PERCEPTIONS OF SELECTED TEACHERS ON THEIR FUTURE ROLES WITHIN THE SMART SCHOOL CONCEPT IN MALAYSIA

A project paper submitted to the Graduate School in partial fulfillment of the requirements for the degree Master of Science (Management), Universiti Utara Malaysia

BY

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ABSTRAK

Menjelang Januari 1999, sebilangan Sekolah Bestari akan muncul di seluruh Malaysia. Dalam usaha menyediakan tapak asas untuk revolusi pendidikan ini, kajian ini bertujuan mengenalpasti pandangan guru-guru terpilih terhadap peranan-peranan, tanggungjawab serta pengetahuan, kemahiran dan sikap mereka dalam lingkungan suasana Sekolah Bestari. Maklumat-maklumat penting berasaskan data-data yang tersebut ini telah diperolehi dalam usaha untuk menentukan latihan yang sewajarnya untuk guru-guru bestari.

Ulasan literatur telah menunjukkan bahawa pendekatan berpusat-pelajar dalam suatu bilik darjah elektronik yang menyokong suatu kurikulum bersepadu dan berorientasi penyelesaian-masalah akan menambah-tokok kualiti keseluruhan proses pembelajaran-pengajaran. Juga dilaporkan bahawa pelajar-pelajar yang dididik dalam corak revolusi ini memang menunjukkan kebolehan kognitif yang lebih tinggi, kebolehan dalam penyelesaian masalah secara kreatif dan inovatif, dan adalah lebih bersedia untuk bekerja di dalam masyarakat yang berinformatif dan berteknologi tinggi dalam abad ke-21.

Keputusan menunjukkan bahawa responden-responden secara amnya bersikap optimistik dan menyokong perubahan-perubahan yang akan berlaku terhadap peranan mereka sebagai guru-guru bestari. Walaubagaimana pun guru-guru ini merasa ragu terhadap kebolehan mereka dalam teknologi maklumat dan kebolehan untuk menerima cabaran-cabaran yang baru ini. Ramai juga tidak mengetahui sepenuhnya tentang loncatan yang penting ini. Maka adalah jelasnya bahawa latihan yang paling utama ialah dalam membangunkan literasi teknologi maklumat mereka secukup-cukupnya supaya setanding dengan suasana Sekolah Bestari. Syor-syor yang sewajarnya telah dicadangkan kepada pihak-pihak yang terlibat dalam projek ini pada akhir laporan ini.

ABSTRACT

In just a matter of 14 months more (in January, 1999), Malaysians shall soon see the emergence of a number of Smart School pilot sites nationwide. In an effort to help prepare the groundwork for this educational revolution, this pioneering descriptive study ventured to identify and establish how selected teachers perceived their potential roles, responsibilities as well as the attendant knowledge, skills, and attitudes within the smart school environment. Vital pieces of information on the basis of such data were sought in an attempt to determine crucial and immediate training needs for the 'smart teachers'.

The literature perused pointed out that the pupil-centered approach in tandem with a fully wired (electronic) classroom that supports an integrated, problem-solving-oriented curriculum has enhanced the overall quality of the teaching-learning process. It was reported that pupils educated in this revolutionary fashion do develop higher cognitive abilities, creative and innovative problem-solving abilities, and are prepared to work in the highly-informatized, knowledge-based society of the 21st century.

Results showed that the subjects generally perceived the impending changes in their roles as Smart School teachers favorably. Despite the positive and optimistic outlook, the respondents strongly doubt their Information Technology literacy and/or capabilities to take on the new challenge. Many also expressed that they are 'in the dark' as far as this very important leapfrogging step is concerned. It becomes readily apparent then that the major training required should build their IT-competencies adequately vis-a-vis the smart classroom environment. Pertinent recommendations to the major parties in this project are then offered at the concluding part of this study.

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TABLE OF CONTENTS

CHAPTER 4: RESEARCH FINDINGS

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

LIST OF TABLES AND FIGURE

Sekolah Siswazah
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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Malaysia's quest to find its rightful place in the community of developed nations by the early part of the 21st century is best summed up in Vision 2020. This Vision calls for the establishment of a resilient and robust economy founded on sustained, productivity-driven growth, and which can only be realized with an adequate pool of technologically literate, critical thinking work force prepared to participate fully in the global economy of the next millennium. A major strategy for this massive transformation will be the Information Technology-driven Smart Schools. This is one of the seven flagship applications that will evolve as part of Malaysia's Multimedia Super Corridor (MSC) project.

Effective implementation of Smart Schools will require funding for the building of new schools with all its multimedia infrastructure, upgrading

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BIBLIOGRAPHY

Angelo, T. A. & Cross, K. P. **(1993). Classroom Assessment Techniques: A Handbook for College teachers.** San Francisco: Jossey-Bass Publishers.

Bollen, **(1989). Structural Equation with Latent Variables. New** York: John Wiley & Sons.

Brown, R. (1991). **School of Thought.** San Francisco: Jossey-Bass.

Bruce, B. C. (1991). Roles for Computers in Teaching the English Language Arts, in Jensen, J., Flood, J., Lapp, D., and Squire, J (Eds.) **Handbook of Research on Teaching the English Language Art.** New York: McMillan.

Chin, V. K., (October 4, 1996). Sow SMART seeds in Schools for Future Harvest. **Star.**

Commonwealth Schools Commission, (1983). **Teaching, Learning and Computers.** Australia: The Commonwealth Schools Commission.

