Perceptions on Preliminary Impact of the Pensiangan–Salinatan Programme: An Efficiency Implication

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ABSTRACT

This paper examines the preliminary effects of the Pensiangan-Salinatan Project which was carried out by the Rajang Teachers' Institute at four interior primary schools in Julau District. One set of questionnaires was administered to 29 primary school teachers/participants to obtain their perceptions on the preliminary impacts of the project in four aspects relating to skills in planning and implementation of Teaching-Learning, classroom management as well as evaluation and assessment. 95.8% of the teachers expressed their opinions that the added values given to them during the Pensiangan-Salinatan could help them to plan the teaching-learning aspect. Similarly, 91.3% of the teachers were in the opinion that new input given were helpful in implementing the teaching and learning process and 93.3% perceived that the Pensiangan-Salinatan could equip them the skills of classroom management. 89.3 % of the teachers perceived the project was helpful to them in practicing the classroom evaluative and assessment skills. Semi-structured interviews also indicated that the input given was beneficial and of added values to the teachers especially in subject content, teaching methodology, motivation and professional development. The study therefore implies that the government expenditure in helping the disadvantaged schools in the interior can be justified as the exchange efficiency could be achieved at high levels.

INTRODUCTION

The Project Pensiangan–Salinantan Model was specially directed to the interior schools for upgrading the equity, accessibility and education quality amongst the students dwelling in the interior areas. Hence, the project refers to the series of project jointly implemented by the Teachers Education Division and the Teachers Education Institutes throughout Malaysia for upgrading the professionalism of teachers who served at the interior schools, aiming in improving the achievement of students in those schools. These efforts undertaken are in line with "aims in upgrading the access, equity and quality in education" (Teachers Education Division, 2004)

The supporting profesional program aims to upgrade the academic performance of students who resided in the interior area. Objectives of the program include the updating the knowledge and skills of teachers in content knowledge and usage of indigeneous pedagogy in tandem with the local contextuality as well as instilling the work ethics of teachers towards excellence (Teachers Education Report, 2004)

To cope with the above challenges, the Rajang Teachers Institute have implemented the Persiangan-Salinatan Project since 2004. The Department of Research and Profesional Development of The Rajang Education Institute has been entrusted to research on the preliminary impact of the Pensiangan-Salinantan Program. The research examines the preliminary impact of the project towards the interior school teachers in planning and implementing the classroom teaching and learning, classroom mangement as well as evaluation and assessment. Lecturers from the Departments of Science and Matemathics, Languages and Information Technology of the Rajang Teachers Institute have imparted the input to teachers/participants in the four aspects as mentioned above based on value added.

The Statement of the Problem

Owing to high costs incurred and time for implementing the project, it is rational to investigate the impact of the Pensiangan-Salinantan program from the perspective of efficiency that is whether the program developed could fulfill the needs of the teachers and schools. The program would be efficient if skills or input imparted were acquired at high levels. Thus, this would related to the questions below.

"Is the Pensiangan-Salinantan Project of the Rajang Teachers Institute efficient?" "How far the input imparted is in tandem with the demands of the schools/teachers?" "Are the outcomes of the Pensiangan-Salinantan Project *value for money*?"

Research Questions

- 1. What is the perception of the teachers about the preliminary impact of the Pensiangan-Salinantan projec trelated to the teaching and learning aspect?
- 2. What is the perception of the teachers about the preliminary impact of the Pensiangan-Salinantan project related to the classroom management?
- 3. What is the perception of the teachers about the preliminary impact of the Pensiangan-Salinantan project related to the evaluation and assessment?

How far does it imply the exchange efficiency of the Pensiangan-Salinantan Program?

Research Objectives

- 1. To identify the perception of the teachers on the preliminary impacts of the Pensiangan-Salinantan Program related to the teaching and learning aspect
 - To identify the perception of the teachers on the preliminary impacts of the Pensiangan-Salinantan Program related to the classroom management
- 2. To identify the perception of the teachers about the preliminary impact of the Pensiangan-Salinantan project related to the evaluation and assessment

To make implications regarding the exchange efficiency of the Pensiangan-Salinantan Program

Exchange Efficiency

The research employs the concepts/theory in economics of education, that is, the exchange efficiency to justify the expenditure incurred in conducting the program. The exchange efficiency refers to the aspect of economic efficiency in fulfilling the needs of the society as a consequence of education and training. (Psacharopolous and Woodhall, 1985). The research therefore intends to obtain feedback from the teachers how far the input given during the Pensiangan-Salinantan Program could meet the demands of the schools. In other words, the research examines how far the Program would fulfill the needs of the schools or teachers who were involved in the project. Thus, the exchange efficiency in its narrow version (Lau, 2001) could be seen as operational efficiency (Dearden, 1990). Investment in the Pensiangan-Salinantan Program is worthwhile or *value for money* if the teachers who were involved in the project could acquire the input/skills as an added value at high levels.

