

Managing records and archives in a Hong Kong school: a case study

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Abstract

Purpose – This study aims to explore the principles and practices for managing records with the lens of functional analysis and knowledge management by using a case study that focuses on the experience of implementing records management at a public high school in Hong Kong.

Design/methodology/approach – A single case study is chosen as the research method for this paper. A series of qualitative interviews and documentary analysis were used to collect and triangulate the qualitative data.

Findings – The results show that the case school adopted a hybrid top-down and bottom-up approach to record management, facilitate decision-making and manage knowledge. The school adopted the taxonomy provided by the quality assurance framework as the functional classification in a digital archive in the records management system.

Practical implications – This study provides a set of taxonomy and a hybrid top-down and bottom-up approach to schools for ensuring that accurate information of all school activities is kept and can facilitate an effective and evidence-based, decision-making process.

Social implications – Identifying taxonomy and management practices for effective documentation in public schools can support planning, assist with organising the continuity of improvement plans and increase reporting and accountability to society.

Originality/value – This study offers a taxonomy and management approach to the literature of records management and the practices for promoting and improving records management in school.

Keywords Records management, Knowledge management, Functional analysis

Paper type Case study

Introduction

Organisations are producing greater amounts of information and consequently greater volumes of records, in both paper and electronic form. Thus they need to be able to effectively manage their information and knowledge records, to ensure that they are both accountable to the public and can develop sustainably. Organisations need to manage large amounts of records and know how to elicit knowledge for decision-making and problem solving. By exploring guiding principles on designing taxonomies, or classification systems, to manage records, and nurturing those record management practices, organisations will be able to manage their records and elicit knowledge from them.

Records management is the discipline that governs processes and controls used to create and manage the records of an organisation to support its operations. Records management facilitates control over the volume of records produced through the use of disposal schedules to determine when and how different types of records should be retained. Records management can be a process of codifying knowledge into documents that may support organisations in developing intellectual capital for sustainable development. The process of records management offers tangible benefits to organisations for filling legal requirements and transforming to learning organisation. Organisations must meet certain legal requirements when managing their records. Effective record management also helps



organisations in reducing storage costs. Managing records not only enables organisations to be accountable to their stakeholders but also facilitates organisational development by eliciting knowledge during the process of record classification and appraisal. Without effective records management, it is almost impossible to plan and administer any formal organisation effectively. Managing documents correctly in schools protects the interests of school leaders, teachers, students, parents and stakeholders (Crockett, 2016).

Schools, as public organisations, must fulfil certain legal requirements and adhere to record-keeping guidelines stipulated by their governments. The Education Bureau in Hong Kong has introduced a quality assurance (QA) policy for all public schools in Hong Kong in 1997. The QA policy requires the schools to conduct self-evaluation and submit part of their records for an external review conducted by the Education Bureau. Public schools are required to prepare their documents and records so that they can respond to a number of questions from the bureau. The Education Bureau's external review team gives three months' notice prior to conducting an inspection. Every school would be reviewed externally once every six years. The schools need to collect data and information for self-evaluation and strategic planning based on the development aims of those individual schools (Cheng, 2011, p. 214). The external school review team from the Education Bureau reviews school documents and holds discussions with stakeholders to understand the progress of the work of a school from different perspectives. Schools need to prepare documents before the external school review and submit them for scrutiny. Schools should demonstrate that they maintain distinct sets of documents that are their knowledge assets, and show that they are accountable through an evidently defined record management infrastructure.

As learning organisations, schools should be accountable to society through creating and retaining knowledge via records and archives. Through records management, school knowledge can be codified into documents and stored in the active records and digital archive (DA). The codified explicit knowledge can be stored in knowledge repositories, including e-mail and a DA, all of which are useful for efficiently managing the knowledge of an organisation. However, the majority of schools in Hong Kong do not make a point of managing their records and archives, other than to ensure that their record keeping meets regulatory requirements. If a records system is not managed correctly, it makes it more difficult for staff members to perform their duties. It can cost an organisation time, money and resources, and makes them vulnerable to security breaches, prosecution and negative publicity. If records are not properly looked after, then staff members must constantly look for specific documents. Exploring the concepts of files, records, record retention and appraisal criteria may help schools to improve records management.