Cronbach, L. J., and Meehl, P. E. (1955). Construct Validity in Psychological Tests. **Psychological Bulletine.** Vol. 52, pp 281-302.

Darling-Hammond, L. (1993). Reframing the School Reform Agenda: Developing Capacity for School Transformation. **Kappan, 74,** pp 752-761.

Department of Education and Science (1980). A view of the curriculum" in Victor Lee (1983). **Resources and Setting.** Great Britain: The Open University Press.

Downey, M., Kelly A.V. (1986). **Theory and Practice of Education-An Introduction.** London: Harper and Rows Publishers.

Eriksson, A. (1970). Pedagogisk-Psykologiska Problem-Lararenkater om Kreativitet I Skolan in Fryer, M. (1996). **Creative Teaching and Learning.** London: Paul Chapman Publishing Ltd.

Fiske, E. B., Reed, S. And Sauter, R. C. (1992), **Smart Schools, Smart Kids. New** York: Simon & Schuster.

Fryer, M. (1996). **Creative Teaching and learning.** London: Paul Chapman Publishing Ltd.

Fong, C. 0. (April 26, 1997). Chance to be Smart School. **New Straits Times.**

Hoyle, E. (1969). **The Role of the Teacher.** London: Routledge and Kegan Paul.

Ismail Zain. (June **5, 1997). Utusan Malaysia.**

Jockey, D. (July 15, 1997). Canadian School With a Vision, **New Straits Times.**

Kalimuthu, A., **(1975). A Study of the Teacher's Role and Role-conflicts as Perceived by Pupils, Teachers and Principals in Selected Secondary School in the State of Malacca.** Unpublished Master Thesis, University of Malaya.

Kemp, J. F., Gary, R. Morrison, Ross, **S.** M. (1994). **Designing Effective Instruction.** New York: Macmillan College Publishing Company.

Kit Siang, L. (February 5, 1997). Union: Start Smart School **Now. Star.**

Makau, B. M. (1990). **Computers in Kenya's Secondary Schools.** Case study of an Innovation in Education. IDRC, Canada.

Marshall T. H. (1951). Social Selection i a Welfare State. **Economy & Society.** Vol. 2, pp. 291-294.

Miller, L. J. (1991). **Perception of Alabama Middle School Teacher and Principals Regarding the Principal's Instructional Leadership Role and Competencies as Developed by Effective School Studies.** Unpublished Doctoral Dissertation. The University of Alabama.

Najib, A. R., (August 6, 1996). Smart School Concept to be Implemented in Stages. New **Straits Times.**

Najib, A. R., (April 2, 1997). Smart Schools to have Local Networking. **Star.**

Najib, A. R., (May 28, 1997). Seri Puteri Chosen as Country's First Smart School. New **Straits Times.**

Norzahizan, |, (June 16, 1997). Sekolah Bestari. **Utusan Malaysia.**

Ottaway, **(1957). Education and Society: An Introduction to the Sociology of Education.** London: Routledge and Paul Kegan.

Parkay, F. W. And Stanford, B. H. (1995). **Becoming a Teacher.** Massachusetts: Allyn and Bacon.

Perkins, D. **(1992). Smart Schools: From Training, Memories to Educating Minds. New** York: The Face Press.

Saurian, W. A. (July 16, 1997), Evaluating the 'Smart' Students. New **Straits Times,**

Sekaran, U. (1992). **Research Methods for Business: A Skill-Building Approach.** Canada: John Wiley & Sons Inc.

Shane, H. G. (1987), Teaching and Learning in A Microelectronics Age. Bloomington, Indiana: **Phi Delta Kappan.** Educational Foundation.

Shelly, Gary, B., Cashman, Thomas, J., Adamski, Judy, and Adamski, Joseph, J, (1991). **System Analysis and Design.** Boston, MA, USA: Boyd & Fraser Publishing Company

Shor, |. (1986). **Culture Wars: School and Society in the Conservative Restoration 1969-** 1984. Boston: Routledge and Kegan Paul.

Siowck Lee, G. (October 29, 1996). Information Technology and Education. **Star.**

Smart School Task Force, **(1997). Smart Schools in Malaysia: A Quantum leap.** Kuala Lumpur: Ministry of Education.

Smart School Task Force, **(1997). Smart Schools in Malaysia: The Way to the Future.** Kuala Lumpur: Ministry of Education.

Smart School Task Force, **(1997). The Malaysia Smart Schools: A Conceptual Blueprint.** Kuala Lumpur: Ministry of Education.

Smith, G,. (1997). Smart Schools to help create Competitive edge. New Sunday Times, July 6, 1997.

Stallard, C. K. (1991), **Implementing Smart School Technology at the Secondary level** ((Paper) Presented at the Annual Convention of the National School Boards Association.

Steers, R. M. (1988), **Introduction to Organizational Behavior.** Illinois: Scot, Foresman and Company.

Tamimi, N. et al. (1995), Assessing the Psychometric Properties of Deming's 14 Principles, **Quality Management Journal.** Vol. 2(3), pp. 45-46.

Tashner, J. H. (1984). **Computer Literacy for Teachers: Issues, Questions and Concerns.** Phoenix, Arizona: The Oryx Press.

Wan Zahid, M. N., (February 4, 1997). Smart School Students to go at Faster Pace. **New Straits Times.**

Zoraini Wati, A. (July 9, 1997). Curriculum for Smart Schools, New **Straits Times.**

Zoraini Wati, A., (July 16, 1997). Evaluating the 'Smart Students'. New **Straits Times.**