METHODOLOGY AND DESIGN OF THE RESEARCH

The preliminary impacts on the teachers in acquiring the input regarding the four aspects were obtained through one set of questionnaires which were given to the teachers soon after they followed the program which lasted for five days. Besides that, the researcher also conducted semi-structured interviews to the teachers as identified. Based on the inventory, facilitators also did evaluation towards the participants/teachers regarding the teachers' participation and attitude when following the program.

Procedure in Conducting the Research

The research was carried out at four interior schools in the Julau District between 2005-2006. The researcher had to travel through the windy, dusty and hilly road before reaching the schools which suffered from disadvantages such as shortage of electricity and water supply.

Lecturers from the Department of Research and Profesional Development administered the questionnaires to the 29 teachers/participants of the four schools who participated in the program. Semi-structured interviews were also conducted. Data collected were analysed quantitively and qualitatively with the help of the computer softwares

Data Analysis

Questionaires administered were used to obtain perception/opinion regarding the preliminary impacts in relation to the Teaching-Learning, classroom management skills, evaluation and assessment skills. Respondents gave their opinions on how far the input given to them during the Program was of added value to them in carrying out the professional duties as teachers in the aspects as mentioned.

FINDINGS

Table 1. Distribution of Respondents According to Gender, Subject Specialisation and Subject

Variables	Frequencies	Variables	Frequencies
Gender Male Female	11 (37.9%) 18 (62.1%)	Teaching Experience 1- 5 tahun 6-10 tahun 11-15 tahun 16-20 tahun 21-25 tahun	11 (37.9%) 4 (13.4%) 5 (17.2 %) 2 (6.8%) 7 (24.1%)
Total	29 (100%)		29 (100%)
Subject Specialisatio n English Language Malay Language Matemathics Science Pre School Commerce Local Studies Music	3 (10.3%) 11 (37.9%) 2 (6.8%) 3 (10.3%) 1 (3.4%) 1 (3.4%) 1 (3.4%) 6 (20.7%)	Teachers who were given input in accordance with their subjects English Language Information Technolgy Matemathics Science Total	10 (34.4%) 6 (20.7%) 9 (31.1%) 4 (13.8%)

The participants or the teachers who did the self-evaluation on the Pensiangan-Salinatan Program were based on the Likert Scale as defined as below.

NHA = Not Helpful at All; NH = Not Helpful MH = Moderately Helpful; H = Helpful

VH = Very Helpful

Table 2. New Input related to Planning of Teaching-Learning

Item (N=29)	NHA %	NH %	MH %	H %	VH %	Mean	Standard Deviation
To Plan various Teaching and Learning Activities	0.0	3.4	17.2	55.2	24.1	4.00	0.756
Suitable choice of Teaching-Learning Materials	3.4	0.0	17.2	51.7	27.6	4.00	0.886

Choice of Teaching-Learning Methods in tandem with Students' Abilities	3.4	3.4	17.2	65.5	10.3	3.75	0.830
Choice of content in accordance with Students' Abilities	6.9	0.0	41.4	41.4	10.3	3.55	0.783
Construct the Teaching and Learning resource materials	0.0	3.4	20.7	37.9	37.9	4.10	0.859
Average	2.74	2.04	22.7	51.0	22.1	3.88	0.822

Scale Reliability = 0.9052; 1.6 - 2.73 =Low.; 2.74 - 3.87 = Moderate; 3.88 - 5.00 = High

Table 2 indicates that the Persiangan-Salinatan Program could deliver new input or the value-added to the interior school teachers in the planning of teaching-learning aspect. On average, 51.0% dan 22.1% of the teachers who participated in the program expressed their opinion respectively that the new inputs delivered were of helpful and very helpful in planning the teaching-learning aspect. The overall mean was at high level that was 3.88¹. This implies that the exchange efficiency has occurred at high level too. Thus, investment in the program is worthwhile in upgrading the performance of teachers as well as in improving the student's outcome in learning at the four interior primary schools.

