Cultures of Innovation: How Nanshan District Schools Engage in Organizational Learning to Create Innovative Schools
课题设计论证

Introduction

The most significant issue facing education organizations today is the ability to successfully develop, implement, manage, and measure the success of education innovations in primary and secondary schools to increase students' academic skills, global competencies, and 21st century skills. Indeed, there is a growing acceptance that

> our problems…are becoming differentiated to the extent that no singular expertise may suffice…[and] need the contributions of an intersubjective cadre of committed and deft practitioners who…communicate across disciplines to both find and solve problems. (Raelin, 2011, p. 139-140)

This reality is addressed by education organizations not only looking across traditional boundaries within their communities for solutions to education problems, but also across the world. As leaders, school principals often form teams of administrators, faculty, staff, and community members who must work across disciplinary lines to meet the changing needs of our interconnected world to successfully implement policies to provide a rigorous, relevant education that education innovations aim to create. However, as schools attempt to implement innovations to improve school management, teaching practices, and learning outcomes in line with both Chinese and global social and economic trends, they must also continue to meet traditional measures of school effectiveness. Whether internally developed or the product of cross-border educational borrowing and lending, these innovations are driven largely by the shared neoliberal "social imaginary" of globalization that economic and education policies are remedies to problems (Rizvi and Lingard, 2010, p. 36). This has led to a proliferation of the both top-down and bottom-up education innovations aimed at improving economic competitiveness and social relevance through improving school management, teaching, and learning practices for both the state and the individual (Harris and Jones, 2017).

Research Problem

The Nanshan Education Bureau and People's Government of Nanshan District have stated policies and inspection standards that encourage an integrated approach to innovating school management, teaching, and learning practices in public primary and secondary schools. However, schools typically adopt an add-on, siloed approach to satisfy requirements for demonstrating implementation and compliance. If we could better understand the challenges facing school leaders and the school-based teams to develop and implement education

innovations then we could bridge the gap between local policy formulation and schooling outcomes.

Justification for the Research Problem

School leaders are at the crux of mediating external requirements to meet the stated education innovation policy goals with the practices, attitudes, and needs of teachers and students within schools. To do so, they frequently adapt innovations to better fit their local context (Shaked and Schechter, 2017). One way in which principals achieve this is through creating school-based teams to integrate innovations into school management, teaching, and learning practices. Furthermore, given school principals' status as the second most important school-based factor for influencing student outcomes (Leithwood, Harris, and Hopkins, 2008), studying school leaders and the teams they create can help understand how district-level innovation policies ultimately impact their intended recipients.

Deficiencies in Evidence

Despite evidence that districts, cities, and states across the world are engaging in education innovation to increase economic competitiveness (Tan and Chua, 2016; Poon-McBreyer, 2017) and that principals are important drivers of change and creators of school culture (Leithwood, et. al., 2008; Bush, 2009) there is a gap in the literature of what sort of practices school leaders employ, including school culture formation, when developing and implementing education reforms in primary and secondary school in Mainland China.

Purpose Statement

Therefore, the purpose of this study is to collect survey and participant-observation data from primary and secondary school principals and school-based leadership teams in Mainland China about how they develop and implement local and school-based policies and practices aimed at innovating school management, teaching and learning practices in Nanshan District, Shenzhen.

Research Questions

Central Research Question

- How do primary and secondary school principals and school-based leadership teams in Mainland China engage in organizational learning to create a school culture that fosters innovation in school management, teaching, and learning?

Research Sub-Questions

- To what extent are education innovations apparent in the physical artefacts within local schools?
- To what extent are education innovations apparent in the espoused value systems of local schools?
- To what extent are education innovations apparent in the underlying assumptions and beliefs of local schools?
- How do public primary and secondary school principals and school-based leadership teams report engaging in organizational learning to create, communicate, disseminate, and make meaning of education innovations?

Theoretical Framework

Ostensibly, all education innovations are developed to improve schooling outcomes and competitiveness. To do so successfully develop and implement innovations, schools must become learning organizations. That is, any innovation necessarily challenges school leaders and school-based teams to learn to change their school management and teaching practices. Peter Senge, in his seminal work *The Fifth Discipline* (1990), states the only competitive advantage organizations have today is its ability to be a learning organization. Paradoxically, despite schools being organizations where learning takes place schools themselves are not necessarily learning organizations. Therefore, in order to capture the rich complexities inherent in change initiatives the theoretical framework I wish to employ is a hybrid of Edgard Schein's (2010) Levels of Organizational Culture Theory and Schwandt and Marquardt's (2000) Organizational Learning Systems Model.

