The Politics of Curriculum Review and Revision in South Africa. Presented at the 'Oxford' International Conference on Education and Development, 9-11 September 2003 at the session on Culture and the Quality of Education, South Africa.
- Christie A 2008. A Curriculum Design for Living in the 21st Century: Multicultural Curriculum in the Law School. From <[http:// works.bepress.com/Christie](http://works.bepress.com/Christie)> (Retrieved on 20 July 2011).
- Cohen L, Manion L, Morrison K 2000. *Research Methods in Education*. 5th Edition. London: Routledge/Palmer.
- Department of Basic Education 2011. *Curriculum News. Improving the Quality of Learning and Teaching. Strengthening Curriculum Implementation from 2010 and Beyond*. Pretoria: Government Printers
- Department of Basic Education 2012. *Curriculum and Assessment Policy Statement (CAPS). Foundation Phase. English First Additional Language*. Pretoria: Government Printers
- Department of Basic Education 2012. *Curriculum and Assessment Policy Statement. Intermediate Phase*. Pretoria: Government Printers
- Department of Basic Education 2012. *Curriculum and Assessment Policy Statement. Grades 10-12*. Pretoria: Government Printers
- De Waal TG 2004. *Curriculum 2005: Challenges Facing Teachers in Historically Disadvantaged Schools in the Western Cape*. South Africa: University of the Western Cape.
- Doll WE Jr. 1993. *NCSALL: Three Approaches to Curriculum*. Vol.6, Issue C. September 2003.
- Fleisch B 2008. *Primary Education in Crisis: Why South African School children Underachieve in Reading and Mathematics*. Cape Town: Juta.
- Fullan M, Newton E 1988. School principals and change processes in the secondary school. *Canadian Journal of Education*. 13(3): 404-422.
- Glatthorn AA, Boschee F, Whitehead, BM, Boschee BF 2015. *Curriculum Leadership Development: A Guide for Aspiring School Leaders*. New Jersey: Routledge.
- Habermas J 1987. *The Theory of Communicative Action, Vol. 2. Life World and System: A Critique of Functionalist Reason*. Boston, MA: Beacon Press.
- Hall GE, Hord SM 1987. *Change in Schools: Facilitating the Process*. Amazon: Sunny Press.
- Harvey L 2004. Analytic Quality Glossary. Quality Research International, From <[http://www. qualityresearchinternational.com/glossary](http://www.qualityresearchinternational.com/glossary)> (Retrieved on 14 July 2012).
- Hord SM, Huling-Austin L 1986. Effective curriculum implementation: Some promising new insights. *The Elementary School Journal*, 87(1): 97-115.
- Kelly RV 1999. *The Curriculum: Theory and Practice*. Thousand Oaks: SAGE.
- Lee CK, Dimmock C 1999. Curriculum leadership and management in secondary schools: A Hong Kong Case study. *School Leadership and Management*, 19(4): 455-481.

- Li Y, Lapan G (Eds). 2014. Mathematics curriculum in school education. London: Springer.
- Lovat T, Smith D 2003. *Curriculum: Action and Reflection*. 4th Edition. Melbourne: Thomson.
- Mullen CA 2007. *Curriculum Leadership. A Guide for Aspiring School Leaders*. New Jersey: Routledge.
- Ntombela S 2011. *The Progress Of Inclusive Education in South Africa: Teachers' Experiences in a Selected District*. Kwazulu-Natal: Faculty of Education.
- OECD 2008. Education at a Glance 2008: OECD Indicators. From <www.oecd.org/edu/eag> (Retrieved on 14 September 2013).
- O'Leary Z 2004. *The Essential Guide to Doing Research*. London: Sage Publications.
- Piek GC 1991. *School Management*. Cape Town: Maskew-Miller.
- Review Committee on Curriculum 2005 2000. *A South African Curriculum for the 21st Century*. Pretoria 31st May 2000.
- Revised National Curriculum Statement From <<http://www.mml.co.za/docs>> (Retrieved on 25 July 2011).
- Rogan J, Crayson D 2003. Towards a theory of curriculum implementation with particular reference to science education in developing countries. *International Journal of Science Education*, 25(3): 1171- 1204.
- Smith MK 2003. Introduction to Informal Education: The Encyclopedia of Informal Education. From <<http://www.infed.org/i-intro.htm>> (Retrieved on 20 September 2013).
- Sarantakos S 2005. *Social Research*. 3rd Edition. New York: Palgrave Macmillan.
- Streibel MJ 1991. Instructional plans and situated learning. In: GJ Anglin (Ed.): *Instructional Technology, Past, Present, and Future*. Englewood, CO: Libraries Unlimited, pp. 117–132.
- Yeung SS, Lam JTS, Leung AW, Chun Lo Y 2012. *Curriculum Change and Innovation*. Hong Kong: Hong Kong University Press.