Table 3. New Input in Implementing the Teaching-Learning

Item (N=29)	NHA %	NH %	MH %	H %	VH %	Mean	Standard Deviation
Motivating students's involvement in the teaching and learning process	3.4	0.0	17.2	51.7	27.6	4.00	0.886
Usage of ICT in the Teaching- Learning	3.4	0.0	24.1	51.7	20.7	3.86	0.875
Presentation of lessons	0.0	6.9	27.6	37.9	27.6	3.86	0.915
Incorporating the moral values in teaching	3.4	0.0	31.0	37.9	27.6	3.86	0.953
Skills in conducting various methods of teaching	3.4	13.8	24.1	31.0	27.6	3.65	1.14
Skills in the usage of resource materials during teaching-learning	0.0	6.9	24.1	55.2	13.8	3.75	0.786
Skills in conducting the teaching in tandem with the students' abilities	0.0	3.4	10.3	55.2	31.0	4.13	0.743
Skills in Incorporating the	0.0	3.4	24.1	51.7	20.7	3.89	0.772

 $^{^{1}}$ Maximum value – minimum value, that is 25 - 8 = 17. This is divided with 3 to obtain 5.67 for specifying the class boundaries of the three efficiency levels. Thus, 8 - 13.67 (Low), 13.68 - 19.35 (Modertae) and 19.36 - 25 (High). The Min skor distribution is obtained by dividing the class boundaries with the total number of items. Thus, 1.6 - 2.73 = Low; 2.74 - 3.87 = Modertate and 3.88 - 5.00 = High

Pembudayaan Penyelidikan Ke Arah Kecemerlangan Profesionalisme Keguruan

Creative and Critical thinking							
skills among the students							
Skills in Skills in implementing	0.0%	17.2	31.0	34.6	17.2	4.10	0.569
the enrichment activitiesactivities							
Skills in implementing the	0.0	20.7	27.6	41.4	10.3	3.41	0.945
remedial activities							
Average	1.36	7.23	24.1	44.8	22.4	3.85	0.858

Scale Reliability = 0.7102; 1.6 -2.8 (Low); 2.81- 4.01 (Modaerte); 4.02 – 5.0 (High)

Table 3 demonstrates as a whole 44.8% dan 22.4% of the teachers stating respectively that the Pensiangan-Salinantan Program has been helpful and very helpful in assisting teachers to implement the teaching and learning process, particularly in the usage of ICT and resource materials as well as lesson presentation. The overall mean was 3.85. This indicates that the exchange efficiency is at moderately high level. Thus, skills regarding implementing the teaching—learning process as value—added has been imparted quite successfully or effectively.

Table 4. Acquisition of added value Related to Classroom Management Skills

Item	NHA	NH	MH	Н	VH	Mean	SD
(N=29)	%	%	%	%	%		
Encouraging the classroom	3.4	3.4	10.3	62.1	20.7	3.93	0.883
interaction							
Skills in promoting conducive	0.0	10.3	13.8	58.6	17.2	3.83	0.831`
classroom environment for							
Teaching- Learning							
Skills for excellent time	0.0	6.7	13.3	53.3	26.7	4.00	0.809
management during teaching							
Skills in motivating students	0.0	3.3	20.0	46.7	30.0	4.03	0.805
Skills in practising the	0.0	3.3	13.3	53.3	26.7	4.13	0.819
democratic leadership							
Skills in inculcating students's	3.3	3.3	16.7	60.0	16.7	3.83	0.874
disicipline							
Average	1.12	5.05	14.6	55.7	23.0	3.96	0.844

Scale Reliability = 0.9068; 1.83 – 2.67 (Low); 2.68 – 3.94 (Moderate); 3.95 – 5.00 = (High)

On Average, 55.7% dan 23.0% of the teachers perceived that the Persiangan-Salinatan Program had imparted new input as an added value, which was helpful and very helpful respectively in relation to the classroom management skills. Added values in practising the democratic leaderships and motivating students as well as classroom time management skills were among aspects which had been acquired most effectively. The overall mean for the classroom management aspect was 3.96. This again implies that the exchange efficiency has been attained at high level. Fcailitators/lecturers have been very successful in imparting the input in the form of added value to the interior school teachers who are at disadvantage in terms of accessibility to information, training and exposure because of the locality.

