



Organisational learning and development: A Vanuatu educational perspective

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Abstract

Organisational learning within an educational context is a complex and multidimensional process. This paper reports on a study that investigates organisational learning during the process of development of Vanuatu's nationalised English medium secondary school assessment process, a significant educational change in Vanuatu. This qualitative inquiry reviewed and critiqued the organisational learning that resulted from a pilot programme leading to the change, and involved participants from a number of levels within the Vanuatu education system. The study identified several factors that may have hindered the planning process. A revised change management framework for the Vanuatu education system is proposed, as a result of the critique, and recommendations towards improving the implementation of future educational changes in Vanuatu are made. The resulting framework and recommendations may assist other Pacific countries engaged in similar senior assessment nationalisation, and, also contribute more generally to others involved in systemic educational change processes.

Keywords

Vanuatu; organisational learning; organisational development; managing change; education; assessment

Introduction

In our current era it is obvious that the world is changing rapidly, necessitating fundamental reassessments of objectives, operations and understandings within organisations (Drucker, 1999; Jamali, Khoury, & Sahyoun, 2006). Hence, ongoing organisational development is not an option; it is a necessity. This is certainly the case for educational organisations. Development in education reflects



changes brought about by, for example, technological advances, political priorities, and societal demands. Developing countries in particular are challenged with organisational development as they reposition and nationalise their education systems, moving from colonial models imposed by others to systems over which they have complete ownership.

In this context, previous leadership perspectives and practices are challenged and long-held criteria for evaluating organisational effectiveness are being reassessed (Branson, 2009). It is important to note that the process towards coming to fully understand organisational development is like slowly unfolding a map. As new parts of this map are unfolded, the previously shown parts of the map still remain relevant. In this sense, new understandings about organisational development are complementary, not contrary, to existing understandings. Hence, in the past 20 years the emphasis has been more focused on organisational learning rather than organisational development (Andreadis, 2009). This revised emphasis recognizes that the genesis of organisational change and development is the organisation's ability to learn and adapt (Argote & Miron-Spekto, 2011; Crossan & Berdrow, 2003; Kang, Morris, & Snell, 2007; Voronov, 2008).

Although there is no universally accepted definition of organisational learning, the core of most definitions is that "organisational learning is a change in the organisation that occurs as the organisation acquires experience" (Argote & Miron-Spekto, 2011, p. 1124). For example, Dixon (1992) and Huber (1991) suggest that organisational learning is the process of acquiring, distributing, integrating, and creating information and knowledge among organisational members. More specifically, Yukl (2009, p. 49) proposes that, "organisational learning is the collective learning by members of the organisation". Similarly, Wang and Ellinger (2011) posit that, "the processes of organisational learning involve key components that support knowledge productivity processes, which include searching for information, assimilating, developing and creating new knowledge on products, processes, and services" (p. 512). Here, the concept of learning follows Argyris' (2004) lead whereby learning is guided by practice; deep learning is gained from reviewing and critiquing existing practices so as to create new knowledge for guiding future practice. In environments where change is planned, the organisational learning often occurs during and after the change events.

In response to these perspectives on organisational learning and development, this article describes some of the organisational learning gained during a significant educational change in Vanuatu. More specifically, this research set out to explore the issue of organisational learning by investigating the complex, multidimensional process of educational change management as Vanuatu introduced its own nationalised English medium senior secondary school assessment process. The organisation in this context is the Vanuatu educational system comprising Ministry of Education (MOE) officials, head of schools, and teachers. Organisational learning in the pilot assessment programme was critiqued. This study identified several factors that may have hindered the planning process and which contributed to particular perceptions and levels of engagement in this change. From this new knowledge, a revised change management framework for the Vanuatu education system is proposed and recommendations towards improving the implementation of future educational changes in Vanuatu are offered. Arguably, this framework and recommendations may also assist not only other Pacific Nations' educational systems engaged in a similar senior student assessment nationalisation process but also other systemic educational change processes more generally.

