REVIEWING THE IMPLEMENTATION OF THE SMART SCHOOLS AND THE TRAINING OF *BESTARI* TEACHERS IN MALAYSIA

Balkisnah SHAHARUDDIN
Norhasni Z. ABIDDIN

Abstract

Smart Schools (Sekolah Bestari) and In cultured schools with Smart Technology (Pembestarian Sekolah) into institutions of excellence are two statements which discuss the direction of national education. This paper seeks to clarify the concept of Smart Schools and the in cultured schools with smart technology into institutions of excellence as a national agenda of utmost importance for the realization of Malaysia as a developed nation. This paper will outline the chronology of *Bestari* (Excellence) training which had been carried out in the period from 1998 to 2008. This article will also examine the concept of transfer of training specifically for the rationale and importance of *Bestari* training. Subsequent to that it will touch on some study papers on the training of *Bestari* teachers with the aim of assessing the extent of training transfer that had taken place amongst teachers who have attended the courses and related training – this is to highlight what have been done in *Bestari* training. It is hoped that, with this essay, the essentials of *Bestari* training from the aspects of support and hindrances can be identified and efforts for the improvements of training can be made from time to time.

Key words: Smart Schools, In Cultured Schools with Smart Technology, Bestari Training, Training Transfer

INTRODUCTION

World without borders or globalization is a phenomenon which pervades the world today. Unpredictable environmental changes invariably impact directly the existing systems changes and their implementation aimed at making them more competitive. One of the systems facing changes is the national education system.

The creation of Smart Schools is one direct resultant change of the phenomenon and becomes the nation's core agenda to bring the national education to a more competent level. The goal is to convert 300,000 primary and secondary school teachers into *Bestari* teachers by 2010, which requires the commitment of all parties. The success of the national education depends on the success of the human resource in the existing system changing its pedagogical processes and attachment to existing values and converting to those practices outlined in the objectives of Smart Schools.

LITERATURE REVIEW

In Cultured Schools with Smart Technology

The proclamation on 28 September 1992, that Malaysia becomes a developed nation in its own mould by 2020, forms the starting point for the development of a cluster of Smart Schools. For Malaysia to achieve the state of a being a developed nation by 2020, it would require the implementation of the formation of seven applied multi-media corridor. The seven multi-media applications are Government Electronics, Tele-health, Multi-purpose Smart Card, Techno-Entrepreneurship, Worldwide Manufacturing Network, Research and Development Group, and Smart Schools. 88 Schools were selected to run as Smart Schools from 1999 to 2002, of which 82 were existing institutions and 6 were new ones: SMK Putrajaya 1

(National Secondary School), SK Putrajaya 1 (National Primary School), SK Putrajaya 2 (National Primary School), SMK Seri Bintang Utara (National Secondary School), SK Seri Bintang Utara and SK Seri Bintang Selatan (National Primary School).

These schools are furnished with ICT equipment including 5,809 computer sets and 261 computer technicians. These facilities are utilized in the process of teaching and learning specifically for Malay Language, English Language, Science and Mathematics at the initial introductory stages of Smart Schools and from there on implemented in stages for other subjects.

The move to transform all schools (into Smart Schools) in Malaysia obviously requires much expenditure and a large budget. To accelerate this effort the Government has implemented the "In cultured Schools with Smart Technology" program as an agenda in the Education Development Master Plan (EDMP) 2006-2010. The "In cultured schools with Smart Technology" is a two-pronged strategy implemented by the Government in order to ensure the attainment of more Smart Schools. The reason for this is that the setting up of a *Bestari* School requires much expenditure. Using the process of: In cultured Schools with Smart Technology", the Government can optimize its expenditures on setting up a *Bestari* School by utilizing the existing infrastructure and making improvements to the infrastructure wherever necessary.

In summary, the "In cultured schools with Smart Technology" agenda is the Government's effort towards ensuring the success of Malaysia's education agenda which is to bring it at par with the world standard, thereby achieving the objective of transforming all schools in Malaysia into Smart Schools, which is one of the applications of the Multi-media Corridor.

