

ECONOMICS OF FINANCING TEACHER EDUCATION: THE CASE OF TEACHER EDUCATION INSTITUTES IN MALAYSIA

Dr. Lau Hieng Soon
University College of Technology Sarawak
868 Persiaran Brooke, 96000 Sibu, Sarawak, Malaysia
Email: hiengsoonlau@ucts.edu.my

ABSTRACT

This study investigates the economics of the current grant system as a mechanism for financing teacher education at the Teacher Education Institutes in Malaysia. A Survey questionnaire was administered to 390 fresh graduates of 27 Teacher Education Institutes throughout Malaysia during the convocation. The survey questionnaire comprised the profiles of respondents such as gender, location, income grouping and ethnicity. Recruitment effects and opinions of loans as an alternative mechanism for financing of teacher education were also sought. Findings indicated the overall recruitment effects of recruiting potential teachers as a result of allowance provision was only 14.5% (the sum of negative responses if grants/allowance were not given). Recruitment effects for non-natives were significantly higher than those for natives and higher for males over females. In the case of areas where respondents came from, the recruitment effect of allowance was highest for metropolitan respondents (17.2%) followed by rural respondents (16.5%), interior respondents (15.4%), small town respondents(10.4%)and big town respondents (9.8%). For income-groups, it seems that allowance has the greatest effects in recruiting both the low and high income-groups in attending teacher education. Multiple logistic regression analysis indicated the lowest income group has the highest chance of wanting to attend the teacher education than the top-bracket, natives over non –natives, respondents from big towns over other areas and female over male even if the allowance had not been given. Those findings imply that the use of grants for recruiting qualified candidates into teaching profession has minimal impacts in terms of efficiency and equity arguments. Moreover, respondents highly supported the issues surrounding the loan as an alternative mechanism for financing teacher education. It is therefore strongly suggested loans should be employed as an alternative of financing teacher education to ease the budgetary pressure for equity as well as efficiency grounds. The principle “He who benefits from teacher education should pay for it” should be adopted as the private rates of return from teacher education is always higher than social rate of returns. The new system would increase the efficiency of financing the teacher education by introducing elements of business competition among the teacher education institutes and with private institutes of higher learning who also offer the teacher education.

Economics of Financing; Teacher Education;nTeacher Education Institutes

INTRODUCTION

In Malaysia, Teacher Training Colleges have been the major providers of teacher education to train teachers throughout Malaysia since independence. However, towards the 21st century, Teacher Education in Malaysia experienced major changes. Between 2004 till 2007, there were 27 teacher training colleges and an English Language Teaching Centre. On 13 July 2005, the Malaysian cabinet approved 27 teacher training colleges to be upgraded their status to Institutes of Teacher Education or in Malay, Institut Pendidikan Guru (IPG). With the upgrading, the IPG could conduct courses which confer the degrees in Bachelor of Teaching and Bachelor of Education. The declaration gave a major change in the Malaysian teacher education. The Institutes were officially allowed to conduct the Primary School Graduate Program or Program Pensiswazahan Sekolah Rendah (PGSR) enabling the non graduate primary school teachers to attend the course during holidays for them to be upgraded to graduate teachers after successfully completed the course. In addition, school leavers who scored excellent or good results in the Sijil Pelajaran Malaysia (Malaysian Certificate of Education) could apply for admission into the degree in Bachelor of Teaching and Bachelor of Education (TESL) programs.

On 25th August, 2008, the Malaysian House of Representatives approved the 1996 Education Amendment Act to legally upgrade the Teacher Training Colleges into the Teacher Education Institutes. In 2009, the Honourable Minister for Education, Dato' Hishamuddin Tun Hussein officially declared all the Teacher Training Institutes to be renamed as Teacher Education Institutes throughout Malaysia.

By 2010, all the 27 Teacher Education Institutes and the Centre for the English Language were no longer under the administrative jurisdiction of the Teacher Education Division. Instead, they were placed under the Malaysian Teacher Education Institute in Cyberjaya. The Head of the new administrative body was conferred with the post known as the Rector. Each of the Head of the Teacher Education Institute at individual campus was conferred with the post as the Director.

