Research Methodology - Content Analysis

Communication is to send textual messages - verbal and non-verbal for co-ordinating, integrating, controlling and persuading purposes. Hence, textual messages are tools for persuading people's minds to accept ideas. Organizational behavior is to understand, predict and control others' behavior. Management is to manage resources within an organization for achieving organizational goals. These three principles – business communication, organization behavior and business management bear an inter-related relationship.

Textual messages are data for conducting content analysis during the process of grounded theory which helps us to induce a concept for generalization and future prediction. From the following quotation, we can realize that content analysis is a technique to enable researcher to study human behavior in an indirect way. It is analysis of written contents drawn from a certain kind of communication paper, like textbooks, essays and articles from newspapers. Through analyzing these written work of people, the researcher can:

- understand the behavior of people and organizational patterns
- infer attitudes, values and cultural patterns in different countries or organizations
- gain ideas of how organizations are perceived
- can see the trend of certain practices
- differentiate practices among certain groups of people

"Content analysis as a methodology is often used in conjunction with

other methods, in particular historical and ethnographical research.

It can be used in any context in which the researcher desires a means of systematizing and quantifying data. It is extremely valuable in analyzing observation and interview data."

(Fraenkel & Wallen, 2003 : 482)

Content analysis is a systematic and objective analysis of selected text characteristics. This includes counting the number, frequency of words, finding out the characteristics of themes, characters, building relationship among items, paragraphs, finally establishing meaningful concept. It is not simply a quantitative research method but also a qualitative one as the purpose of the writing is also reflected through the analysis.

In this research, the author counted the frequency of occurrence of words and phrases from ISO 9001 and 9004 standards to demonstrate the key elements embedded in a management system. (The former standards are used for ISO certification and the latter ones are used as benchmarking assessment criteria.)

However, when handling content analysis, researchers need to be aware of the sampling pattern and the levels of units. They should be classified systematically for analysis and comparison. That is to have headlines, sub-headlines, key words of ISO or QAI requirements for analyzing their location in the texts and to find out the meaning of the purposes of the requirements. Moreover, selecting representative sample of textual messages are also important. The considerations for selecting documents for analysis can be : the number of school types, the number of ISO certified schools, the number of consultants or technical committee members involved.

Researchers need to induce all the related data for deriving a theory instead of proving the validity of a theory. Last of all, they can deduce from literature to derive a certain structure or framework - establishing linkage and integration of collected and analyzed data in a research.

There are two levels of content analysis - describing fundamental inherent characteristics of messages and applying characteristics into related areas. The former one is objective as collected data are facts while the latter one is subjective as it is derived from researchers' point of view and personal life experience. When handling content analysis of this research, the researcher bears the research objectives in her mind - the impact of ISO on schools without making any assumptions on traditional variables, such as age, sex and rank. In fact, finding out conflicting or complementary ideas from analyzed texts can make the research more objective and convincing.

After describing the characteristics of content analysis of the above, its advantages can be summarized as follows:
- no people are involved
- no experiments are required
- cost is minimal
- texts found within a certain period of time in the past can reflect social phenomenon

However, researchers shall also realize that content analysis may have limitations in the availability of texts. Moreover, they may be subjective when interpreting the selected texts. As a result, they cannot demonstrate the cause and effect relationship within selected texts explicitly.

When interpreting or making inference of documents received, researches should follow the ideas of Babbie (2001). That is to:

- trace the person or authority composing the documents

- think about the reasons behind of having the existence of the documents

- find out the ways of acquiring the information contained in the documents

- investigate the magnitude of biases in the documents

- identify the main categories and concepts brought up by the writer

- internalize the theories that the documents have demonstrated
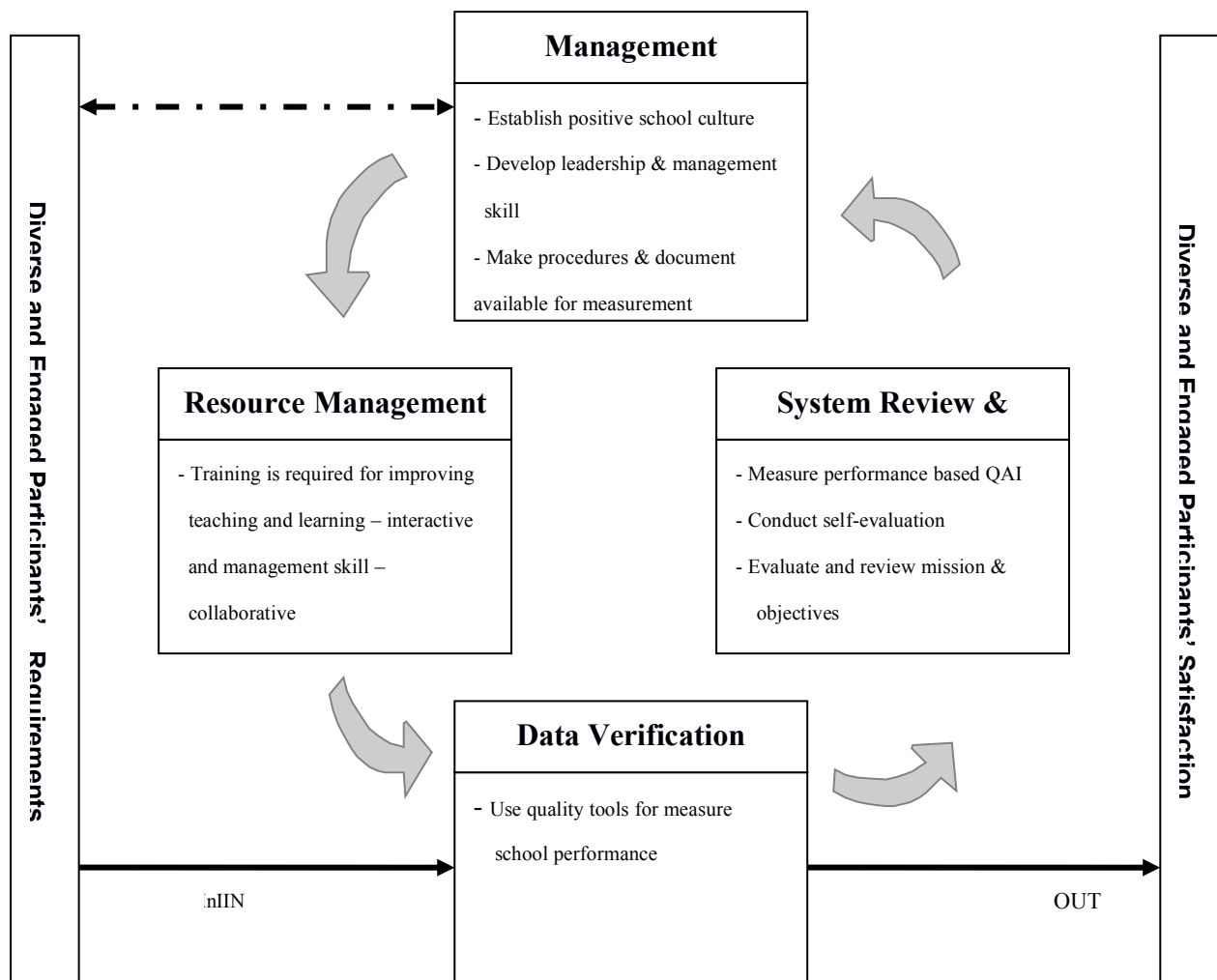
Research Summary