Smart Schools Training

Training is a wide process, and clearly it can assist in the development of the human resource (Nadler, 1984). Training refers to the activities and experiences designed to develop skills, knowledge and behaviour on the instruction of the organization. Training is usually closely linked with responsibilities which are specific or linked with work and it is designed to develop skills (expertise), knowledge and behaviour on the instruction of the organization. Training is usually linked with work and it is designed to impart new skills or upgrade skills already existing in individuals, groups or organization. Increase in performance shows that there are changes which are measurable, in terms of knowledge, skills and attitude.

Smart Schools will not prevail with only the infrastructures and students attending them. Teachers, as the all-important agents, will be the ones who will actually translate the transformation theory to transformation reality. For that purpose, it is clearly very important that efforts must be made to develop the knowledge, skills and positive attitude of the teachers in order to ensure the success of the Schools Transformation as a joint effort. The Teachers Education Section, Ministry of Education has been assigned the responsibility to implement *Bestari* Training in the effort to supply education's work force which will help achieve the objectives of Smart Schools.

The initial stages of the implementing training started some time in 1998, giving priority to the existing 83 pioneer Smart Schools (81 secondary schools and 2 primary schools) and 6 newly-built ones namely, SMK Putrajaya 1 (National Secondary School), SK Putrajaya 1 (National Primary School), SK Putrajaya 2 (National Primary School), SMK Seri Bintang Utara (National Secondary School), SK Seri Bintang Utara and SK Seri Bintang Selatan (National Primary School). The effort to produce more Smart Schools were consolidated and further increased in a proposal to transform schools as gazette by the Ministry of Education with the formulation of the EDMP.

In an effort to build up and strengthen the national education's goal to achieve world standard, six strategic cores were defined in the EDMP. One of the ways to ensure the success of the strategic cores of the EDMP is "in cultured schools with Smart Technology". To ensure the implementation and success of these Smart Schools more teachers need to be trained so that all teachers can contribute towards achieving

the nation's educational direction and goals together. The Ministry of Education subsequently set aside RM288 million for the training of teachers specifically for the achievement of the "In cultured schools with Smart Technology" agenda. In line with this development, the responsibility to train teachers has been assigned to the Teachers Education Division in order to ensure that the teachers who undergo this training will become catalysts for the coordination of efforts and success of the national education.

Chronology of *Bestari* Training in Malaysia

At the early stages, the training for Smart Schools was conducted for teachers from the Pioneer Smart Schools Project who consisted of teachers of Malay Language, English Language, Mathematics and Science. The duration of this *Bestari* teachers training was 14 weeks and had been implemented beginning from 1998-2000. In the process of ensuring the success of this *Bestari* training, the in-service *Bestari* course (KDP) of 14 weeks was modified to become in-service course (KDP) of 12 weeks to satisfy teachers training requirements in Sarawak. This is because, in order to attend the 14-week KDP training program, the selected teachers are required to satisfy the condition that they are already confirmed in service, whereas many teachers in Sarawak at that period of time were not yet confirmed in service. To satisfy this condition, beginning in 2001- 2003, the *Bestari* training was continued for a duration of 12 weeks. Priority participants for this *Bestari* training were project teachers from project schools which had been supplied with computer laboratory facilities.

The training mode once again changed from 12 weeks to 8 weeks when the issue of teachers being away from their schools was raised. This 8-week mode was implemented during the whole of the 2004-2005 period. The *Bestari* training mode subsequently underwent another adjustment to accommodate the 5-day KDP *Bestari* when the (Education) ministry directed that 200,000 teachers had undergone the Bestari training by 2010. This 5-day *Bestari* training was held only during 2005. However, the need for more practical training brought about a training mode change to 4-week KDP *Bestari* training which involved the implementation of 2 weeks training at Institute Teachers Education (IPG) and two weeks at school, starting in 2007. This training was implemented for the first two cohorts in 2007.

Currently training for the 4-week *Bestari* KDP continues with changes from the aspect of methodology in which the teacher attends the course at IPG for three weeks followed by training at school for one week to execute and utilize the training undergone at IPG for implementation in the classroom. The training mode used here was the project-based learning approach, by which teachers are given exposure to the implementation of *Bestari* through the development of specific projects during their *Bestari* training exposure.