For a school to improve and be accountable, it is critical to develop a way of classifying documents, so a taxonomy, along with appraisal criteria and a retention schedule for record and archive management to enable a school to conduct knowledge elicitation and knowledge validation. There are very few papers that discuss how schools should manage their records. This paper explores how schools can carry out effective record management practices to ensure that they are publicly accountable and can develop their own organisations. This study examines the records management model using a case study that focuses on the experience of implementing records management and knowledge management (KM) at school. The case study is a public secondary school in Hong Kong, which has adopted the International Standard Organization (ISO) standard and is implementing KM. The results show that a hybrid record management system involving both top-down and bottom-up approaches was adopted by the case study school to elicit knowledge for decision-making and managing knowledge.

Literature review

The literature review covers record and KM, and record classification in a school organisation. This covers the relationships between files and records and the classification of both administrative files and programme files. It also addresses the potential for using Lesson study for leveraging tacit knowledge and codifying it into explicit knowledge to enable a school to develop sustainably. The review also discusses the functional classification for constructing a taxonomy and proposes a hybrid model for record management to support effective knowledge elicitation.

Record management

Records management (RM) is defined as the:

The field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the process for capturing and maintaining evidence of and information about business process activities and transactions in the form of records (ISO, 2011, p. 11).

It provides an essential function and is a critical regime within all organisations that control records through their life cycle, including the process of record creation, organising, retrieval and retention, as well as record disposal or storage in archives (Crockett, 2016). The process of records management enables the codification of tacit knowledge into explicit knowledge, the development of explicit rules from implicit methodologies, the accumulation of a body of common knowledge and consistency in practices and the quality of the organisation. Records management is the practice of maintaining the records of an organisation from the time they are created until their eventual disposal. It is primarily concerned with records highlighting the activities of a specific organisation and what is retained is based on the value of those records. Successful criteria for effective records include close co-operation among staff members, the business process involved and the information technology applied (McLeod *et al.*, 2011).

A record is contextualised by its relations to the action, transaction, business process and function (Crockett, 2016). Records that share adequate similarities with their peers must be identified and authenticated. So documents that are similar in form, and formulae and format are collated with those that have been issued by the same source and produced under similar circumstance (Yeo, 2007, 2011). A record is a different concept to a file, which is an organised physical assembly of documents, usually held within a holder, that have been grouped together for current use or because they relate to same subject. A file is a basic unit within a records series (ICA, 2000, p. 14). Filing is a process by which documents of the same transaction are assembled together chronologically to form a file. A collection of files is organised to reflect the functions, activities and transactions of an organisation.

There are two types of records under the classification of the General Administrative Records Disposal Schedules (GARDS, 2013). (These are standard disposal schedules developed by the Hong Kong government.) They are administrative and programme records. Administrative records are those records created or received by departments during the course of day-to-day administrative activities that deal with finance, accommodation, procurement and supplies, establishment, human resources and other general administrative matters. These types of records are common to all departments and units. Programme records are records created and received by a department while carrying out the primary functions, activities or mission for which the department was established. For example, records relating to teaching, learning, student support and guidance in schools are programme records. The retention and disposal of these programme records are not

governed by the GARDS as the latter pertain only to records created and received in the course of common administrative activities of departments. Programme records are unique to each department, and for this reason, the GARDS do not apply to programme records.

Programme records may contain valuable information which can be contextualised into knowledge for decision-making and the development of the organisation. [Schellenberg \(1956\)](#) defined the primary value of records to an organisation as deriving from their normal course of business, which can be viewed as those which represent business operations and those which safeguard essential organisational interests. He categorised the secondary values of records as what use they may have in the future, where their importance is based on their evidential or informational value. The secondary value of records could be the knowledge leveraged from the information or evidence contained in the programme records to improve their organisation that is aligned with the vision and mission of that organisation.

Knowledge management

Records management can be viewed as part of KM, using information and knowledge as organisational resources to improve management processes to enhance organisational performance. KM in schools can be conceptualised as strategic management activities that support the school's leaders and teachers by collecting information or making use of the organisation's own knowledge resources to enable them to plan and carry out their teaching tasks effectively ([Hansen et al., 1999](#); [Zack, 1999](#); [Nonaka and Takeuchi, 1995](#); [Cheng, 2015](#)). KM focuses on organisation development and RM on accountability and trustworthiness ([Duranti and Xie, 2012](#)). The knowledge inside the records to be managed should be aligned with the mission and vision and the core business of the organisation. Explicit knowledge used to improve the organisation can be elicited from active records through text mining. Information and knowledge are codified into records as explicit knowledge. Staff members can retrieve actionable information, so data that can be used to make specific business decisions and to re-contextualise the explicit knowledge for decision-making and organisation development. These record management processes can help to capture, codify and diffuse knowledge in a school context. They can improve school planning and management, either through record management or in meetings where knowledge can be shared with all teachers. Effective RM ensures the authenticity of KM records, and provides contextual information for explicit knowledge to be meaningfully interpreted and applied. In other words, RM guarantees the quality and usability of records generated by the KM functions; therefore, RM is critical for the implementation of KM ([Duranti and Xie, 2012](#)).