Edgar Schein's (2010) Three Layers of Culture

Edgar Schein (2010) defines culture as

> a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (p. 18)

While an organization's beliefs, values, and norms manifest and are observable in the way people interact, the organizational philosophy of a school, the embedded skills in organizational members, the habits of thinking in an organization, linguistic paradigms, shared meanings, and formal rituals and celebrations, the concept of culture adds four important aspects (Schein, 2010). The concept of organizational culture implies structural stability; that is, it provides

predictability for what organizational members should do and how they should act (Schein, 2010). Any education innovation necessarily disrupts this predictability. Second, organizational culture is deep rooted and rarely directly observable or felt (Schein, 2010). Therefore, education innovation requires uprooting, or changing, some deeply held beliefs. Furthermore, organizational cultural is characterized by its breadth; once established, it affects all of a group's functioning (Schein, 2010). Considering education innovation, this implies creating an innovative school requires *all* members to adopt changes. Finally, organizational culture is patterned or integrated into the all of the beliefs, values, and norms of an organization; that is, culture is the glue that holds everything together (Schein, 2010). Applied to education innovation, this asserts a school's culture of innovation (or lack thereof) is woven into the very fabric of the school's existence.

Schein (2010) asserts there are three levels at which research can explore an organization's culture:

1. Artifacts. Artifacts are visual and physical organizational structures, processes, and items. In a school, this might include the building's physical design, orientation of classrooms, or presence of 3D printers and other technologies. While artifacts are easily observable, it is difficult to decipher their meaning.
2. Espoused Values. Espoused values are the spoken and written strategies, goals, and philosophies of an organization. In a school, this might include the mission statement, principal's vision, stated theories of learning, and signs or slogans that promote certain characteristics or values posted in hallways or the classroom. Espoused values serve as the stated justification for why a school does what it does.
3. Basic Underlying Assumptions. Basic underlying assumptions are the unconscious, taken for granted beliefs, perceptions, thoughts, and feelings. These basic underlying assumptions provide the ultimate source of values and actions. In schools, these are the deeply held beliefs about the purpose of education and what schooling should look like.

These three levels of culture are arranged in descending order, meaning artifacts have the least impact on school culture and basic underlying assumptions about the nature of education has the largest impact. Schein (2010) asserts that organizations face difficulty when trying to change or innovate because there is misalignment between these three layers of culture. By investigating the culture of local schools using Schein's (2010) three layers of culture, we can better understand how schools successfully develop and implement innovation initiatives while also identifying barriers to innovation.

Schwandt and Marquardt's (2000) Organizational Learning Systems Model (OLSM)

Schwandt and Marquardt's (2000) OLSM provides an appropriate foundation to use as a framework for these research questions because it addresses important aspects communication, disseminating and diffusing knowledge and information, taking action and reflecting, and using memory to make meaning (2000). These are all important aspects of fully integrating education

innovations into schooling practices. Furthermore, Schwandt and Marquardt's (2000) OLSM framework appreciates the interconnected, systems nature of organizational life, rebuffing tendencies to assume organizational learning and innovation occurs in a linear process or step-by-step fashion. At the same time, the model addresses the tension between schools needing to perform at a high level for stakeholders, most immediately students, but also for any country's social and economic development, while also needing to learn from practice to make schooling better to meet the changing nature of education's role in society and the workplace.

In addition to the Organizational Learning Systems Model matrix (see Figure 1), Schwandt and Marquardt (2000) offer a four-dimensional spectrum for analyzing how new knowledge is acquired, created, shared, and valued. Because these are all important aspects of successfully developing and implementing education innovations, this spectrum also provides a useful framework for understanding cultures of innovation in local schools. Within the dimensions, organizations are oriented towards performance or learning.