Context of the research

As part of developing a distinctly Vanuatu education system, the Vanuatu Education Road Map was developed in 2009, and this document outlined the way forward towards meeting Education goals set for 2015 (Ministry of Education, 2009). In this document, the need to reform the assessment system was identified as one of four dimensions of reform. This road map included the need for policy development to allow for changes to systems which were linked to quality education. A key priority was the provision of standardised examinations or other appropriate assessment systems for students in both Anglophone and Francophone schooling. Other priority areas included the need for increased professional competence of teachers and appropriate curriculum.

Senior secondary school assessment in Vanuatu has been managed by overseas qualifications authorities until very recently including the Pacific Senior Secondary Certificate (PSSC) provided by

the South Pacific Board for Educational Achievement (SPBEA). More recently however, it was determined that the SPBEA member states should develop their own national Form 6 qualification, beginning with a pilot of three subjects in 2013. The PSSC was then nationalised in 2014. All the activities, with regards to internal assessment, are now being coordinated by National Examinations and Assessment Units of each country's Ministry of Education.

It was seen as a priority by the Ministry of Education to merge the curriculum development centre and the Examinations and Assessment Unit, establishing the Vanuatu Board of Curriculum, Assessment and Examinations in its place. As a result Vanuatu has now established its own Vanuatu National Qualifications Framework (VNQF) and this unit will be supported by SPBEA (SPC, 2014). Vanuatu has valued the services of SPBEA over the past 20 years in building capacity through training of examiners, markers, moderators, administrators, supporting data collection, assisting with nationalisation of PSSC and designing relevant prescriptions. It hopes that SPBEA can provide leadership and ongoing assistance in a number of areas to help improve the quality of education in Vanuatu (ARC, 2013).

Changes to assessment policy and practice in Pacific countries have produced considerable pressure on local MoE staff and on the teachers who are assessing students. Research from a number of Pacific countries have identified that teachers ideas about assessment are narrow and limited (Kakai, 2010; Kekeye, 2013). This is partly because of their own experiences of education, their minimal training in many cases, and the lack of professional development made available to teachers. It has been shown that teachers working in these countries can be upskilled by the use of effective professional development (Lee-Hang, 2011; Sade, 2009) and that teachers can be supported by working together to prepare for future change (Edwards, 2012). Although Vanuatu has stated that one of its goals is to develop a distinctly Vanuatu education system (Crossley, Bray, Packer, & Sprague, 2011), global pressures evident because of the philosophies of donor agencies involved in the country continue to influence the decisions made in Vanuatu.

Research design

In this qualitative study, the research data were gathered by means of individual semi-structured interviews and document analysis in order to review and critique the organisational learning that was taking place. The schools included in this study were English medium senior secondary schools in Port Vila, Vanuatu. Participants in this research included two Ministry of Education officials, two principals of senior secondary schools and four senior secondary teachers. The participants were selected based on the important role they played in the initial change process and in this way a range of those involved at different levels of the change were interviewed. The MoE officials had played a key role in the planning of the change. Similarly, the principals of the two schools were considered to be integral change agents in accomplishing the desired organisational change, so their involvement was important. The teacher participants from these schools were those who had been personally involved in implementing the change in their respective schools. Documents analysed included those outlining planning, strategy and developmental goals for education in Vanuatu, including *Vanuatu Education Sector Strategy 2007–2016* (Ministry of Education, 2006).

These documents allowed for a critique of the change to assessment processes. Data were coded for themes, the process of change and the experiences of change. The organisational learning became evident through this analysis.

Research findings

The research findings illustrate aspects of organisational learning that occurred during the implementation of the change to the Vanuatu assessment system. In particular, participants from different levels of the Vanuatu education system, who were involved in the process, acquired and distributed knowledge as they reflected on the effectiveness of the process. This in turn led to the creation of new knowledge about effective implementation of change amongst the organisational members. Aspects of the collective learning are described in this section.

Generally speaking, the attitude of the teachers involved in the implementation of the new assessments was very positive for, as one commented,

I think it is good as it helps people [teachers and educationist] move up the ladder as you can already see. We can have someone from Vanuatu actually writing the examination paper that students in senior secondary school will do. It is also good because it might be in simple English and the paper might be written according to what is reality in Vanuatu.