Lesson study is a typical KM approach for managing teaching knowledge in schools. It involves teams of teachers working together to plan and research their lessons. Lesson study involves a Plan-Do-Check-Act (PDCA) process to improve teaching and learning by leveraging a teacher's tacit teaching knowledge and codifying it into explicit teaching knowledge for dissemination ([Cheng, 2015](#)). So teachers collaborate on planning lessons and tacit knowledge is leveraged, co-constructed and codified as explicit teaching knowledge in lesson plans and teaching materials. The "Do" part is when the teacher carries out the lesson, observed by peers. This enables the teacher to internalise explicit teaching knowledge to tacit teaching knowledge through teaching practice. The "Check" procedure enables the teachers together to review how the lesson plan was implemented. The "Check" process is a socialisation procedure where tacit teaching knowledge can be exchanged and constructed among teachers.

Codification of teaching knowledge is a typical strategy for schools to implement KM ([Cheng, 2015](#)). Records management, so the supervision and administration of digital or

paper records, uses a codification strategy to capture tacit knowledge in a written form. The codification strategy is a system-orientated approach for managing knowledge by codifying, storing and formally sharing knowledge (Choi and Lee, 2003). The codification for storing knowledge emphasises the capability for storing, sharing and using an organisation's explicitly documented knowledge. Individuals strive to explicitly encode their knowledge into records, which are a shared knowledge repository. A codification for knowledge storing and retrieval is usually implemented by building a school-based taxonomy in files or DAs (Andreeva and Kianto, 2012). A DA is an information technology-based system designed to support and enhance the process of knowledge creation, retrieval, storage, transfer and application within organisations (Alavi and Leidner, 2001). Although information technology is needed to capture the information about who knows what and to provide information systems to connect people, it is the people in the organisation who are also important. An effective records classification system ensures that each record is properly classified to ensure it can be located and used both for its original purpose and to ensure accountability over time. Taxonomy, the practice and science of classification, covers the laws and principles of systematic classification. To build the taxonomy for managing explicit knowledge, an approach for classifying the records should be discussed.

Record classification

Record classification is fundamental to all aspects of record management. It is the process by which records are identified and categorised. The classification process involves the logical structuring of an organisation's records into predetermined categories that serve its business requirements or core operation processes and represent the relationship between records, files and series. This means it should be conducted on the basis of analysis of organisational functions, not as an analysis of structures (Gunnlaugsdottir, 2012). The structure of an organisation is subject to change and if record management policies and practices are aligned with particular structural changes, then a realignment is needed or otherwise the system of managing records becomes obsolete. If records policies are based on an analysis of functions rather than structures, structural change does not have the same impact on measures designed to ensure the integrity of organisational records and the procedures used to manage them. This process of functional analysis and the consequential alignment of record management policy are widely accepted as the best practice in the record management literature.

Functional analysis is an approach to classification and the process by which a functionally based business classification scheme is developed. The term "functions" refers to the business activities carried out by the organisation to achieve its mission and vision. The core business of a school organisation is teaching and learning. Activities are the things it does to carry out its functions (Shepherd and Yeo, 2003). User experiences in storing and retrieval records should be studied to develop the taxonomy of the classification system (Foscarini, 2009; Guericio, 2003). Functional analysis should not be top-down, instead it should be bottom-up (Duranti, 1998). A strong and effective record management programme is one that conducted top-down and bottom-up analysis. Top-down analysis focuses on developing an adequate understanding of the organisation and bottom-up focuses on synthesising the lowest level of business actions for the purpose of identifying functions, activities or processes (Xie, 2013).

The effectiveness of any classification system depends on its flexibility, the integration of records schedules and harmony with the practices of records management. A bottom-up approach should be applied, as well as a top-down approach, to build taxonomy for the classification system (Shepherd and Yeo, 2003). Staff members should be involved in the

design process of the function classification scheme, as they are stakeholder of the organisation and users of records (Wang *et al.*, 2008). The argument for involving staff members in designing the classification system is that they are users of the taxonomy for records management and the design should address the user file retrieval and storing practices. Moreover, knowledge is actionable information that elicited from records and contextualised by users. Milne (2007) proposed a communal approach to develop taxonomy through providing a contextual background to the records. A discussion by staff members as a community can facilitate a social learning process and provide context to the information of the records for knowledge elicitation (Harris, 2009).

