The Relationship between In-Service Training and Teaching Skills with Student Achievement

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Abstract

This study aimed to explore the relationship between the level of in-service training (IST) needs and teachers' teaching skills to students' achievement in secondary schools in the state of Perak, Malaysia. Data was collected through questionnaire. Study samples comprised 324 teachers were randomly selected from 18 schools. Data was analyzed using percentages, means, t-test, ANOVA and Pearson correlation. The study showed a high level of IST needs by the respondents with a mean of 3.96. The increase of teaching skills level is at a moderate level with a mean of 3.61. Results of the hypotheses testing showed that there was no significant relationship between demographic factors (gender, age and teaching experience) in the level of the IST needs and the teaching skills. The study found a weak significant relationship between IST needs with teaching skills and no significant relationship between teaching skills and students' achievement. Implications of the study include suggestions to improve the performance of IST and teaching skills in order to upgrade students' achievement.
Key words: In-Service Training, Teaching Skills, Achievement, Gender, Age, Teaching Experience

1.0   INTRODUCTION

In-service training (IST) is an activity to enhance skills, knowledge and change attitudes towards work. According to Bubb and Early (2009), staff development is a continuous process in which the learning experience takes place in formal and informal organizations. Abdul Kadir (2008) also defines coaching as an art or a process to achieve the objective of a group or organization. Training is the process of improving knowledge, skills development, behavior change, attitudes, and the ability to perform tasks more efficiently and effectively.

In the context of education, IST is considered as a key element to improve the quality of teaching and learning (T&L). According to Cooper (2006), teachers need to improve their pedagogical knowledge and skills from time to time by attending IST. They require specialized training to enhance their skills and knowledge in specific areas in line with changes to either content or T&L approaches for the improvement of student achievement. Jais (2006) concluded that the desire to always increase one's knowledge is one of the characteristics of an effective teacher. Based on Malaysia's Education Development Master Plan (PIPP), IST aims to improve

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competency in the teaching service. A person who wants to succeed as a teacher should show a high motivation to empower themselves with knowledge and equip them with skills that can be adopted in the classroom (Bohari, 2005). A report on Lower Secondary Assessment (PMR) in Perak, Malaysia (Perak Education Department, 2010b; 2010c), showed that the percentage of students who pass are moderate and the results are less satisfactory than other regions. The percentage of students who passed has dropped three consecutive years since 2005. This has an impact on the number of outstanding school recognition by MOE. Until now, Perak has only two schools declared as High Performing School from a total of 1,086 schools in the state. Perak is expected to remain at the bottom in every public examination results announced if no changes are made to improve the situation.

Based on the above observation, this study aimed to determine the relationship between IST needs with teaching skills and students' achievement.

2.0   OBJECTIVES OF THE STUDY

• To determine the level of IST needs and teaching skills of teachers in Perak, Malaysia.

• To determine whether the IST needs and skill levels of teachers are significantly different based on gender, age and teaching experience.

• To determine whether there is a significant relationship between the IST needs and the teaching skills of teachers in Perak, Malaysia.

• To determine whether there is a significant relationship between the level of teaching skills and the achievement of students in Perak, Malaysia.

3.0   REVIEW OF LITERATURE

Training needs analysis and its relation to research and development (R&D) is essential to ensure that students get the maximum benefit and teachers have appropriate training for the development of human capital and the country (Razali, 2006). Based on the theory of Blanchard and Thacker (1999) and DeSimone and Harris (1998) about the purpose of identifying training needs, a good exercise to an individual or organization should be analyzed in a systematic manner so that training is more effective and conducted collectively to integrate the necessary elements.