The Concept of Transfer of Training

The training received becomes meaningful to the individual who was trained as well as to the organization if a transfer of the training occurs. This is because the training transfer will enable those who have been trained to utilize the knowledge gained from the training and used further in their daily work at their work site on a continuous basis (Broad and Newstrom, 1992).

According to Broad and Newstrom (1992), when trainees leave the training environment and return to their work site, it is hoped that, not only are they expected to show changes in their attitude, motivation, skills and abilities but they should also have the desire to effect direct transfer of the skills that they had gained during their training.

Cascio (2003) and Noe (2002) describe training transfer as the utilization of knowledge, skills and behaviour in training at the work place. According to Cascio (2003), there are three types of training transfer namely, positive transfer which shows enhanced work performance, negative transfer which shows declined work performance and neutral transfer in which the performance remains the same. Elangovan and

Karakowsky (1999) on the other hand, are of the opinion that training transfer is positive when performance improvement of high percentage is shown as a result of the trainee applying at the real work place the knowledge and skills he had gained from the training he had undergone. Whereas Noe (2003) describes training transfer occurs when the trainees apply at the work place what they had learned during the course. Wills (1993) describes training transfer as the application of new knowledge and skills gained from the course to increase the effectiveness of the organization.

This article will examine the aspect of teachers as the catalysts for the success of "in cultured schools with Smart Technology", how far training received can be translated as permanent and continuous from the aspect of *Bestari* skills pedagogy and the increase in usage of ICT in the teaching and learning process. In other words, to what extent does a teacher who has undergone training is capable of executing positive training transfer in respect of the training he has received.

Training Transfer Rationale Significance

There are many studies made in the past which reveal millions of ringgit being spent each year in the field of training and adult education but it is estimated that only 10% show performance improvement at the work place (Merriam, 2005).

In another study by Bassi and Van Buren (1998), "American Society for Training and Development" estimate funds totaling 5.5 billion dollar had been set aside by organizations for the purpose of holding formal training but only 10% of training transfer occurs at the work place. Apart from that, one study conducted by Baldwin and Ford (1998) also how only 10% of the training budget given by the Australian government was reflected at the work place.

The importance of ensuring the success of the national education was obvious when the Prime Minister made an announcement in the 2007 Budget. The announcement gave a very clear picture of how the Government had taken a drastic action in carrying out an improvement to the education system in Malaysia. To upgrade the education system and training, the Government had provided RM33.4 billion which is 21% of the total amount of Budget 2007. From this amount RM6.7 billion is for primary education, RM6.2 billion for secondary education, RM10.4 billion for higher education and RM10.4 billion for training programs. A portion of the total budget amounting to RM782 million is set aside for the training of teachers while RM101 million is for the provision teachers housing in the rural areas. In addition a total of RM288 million is set aside for Schools Transformation programs involving the provision of computer sets for 1000 schools. The increase in funds for education and training especially for *Bestari* training surely would invites queries as to what the expected returns are to be made from such big investments.

The Malaysian Government's initiatives in setting aside funds amounting to RM782 million for teachers training, highlights to us the necessity to view very seriously the issue of training transfer implementation to ensure meaningful return for such high investment. The issue related with the effectiveness of Smart Schools training is relevant with the issue of the huge funding by the Government for the training of *Bestari* teachers. For this, efforts to identify and ensure the implementation of the practice and culture of *Bestari* which is proper and continuous in schools after training must be given serious attention. In other words, factors which are promoters and hindrances to the implementation and practice of *Bestari* in schools after training sessions must be given due attention.

In summary the process of training transfer can be a measurement of great importance for the management of human resource today. In the *Bestari* training context, in order to see the achievement of the objectives of Smart Schools, identifying the training transfer issue will enable us to measure as to how far the human resource which has been trained is ready to translate all the knowledge, skills and attitude gained through training.

Some Studies Connected With *Bestari* Training Transfer

Based on the studies of current researchers supervising the trainee teachers during their practicum or teaching practice and interviews with school teachers, most teachers continue to apply the practice of traditional pedagogy on the premise that the practice of *Bestari* pedagogy is time consuming, and are worried about not being able to complete the existing syllabi. This view is concurrent with the view of Faizah (1996) who studied the implementation of the practice of KBSM, which describes that generally the teacher gives priority to the contents of the syllabus which must be covered within the time allotted, teaching and training students for examinations inside or outside the school. This becomes the prime objective in the teaching and learning process.