This comment clearly highlights an array of positive outcomes perceived to be inherent within this organisational change. There were expected professional enhancements for the teachers both in knowledge and career opportunities. Also, there were predicted benefits for the students because the examination questions would be written in a more comprehensible way for the students. Moreover, there is an implication that the nation would benefit because the questions would be focussed on Vanuatu such that there would be an alignment between education and everyday life. Through observation and experience members of the Vanuatu education system were able to learn of the wider benefits afforded by nationalisation of the school assessment system.

Despite this general positivity, those involved in the change also experienced numerous limitations on their capacity to implement the desired change, and organisational learning was evident through these experiences as well. Arguably, the most basic change revolved around their existing level of relevant professional knowledge. In this instance of educational change, understanding the nature and methodology of assessment were fundamental. However, one of the teachers described how,

When I came back to Vanuatu to teach, ah ... I don't recall any training for me on how to do assessments for senior secondary school ... just at the beginning of this year, the SPBEA came over to Vanuatu and just introducing us to the thought of nationalising the Pacific Secondary School Certificate. Yes, that is what I can recall, but since I started teaching there's nothing ... I found designing tasks for assessment purposes was so difficult and I had to do a lot of reading around the area of assessment to help. Besides I seek help from another senior secondary school.

This sense of a lack of relevant knowledge and confidence in being able to adequately perform the required senior student assessment responsibilities was compounded by uncertainty as to the managerial capacity of those in the MoE charged with guiding the change. As one teacher described when reflecting on his past experiences of educational change in Vanuatu,

I think they were not successful because the changes were mainly trial and error. They make a change, the heads of schools and teachers try to implement it then another change comes in.

Another concern raised by the teachers was in relation to the awareness amongst key stakeholders in the change—parents and students—about what was happening. Much of the important role of distributing such information appeared to be left to the teachers, who did not appear to be entirely clear about what was happening, either. As suggested by one participant,

The students and parents are not aware of the current change. The change is only communicated to us teachers. Basically, parents don't know anything. We tell students in class briefly about the change if it affects the subject they are taking. I do not tell them the reason for the change because the change happens but no reason is communicated to me. So, parents and teachers do not know that nationalisation is already starting.

Members of the Vanuatu education system acknowledged the need for stakeholder awareness as they reflected on the importance of families in the change process. Change processes are more achievable if all involved are aware of what is planned and understand this plan well (Hiatt, 2003). However, most of the teacher participants in this research acknowledged that the goal and anticipated process for this particular change were never widely publicised.

In summary, members of the MoE, principals and teachers involved in this study revealed that although this senior secondary school assessment change had begun, many parents and students were not fully aware of it, which echoed a common concern in many previous changes that had taken place

in the education system of Vanuatu. This may have been due to an oversight or to poor management and implementation. In general however, the participants' of the study were delighted that the change would give them ownership of the senior student qualification and that the change had the potential to cause the education system to make some important improvements. On the other hand, they also acknowledged that professional development and on-going support and management issues were a concern. The participants reflected on these issues as they considered the ongoing roll out of the new assessment system.

Discussion

It was evident from this study that the change to the English medium senior secondary school assessment procedures promoted organisational learning at a number of levels. The process produced both professional opportunities as well as managerial challenges for the Vanuatu educational organisation, and its members reflected on the changes as the pilot assessment programme was rolled out. A description of these opportunities and challenges follow so as to, first, acknowledge what has been achieved and, secondly, to reflect on the organisational learning in order to enhance the management of the ongoing rollout of this important educational change and also that of future educational changes.

Organisational learning through professional opportunities

First, the proposed change to the English medium senior secondary school assessment procedures encouraged the MoE, through the Vanuatu Examination and Assessment Unit (VEAU), to initiate professional learning for relevant teachers. Professional development had rarely been offered prior to this time. This initiative raised teacher morale and improved their general skills and knowledge. Furthermore, as the professional development took place during two summer holidays (2011 and 2012), it had great potential to improve the teachers' assessment practices. The teachers who received the extra training then had the opportunity to help improve their own departments and school by conducting internal professional learning workshops. This was a great benefit as most of them had been teaching for some time without any professional development on assessment. This professional development is likely to have a positive impact on teacher performance, which will in turn have the potential to improve student learning. For teachers the organisational learning included their increased knowledge about assessment and their increased awareness of the need to be upskilled so they could take responsibility for the assessment.