The vision statement of the Teacher Education Institute/Institutes is to be the excellent leader in the Teacher Education. The Mission of the institutes is to produce world class competent and dedicated teacher educators through dynamic professional development.

The Objectives and functions of the institutes encompasses:

- i. Enhancing the mastery of teacher educators in knowledge, understanding and skills.
- ii. Reinforcing the strength in research, development and innovation
- iii. Continual Upgrading of the Teacher Education Program
- iv. Practising the Teacher Professionalism ethics through self –domain, professional and social skills.
- v. Reinforcing the management and development of human resources
- vi. Reinforcing the service delivery system based on customers' satisfaction
- vii. Providing the infrastructure and infostructure in fulfilling the MS ISO standard
- viii. Enriching and varying students' experiences
- ix. Upgrading the involvement of teacher educators in community activities

In other words, the Teacher Training program in Malaysia has become the most important program in providing professional teachers. Each year, the Teacher Education Institute train and provide thousands of teachers to teach in both primary and secondary schools. Teachers are trained in various subjects such as English, Science, Mathematics, Chinese and Malay languages and so forth, aiming to fulfill the aspiration contained in the National Philosophy of Education.

The holistic approach developed/adopted in the training in fulfilling the needs of students is reflected in the National Philosophy of Education.

“Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonic , based on firm belief in and devotion in God. Such an effort is designed to produce Malaysian citizens who are responsible and capable of achieving high level of personal well being as well as being able to contribute to the harmony and betterment of the family, the society and the nation at large.” (Ministry of Education Malaysia, 2001:1)

STATEMENT OF THE PROBLEM

Millions of Ringgit have been allocated and spent for the training programmes as the government fully sponsors the trainees who participated in the training. The government considers the teacher education as a public investments to prepare the manpower in teaching and hence the training programmes have not been running on business. Thus, comparing with some countries whereby trainees need to pay for the fees and other costs for attending the course, teachers trainees in Malaysia receive free training. In addition, a teacher trainee who follows the Post Graduate Teaching course would receive a monthly allowance of RM1400.00 (Teachers Education Division, 2002) for paying the living cost and other costs related to stationary, buying of books, computers and others. The student who pursue the Bachelor of Teaching would also be given a monthly allowance of RM 700.00. The teacher education is not efficient and equitable as indicated in the previous studies (Lau, 2004), and Lau (2010) and is not business competitive.

OBJECTIVE OF THE STUDY

The main objective of the study is to critically investigate to what extent are the recruitment effects of the grants given in recruiting the student teachers in attending the teacher education course that is the Bachelor of Teaching (Hons). Opinions of graduates on an alternative mechanism of financing the teacher education are sought to stimulate a business competition among institutions of higher learning who provide the teacher education. The specific objectives are as follows:

OBJECTIVES

- To identify the recruitment effects of the student grants for different groups of students according to gender, ethnicity, location, and income groups respectively in pursuing the teacher education.
- To identify the logistic probability for student graduates to pursue the teacher education if the grants were not given.
- To identify the opinion of graduates on loans as mechanism in financing the teachers education.

RESEARCH QUESTIONS

- What are the recruitment effects of granting student allowances as a mechanism of financing the teacher education according to gender, ethnicity, location and income groups?
- What is the logistic probability for student graduates to pursue the teacher education if the allowances were not given?
- What are the opinion of graduates on loans as a mechanism of financing the teacher education?

SOME CONCEPTUAL ARGUMENTS

According to Reuterberg (1984) and Ruterberg and Svensson (1994), the recruitment effect is defined as those (in percentages) who definitely and probably would not attend universities if grants or scholarships were not offered in the first place. Thus, the recruitment effect is closely related to the exchange efficiency which refers to the aspect of economic efficiency whereby the output (trained teachers) meet the demand of the economy (schools). The extent to which the grant is used for recruiting qualified persons into attending teacher education shows how far the grant bring the potential teachers into the economy, which would otherwise be lost because of financial constraints, and thus suggests its contribution to exchange efficiency (Lau, 2001).