The current classification systems for school administrative records are generally framed by legal and policy requirements and driven by the categorisation of performance indicators of the QA framework. Meanwhile, school programme records contain essential information related to core activities: teaching and learning. Teachers primarily focus on classroom teaching and learning activities rather than administrative issues (Cheng, 2008). So it is not surprising that these teachers are involved with programme records management as opposed to school administrative records. If teachers are enabled to build their own set of taxonomy for the programme records, this can support knowledge sharing and elicitation. Previous studies have highlighted the limitations of implementing a top-down records management programme, where the organisations are lacking a classification system for records (Foscarini, 2009; Guericcio, 2003; Duranti, 1998; Xie, 2013). This study puts forward a hybrid approach to developing a functional classification for records management, and aims to investigate the taxonomy of classification and practices for managing records systems for codifying tacit knowledge in a school. As such, records management is part of the KM process using codification strategies to structure tacit knowledge into records and designing taxonomy to classify records.

Research methodology

The assumption of this study is that records management could be a process for mobilising knowledge to support the development of organisations and being accountable to the public and stakeholders. It is also an approach to leverage knowledge for the development of organisations through KM. The purpose of this study is to investigate records management systems used in a case study school that adopted ISO 9001 certification for managing its records. The case school is an aided secondary school in Hong Kong. About 85 per cent of public schools in Hong Kong are aided schools, so by selecting an aided school for this paper, we are able to represent the majority type of public school in Hong Kong. The research question of the study is: To what extent the functional analysis of records management can support schools to manage knowledge? A single case study (Yin, 1994) was chosen as the research method for this paper. Interviews and documentary analysis were used to collect and triangulate data. The Principal Investigator interviewed the vice principals and teachers in January 2017 to find out about whether the school's records management is user friendly and had effective management practices. The interview questions were: How did the school manage their records? And how did they make use of those records for management? The interviews were taped and then transcribed. Document analysis was conducted to analyse the ISO documents of the school. The narrative patterns identified in the transcripts were labelled with codes that linked the deployment of records management practices to support school improvement and the context of the narrative patterns in relation to the supporting factors for record management implementation. For the document review, the consistency of the ISO requirements and the school documents in

the school was verified. The practices identified in the documentary review were triangulated with the narrative patterns.

Findings and discussion

The school adopted the ISO 9001 standard to manage its records, and established a documented procedure to define the controls needed for the identification, storage, protection, retrieval, retention and disposal of records. A review of the records showed that the school classifies its records in two groups: administrative and programme records. Administrative records consist of those documents related to the management functions of the school, including the school budget, financial report, staff records and student profiles. They are also the records that auditors will check to fit in with legal requirements. Programme records are those related to the core activities, teaching and learning, of the school, such as school development plans, the annual school plans and school reports.

Adopting performance indicators of quality assurance framework as a classification system

The school has developed a DA to manage programme records and provide any necessary information for teachers. The system emphasises explicit knowledge, so knowledge can be readily articulated, codified, accessed and verbalised, over tacit knowledge and favours the externalisation process by establishing an electronic platform for knowledge codification, storage, retrieval, presentation, sharing and updating, and also other KM processes and activities. The development of the taxonomy of the DA was based on the framework of the performance indicators provided by the Education Bureau (Figure 1). It is a three-tier framework comprising domains, areas and performance indicators, which involve almost all of the core activities of a school. Under the “Management and Organisation” domain are “school management” and “professional leadership”; under the “Learning and Teaching” domain are “curriculum and assessment” and “student learning and teaching”; under the “Student Support and School Ethos” domain come “student support” and “partnership”; and under the “Student Performance” domain are “attitude and behaviour” and “participation and achievement”.