Secondly, due to the assessment change, the MoE had to develop an assessment policy and this has the potential to create many benefits for schools, teachers, principals, students, and the system. According to one of the MoE participants, this recently established policy would be used as a framework for locally controlled assessments based on the Vanuatu curriculum statement. Included with this policy is the rules and procedures manual, which will also be very helpful with the new Vanuatu qualification. From the development and implementation of this assessment change the Vanuatu education system gains further improvements in the area of assessment, both at the school level and also for MoE staff who had to develop the policy and documentation. The development of good policy involves organisational learning by the developers, particularly if policy development for assessment is a new endeavour.

Thirdly, a likely outcome of this change in English medium senior secondary school assessment is an amalgamation of the two current curricula into one so that all Vanuatu senior secondary school students will study the same curriculum. With the nationalisation of assessment, the senior teachers of English medium and French medium schools were asked to come together to form a unified curriculum that both English and French mediums schools can use. The national certificate will then be based on this unified curriculum. Bringing the two curricula together is yet another benefit because Vanuatu students will now be taught the same curriculum from primary school through to senior secondary school, regardless of the medium of instruction. Organisational learning gained from teachers' involvement with this amalgamation will further strengthen teaching.

Fourthly, as a result of nationalisation, numerous opportunities have been created for highly experienced and skilled senior teachers to extend their professional responsibilities to include newly created curriculum related tasks. This change gives professionals, who may otherwise have felt quite 'stale' in their roles, an opportunity not only to re-energize and recuperate but also to be influential in curriculum areas. For instance, a senior teacher had been promoted to be part of the curriculum-writing group. Others have been selected to attend professional development on assessments in order to be future examination writers. All of these opportunities gave opportunities to add to organisational learning of the members in the Vanuatu education system.

Finally, this assessment change created an explicit need for Vanuatu teachers to ensure they fully understood the nature and practice of internal assessment, including formative assessment. Previously, no grades were assigned to students other than those achieved within the three-hour external examination. In the new system, students gain a portion of their marks from summative internal assessments during the course of the year, and the rest of the marks are taken from the three-hour external examination. Again, organisational learning has occurred through the upskilling of the teachers to deal with this.

Organisational learning through managerial challenges

Managerial capacity in educational change is very important. The expected process of educational change must be planned well to ensure a more effective outcome (Fullan, 2001; Gross, 1979). Trial and error, to a teacher, or an educationist, may simply appear as another change programme that will be tried this year and let go of next year. Whether the previous educational changes in Vanuatu were well planned was quite difficult to assess but, from the participants' perspective, comprehensive planning was often not apparent and this made them anxious about what might happen with this very important change.

However, the data gathered in this research supports the understanding that these benefits can only be achieved effectively if certain managerial insights and strategies are suitably embraced, that is if real organisational learning occurs. These insights and strategies include: acknowledging existing prior knowledge; building a positive outlook; pre-implementation planning; providing a balanced implementation strategy; and maximising stakeholder involvement.

Acknowledging existing prior knowledge

Existing prior knowledge comprises the knowledge and skills that a person already possesses about a certain object or behaviour and is described as a lens through which people view and observe new information. In the implementation of this change in assessment regime, the critically important prior knowledge was that of the teachers, who had to bring about the desired change to the senior assessment process. For this assessment change, it was assumed by the MoE that the teachers involved had prior knowledge about how to effectively implement the new assessment processes. The MoE did not organise a comprehensive and widespread professional development programme to ensure that each teacher involved in the change fully understood how to plan and use internal assessment practices. As Hewson (1992) and Duke (2004) highlight, the success of any educational change is at risk unless the leaders of the change are certain that those charged with bringing about the change have the appropriate level of prior knowledge to be able to perform what will be required of them. It is, therefore, vital with any desired educational change that a check is made for the existence of the required prior knowledge; this serves as the starting point for understanding change (Carnall, 2007; Elmore, 2004; Levin, 2008).