MOE has approved a proposal to 'Enhance Professionalism Training Operations in Teaching and Learning for Education Services' with emphasis on 'school based' operation in line with the concept 'let managers manage' (MOE, 2008; 2009). IST includes three aspects, namely: Professional Knowledge (60%); Professional Skills (20%) and; Professional Values and Teaching Practices (20%). Activities to be considered during the implementation of IST include courses, workshops, professional briefings, seminars, in-house input, and so on. Objectives of IST include (Perak Education Department, 2010c): i) Increase professionalism; ii) Expose teachers to the latest innovations in the field of education; iii) Improve the knowledge and professional skills of teachers on an on-going basis; iv) Establish and strengthen the teaching and professional practice among educators; and v) Uplift the dignity of teaching profession.

This study is based on the Professional Development Model Wood and Thompson (1980) in the field of teachers' professional development, Slavin (1994) input-output model and

the framework of KBSM Training Model (Curriculum Development Centre, 1992) in teaching skills. KBSM Training Model listed training dimensions such as training, planning, conducting sessions, assessment and follow-up actions. Slavin's model says that effective teaching is influenced by the four input factors, namely the quality of teaching, appropriate teaching level, incentive and time as independent variables, while output is increasing the academic achievement of students as independent variables. In this study, the conceptual framework (Figure 1) the dependent variable is the IST, which comprises three areas of expertise of professional knowledge, professional skills, and values and practices of teaching professionalism. The dependent variable is the teaching skills of teachers in the classroom that consists of four components, namely preparation of teaching plan, delivery of T&L, class management and evaluation of teaching. Student achievement is also a variable in the study. It refers to the results of student achievement in the PMR in 2010 from Manjung District in Perak.
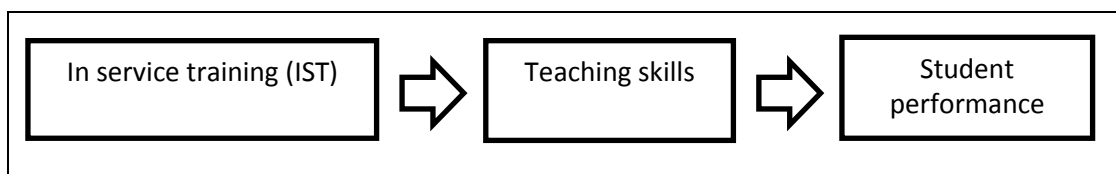

Figure 1: Conceptual Framework
Source : Wood & Thompson (1980), Slavin (1994), CDC (1992)

Research Related to In-Service Training Needs
Research by Wan Abd Aziz (2010) to identify professional training needs among new academics in Technical and Vocational Education field showed that specific training in education and teaching are ranked high among the respondents. Implication of the study is the need to plan and conduct systematic training programme to improve the lecturers' professionalism in line with the demands of global education. Ahmed Dawod (2005) in his study on Mathematics teachers of secondary school in the Republic of Yemen discovered that all supervisors and head teachers stated that training in all aspects are immediately needed by the teachers. Generally, current methods of teaching Mathematics among the teachers are unsatisfactory (poor). The results showed that the ISTs most needed are implementation of the teaching of Mathematics, evaluation of students and students' needs in Mathematics teaching and classroom management. A study conducted by Sukirno and Siengthai(2011) to assess relationship between training, teaching experience and professional training in teaching among religious teachers showed a significant relationship between the IST and the enhancement of professionalism in T&L.

Mohd Ali (2005) conducted a study designed to examine the perceptions of polytechnic training on various aspects of the preparation, implementation, evaluation and methods of identifying training needs. The findings showed the percentage of teaching staff perceptions of the preparation of training is lower than in the implementation and evaluation of training. Jasmi and Tamuri (2007) emphasized the qualities of an effective teacher are teaching skills, including the knowledge, skills and values in teaching. Studies conducted in Toronto, Canada found 75% of respondents agreed with the proposal that participants training needs to be

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taken into account from the participants. This study has shown that 63% of respondents need training in various professional fields.

The results of the empirical studies revealed that teacher training is crucial to improve school performance. Therefore, effort to improve children's performance need to focus on preparing teachers' IST.