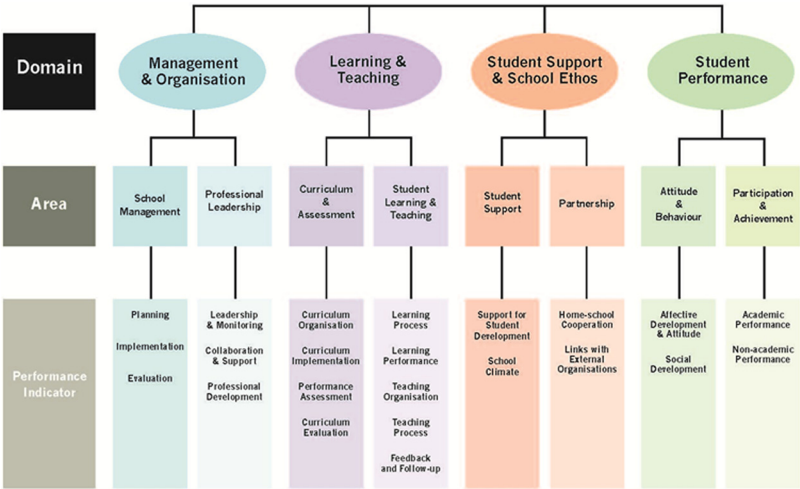


Figure 1.
Taxonomy for the
record management
system

The school has, of course, adopted functional classification to design the taxonomy of their DAs, because the records encompass the legal and policy requirements of a school. If a school is informed that the Education Bureau (EDB) will undertake an external review, then it can probably save time by setting up its classification scheme for documents based on the EDB's reporting format. An analysis of the interviews with teachers shows that the DA system has improved the efficiency of information retrieval and the administrative work of the teachers by actively providing them with the essential information:

The DA system is very convenient for us when we have to search information for reporting. (Teacher L)

The DA system has improved transparency at our school. I can see what is being copied and stored in other committees or departments. (Teacher M)

The school has invested heavily in financial and human resources to build the DA system, including the search for specialised knowledge and communication among its members. This search engine and the DA system help teachers to codify what they have learnt from their school activities and to make their knowledge accessible to the entire organisation. As the DA is operated at the same interface as the school intranet, the teachers are able to manage their documents using the archive. It is equipped with the functions of meta-data storing and document tagging and labelling. This facilitates the search for, and retrieval of, documents and a controlling file version to track the process for editing the documents. Evidence from the interviews shows that the records management in the DA can accumulate useful administrative information systematically for future retrieval, thus enhancing the effectiveness and efficiency of administrative works:

We scan the excellent, average, and relatively poorer compositions of the students and place them in a common area, a folder labelled "Department", so that colleagues can retrieve and utilise the material. However, we cannot deal with so many tasks, because in order to be "active", the material needs to be ordered, saved in a specific location, classified into different categories and filed together with the relevant teaching material. (Teacher L)

We encourage colleagues to save their material in the "Department" folder, where the departmental curriculum documents are stored. (Teacher CP)

We choose some top-grade compositions from each class and save them in the Digital Archive so that we can retrieve the material for future reference. (Teacher PC)

A hybrid approach to develop a functional classification

Despite the DA systematically accumulating useful administrative information for future retrieval, evidence from the interviews of vice principals shows that some teachers did not consider the provision of administrative and management documents by the DA helpful to their teaching tasks and supporting knowledge sharing when conducting Lesson study:

I think the DA is relatively static. It is much more designed to store information than to acquire and apply information. An effective record management system should be more dynamic and can process information, such as assessments for learning. But this is still not enough if the idea is to achieve the aim of improving both teaching and learning. Its effectiveness depends on how the teacher inputs the information. In other words, the DA itself needs to be integrated with the teacher's experience and the tasks they want to articulate to support the knowledge process of Lesson Study. (Vice Principal F)

In fact, teachers write many documents, but sometimes they write the documents for accountability, for example annual reports, development plans and so on. But is the knowledge transfer of such

documents helpful in itself to the school's development through managing knowledge in comparing with Lesson Study? I am not sure. A digital archive is a medium for everyone to use for the transmission of useful information, but I think it needs more balance. I wonder whether the documents themselves alone can fully articulate what is important or what is not important [...] (Vice Principal W)

The DA is designed to facilitate the process of knowledge retrieval, storage and utilisation in school level management with regarding the QA policy. The DA is useful for the efficient management of the knowledge of an organisation and usually used by the departments for storing or exchanging documents. However, the taxonomy of the DA is not a suitable system for knowledge classification of different subjects. Different subjects have different taxonomy for storing subject knowledge and pedagogical knowledge. Therefore some teachers and departments have created Google Drive accounts, preferring to store and share both their own documents and those from their department on Google Drive rather than in the DA:

The English Language and Chinese Language departments classify their files and records according to language tasks such as speaking, writing, listening, reading, language knowledge and skills. While other departments classify their records by subject topic. For example, The Department of Mathematics classifies its records under subject titles, such as algebra, number theory, and statistics. They upload, store and share their files on Google Drive. (Teacher M)