It is informative to note that the Vanuatu Daily Post, (May 2, 2013) reported a limited understanding among Vanuatu's teachers about student assessment. Hence, it is important to highlight the potential lack of essential prior knowledge amongst those teachers required to implement the new senior student assessment procedures. In general if the required level of prior knowledge is not present, then those charged with the responsibility to manage a change must attend to providing professional learning before the change commences. What was learnt by the organisation was that there was a gap between the expected and the reality; the MoE should have checked this issue before the change in the English

medium senior secondary school assessment process was implemented. Thus, for future change to be effective, checking for the presence of relevant prior knowledge must be seen as an essential part of the process.

Building a positive outlook

Participants revealed that some of Vanuatu's past educational changes were considered to be not very successful and teachers provided examples of what they saw as poorly managed changes. Unfortunately in developing countries such as Vanuatu which have many independent projects funded by donor agencies on a seemingly 'ad-hoc' basis, teachers and education officials can be less optimistic about "yet another change". This was not an ideal starting point for the proposed remodelling of the English medium senior secondary assessment. These same feelings of professional uncertainty and hesitancy resurfaced with respect to the proposed changes to the senior secondary assessment procedures and, thereby, adversely Vanuatu teacher engagement. People bring their judgments about the effectiveness, or otherwise, of past experiences of change to any new change proposal (Branson, 2010; Levin, 2008). Any expectation of an automatic positive commitment and attitude towards a proposed change is a false assumption, and optimism needs to be instilled in those in the organisation (Carnall, 2007; Levin, 2008). It must be realised that the people, and the relationships they have with each other and towards the type of change being proposed, are influential components of a successful implementation of a change. For those managing organisational development or a new educational change, such as that in Vanuatu, it is far better to acknowledge past change deficiencies as opportunities to learn rather than times to forget, but this was not evident in this study. Thus, organisational learning included that the change management strategy must begin by overcoming any lingering negative views from past changes and instilling optimism about the new change proposal.

Pre-implementation planning

Obviously, the emphasis on pre-implementation planning attends to the practical aspects of the previous issue by highlighting the critical important step of strategically considering what has gone before and its influence on what needs to be done now, prior to implementing the change or putting things into practice. Fullan (2007) calls this part or stage the 'initiation of change'. In this case some members of the organisation in Vanuatu had no say in the adoption of the changed assessment system. Duke (2004) posits the two vital elements to consider in the pre-implementation plan are the clarity of the goal and the professional learning programme. People who are involved or affected by the change need to know the goal and be clear about the vision for the change; and they need to know that professional learning specific to the requirements of this change will be provided to ensure they can face the change with confidence (Bennett, Crawford, & Riches, 1992; Duke, 2004; Fullan, 2001; Kent, 1979). On reflection, organisational learning from this experience included consideration of who is involved in planning processes, and to carefully plan for all aspects of the work needed before the actual implementation of the change.

A balanced implementation strategy

The provision of a balanced implementation plan is yet another important part of any change process, and reflection on the plan can contribute to organisational learning during the development. Hargreaves and Shirley (2009) propose the "Fourth Way" for leading educational change, which includes the responsibility for considering the needs of all the main stakeholders in the proposed education change. It is the people who bring about the change; the strategic plan only guides them. But, for people to bring about a change, they, too, must undergo some form of change or transition. With respect to this study, if the transition of the teachers and principals involved in the new assessment regime was managed more carefully, the implementers of this change would have been more confident about the change and they would not have been as concerned and unsure as the study revealed them to be. According to Bridges (1995), such a transition is the "psychological process people go through to come to terms with the new situation or change" (p. 3). The change is not the

transition, but instead the transition is to do with the internal, the psychological, the feelings that affect the people involved in bringing about the change (Bridge, 1995; Hargreaves, 1994). Therefore, a balanced approach to the transition stage in a change is vital because it deals with people and it is the people who actually create the level of success achieved by the change. The time of transition is also a time when rich organisational learning can occur. What was learnt in the organisation in this study was that the transition for members of the organisation could be better acknowledged and managed. Every educational change plan needs to ensure it incorporates a balanced implementation strategy.