Recruitment effect could also be related to the equity facet of argument in economics of education. Unlike questions for efficiency, which are value free, questions about equity are much more clearly subjective and value-laden (Lau, 2001). Barr (1989) defines equity as “Equality of Opportunity” which means equal opportunity of access to education for individuals who have similar tastes and abilities. It has also been argued that the grant could recruit the disadvantaged groups especially the lower income groups to attend the higher education so that no qualified individual is barred from attending higher education because of financial constraints.

Based on equity argument, proponents of student loans proposed that “he who benefits should pay for that education” (Barden, et al, 1991) as graduates will be employed and earn higher salary after graduation. It is not equitable for those who do not attend the higher education, in this case the teacher education but subsidising those who do so. The grant system is bad because grants overall are redistributive towards the better (Barr, 1989; Barr, 1990; Barden, et al, 1991) as most children of the lower income groups may not have opportunities to attend higher education because they may have dropped out from the secondary.

The current study therefore investigates how far the recruitment effects of the grant system in recruiting potential teachers to attend the teacher education and hence justifying the efficiency and equity arguments for financing the teacher education in Malaysia.

METHODOLOGY AND RESEARCH DESIGN

The survey method was used for data collection relating to the recruitment effects of the Bachelor of Teaching (Hons), the logistic probability of the respondents for attending the teacher education if grants were not given and opinions of the graduates on the income contingent loans as an alternative mechanism for financing the teacher education.

The quantitative research method was employed. One set of survey questionnaires was administered to 390 graduates who had completed the Bachelor of Education during the convocation. According to Krejcie & Morgan (1970)¹, the sample of 390 is sufficient to represent the population of 1,987 graduates who obtained the Bachelor of Teaching in the year 2010.

THE QUESTIONNAIRE

The questionnaire comprised the profile of the respondents such as the gender, ethnicity, income groupings, location, parental income and specialisation during the course. The respondents were asked whether they decided to pursue the teacher education course if the allowances/grants had not been given in the first place. They were given four alternatives to choose which were Yes, definitely to attend; Yes, probably would attend; No, probably not to attend and No, definitely not to attend. The recruitment effects were defined as those (percentages) of those who definitely not and probably not to attend the teacher education if allowances were not offered in the first place.

¹ According to Krejcie and Morgan (1970), the population size of 2000 needs only 322 randomly chosen samples .

The respondents were also asked to express their opinions on the loans as an alternative in financing the teacher education.

ANALYSIS

Data obtained from the survey questionnaires were analysed with the help of SPSS version 21.0. Cross tab was employed to determine the recruitment effects of the allowances in recruiting the student graduates to take up the course in teacher education based on gender, location, ethnicity and income groupings.

Based on certain variables, multiple logistic regressions were also employed to take a further step in analysis comparing the odds of graduates to attend the teacher education program if the allowances/grants had not been given in the first place.

This section therefore attempts to analyse the data in answering three research questions relating to the financing of teacher education in Malaysia.

RESEARCH QUESTION 1

“What are the recruitment effects of student allowance as a mechanism of financing the teacher education?”

Adopting the approach of Reuterberg (1984) and Reuterberg and Svensson (1994) in their studies of the recruitment effects² of the Swedish student financial aid with reference to students' income, gender and age, the present section investigates whether the scholarships helped students, especially from the low-income groups, to begin and continue their university education. The question asked is:

“If there had been no allowances/grants available to finance your teacher education, would you have started and continued your study?”

Table 1: Decisions to Enter/Continue University Education, if no allowances had been given.

Responses	Frequencies	Percent
Yes, definitely	207	53.8%
Yes, probably	122	31.7%
No, probably not	44	11.4%
No, definitely not	12	3.1%

Table 1 indicates that 11.4% and 3.1% of allowance/grant recipients respectively stated that they would probably or definitely not have entered/continued university education if there had been no allowances available to them. Thus, the overall recruitment effect is 14.5% (the sum of negative responses). However, 53.8% and 31.7% of recipients state respectively that they would definitely and probably have started or continued their university education even there had been no allowances/grants given to them. This implies that they might get other sources of finance such as help from relatives and friends if allowances had not been offered.