I have observed that now many colleagues have changed to using Google Drive. Google Drive is not the approach recommended by the school for information sharing, but some departments have a strong collaborative culture, they are conducting Lesson Study, so they mainly use this method for sharing. We also share documents on Google Drive, and actually it is a good platform that could be explored since it encourages the sharing of teaching experience in Lesson Study. (Vice Principal T)

The schools actually store many documents in DA for the purposes of accountability. But the documents are not necessarily helpful for teaching in comparing with the documents in Lesson Study. Could they be absolutely unhelpful for school development? I think this is the key issue that everyone needs to reconsider. (Vice Principal W)

The file management structure of the DA is based on the key performance indicators set by the government QA policy. It is quite static in terms of storing information, and not suitable for collaborative tasks involving document editing and sharing. Therefore, it is not surprising that many departments use Google Drive and applications as collaborative and interactive tools for sharing their departmental information and classroom-level teaching knowledge in their programme files. The findings of the interviews show that the taxonomy of the DA is driven by a top-down approach for administration and it is accountable to the QA policy rather than user driven. The ideas underlying the design of this ontology file structure for the school administration do not consider the departmental preferences in teaching and learning and their practices of knowledge sharing and file management. But the taxonomy, the Google Drive, is developed using a bottom-up approach. This finding echoes the study of [Wang et al. \(2008\)](#) that proposed involving staff members in the design process of the functional classification scheme. This finding also supports the studies of [Foscarini \(2009\)](#) and [Guericio \(2003\)](#) that user experiences in storing and retrieval records should be studied to develop the taxonomy of the classification system. The using of Google Drive echo to the studies of [Shepherd and Yeo \(2003\)](#) and [Duranti \(1998\)](#) that the organisation adopts a bottom-up approach rather than a purely top-down approach to build taxonomy for the record management system.

The case school has adopted a hybrid approach to manage its organisational records in the DA and departmental records in Google Drive. This hybrid approach concurs with [Xie's](#)

(2013) study that the top-down approach focuses on developing an adequate understanding of the organisation and the bottom-up approach on synthesising the lowest level of business actions for the purpose of identifying functions, activities or processes. The finding also supports the claims of Foscari (2009) and Guericio (2003) who suggested a hybrid approach for developing a functional classification for records management and aim to investigate the taxonomy of classification and practices for managing records systems for codifying tacit knowledge in a school.

Knowledge elicitation through record management

The case school promotes Lesson study to codify teacher pedagogical content knowledge (PCK) for reuse and dissemination. Teachers from the same department come together to study what difficulties the students face in learning about certain topics. The teachers can then plan a lesson that addresses those challenges and misconceptions. They can then implement and observe the lesson, evaluate the experience of the lesson in a group and seek ways to improve the lesson further. The tacit knowledge can then be codified into a lesson plan, stored and shared in Google Drive. There is evidence from the interviews that Lesson study helps them to codify knowledge for wider dissemination through Google Drive:

In the past, we would prepare the materials individually, but Lesson Study offers an opportunity for us to share our teaching knowledge by developing a lesson plan and teaching materials that can be stored in Google Drive. We have held meetings to improve the teaching materials for reuse in the following year. (Teacher M)

What impresses me about Lesson Study is the sharing of knowledge on how to prepare our students for the oral examination in the Department of Chinese Language. The teachers who have served as supervisors or invigilators for the oral test in the public examinations, share their experience of the assessment baselines of the oral examinations and suggest ways to obtain higher grades in the assessment. (Teacher L)

The new PCK was captured and codified into the new lesson plan and was shared among teachers. However, there is a discrepancy between the staff members' tacit knowledge and the stored organisational explicit knowledge. Teachers strive to explicitly encode their knowledge into the DA or Google Drive that can be shared using online drives and want to be able to retrieve the knowledge of other teachers who have added to the repository, at any time and from anywhere. However the codified knowledge will be de-contextualised and stored in the records and it needs people to re-contextualise it into tacit knowledge. A vice-principal also questioned what kind of knowledge should be captured and codified as documents in the records:

If data and information are just saved in documents, it will not be very easy to understand what the essence of their content is. When colleagues share many administrative tasks and keep them in the records, if they leave the schools, other staff members will not be able to fully pick up the tasks by retrieving those records. I don't think the DA can cope with this situation. However, if everyone shares their experiences and makes a joint effort to complete the common tasks in the records, the essence of many things will become clearer. So I quite agree that schools need to implement records management with a community approach and for this, a culture of co-ordination and sharing is very important. (Vice Principal W)