Stakeholder involvement

The involvement of stakeholders is vital in a change process (Fullan, 2005, 2007; Kent 1979). As previously described, the key stakeholders seemingly left out of the implementation plan were the parents and students. It was evident in the data that organisational learning occurred with respect to this, as members of all levels of the organisation mentioned their concern in this area. Information about the initial change, which was to do with the internal assessment component, was not passed on to parents. Fullan (2007) stresses that, “The closer the parent is to the education of the child, the greater the impact on child development and educational achievement” (p. 189). This implies that parental involvement is a must in an educational change. Students also need to know about the change and its processes as they will be directly affected by it (Fullan, 2007; Kent, 1979). Teacher participants revealed that the students’ knowledge about the assessment was dependent on the subject teachers. Additionally, the participants assumed that more capable and aware students may informally share their views with their parents, but, this will not occur in all families. The realisation of the effect of a lack of stakeholder involvement from members in the Vanuatu education system prompted reflection and learning, especially as participants considered the ongoing rollout of the change.

Change processes need to involve all stakeholders right from the start as argued by Fullan, (2007), Duke, (2004), Hargreaves and Shirley (2009), and Kent (1979). Thus, the authorities responsible for the Vanuatu educational changes and, in particular, this assessment change, learnt that they may need to improve the awareness amongst the stakeholders. In addition to the distribution of basic information to all stakeholders, what appears to be missing is an effective way for system leaders to listen and respond to any feedback in order to inform each stage of the change process. This is consistent with Gross (1979) finding that a feedback mechanism is very important in any change process to get views and beliefs of stakeholders.

Conclusion

This article has reported on a Vanuatu research project into the concept of organisational learning. The organisation was comprised of those involved in the Vanuatu education system. Here, organisational learning is seen as a knowledge productivity process in relation to a key organisational activity and includes searching for information, assimilating this information against current practices, developing new understandings from this assimilation, and thereby, creating new knowledge about how to improve the way in which this key activity is completed in future. For this particular research project, the key activity was the introduction of a nationalised English medium senior secondary school assessment process. Organisational learning was seen to occur at a number of levels of the organisation. The collective learning by the members of the organisation occurred during the pilot implementation of the assessment system, and this learning is able to contribute to the further roll out of the system.

The organisational learning relating to the development and implementation of the new assessment process highlights that both direct and indirect beneficial outcomes were gained from this educational change. Certainly, a direct beneficial outcome is that the Vanuatu educational system is well on the way towards having its own nationalised English medium senior secondary school assessment process. In addition, the indirect beneficial outcomes included professional learning opportunities for teachers, the establishment of an assessment policy, the evolving amalgamation of the French and English curriculums, the nationalisation of the senior secondary school certificate, and the increased and improved usage of internal assessment procedures amongst teachers. It is hoped that the acknowledgement of these additional indirect beneficial outcomes will encourage the Vanuatu

Ministry of Education, through its Examination and Assessment Unit, to continue to not only support these outcomes but also to facilitate similar outcomes on a far more regular basis.

On the other hand, this research also revealed that there were change management weaknesses in the means by which the Vanuatu MoE introduced its own nationalised English medium senior secondary school assessment process. Specifically, the development of some crucial parts of this change process appeared to be based more on assumptions than on facts. For example, the teachers as the primary implementers of the change were assumed to know more about the changes than they actually did. Similarly, once the change process commenced, it was assumed that the teachers had sufficient knowledge to complete the whole process but in fact, new questions and uncertainties inevitably surfaced as the process unfolded. The principals and MoE officials needed to be monitoring the implementation process and to provide continuous professional learning for the teachers as unanticipated issues and concerns arose.