Figure 1. Organization Learning Systems Model (Schwandt and Marquardt, 2000).
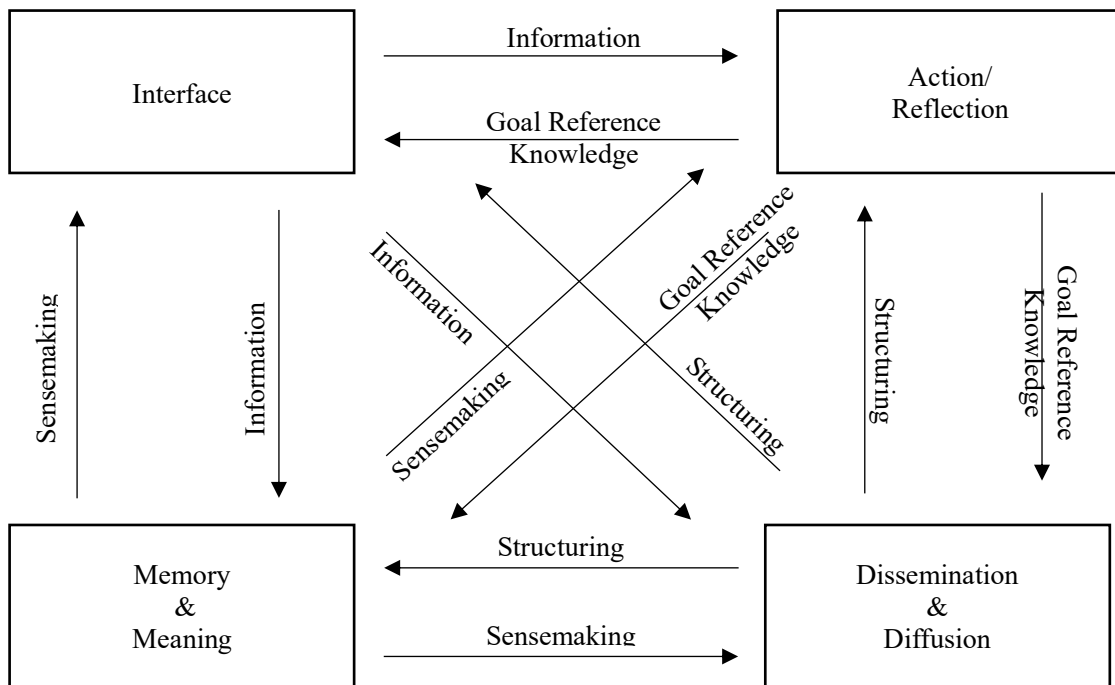
An organization with a performance orientation values reason, views new information as non-equivocal (i.e., there is only one "right" interpretation of what something means), has a closed structure (i.e., operates as a self-contained system without outside cooperation), and favors routine over experimentation (Schwandt and Marquardt, 2000). An organization with a learning orientation values inquiry, views new information as equivocal (i.e., there are multiple, often competing, "right" interpretations of what something means), has an open structure (i.e., is an open system that interacts with its environment), and favors experimentation over set routines

(Schwandt and Marquardt, 2000). Taken in concert with Schein's (2010) three layers of culture, we can begin to understand and answer the central research question, how do primary and secondary school principals and school-based leadership teams in Mainland China engage in organizational learning to create a school culture that fosters innovation in school management, teaching, and learning?

Research Methods

This is a qualitative case study that will employ the use of structured surveys, participant-observation, and document review conducted in three stages. First, local school principals and school-based leadership teams will be invited to complete a written structured survey, delivered electronically, using diagnostic questions from Schwandt and Marquardt (2000) organizational learning systems model to identify schools with a culture of innovation. Sample questions include:

1. How does your school predict the changes occurring in education and society?
2. How does your schools continuously track how other schools innovate to improve their quality of education?
3. How does your school set goals for researching and developing new and more effective programs, policies and procedures?
4. How does your school set clear goals for individual and organizational development?
5. How open is your school to reprioritizing its goals?
6. How does your school provide opportunities for teachers to develop their knowledge, skills, and capabilities?
7. How do the leaders support communication among all employees for thoughtful deliberation and input into a decision?
8. How are there established ways to share new operational processes and procedures throughout the school?
9. How does your school establish work groups, networks, and other collaborative arrangements to help the organization adapt and change?
10. How do teachers at this school effectively use the organizational structures (e.g., chain of command, personal networks) when sharing ideas and innovations?
11. How does your school use ideas and suggestions from its teachers and school community?
12. How much does your school believe that continuous change is necessary?
13. How much does your school has a strong culture of shared values that support individual and organizational development?
14. How do people in your school value its community's (i.e., parents) input and reward teachers for seeking it?
15. How does your school reward thoughtful risk-taking or embrace learning-from-failure?
16. How does your school reward collaboration, knowledge sharing, and innovation?

Following analysis of the survey results, a sample of low-, medium-, and high-performing schools with regards to a culture of innovation will be invited to participate in a half-day Rapid Deciphering Culture Assessment based on Edgar Schein's (2010) three layers of culture. This workshop involves the school leader and his/her school-based leadership team. The Rapid Deciphering Culture Assessment takes place in six steps:

1. Introduction to How to Think About Culture. Participants will be introduced to Schein's three layers of culture, artifacts, espoused values, and underlying assumptions and beliefs, and come to understand that their school's culture is a product of their own history.
2. Eliciting Descriptions of the Artifacts. Participants will describe their school's culture through its artifacts. These will be recorded for review by the research team later.
3. Identifying Espoused Values. Based on the artifacts shared, the workshop presenter facilitates discussion about what these artifacts mean, that is, what do they say about the school.
4. Identifying Shared Underlying Assumptions. Here, the workshop presented facilitates a discussion that analyzes what is incongruent or missing between the espoused values and the artifacts. The facilitator then assists the team in identifying their basic underlying assumptions in a brief phrases or sentences.
5. Identify Cultural Aids and Hindrances. The workshop presenter then works with the participants to identify what elements of their school's culture either aids or hinders creating an innovative school culture.
6. Decision on Next Steps. The workshop concludes with creating an action plan for the school to overcome hindrances and leverage cultural aids for creating a more innovative culture.