Research Related to IST Needs Based on Demographic Factors

According to Mohd Tahir and Saleh (2009), no significant differences for in-house training needs based on teaching experience and no significant correlation between the impact of internal training and teachers training needs. However, studies conducted by Johari, Ismail, Osman and Othman (2009) suggested different findings. Their study identified different efficacy of 928 teachers based on factors such teacher qualifications and teaching experience of teachers in secondary schools in Sabah. ANOVA analysis found that there were significant differences in all dimensions of teacher efficacy by type of training and teaching experience. The results showed a greater difference based on the teaching experience compared to the training of teachers. Teachers who had been teaching for more than seven years are more effective than those with less teaching experience. Teachers with a Diploma of Education have the highest efficiency compared to teachers from other programmes.

In addition, a study by Abdul Sattar (2007) showed that teacher training has a significant impact on the performance of female teachers in the classroom. They perform better teaching in the use of motivational techniques. IST teachers have influenced performance and teacher content knowledge. However, Abd Ghani, Raja Hussin and Jusoff (2009) noted that there were no significant differences based on gender, status of service and teaching experience for staff training effectiveness, but there were differences based on background factors. Harris and Sass (2006) found no evidence of either pre-service (undergraduate) or academic qualifications of teachers affect their ability to improve student achievement. Their study found that the achievement is positively correlated with teaching experience. Al-Ramaiah (1992) also suggested background characteristics such as gender, age, experience and qualifications should be taken into account when planning the IST.

Research Related to Relationship between IST Needs with Teaching Skills and Students' Achievement

Jamil, Atta, Ali, Baloch and Ayaz (2011) showed that IST not only improve the performance of secondary school teachers in terms of their expertise and even the latest knowledge and a better source of information for education students. IST increase teacher confidence, help them maintain better discipline in the classroom, and help to improve teaching methods and interaction with students. Teachers are equipped in a more effective way to get feedback from the students and increase their achievement.

Rahman, Jumani, Akhter, Chisthi and Ajmal (2011) found a significant relationship between teacher training and student testing. Ibrahim (2009) and Kingdon (2006) also proved the impact of individual and school characteristics on students' achievement. Akiri and

Ugborugbo (2009) in a study in Nigeria found that effective teachers produce better student. Research by Maklad (2008) also presented the IST programme for teachers in Egypt and Japan. Teaching time plays an important role in the improvement of teaching skills in Japanese schools based training. Workshops and practical exercises appear at different levels in the training programme in Egypt. The use of instructional strategies is needed to improve teaching skills in Egyptian schools. Teachers need to be skilled in the use of information technology in education to attract students' attention and conduct a realistic teaching. Razali (2006) showed that the ISTs attended by technical schools teachers in Malaysia are very effective. These teachers have high level of skills and knowledge but demonstrated medium level of interpersonal and counseling skills. The study found a significant relationship between the IST and teaching effectiveness, between teaching effectiveness and student achievement and between the IST and student achievement. Aaronson, Barrow and Sander (2007) however, found no significant relationship between teacher experience and student achievement.

4.0   METHODOLOGY

This survey research focuses on the extent of the relationship between the variables (Babbie, 2007; Lim, 2007). IST variables include three dimensions: Professionalism Knowledge, Professionalism Skills, and Professional Teaching Values and Practices. These variables are considered to influence the dependent variables of teaching skills and student achievement. In terms of teaching skills the dimensions are Preparation of Teaching Plan, Delivery of T&L, Classroom Management and Teaching Evaluation. Student achievement is based on the results of PMR in 2010.

The study population is 1,512 secondary school teachers in Manjung. The sample size is determined based on the sample size determination by Krejcie Morgan (1970). A total of 360 questionnaires were distributed to teachers from 18 schools that agree to participate in the research but only 324 questionnaires were returned. Respondents were teachers who were in the teacher's room when the researchers conducted a briefing session before distributing the questionnaire and a returned envelope with postage included. They were instructed to return the questionnaire within two weeks.