However, the most important organisational learning from this research was the apparent absence of an educational change management framework to guide the implementation of the desired outcome. Hence, the new organisational learning knowledge produced by this research is the recommendation that the ongoing introduction strategy for the nationalisation of the Vanuatu English medium senior secondary school assessment process, as well all future educational change process, should adopt the change management framework that includes attention to

- acknowledging existing prior knowledge;
- building a positive outlook;
- completing pre-implementation planning;
- providing a balanced implementation strategy; and
- maximising stakeholder involvement.

Indeed, a commitment to this framework could benefit not only the current and future educational change management activities of the Vanuatu Ministry of Education but also other Ministries both within Vanuatu as well as in other nations.

References

- Andreadis, N. (2009). Learning and organisational effectiveness: A systems perspective. *Performance Improvement*, 48(1), 5–11. doi:10.1002/pfi.20043
- ARC. (2013). *Review of the Pacific Board for Educational Achievement (SPBEA)*. Melbourne, Vic, Australia: University of Melbourne.
- Argote, L., & Miron-Spekto, E. (2011). Organisational learning: From experience to knowledge. *Organisation Science*, 22(5), 1123–1137. doi:10.1287/orsc.1100.0621
- Argyris, C. (2004). *Reasons and rationalization: The limits of organisational knowledge*. Oxford, England: Oxford University Press.
- Bennett, N., Crawford, M., & Riches, C. (1992). Managing educational change: The centrality of values and meanings. In N. Bennett, M. Crawford, & C. Riches (Eds.), *Managing change in education: Individual and organisational perspectives* (pp. 1–15). London, England: Sage.
- Branson, C. M. (2009). Finding a philosophical framework in support of “presence”. *Leadership & Organisation Development Journal*, 30(3), 224–239. doi:10.1108/01437730910949517
- Branson, C. M. (2010). *Leading educational change wisely*. Rotterdam, The Netherlands: Sense.
- Bridges, W. (1995). *Managing transitions: Making the most of change*. London, England: Nicholas Brealey.
- Carnall, C. (2007). *Managing change in organisations* (5th ed.). London, England: Pearson Education.
- Crossan, M. M., & Berdrow, I. (2003). Organisational learning and strategic renewal. *Strategic Management Journal*, 24(11), 1087–1105. doi:10.1002/smj.342
- Crossley, M., Bray, M., Packer, S., & Sprague, T. (2011). Revisiting educational policies and priorities in Commonwealth small states. In R. Jones-Parry & A. Robertson (Eds.), *Commonwealth education partnerships 2011/2012* (pp. 15–18). London, England: Commonwealth Secretariat.