² The recruitment effect is defined as those (in percentages) who definitely and probably would not attend universities if scholarships were not offered in the first place.

Table 2: Decisions to pursue the Teacher Education by gender, ethnicity, income groups and location

Independent variables	Yes, definitely	Yes, probably	No, probably not	No, definitely not	Total
Gender					
Female	55.7%	30.2%	11.1%	3.1%	100% (n=262)
Male	50.0%	34.4%	12.3%	3.3%	100% (n=122)
Areas					
Metropolitan	48.6%	34.3%	14.3%	2.9%	100% (n=70)
Big Town	51.0%	39.2%	3.9%	5.9%	100% (n= 51)
Small Town	57.1%	39.2%	10.4%	0.0%	100% (n =77)
Rural Area	55.9%	27.6%	12.4%	4.1%	100%(n = 170)
Interior Area	53.8%	30.8%	15.4%	0.0%	100%(n= 13)
Ethnicity					
Native	60.7%	29.6%	8.5%	1.1%	100%(n=270)
Non -native	36.3%	37.2%	18.6%	8.0%	100% (n=113)
Income Groups					
Lowest	57.5%	33.3%	4.60%	4.6%	100%(n=87)
Low	50.0%	29.4%	16.7%	3.9%	100%(n=102)
Medium	54.9%	32.0%	10.7%	2.5%	100%(n=122)
High	47.6%	33.3%	16.7%	2.4%	100% (n=42)
Topbracket	59.4%	31.3%	9.40%	0.0%	100% (n=32)

For the recruitment effects by **gender**³, 15.6% and 14.2% of males and females respectively would probably and definitely not pursuing teacher education. The recruitment effects are therefore higher for males over females.

For **areas**⁴, the recruitment effect of allowances/grants is highest for metropolitan respondents (17.2%) followed by rural respondents (16.5%), interior respondents (15.4%), small town respondents(10.4%) and then big town respondents respondents (9.8%).

In the case of **ethnicity**⁵, 9.6% of natives and 26.6% of non-natives expressed that they would definitely or probably not begin/continue university education if no allowances had been given to them. Thus, the recruitment effects of allowances for non-natives are significantly higher than those for natives.

³ There is no significant association between decisions whether to enter/continue teacher education and gender, if there had been no grants given ($\chi^2 = 1.111$; df = 3; p= .774)

⁴ There is no significant association between decisions whether to enter/continue university education and areas respondents come from, if there had been no grants had been given. ($\chi^2 = 10.680$; df = 12; p =.557).

⁵ There is a significant association between decisions whether to enter/continue university education and ethnicity, if there had been no grants given ($\chi^2 = 29.291$; df = 3; p = .000).

For **income-groups⁶**, 9.2% of the lowest-income group stated that they would probably or definitely not be attending/continuing teacher education, if there had been no allowances/grants given to them in the first place. 9.4% of the top-bracket expressed the opinion that they would not enter/continue higher education if there had been no allowances/grants available. 20.6%, 11.2% and 19.1% of the low, medium and high income-groups respectively indicate that they would probably and definitely not pursue university education if there had been no allowances given to them. It seems that allowances/grants have the greatest effects in recruiting both the low and high income-groups in attending teacher education.

RESEARCH QUESTION 2

“What is the logistic probability for student graduates to pursue the teacher education if the allowances had not been given?”