Conclusion

When completed, this research will contribute to the body of best practices for schools to replicate in Nanshan District while also identifying potential difficulties in creating a culture of innovation in local schools. The findings from this research will be shared with participants and local district leaders in a forum dedicated to cultures of innovation. Furthermore, the research team will seek publication in peer-reviewed academic journals as well as weekly education publication in China and abroad. Potential next steps stemming from this research include are strengthening networks of innovative schools to exchange more organizational learning and best practices while also providing a pathway for more schools to embody the innovative spirit of Nanshan District. It is imperative that local schools continue to create cultures of innovation to improve opportunities for local students in the future and create a more prosperous country able to compete economically and academically on a global scale.

Feasibility Analysis for Completing the Research
完成课题的可行性分析

Project Outcomes

This research project will produce several outcomes including an academic forum for reporting results, academic and journalistic publications for reporting the results, and a database of research backed best practices and recommendations for creating cultures of innovation in Nanshan District schools. In doing so, it will aid local leaders and policy makers with tools to better coordinate district level policy formulation with school-level implementation. This will also benefit local schools by creating clearer guidelines for creating innovative school cultures based on the current local context. Furthermore, this will create a network of innovative schools that support each other and provide guidance to schools struggling with education innovations. Furthermore, schools that are identified to have cultures of innovation can be used as models for other schools in the province, across the country, and throughout the world. Together, these outcomes will support the achievement of creating a world-class Nanshan education and ensuring smart, stable growth for the district, city, and country into the future.

Short-Term Outcomes

The first short-term outcome for this research will be the establishment of a sound theoretical framework for investigating cultures of innovation. This will be developed internally by the research team and then shared in public forums available to local school leaders and teachers through lecture series. This aim of these lectures is to raise awareness among school leaders about principles of organization learning and organizational culture while also raising interest in participating in the research.

Another short-term outcome will be the creation of a Cultures of Innovation Diagnostic Survey used to assess the schools' abilities to engage in organizational learning to drive innovation. This survey will be distributed electronically to local school and data will be compiled and analyzed by the researchers. This will provide the school district with a broad overview of schools' capacities to engage in organizational learning and create cultures of innovation.

Long-Term Outcomes

Once sufficient data has been collected and analyzed from the Cultures of Innovation Diagnostic Survey, teams from low-, medium-, and high-performing schools will be invited to participate in a Rapid Deciphering Culture Assessment workshop to collect more qualitative data on the layers of culture in a school that aid or hinder creating a culture of innovation. From this, the research will produce a practical list of factors for schools to adopt (or avoid) to create cultures of innovation based on the local context.

From the diagnostic survey and workshop, the research team will seek publication of its findings in academic journals (both domestic and international) and journalistic publications (both domestic and international). Furthermore, the research team will hold a forum to present its results to the wider education communication. This work can then inform future policy makers decisions on how to best promote cultures of innovation in schools in an efficient, cost-effective way that integrates practical research from the school level. Potential next steps stemming from this research include are strengthening networks of innovative schools to exchange more organizational learning and best practices while also providing a pathway for more schools to embody the innovative spirit of Nanshan District.

Academic Background of Researchers

The project is led by Mr. Joseph A. Strzempka, Male, American. Joseph is currently pursuing a doctoral degree in organizational leadership from Northeastern University in Boston, MA. He holds a master's degree in Global and International Education Policy from Drexel University in Philadelphia, PA. He also holds a bachelor's degree in Economics from the College of the Holy Cross in Worcester, MA. Joseph also holds a number of certificates, such as Leading for Understanding from Harvard Graduate School of Education, Designing and Implementing Performance Assessments from Stanford University, Project Based Learning Essentials from the Buck Institute of Education, and is a Certified Lead Evaluator for AdvancED, the world's largest school accreditation agency. He has been awarded a Shenzhen "Good Curriculum Design" project for work on developing curriculum for the United Nations Sustainable Development Goals and has received merit scholarships from the United Nations University for studying sustainable and inclusive in Melbourne, Australia.

Requirements for Completing the Project

Because the lead researcher is an English speaker, sufficient funds will need to be made available for translation of documents, meetings, forums, and workshops. Additionally, funds will need to be made available for research resources in both Chinese and English and attending meetings and conferences to better understand current knowledge and application of organizational learning and organizational culture theory in Chinese organizations, especially schools. Funds should be made available for hosting lectures at local community centers and schools and a forum for announcing results. This should include occasionally inviting outside domestic experts to contribute to forums. Finally, funds should be made available for publishing results in a report and travel to domestic conferences to report findings.

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