- Dixon, N. M. (1992). Organisational learning: A review of the literature with implications for HRD professionals. *Human Resource Development Quarterly*, 3(1), 29–49. doi:10.1002/hrdq.3920030105
- Drucker, P. (1999). *Management challenges for the 21st Century*. New York, NY: HarperCollins.
- Duke, D. (2004). *The challenges of educational change*. Boston, MA: Allyn and Bacon.
- Edwards, F. (2012). Learning communities for curriculum change: Key factors in an educational change process in New Zealand. *Professional Development in Education*, 38(1), 25–47. doi:10.1080/19415257.2011.592077
- Elmore, R. F. (2004). *School reform from the inside out: Policy, practice, and performance*. Cambridge, MA: Harvard Education Press.
- Fullan, M. (2001). *The new meaning of educational change* (3rd ed.). New York, NY: Teachers College Press.
- Fullan, M. (2005). *Leadership and sustainability: Systems thinkers in action*. Thousand Oaks, CA: Corwin Press.
- Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York, NY: Teachers College Press.
- Gross, N. (1979). Basic issues in the management of educational change efforts. In R. E. Herriott & N. Gross (Eds.), *The dynamics of planned educational change* (pp. 20–46). Berkeley, CA: McCutchan Publishing Corporation.
- Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*. New York, NY: Teachers College Press.
- Hargreaves, A., & Shirley, D. (2009). *The fourth way: The inspiring future for educational change*. Thousand Oaks, CA: Sage.
- Hewson, P. W. (1992). *Conceptual change in science teaching and teacher education*. Paper presented at a meeting on “Research and Curriculum Development in Science Teaching,” under the auspices of the National Center for Educational Research, Documentation, and Assessment, Ministry for Education and Science, Madrid, Spain. Retrieved from <http://www.learner.org/workshops/lala2/support/hewson.pdfh>
- Hiatt, J. (2003). *ADKAR: Simple, powerful, action oriented model for change*. Retrieved from <http://www.change-management-coach.com/adkar.html>
- Huber, G.P. (1991). Organisational learning: The contributing processes and the literatures. *Organisational Science*, 2(1), 88–115.
- Jamali, D., Khoury, G. & Sahyoun, H. (2006). From bureaucratic organisations to learning organisations: An evolutionary roadmap. *The Learning Organisation*, 13(4), 337–52. doi:10.1108/09696470610667724
- Kakai, L. C. (2010). *School-based assessment of practical work in science education in Solomon Islands* (Masters thesis). University of Waikato, Hamilton, New Zealand. Retrieved from <http://researchcommons.waikato.ac.nz/handle/10289/4303>
- Kang, S., Morris, S. S., & Snell, S. A. (2007). Relational archetypes, organisational learning, and value creation: Extending the human resource architecture. *Academy of Management Review*, 32(1), 236–256.
- Kekeye, J. L. (2013). *Investigating national curriculum implementation in Papua New Guinea* (Doctoral thesis). University of Waikato, Hamilton, New Zealand. Retrieved from <http://researchcommons.waikato.ac.nz/handle/10289/7747>
- Kent, J. (1979). The management of educational change efforts in school systems. In R. E. Herriott & N. Gross (Eds.), *The dynamics of planned educational change* (pp. 239–257). Berkeley, CA: McCutchan Publishing.
- Lee-Hang, D. (2011). *Fa'afatāmanu talafeagai mo lesona fa'asaienisi: O le tu'uualalo mo a'oga a faia'oga saienisi fa'aōliōli. A culturally appropriate formative assessment in science lessons: Implications for initial science teacher education* (Doctoral thesis). University of Waikato, Hamilton, New Zealand. Retrieved from <http://researchcommons.waikato.ac.nz/handle/10289/5046>
- Levin, B. (2008). *How to change 5000 schools: A practical and positive approach for leading change at every level*. Cambridge, MA: Harvard Education Press.
- Ministry of Education. (2006). *Vanuatu Education Sector Strategy 2007–2016*. Vanuatu: Author.
- Ministry of Education. (2009). *Vanuatu education road map*. Vanuatu: Author.

- Sade, D. (2009). Professional development for a new curriculum in a developing country: The example of technology education in the Solomon Islands (doctoral thesis). University of Waikato, Hamilton, New Zealand. Retrieved from <http://researchcommons.waikato.ac.nz/handle/10289/3290>
- SPBEA. (2014). *Secretariat of the Pacific Board for Educational Achievement*. Retrieved from <http://www.spbea.org.fj/Home/About-SPBEA.aspx>
- SPC. (2014). *Pate: The Pacific register of qualifications and standards*. Retrieved from <http://www.spbea.org.fj/getattachment/News-And-Gallery/News/PRQS-newsletter-2013/PATE13-April-2014.pdf.aspx>
- Storage and security of examination files a big concern: Minister (2013, May 2). *Vanuatu Daily Post*. Retrieved from <http://www.dailypost.vu/content/storage-and-securityexamination-files-big-concern-minister>
- Voronov, M. (2008). Toward a practice perspective on strategic organisational learning. *The Learning Organisation*, 15(2), 195–221. doi:10.1108/09696470810852348
- Wang, Y. L. & Ellinger, A. D. (2011). Organisational learning: Perception of external environment and innovation performance. *International Journal of Manpower*, 32(5/6), 512–536. doi:10.1108/01437721111158189
- Yukl, G. (2009). Leading organisational learning: Reflections on theory and research. *The Leadership Quarterly*, 20, 49–53. doi:10.1016/j.leaqua.2008.11.006