Table 3: Interrelationships of Independent Variables and Decision to Attend the Teacher Education

Independent Variables (1)	Reference Categories (2)	B (3)	Significance (Wald) (4)	Exponential (5)
Gender	Female =0	-.218	.511	.8050
Ethnicity	Non-Native = 0	1.528	.000	4.608
Income Groups	Top Bracket = 0			
<i>Lowest</i>		.501	.499	1.650
<i>Low</i>		-.241	.726	.7860
<i>Medium</i>		-.109	.873	.8960
<i>High</i>		-.893	.229	.4090
Location	Interior = 0			
<i>Metropolitan</i>		.415	-.635	1.515
<i>Big Town</i>		.853	.363	2.346
<i>Small Town</i>		.750	.397	2.117
<i>Rural</i>		-.196	.812	.8220
Constant		.803	.440	2.232

Table 3 above shows the interaction among four independent variables (gender, ethnicity, income groups and location) relating to the decision of the graduates in pursuing the teacher education if the allowances had not been given before they started the courses. There is a significant difference between the natives and non-native regarding the decision to start the teacher education if allowances had not been given in the first place. However, there is no significant difference for the categories of other independent variables. Nevertheless, the exponential statistics could inform us the logistic probability of the individual categories within the variables in making the decision to pursue the teacher education.

⁶ There is no significant association between decisions to enter teacher education and income groups if no grants were given ($\chi^2=10.540$; df=12; p=.569).

The model indicates that a male beginner teacher has only 0.805 times higher chance than the female's to attend the teacher education if allowance/grant had not been given⁷. On the other hand, a native had 4.608 times higher chance to attend the teacher education than the non-native if grants had not been given⁸ and it is significantly different ($p= 0.000$).

With regards to the income groups, it is surprising that the lowest income group has the highest chance of wanting to attend the teacher education than the top-bracket⁹. The low, medium and high income groups expressed less chances to decide for themselves to go for the teacher education if allowances were not given¹⁰.

The multiple logistic regression also indicates that the beginner teachers from the big towns had the highest probability in attending the teacher education if the allowances /grants had not been given¹¹. In other words, a beginner teacher from the big town was 2.346 times higher chance than his/her counterparts from the interior for making decision to attend the teacher education, if grants had not been given in the first place. Subsequently, beginner teachers from the small town, metropolitan, and rural areas were respectively 2.117, 1.515 and 0.822 times higher probability than their interior counterparts in attending the teacher education.

RESEARCH QUESTION 3

“What are the opinion of student graduates on loans as a mechanism of financing the teacher education?”

Table 4: Opinion of the Graduates on loans as Mechanism of Financing Teacher Education

Opinion Statements/ Responses	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
i. There is no problem in loan repayment if it is linked to my income	11.8	32.6	35.0	12.1	11.8
ii. Unemployed married women should not have to repay the loans	10.9	19.9	32	23.8	10.9
iii. Women may refuse mortgage loans for financing higher education because of fear of carrying debts when getting married later on	7.0	11.9	23.0	19.6	7.0
iv. Loans should be interest-free	50.9	23.3	19.4	3.6	2.8
v. Scholarships /grants should given to the very poor	57.7	21.4	17.3	1.0	2.6
vi. Loans should be means-tested	32.6	29.8	25.1	8.3	4.1

⁷ The odds of attending the teacher education is 0.805 for a male respondent than the female respondent is, if grants had not been given

⁸ The odds of attending the teacher education for a non-native if grants had not been given was only 0.805 as compared to the native.

⁹ The odds of attending the teacher education for the lowest income group is 1.650 times higher than the top-bracket

¹⁰ The odds of attending the teacher education for the low, medium and high-income groups are .786, .896 and .409 times higher than the top-bracket if grants were not given.

¹¹ The odd of attending the teacher education for the beginner teachers from the big town is 2.346 than those from the interior.

vii. Bigger loans should be given to students pursuing more expensive of courses.	6.0	9.9	27.5	29.4	27.3
viii. The “grace period”, where graduates defer loan repayment six months after their studies, is reasonable	8.7	12.3	35.7	25.4	17.7
ix. A loan recipient will study harder, as he/she pays for his/her own education	8.0	9.3	32.4	32.6	17.7
x. Students who obtained CGPA 3.75 – 4.00 or First Class (Honours) should be exempted from paying back the loans.	4.4	3.6	28.5	21.9	41.6

6.6 10.3 29.1 25.9 27.8 Scale
reliability = 0.732

Statements (i) – (ix) seek the opinions of fresh graduates regarding loans as a form of financial support which may have different effects on different groups of people. Statement (x) seeks the opinion of fresh graduates on the incentive would be given to those who score excellently as rewards.