This study used a questionnaire that was adapted from instruments developed by the MOE (MOE, 2009) and Md Saleh (2006). The questionnaire consists of three parts. Part A contains the personal details of the respondents. Part B contains 25 items and is divided into three dimensions of IST needs. Items are measured on the Likert 5-level system (1 Highly Not Needed to 5 Highly Needed). Part C contains 30 items and is divided into four dimensions of teacher skill level. Items are measured on the Likert 5-level system (1 Very Low to 5 Very High). The reliability of the dimensions are as indicated by Cronbach alpha values in Table 1.

Descriptive analysis is used in calculating total score, frequency, percentage, mean and standard deviation to show the composition of the respondents. Interpretation of data based on the level of training needs, the level of teaching skills for teachers and student achievement in the PMR 2010 is determined based on an interval scale min Levin and Rubin (2000).

Table 1: Reliability of Dimensions in In-Service Training and Teaching Skills

Variable	Dimension	No. of Item	Alpha
IST Needs	Knowledge Professionalism	9	.848
	Skills Professionalism	11	.926
	Values and Practice Professionalism	5	.915
Teaching Skills	Preparation of Instructional Planning	7	.924
	Presentation of Teaching and Learning	11	.855
	Classroom Management	6	.942
	Teaching Evaluation	6	.927

Inferential analysis in this study involves t-test to determine the differences based on gender and ANOVA test for differences based on age and experience. Pearson correlation method is used to determine the relationship between the IST needs with the teaching skills and between the teaching skills and student achievement.

5.0   FINDINGS AND DISCUSSION
The respondents were 324 teachers of which 84.6% respondents were female and 15.4% respondents were male. A total of 87 respondents (26.9%) were under 30 years old, 65 respondents (20.1%) between 31-35 years, 41 respondents (12.7%) between 36-40 years, 65 respondents (20.1%) between 41-45 years and 66 respondents (20.4%) 46 years and above. Teaching experience found the largest group between 6-10 years of teaching experience with 78 respondents (24.1%), followed by between 1-5 years of teaching experience with 73 respondents (22.5%), 20 years old with 72 respondents (22.2%) and between 16-20 years is the smallest group of some 47 respondents (14.5%).

5.1   Analysis of IST Needs
Table 2 shows the IST needs analysis according to the Knowledge Professionalism dimension. The means obtained range from 3.95 to 4.25 and at a high level. The overall mean is 4.14 which is at the high level.

Table 3 shows the IST needs analysis according to the Skills Professionalism dimension. The means obtained range from 3.72 to 3.90 and at a high level. Only item 17 and item 20 are at moderate levels (3.63 and 3.64). The overall mean is 3.80 which is at the high level.

Table 4 shows the IST needs analysis according to the Values and Practice Professionalism dimension. The means obtained range from 3.89 to 3.99 and at a high level. The overall mean is 3.93 which is at the high level.

Table 2 Dimension of Knowledge Professionalism

Item	Statement	Mean	SD	Level
Item 1	Knowledge sharing programme in field of specialization	4.23	0.64	High
Item 2	Course improvement and application of knowledge	4.20	0.62	High
Item 3	Project-based learning course	3.97	0.71	High
Item 4	Current pedagogy courses based on intelligence of pupil	4.22	0.63	High
Item 5	Application of ICT in T&L	4.25	0.68	High
Item 6	Evaluation and assessment	3.95	0.78	High
Item 7	Management committee	4.04	0.71	High
Item 8	Effective pedagogy course for teachers	4.18	0.65	High
Item 9	Courses for recovery strategies and learning difficulty	4.20	0.63	High