Based on the findings of Faizah (1996) and the observations of researchers on current practices, will the changes in education of this point in time experience the same conditions that the practice of New Primary Schools Curriculum (KBSR) and Integrated Secondary Schools Curriculum (KBSM) had experienced before? This is in line with what had been stated by Fullen (1991) in discussing changes in education: "Change is every where, progress is not. The more things change, the more they remain the same." (p.345)

The study by Mahani Wahab (2006) regarding the use electronic resource materials amongst *Bestari* teachers in Selangor found that 64% of the respondents prefer to complete the syllabi using traditional methods. In the same study 72.4% of the respondents agree with the view that only a small number of students can be managed in the computer laboratories, making teaching in laboratories less effective.

Following this, the study by Azizah Jaafar (2006) found that the use of *Bestari* course (software) materials amongst teachers and students in Malaysia found them having different opinions. The result of her study shows that the course materials fail to interest the teachers, where the teachers still feel that the currently available course materials cannot match teaching and learning using the traditional methods. This finding clearly shows the teacher still firmly entrenched with the existing methods since the implementation of *Bestari* teaching and learning and only use the *Bestari* methods in small measures in the teaching and learning process. 75% of the respondents are still sticking to the old culture in school.

In the context of *Bestari* training as well, Azizah Mokhtar (2001) who examined the implementation strategy of teaching Malay Language in Smart Schools in Negeri Sembilan and their problems; she found that from the test t, she found there was not many differences of significance in the implementation of the strategy of teaching Malay Language amongst the teachers who have received *Bestari* training with those who not received *Bestari* training.

The study by Abd Rahim (1999) found that teaches who have undergone *Bestari* training were less creative and innovative. The majority of them only continue with the existing pattern of teaching and did not generate much mental development as hoped for in the implementation of Smart Schools. According to Abd Rahim, *Bestari* teachers should of necessity be more creative and innovative in developing their teaching because according to him, the creative powers which are high, enable a teaching approach to hasten the development of the mind, emotion, attitude and values of the students. This is in line with aspirations to make Smart Schools a reality as contained in the statement issued by the Smart School Task Force:

> *"Smart School is a learning institution that has been systematically reinvented in terms of teaching and learning practices and school management in order to prepare children for the information age."*

In addition to the above study, there is one study which had been conducted by Muhammad Sani Ibrahim (2001) regarding the management of the 14-week *Bestari* KDP training which looked at it from the view of the effectiveness of *Bestari* course amongst teachers of four main subjects namely teachers of

Malay Language, English Language, Science and Mathematics. This study is only limited to teachers in the pioneer *Bestari* project and had been conducted by way of a questionnaire designed by the respondents based on their requirements. One of the proposals in the study is the necessity for a qualitative study to assess the extent that teachers are prepared to change existing practices for the implementation of *Bestari* practices in the classroom. This study also recommends that a qualitative study is carried to obtain the real causes from inside the teachers as to why the hoped-for situations are not fully achieved.

Based on the above studies it is found that training undergone before can bring about changes that are expected. The new practices which are implemented after undergoing training have not achieved the level of implementation as expected and to continue at the work place as hoped for. The studies also show that change expected amongst the teachers to continue promoting and making a success of "In cultured Schools with Smart Technology" does not happen as expected. The situation which does not show this change is supported by the study conducted by Dalin (1978) and Morrison (1998) which states that change often cannot be implemented because of the desire to perpetuate the existing situation based on past practices which have been proven to be successful and had given proof and certainty.

Hence there are studies shows that change from the existing practices to new practices as something difficult, vague, risky and not giving incentives. This situation forms as a barrier to changing the existing practices.

Past studies also show the failure in change programs as the result of the understanding and preparedness of the implementation agents were not adequately considered. The studies found that the biggest barrier in training programs to implement curriculum requirements is the energy resource which is so unclear about the mission or change to be carried out. The effect from this vagueness on the individual who should be the agent for the change to be generated, making training meaningless and the individual concerned continues to be comfortable in the existing situation.

