Technology Leadership: A Case in Hong Kong Kindergarten

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Abstract

This paper explores the elements of technology leadership practice in a technology-rich kindergarten in Hong Kong. The centre head of this technology-rich kindergarten, who keens on promoting technology use, has been selected for this study. The center head and three teachers voluntarily participated in an in-depth semi-structured interview, and observations have also been operated during class activities for further confirmation. Findings show that centre head applied strategies that empowered teachers to design creative interactive activities with digital devices for teaching and learning purposes, collaborate with parents through the use of social networking system, and use new technologies in team supporting system. Six key elements are revealed from this technology-rich kindergarten, they are network learning culture development, resources enrichment, leadership empowerment, vision settlement, target achievement, and team enhancement.

1. Introduction

Teaching and learning in early childhood education has changed in the digital age. Digitized interactive learning resources, such as the Ipad, Iphone, ebooks, handheld gaming devices and interactive white board, are having influences in young children's daily lives. However, some parents, grandparents, early childhood directors and teachers still have difficulties in adopting technologies effectively with young children while young children are easily use digital devices (Berson & Berson, [2] Lisenbee, [5]). Technology is here to stay in the daily lives of young children, in their home and school, therefore, make use of technologies in meaningful learning ways become important when they first go to school in early childhood settings. Thus, the early childhood centre heads and teachers play vital roles in enhancing the effective use of technologies and meaningful learning activities with young children in early childhood settings. As Wang's [7] research illuminates, school leaders need to raise teachers' ability regarding the adoption of technology by

showing interest and vision. Effective technology integration in schools relies on the leadership of school heads (Anderson & Dexter, [1]). Therefore, the leadership strategies in promoting technology usages in early childhood centers are essential. This paper aims to reveal the crucial leadership strategies for empowering technology use for learning in Hong Kong kindergarten. A case study was conducted in a technology-rich kindergarten which has started using and applied technologies for teaching and learning as a pioneer since the end of the last century. In addition, this kindergarten principal keeps upgrading and updating the new technologies for the sake of empowering teaching and learning all through these years.

2. Research methods

Qualitative research method has adopted to collect in-depth data in order to understand the strategies used by a kindergarten principal in Hong Kong. Semi-structured interview has been conducted with the kindergarten principal and three teachers who have experience in using learning technologies with young children in the same kindergarten. Interviews were done on the school site with support of video recording. Class observation was also obtained in an aged five kindergarten class. Rich data are collected and then analyzed by using thematic analysis approach (Braun & Clarke, [3]) in order to reveal the leadership strategies which applied by the kindergarten principal to empower teaching and learning with technologies in early childhood settings.

3. The kindergarten and principal

This Hong Kong kindergarten (HKK) is located in Hong Kong Island with over 30 years of history. There is 35 staff in the HKK. A kindergarten with more than 30 teaching staff is considered a relatively large kindergarten with resourceful income from high students' intake. The HKK has two sessions per day, with each session being of three hours duration. Figure 1 shows the typical setting of HKK classrooms; kindergarten classrooms are normally

equipped with study desks for groupings and setting of different learning corners.

The principal of the HKK, Ms. Chan, is an experienced kindergarten principal with over 25 years of teaching experience and over 15 years' administrative experience and she is now nearing retiring age. Ms. Chan obtained a Bachelor's degree, but not with a major in education.

Ms. Chan described herself as a person who enjoys learning new things and loves to share her experiences with her colleagues. She likes to keep good relationships with colleagues and she has worked with many teachers in the same kindergarten for over 10 years. Ms. Chan is well regarded by her colleagues according to teachers' interviews and informal interaction with teachers after school. There is a low staff turnover rate at the HKK and the long staff service rate indicates that she has many strong associations and good relationship with colleagues over a long period of time.

Ms. Chan positively agreed that it was beneficial for young children to learn with new technologies. She said that information and communication technologies (ICT) have great impact in early childhood education now and in the future, so teachers nowadays need to prepare for this change. She mentioned that kindergarten principals need to be a lead learner and act as a role model for teachers in terms of ICT utilization. Thus, she uses emails and e-blog to communicate with teachers and parents. She actively developed the school website for further communication with parents and prospective parents when the internet was not common in Hong Kong schools. She was one of the pioneer kindergarten principals to develop a school website for enhancing communication among people.