Literature Review (key areas)	Research Questions	Findings
Mok and Chan (2002) – marketization of school, managerialsim and professionalism are required Sallis (1993)- ISO standards can be modified into a flexible and easy-to-understand language for diversified context	**(1) What are the views of the ISO certified secondary school about adopting ISO system in school management?**	From interview & text search on interview transcripts: ISO can : - make school culture more open and participative - make schools apply quality tools and techniques in managing school performance (PDCA -plan, do, check, act, setting objectives, measuring performance and trend for improvement) - make schools realize the elements of management shall include : vision, leadership, teamwork, innovation, measurement, satisfaction,
Bolton (1992), Fullan (1995) and Macbeath (1998) - Conservatism is a common phenomenon in schools and is a difficulty for educational change and reform	**(2)What is the relationship among school culture, management principles and quality control?**	Questionnaire statistical results and "near" search on interview transcripts : - school culture is positive in ISO-certified schools - application of goal setting, quality

		responsibility and quality tools are found obvious in ISO –certified schools Content analysis of ISO standards - management shall pay attention to control, monitor, measure, and develop Open school culture can bring positive change in schools – applying quality management principles with quality control
Chan , Lee & Yeung (2003) Four groups of taxonomy for ISO certified organizations Undeveloped quality system (UQS) - Framed quality system (FQS) - Accommodate quality system (AQS) - Strategic quality system (SQS)	**(3)How can ISO 9000 quality management system be used to enhance school effectiveness and to promote improvement?**	From questionnaire statistical result and text research results: ISO-certified schools have established a framework of managing the activities of schools for reaching their desired goals – effectiveness. (Measuring the performance of planned goals is a requirement of ISO .) but school business result, curriculum development and teacher professional development still need to work on further - areas for improvement. (Taking action for enhancing organizational performance is a requirement of ISO.) .
Paton et al. (1996) Five management models for organizational development -collaborative -productive -innovative -efficient -balance Model of Success from Hale & Whitlam (1997) - direction - form - communication	(4)What are the key elements in a framework for school management?	From interview, case study and text search on papers on International Conference on ISO and TQM in 2001 : Framework of school management shall integrate professional educational management system with quality and general management principles. The basic elements are : - awareness of external environment - knowledge of educational trend and needs

- adaptation Walker and Dimmock (2000) - School Design Model (SDM) - needs assessment - policy building - teaching & learning model - curriculum design - professional development - a personal model integrate with technology, infrastructure and school evaluation		- awareness of unique context of school - knowledge of strategic management tools "Recommendations" shown in section 7.4 of chapter seven totally share the same ideas brought up by Walker and Dimmock (2000) on school Design Model (SDM) – participative management system, development plans in teaching & learning, teachers' involvement in defining performance indicators, complying with ISO, QAI & self assessment criteria

A System Approach for a Self-managed School

(based on the process approach of ISO 9001 : 2000)

Management

- Establish positive school culture

- Develop leadership & management

  skill

- Make procedures & document

available for measurement

Resource Management

- Training is required for improving

  teaching and learning – interactive

  and management skill –

  collaborative

System Review &

- Measure performance based QAI

- Conduct self-evaluation

- Evaluate and review mission &

  objectives

Data Verification

- Use quality tools for measure

  school performance

Diverse and Engaged Participants' Requirements

Diverse and Engaged Participants' Satisfaction

nIIN

OUT

       The above diagram shows a two-way communication with a chain effect should ISO 9001 : 2000 has been implemented effectively in schools. Management should understand clearly about the requirements of participants for providing effective services while participants should have channels to reflect their ideas back to management for improvement. Besides, management, resources, data verification and system review are all inter-related. No items can be stand alone for achieving effective organizational performance without the input of the other.