Table 5. Evaluation and Assessment Skills

Item	STM %	TM %	S %	M %	SM %	Min	Sisihan Piawai
(N=29)						0.00	
Skills in implementing formative evaluation	0.0	16.7	43.3	40.0	0.0	3.23	0.729
Skills in implementing summative evaluation	0.0	13.3	46.7	40.0	0.0	3.27	0.691
Skills in setting Examination/Test Papers	0.0	10.0%	30.0	53.3	6.7	3.57	0.774
Skills in constructing the Test Specification Table	0.0	6.7%	36.7	46.7	10.0	3.60	0.771
Skills in making students' academic reports	0.0	6.7%	43.3	36.7	13.3	3.57	0.817
Average	0.0	10.68	40.0	43.34	6.0	3.45	0.756

Scale Reliability = 0.9249; 2.0 - 2.87 (Low).; 2.88 - 3.74 (Moderate); 3.75 - 4.60 (High)

The Pensiangan-Salinatan Program also assisted teachers in implementing the classroom evaluation and assessment activities. 89.34% of the teachers expressed their opinions that the program had been helpful related to the classroom evaluation and assessment. The overall mean is 3.45, implying the exchange efficiency had been attained at moderately high level

NHA Item NH MH Η VH Mean Standard (N=29)% % % % % Deviation New Input related to Planning 2.74 2.04 22.7 51.0 22.1 3.88 0.822 of Teaching-Learning New Input related to 1.36 7.23 24.1 44.8 22.4 3.85 0.858 Implementation of Teaching-Learning 1.12 Acquisition of added value 5.05 14.6 55.7 23.0 3.96 0.844 Related to Classroom Management Skills Evaluation and Assessment 0.0 10.68 40.0 43.34 6.0 3.45 0.756 Skills 1.31 6.25 25.35 48.71 18.38 3.78 0.820 Average

Jadual 6. Overall Mean for Four Constructs

1.76 – 2.77 (Low).; 2.78 – 3.89 (Moderate); 3.90–4.90 (High)

Table 6 shows that as a whole, the Pensiangan-Salinatan Program had been very successful in delivering the input in the form of value – added. 48.71% dan 18.38% of the participants stated their opinion that the input imparted were respectively helpful and very helpful in relation to the four aspects as discussed. The overall mean for the four constructs is 3.78, that was at moderately high level. This implies that the investment for Pensiangan-Salinatan Program was worthwhile because the exchange efficiency had been attained at moderately high level. This means that the input as value-added had been successfully /effectively imparted to the teachers at the four interior schools who suffered disdavantages in terms of accessibility, equity and

quality. Hence, the project could achieve "the aims in upgrading the accessibilty, equity and quality in education." (Teachers Education Division, 2004) effectively.

Qualitative Analysis

Data obtained from the semi-structured interviews also demonstrated the positive impacts of the Pensiangan-Salinantan Program. This implies that the exchange efficiency had also been attained positively. Data from the semi-structured interviews could reinforce our analysis and findings in relation to the aspects as examined. Isues arise from the interviews could be classified as follows.

Subject Content

The majority of the participants perceived that the Pensiangan-Salinatan Program had imparted the input in the form of value-added relating to the subject content particularly in Information Technology, Science and Mathemathics. Hence, the level of exchange efficiency had been effectively attained. This could be demonstrated with examples of the following interview transcripts.

"The project is very beneficial, could upgrade knowledge..... acquire new knowledge/very useful". (Teacher A)

"Information Technolgy augments my knowledge" (Teacher B)

"The project is very good....It gives a lot of knowledge and exposure which is beneficial and could help in the process of teaching and learning in schools." (Teacher C)

"This Program has given a lot of help towards the Mathemathics and Science Teachers" (Teacher H)

Teaching Methodology

Most of the teachers/participants expressed their opinions that they had acquired skills in using various types of methodolgy in teaching and new way of conducting the teaching-learning. From the pedagogical view, most of the participants stated that presentation skills which they had acquired during the program could motivate students' interest to participate actively in the teaching-learning process. This means that the exchange efficiency had been attained positively. This could be seen from the transcripts below.