The survey as illustrated in Table 4 shows high percentages of positive responses regarding:

- (i) Unemployed married women should not have to repay the loans
- (ii) interest –free loans.
- (iii) scholarships/grants for the very poor.
- (iv) means-testing of loans.
- (v) bigger loans for more expensive courses.
- (vi) A six-month “grace period” is reasonable.
- (vii) The likelihood that a loan recipient would study harder
- (viii) Exemption of Good results of recipients from repayment of loans as rewards.

DISCUSSION OF IMPLICATIONS AND INNOVATION FOR FINANCING TEACHER EDUCATION

The findings of the current study indicated some implications for financing of teacher education and subsequently an alternative of financing could be suggested.

Firstly, the overall recruitment effect of the allowances is only 14.5% indicating that even without allowances/grants, high school students would also be recruited into the Teacher Education Institutes for attending the teacher education. This is especially the case with the lowest income group of graduates whereby the recruitment effect is lowest, that is only 9.2%. In other words, 81.9% of the lowest income group would still want to pursue the teacher education at the teacher education institutes if they had not been given the allowances in the first place. Thus, they are very anxious to attend the teacher education and wanting to join the teaching profession. This implies that allowances or grants have little recruitment effects to attract high school students to attend the teaching education and hence have little impacts in efficiency argument. It will be also more equitable too if loans were given to replace grants.

Findings from multiple logistic regressions verify that the lowest income group is more willing to enter the teacher education though allowances had not been given. The probability for the lowest income group to attend the teacher education is 1.650 times higher as compared to the top-bracket group, if allowances had not been given in the first place. Thus, the demand for teacher education is high. The present system of financing teacher education which is inequitable and inefficient financially should therefore to be reconsidered for replacement with an alternative mechanism of financing.

Secondly, the finding also indicated that ethnicity is a factor for the recruitment effects of teacher education. There is a significant association between ethnicity and the recruitment effects in teacher education ($p=0.000$). Surprisingly, the recruitment effect is higher for the non-native than the native. This implies that natives are more prompted to attend the teacher education than the non-natives.

Multiple regressions also suggest that native have 4.608 time higher chance than the non-native to attend the teacher education even if the allowances/grants had not been given in the first place. The natives therefore consider the teacher education as more highly valued than the non-natives. There is therefore no contradiction with the principles as embedded in the New Economic Policy if the current system of financing teacher education were to be replaced with the principle of “One who benefits from education should pay for it”.

Thirdly, location is not a factor for the recruitment effects into the teacher education. There is no significant association between the location and recruitment effects. However, multiple logistic regressions implies that respondents from the interior and rural areas still need special attention for attending the teacher education. The probability for respondents from these areas to attend the teacher education is much less than those from the metropolitan, big town and small town areas¹². Perhaps a mixture of loans and grants should be given to them as mechanism of financing higher education.

Fourthly, the research findings indicate that respondents highly supported the issues surrounding the loan as an alternative mechanism for financing teacher education. These were

- (i) Unemployed married women should not have to repay the loans
- (ii) interest-free loans.
- (iii) scholarships/grants for the very poor.
- (iv) means-testing of loans.
- (v) bigger loans for more expensive courses.
- (vi) A six-month “grace period” is reasonable.
- (vii) The likelihood that a loan recipient would study harder
- (viii) Exemption of Good results of recipients from repayment of loans as rewards.

CONCLUSION

Compare to other countries, teacher training is very costly and generous in Malaysia and hence financially not efficient as the trainees or students not only do not pay any tuition fees but also given high allowances during the training. Students are also guaranteed jobs after the training. The government fully sponsors the teacher education and regards teacher education as a public investment in preparing human capital and hence does not run like a business entity.