There are also voices which reject this change because they are worried as to how far Smart Schools can ensure the achievement of excellent students because the last to be evaluated is excellence in examinations. This worry arises because they are still tethered to the belief that the existing system is good enough. This situation forms the barrier to change. Observations on this situation is supported by a study conducted by Sharifah (2000) which states that change fails to achieve success because individuals involved in the change are still imprisoned by the old belief system and assumptions.

According to Nik Azis (1996) change is an important process in creating an educational institution of world standard. If change which happens is functioning and planned it will bring about positive effects on the organization. Studies find that the effectiveness of the teachers teaching depends a great deal on the effectiveness of the course which they undergo. Therefore there is an important effort to evaluate and determine the effectiveness of training process based on the teacher perspective to ensure that the meaning of effectives are related to the ministry needs.

To avoid the same experience repeating, it would be wise to monitor the change being implemented from the beginning. As a minimum initial studies should be carried out on whichever component from the chain of change to be produced.

As an example one of the main components of Smart Schools is the readiness of the teachers who are going to implement the change in the classroom. This change depends a great deal on the readiness of the teachers to accept and implement the practices. This is also the view of Ellsworth (2000) who states that change inside education depends on what the teacher implements and thinks. Based on Ellsworth's view above it is therefore fitting for us to see how far the practices currently happening in schools are line with educational change in "blueprint" *Bestari* project schools. All these will help ensure the desire to transform schools by 2010 is achieved or otherwise.

Success or failure the Smart Schools vision being implemented depends fully on the teachers who are going to the core support to its implementation. As such education and teachers training need to move a

step forward to prepare the teachers who are going to become the main players in the implementation of *Bestari* teaching and learning. The readiness of teachers to withdraw from the normal practices for the emplacement of *Bestari* practices is of utmost importance to ensure the direction and nation's educational change is attained.

Management of Training Transfer

In managing the issue of training transfer, training models introduced by Elangovan and Karakowsky (1999), Thayer and Teachout (1995), Broad and Newstrom (1992) can be taken as guide for the management of the issue of *Bestari* training transfer. Amongst the main factors which influence training transfer based on the above dissertations are (1) Factor of Individuals whose ability, motivation and personalities are suitable for the field of related training; (2) Factor of Work Environment or Organisational Culture; (3) Factor of Organisational or Management Support, and (4) Factor of Training Design. These papers can form the basis and guidance in identification of actual factors which influence *Bestari* training transfer.

To ensure what actual factors influence *Bestari* training transfer a detailed study need to be carried out so that the issue of training transfer amongst teachers can be managed. The study involving interviews with teachers who are involved directly in training will enable the researcher to obtain actual information from inside the individual as to the real cause for the lack of training transfer which is real in the implementation after the training. Hence study on influence and obstacle factors towards transfer of training in teachers perspective are relevance to overcome thus issues.

SUMMARY AND CONCLUSION

Smart Schools and "In cultured Schools with Smart Technology" is one effort initiated by the Ministry of Education, Malaysia towards the enhancement of education in Malaysia to a more competent level. This initiative is in line with the desire to make Malaysia a centre of education excellence at par with world standard, simultaneously accommodating the challenge of Vision 2020 which stipulates Smart Schools as one of the seven applied multi-media applications. To ensure the successful implementation of Smart Schools and "In cultured Schools with Smart Technology" the effort to prepare teachers as catalysts cannot be ignored any more. This is because they are the core pillar of the nation's education system thereby acting as agents of change for the nation. In order to ensure the successful realization of the requirements of Smart Schools and in cultured schools with Smart Technology", teachers must be prepared to raise their own personal state of capacity and capability to the level of excellence (*Bestari*). For this the provision of training of *Bestari* teachers must be made a success as a starting point for produce catalysts for the successful achievement of Smart Schools and In cultured Schools with Smart Technology. The process of training transfer which is evident and continuous is very important and will ensure that it becomes a national agenda for implementation on continuous basis. This effort must be managed together and not thrust upon the shoulders of the teachers alone. Support from management and the organization will strengthen further the effort and seriousness of teachers to make *Bestari* a reality.

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