Records management helps to support the decision-making of teachers through elicited knowledge that promotes the efficiency and effectiveness of the teaching and learning. This finding is similar to Harris's (2008) assertion that a community can facilitate a social learning process and provide context to the information of the records for knowledge elicitation. Teaching requires a more unique and tailored approach, whereas a people-based

knowledge strategy is better suited to situations in which the intuition, adaptability and intellect of the knowledge carriers are needed ([Hansen et al., 1999](#)). The basic teaching knowledge is tacit and embodied in the teachers' minds and will be used as required in a people-based strategy for leveraging and sharing. Moreover, the subject knowledge to be taught in the classroom is explicitly codified in text books and the teaching material. Some of the school activities are based more on mass-produced standards and lack any distinguishing characteristics. However, the codification of knowledge strategy would be more suitable since the teaching processes and knowledge could be used over and over again. There is a mixture of tacit and explicit knowledge in school teaching. [Milne \(2007\)](#) proposed a community approach to develop taxonomy through providing contextual background to the records. As such the codified knowledge exists in the form of guidelines, handbooks, procedural manuals, agendas and minutes that capture the elements needed to satisfy the overall school management for providing students with a quality education ([Cheng et al., 2016](#)).

The school has developed a DA and adopted the framework of performance indicators as the taxonomy. However, the adoption of the taxonomy of the DA is driven by the performance indicators of the QA framework rather than by supporting the knowledge sharing for teaching and learning development. The teachers use Google Drive to share their documents with their own classification system. The teachers have adopted a hybrid approach to classification. They are able to codify their tacit knowledge through Lesson study and elicit knowledge through record management. These findings support the arguments for involving staff members in designing the classification system. They are users of the taxonomy for records management and the design should address the user file retrieval and storing practices. Moreover, knowledge is actionable information that is elicited from records and contextualised by users.

Conclusion and implications

Records management at the case school has a dual role. It ensures that the school is publicly accountable and fulfils legal and policy requirements, but it also is used for the school's development. As a public organisation, the school has established a DA, which uses a top-down taxonomy-driven approach based on the key performance indicators set by the government QA policy. The school could save time to retrieve and compile relevant documents once it is informed for the external review. Meanwhile, the teachers have introduced user-driven taxonomy by adopting the Google Drive application for co-editing share and store documents to manage knowledge for school development. This has resulted in the case school having a hybrid record management system, which involves a top-down taxonomy for organisation records and user-driven taxonomy for managing departmental information. The records management of the case school involves knowledge codification and elicitation processes to support decision-making and the development of teaching and learning at the school.

This kind of hybrid version could be adopted to design future record management systems. A DA could be added to the school system for the adequate storage, manipulation, utilisation and retrieval of records. When designing the system for a specific school, it is useful to include the opinions of the people who will be using it, to build an integrated classification system of records management, rather than having two separate systems. For facilitating knowledge sharing and elicitation, both active document and semi-active record management systems should be introduced. Schools should endeavour to periodically check the stored records via a community approach, by which a group of users is invited to test

and give advice to ensure proper management practices among the staff members responsible for handling records and knowledge elicitation. This research paper contributes to the field of record management by bringing KM into the study of record management in school education.

An effective school records management system not only improves management efficiency but also creates intellectual capital at the school for sustainable development. The hybrid version may work as a quick-fix solution, but may not be feasible for the long term. Further research should be conducted to identify how to balance the bottom-up and top-down approach in designing taxonomy for the hybrid version of the record management system.