"Get to know that there are various stratgies and methods which are suitable in line with the levels of students" (Teacher D)

"This project is very good because it could help to re-upgrade the teaching methodology"(Teacher E)

"New Ideas in the teaching-learning activities and strategies".(Teacher F)

"Bits by bits could help me in the teaching and learning." (Teacher G)

"A lot of new and suitable methodologies as well as strategies were obtained from the lecturers" (Teacher I)

"The Program is able to upgrade the teachers' knowledge and skills in teaching-learning as well as related skills in various aspects. Two-way discussion is able to prolong the ideas to teachers related to Teaching and learning" (Teacher J)

"I could understand more about the students' needs particularly in methodology which should be applied" (Teacher K)

"I am very satisfied with the project as it brings a lot of new input relating to the teaching-learning." (Teacher L)

Motivation

The Pensiangan–Salinatan Program could motivate teachers as well as students at the four interior schools. Majority of the teachers/participants were in their opinions that they had been given motivation. This could be reflected through the interview transcripts with the teachers concerned.

"The course could upgrade the spirit/motivation of the mathematics teacher" (Teacher C)

"The Program could help those who are at disadvantages and augment the teachers' confidence towards the work ethnics" (Teacher D)

"Giving a lot of motivation and exposure to teachers and students in using the notebook" (Teacher H)

"Motivation of teachers upgraded and students are more attracted towards the teaching-learning process". (Teacher J)

"Skills acquired are very meaningfulhad built up new spirit to implement the teaching-learning in schools" (Teacher L)

Profesional Development

The Pensiangan-Salinatan Program could also upgrade the profesional development of the teachers. This could be reflected from the following transcripts through semi-structured interviews with the teachers.

"Very helpful. ICT, something which is new to me." (Teacher F)

"Information Technology conducted by En. Z is something new to me. I learned and knew about Net-Working, way of assembling cables" (Guru J)

The above statements imply that elements of ICT like net-working is something new. Participants showed great interests in it. Consequently, this would upgrade the teachers profesionalism though teaching in the interior.

SUMMARY AND SUGGESTIONS

The Pensiangan-Salinantan Model is the very one project under the sponsorship of the Education Ministry to upgrade the quality, accessibility and equity in education for the interior students. In order to achieve the stated objectives, teachers at the interior schools who encounter shortages such as supply of electricity, water, facilities and training should be given ample chances to attend additional courses. Input in the form of value-added for upgrading the professionalism as well as motivation should be imparted. Consequently, with skills or additional input imparted to the teachers, it should finally bring educational benefits to students. Hence, the quality of teachers at the interior schools should be upgraded for improving the academic performances of students. Previous researches showed that there had been a significant relationship between teachers' quality and students' achievement (Darling-Hammond (2000).

Findings from this research involving teachers in the four interior schools demonstrated that input in the form of value –added, imparted during the Pensiangan-Salinantan Project had been of great help to teachers in the planning and implementation of teaching and learning, upgrading the classroom management skills as well as evaluation and assessment skills. This implies that the Pensiangan-Salinatan Program is worthwhile or value for money as skills in the form of value-added could be imparted effectively. This implies that the exchange efficiency had been attained at moderately high level. Investment in the project would finally bring further impacts to the students' performance at the interior schools which had encountered disadvantages when comparing with the urban schools. Through the project intervention, it would hopefully contribute to upgrading the quality, accessibility and equity in education for the interior school students. It would be inequitable at all if students who resided at the interiors were given different types of treatment as a consequence of "disadvantages in all manners" when comparing with the urban schools. Consequently, interior students would not perform as good as the urban students. The effects would perpetuate at the consecutive higher levels of schoolings. Investments in the primary education especially at the interior primary schools or disadvantaged schools should be given more attention compared with higher education. This is because research shows that the social rates of returns to primary education is always higher than those of the higher education. (Psacharopolous, 1996)

As the program was implemented for one round at the four interior primary schools, the data obtained was therefore "cross-sectional". It was suggested lecturers who had been given inputs in relation to the subjects should conduct the Action Researches so as to monitor as well as analyzing the effectiveness of the projects in a deeper manner. Past researches did show that students from the disadvantaged schools could improve academically after being given input continually in long term basis. Long term programs and methodologies have to be implemented besides the existing school programs. (U. S. Department of Education, 1998)

Bio Note

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