The situation may put all parties involved in a very comfortable zone which may cause the system not to function efficiently. It is inefficient in economic sense as the allowances always represents a dead weight loss to the public expenditure. It is inequitable as the public need to subsidise those who enter the education as the private rate of returns is always higher than the social rate of returns in receiving the teacher training or higher education.

Perhaps the subsidy given could be substituted with loans for equity and efficiency grounds (Barr and Crawford, 1998) as cited in Lau (2006). With high demand for the teacher education, it is highly possible for the new funding system to be implemented without barring anyone from attending the teacher education.

The introduction of a loan scheme linked with higher levels of fees may increase the efficiency of the teacher education institutes who are forced to compete for students to reduce costs, improve the quality of education and

¹² There is no significant association between decisions whether to enter/continue university education and areas respondents come from, if there had been no grants had been given.

($\chi^2 = 10.680$; df = 12; p = .557).

upgrade subsequent marketability of skills provided. It is argued that institutions will seek more efficient allocations and utilisation of resources such as physical plant, and academic staff (Williams, 1987). Institutions will be forced to become consumer-oriented in the competition for students (Blaug, 1990). Students will be reminded about the private cost of their education, which in turn induces them to maximise the educational benefits of higher education (Blaug, 1990) such as receiving teacher training. This will indeed generate a higher economic value for higher education (Ziderman & Albrecht, 1995) or teacher education.

The new funding system with the introduction of contingent loan would initiate the business-like competition among the teacher training institutes as well as with other institutes of higher learning (both private and public) who also provide the teacher training in Malaysia. Students will also compete with each other to enter the institutions of their choices. This would then upgrade the quality of teacher training in Malaysia while saving the public fund in heavily subsidising the teacher education.

REFERENCES

- Barden, L. et al (1991) *An Analysis of Student Loan option*. London: The Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom (CVCP).
- Barr, N. (1989) *Student Loans: The Next Steps*. Aberdeen: Aberdeen University Press.
- Barr, N. and Crawford, I (1998). Funding higher education in the age of expansion. *Education Economics*, 16(1), 45-70.
- Blaug, M. (1990), *The Economic Value of Higher Education*, UHLENBECK LECTURE VIII: 1990. NIAS.
- Lau, H.S. (1997) *Financing of Higher Education in Malaysia: An Equity and Efficiency Analysis of Student Loans and Scholarships*, Ph.D Thesis, March, 2001, Institute of Education, University of London.
- Lau, H. S. (2006) "Effectiveness of the Postgraduate Teaching Course (Secondary) in Malaysia: An Efficiency Analysis" in *Journal of Education MAPERA*, P 1 – 15, 17th Edition, November, 2006, Rajang Teacher Training Institute.
- Norusis, M.J. (1990) SPSS/PC⁺ *Advanced Statistics 4.0 For the IBM PC/XT/AT and PS/2*, Chicago: SPSS Inc.
- Ministry of Education Malaysia (2001) *Annual Report, 2001*
- Lau, H. S. (2011). "Differential Assessment of Beginner Teachers: An Evaluation from Economic perspective." *The 3rd Malaysia Thailand Joint Educational Research Conference 2011* on 25 – 29 Julai,2011
- Rumberger, R W (1984) "The Impact of Surplus Schooling on Productivity and Earnings" *Journal of Human Resources*, 22(1):24-50.
- Rumberger, R W (1987) The Impact of Surplus Schooling on Productivity and Earnings. *Journal of Human Resources*, 22(1):24-50.
- Reuterberg, S.-E. and Svensson, A.(1994) Financial Aid and Recruitment to Higher Education in Sweden: Changes Between 1970 and 1990 *Studies in Higher Education*, Volume 19, Number 1, 1994, pp 33-47.
- Williams, G. (1987) Changing Patterns of Educational Finance and Their Anticipated Effects on Institutional Behaviour and Educational Outcomes in Thomas, H. and Simkins, T. (eds) *Economics and the Management of Education: Emerging Themes*. London: The Falmer Press.
- Ziderman, A. & Albrecht, D. (1995) *Financing Universities in Developing Countries*. Washington, DC, London : The Falmer Press.