To prepare teachers for effective utilization of new technologies, Ms. Chan formed a core team to organize ICT related matters in kindergarten, and it becomes the school ICT committee in recent years. Ms. Chan also encouraged the ICT committee to design various ICT workshops and activities for teachers. In addition, she delegated position power to the ICT committee leader to reserve appropriate budget for ICT related events and construct school ICT policy and plans. She said that it was important for teachers to participate in school planning and activities, so they had ownership in making those new changes or new movements. Consequently, there was technical support, training support, resources support and instrument support for teachers in order to enhance ICT usage and development. Ms. Chan was also actively involved in using new technologies and purchased useful learning software for teachers and young children.
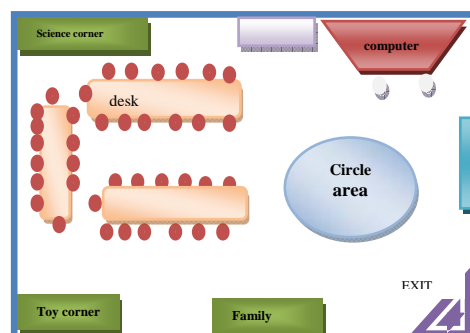

Figure 1. Typical classroom in HK classroom.

4. Leadership strategies

The kindergarten principal, Ms. Chan, stressed that there were several key elements in promoting ICT use in the kindergarten which she found effective. They are listed below:

4.1. Network learning culture development

As Haddad and Jurich [4] indicate the implementation of ICT facilitates the effective communication between school units and cultivates the interlinking of school networks. Ms. Chan initiated to develop the school internet system to enhance better social and professional networking between parents, teachers and other school communities. As such, the linking network by using technologies (internet and intranet) within the kindergarten gradually developed. Moreover, Ms. Chan strongly encourages her colleagues to learn how to utilize new technologies in a group, which comprises colleagues with some ICT skills and without ICT skills. Therefore, the learning culture can be developed within the groups by peer learning and group support.

4.2. Resource enrichment

To provide sufficient and appropriate technological facilities for teaching and learning purposes can foster the utilization of ICT in kindergartens. Teachers in HKK indicate that the provision of computer related facilities are sufficient and resourceful. In addition, their principal permits them to purchase suitable digital teaching and learning materials for classroom use simply seeking advance written notification from head-teachers. Apart from hardware and software facilities, Ms. Chan also prepare annual financial budget for school ICT use, therefore, certain amount of funding is assigned specifically for promoting learning technologies in kindergarten.

4.3. Leadership empowerment

A good leader is to make good influence to others and empower others to take up more responsibility. In the case of HKK, Ms. Chan empowers some of her colleagues to play leadership role in promoting new technologies in the kindergarten. For example, Ms. Chan sets up ICT committee to organize technology related matters, hire specialized computer teacher to support teaching and learning in HKK, encourage teachers to share with peer fellows in ICT training workshops, and so on. In these ways, leadership skills are being trained and developed in many teachers. The leadership density in this kindergarten becomes high, therefore, the opportunity to achieve successful technology learning experience becomes more.

4.4. Vision settlement

A clear and shared vision within an organization is vital for people to work towards same direction and goal (Kouze & Posner, 2010). In HKK, Ms. Chan points out the importance of sharing same vision with all teachers, especially when introducing the use of new technologies with young children, teachers need to learn how to use new technologies themselves, and teachers need to aware the benefits of using technologies.

4.5. Target achievement

As Ms. Chan keens on promoting ICT use in the kindergarten, she leads with small steps, therefore, it is easier and faster for teachers to meet the targets and make achievement. Therefore, teachers can be motivated to keep trying in their next step. Teachers mention that they are looking forward to collect the letter of appreciation from the kindergarten principal after each ICT workshop.

4.6. Team enhancement

The ICT core team is set up to better promote the utilization of new technologies in school teaching and learning. This team does focus the crucial works related to new learning technologies. From the planning of ICT policy to the daily school routine with using technologies, the ICT team focuses the enrichment and enhancement of technology use in kindergarten.

5. Discussion and Conclusion

The principal emphases that it is important to make good use of new technologies for teaching and learning with a whole school approach, which means teachers, children and parents actively utilize ICT in various school activities. Furthermore, Ms. Chan not only is a role model to use ICT herself in her school works, but also assign several head teachers to lead ICT use in different committees, therefore, the impact can be more significant. For example, the principal extended longer lunch hour for regular ICT learning workshops, hire specialized technology teacher and computer technician to strengthen technology uses, set up ICT core team to foster technology learning and development, design online platform for parents and public to reach updated school information and students progress, etc.

More importantly, Ms HKK allowed enough learning time for teachers to adopt new technologies gradually, she did not push or force all staff to use ICT in a short period, she understood that her staffs have different abilities; some may need more time to learn and people adopt new technologies in various pacing. She encourages her staffs to set goals related to technology learning for each year, and suggested team coaching system to achieve their learning goals. In conclusion, kindergarten principals, as school leaders, do have an influential impact in the school use of new technologies, their initiation, participation and commitment make a big different to their fellow teachers.

6. References

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