References

- Alavi, M. and Leidner, D.E. (2001), "Review: knowledge management and knowledge management systems: conceptual foundations and research issues", *MIS Quarterly*, Vol. 25 No. 1, pp. 107-136.
- Andreeva, T. and Kianto, A. (2012), "Does knowledge management really matter? Linking knowledge management practices, competitiveness and economic performance", *Journal of Knowledge Management*, Vol. 16 No. 4, pp. 617-636.
- Cheng, E.C.K. (2008), "Management practices for promoting shared decision-making in school organization", *KEDI Journal of Educational Policy*, Vol. 5 No. 2, pp. 63-88.
- Cheng, E.C.K. (2011), "An examination of the predictive relationships of self-evaluation capacity and staff competency on strategic planning in Hong Kong aided secondary schools", *Educational Research for Policy and Practice*, Vol. 10 No. 3, pp. 211-223.
- Cheng, E.C.K. (2015), *Knowledge Management for School Education*, Springer, Singapore.
- Cheng, E.C.K., Wu, S.W. and Hu, J. (2016), "Knowledge management implementation in the school context: case studies on knowledge leadership, storytelling, and taxonomy", *Educational Research for Policy and Practice*, Vol. 16 No. 2, available at: <http://dx.doi.org/10.1007/s10671-016-9200-0> (accessed 29 November 2016).
- Choi, B. and Lee, H. (2003), "An empirical investigation of KM styles and their effect on corporate performance", *Information & Management*, Vol. 40 No. 5, pp. 403-417.
- Crockett, M. (2016), *The No-Nonsense Guide to Archives and Recordkeeping*, Facet, London.
- Duranti, L. (1998), *Diplomatics: New Uses for an Old Science*, SAA, ACA and the Scarecrow Press, London.
- Duranti, L. and Xie, S.L. (2012), "Knowledge management & records management – establishing relationships for common development", *Processings of the International Conference On Knowledge Management And Information Sharing, Barcelona*, pp. 247-250, available at: www.academia.edu/11328169/Knowledge_Management_and_Records_Management_Establishing_Relationships_for_Common_Development
- Foscarini, F. (2009), "Function-based records classification systems: an exploratory study of records management practices in central banks", Unpublished electronic thesis or dissertation, University of British Columbia, Vancouver.
- GARDS (2013), "General administrative records disposal schedules", available at: [www.grs.gov.hk/ws/english/engimages/GARDS_2015_05\(eng\).pdf](http://www.grs.gov.hk/ws/english/engimages/GARDS_2015_05(eng).pdf) (accessed 12 January 2017).
- Guericio, M. (2003), "Records classification and content management: old function and new requirements in the legislations and standards for electronic recordkeeping systems", *DLM Forum, Barcelona*, 6-8 May, INSAAR, available at: www.dlmforum.eu.org
- Gunlaugsdottir, J. (2012), "Information and records management: a precondition for a well-functioning quality management system", *Records Management Journal*, Vol. 22 No. 3, pp. 170-185.

- Hansen, M., Nohria, N. and Tierney, T. (1999), "What's your strategy for managing knowledge?", *Harvard Business Review*, Vol. 77 No. 2, pp. 106-116.
- Harris, S. (2009), "Managing records, making knowledge and good governance", *Records Management Journal*, Vol. 19 No. 1, pp. 16-25.
- International Council on Archival (ICA) (2000), *General International Standard Archival Description ISAD*, Second Edition, International Council on Archives, Ottawa.
- International Standard Organization (2011), "Information and documentation—management systems for records – fundamentals and vocabulary", *ISO 30300: 2011*, International Standard Organization, Geneva.
- Nonaka, I. and Takeuchi, H. (1995), *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, New York.
- McLeod, J., Childs, S. and Hardiman, R. (2011), "Accelerating positive change in electronic records management—headline findings from a major research project", *Archives and Manuscripts*, Vol. 39 No. 2, pp. 66-94.
- Milne, C. (2007), "Taxonomy development: assessing the merits of contextual classification", *Records Management Journal*, Vol. 17 No. 1, pp. 7-16.
- Schellenberg, T.R. (1956), *Modern Archives: Principles and Techniques*, University of Chicago Press, Chicago.
- Shepherd, E. and Yeo, G. (2003), *Managing Records: A Handbook of Principles*, Facet Publishing, London.
- Wang, Z., Chaudhry, A.S. and Khoo, C.S.G. (2008), "Using classification schemes and thesauri to build an organizational taxonomy for organizing content and aiding navigation", *Journal of Documentation*, Vol. 64 No. 6, pp. 842-876.
- Xie, S.L. (2013), "National strategy for digital records: comparing the approaches of Canada and China", *International Journal of Information Management*, Vol. 33, pp. 697-701.
- Yeo, G. (2007), "Concepts of record (1): evidence, information, and persistent representations", *American Archivist*, Vol. 70 No. 2, pp. 315-343.
- Yeo, G. (2011), "Rising to the level of a record? Some thoughts on records and documents", *Records Management Journal*, Vol. 21 No. 1, pp. 8-27.
- Yin, R.K. (1994), *Case Study Research: Design and Methods*, 2nd ed., Sage Publications, Newbury Park, CA.
- Zack, M.H. (1999), "Developing a knowledge strategy", *California Management Review*, Vol. 41 No. 3, pp. 25-45.

Further reading

- Xie, L. (2007), "Function-based records classification system: a comparative study", available at: www.armaedfoundation.org/pdfs/Sherry_Xie_Study.pdf (accessed 12 January 2017).

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