Table 3 Dimension of Skills Professionalism

Item	Statement	Mean	SD	Level
Item 10	Team Building Course	3.81	0.74	High
Item 11	Mentoring and Coaching Course	3.80	0.69	High
Item 12	Basic Skills Courses	3.90	0.67	High
Item 13	Coaching Course	3.90	0.68	High
Item 14	Organization and Administration Course	3.84	0.71	High
Item 15	Course of Civil Service and Secretary	3.86	0.71	High
Item 16	Data Analysis Course	3.72	0.72	High
Item 17	Course of Actions	3.63	0.77	Moderate
Item 18	Effective Leadership Course	3.85	0.70	High
Item 19	Leadership Lessons	3.90	0.72	High
Item 20	Basic Finance	3.64	0.78	Moderate

Table 4 Dimension of Value and Practice Professionalism

Item	Statement	Mean	SD	Level
Item 21	Character Building Course	3.95	0.67	High
Item 22	Behavioral Management Courses In Curriculum	3.93	0.70	High
Item 23	Integrity Enhancement Courses & Excellent Work Culture	3.90	0.75	High
Item 24	Organisational Learning Course	3.89	0.68	High
Item 25	Effective communication course	3.99	0.70	High

The findings indicate that overall the IST Needs are at a high level. Each dimension of IST Needs is required by the respondents in their duty as dedicated and professional educators. The findings are consistent with the findings of studies conducted by Wan Abd Aziz (2010) and Sukirno and Siengthai (2011) but contrary to a study done by Husain (2007) that shows all the dimensions of the training needs to be at a moderate level. Ahmed Dawod (2005) also revealed that training is needed immediately by Mathematics teachers in secondary schools. Overall, the respondents' IST needs are at a high level. The challenge of technology has led to many changes in education either to the students or the teachers. Whether they like or not teachers need to

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accept and learn as well as making the most of this technology. According to Aris, Shariffudin and Subramaniam (2002), people currently find it difficult to live without the technology available nowadays. Due to development in technology, especially information technology which is growing rapidly, familiarity in this aspect has become a must. Therefore, teachers need to attend relevant IST to perform related tasks better.

5.2 Analysis of Teaching Skills

Table 5 shows the analysis of the dimension Preparation of Teaching and Learning Plan in Teaching Skills. The means obtained range from 3.54 to 3.74 and almost all moderate except for item 4 and item 5 (3.67 and 3.74). The overall mean is 3.61 which is at the moderate level.

Table 5 Dimension of Preparation of Teaching and Learning Plan

Item	Statement	Mean	SD	Level
Item 1	Skills in preparing T&L plan.	3.57	0.67	Moderate
Item 2	Skills in preparing T&L material.	3.54	0.70	Moderate
Item 3	Skills in planning directed creativity in T&L.	3.55	0.67	Moderate
Item 4	Skills in determining T&L method.	3.67	0.67	High
Item 5	Skills in selecting T&L content.	3.74	0.63	High
Item 6	Skills in selecting appropriate teaching aids.	3.61	0.70	Moderate
Item 7	Skills to use teaching aids effectively.	3.59	0.78	Moderate

Table 6 shows the analysis of the dimension Presentation of T&L. The means obtained range from 3.49 to 3.74. The overall mean is 3.64 which is at the moderate level.

Table 6 Dimension of Presentation of T&L

Item	Statement	Mean	SD	Level
Item 8	Skills to conduct attractive induction set.	3.49	0.71	Moderate
Item 9	Skills in various delivery technic.	3.60	0.71	Tinggi
Item 10	Two-way communication skills.	3.73	0.68	Tinggi
Item 11	Skills to create student interest in T&L.	3.66	0.71	Tinggi
Item 12	Skills to implement directed creativity in T&L.	3.55	0.69	Moderate
Item 13	Skills to stimulate students to actively participate.	3.58	0.70	Moderate
Item 14	Skills to practice integration in T&L.	3.55	0.63	Moderate
Item 15	Skills to deliver teaching content clearly & systematically.	3.72	0.67	High
Item 16	Skills to handle students of multiple intelligences.	3.58	0.74	Moderate
Item 17	Skills to inculcate values in T&L.	3.74	0.72	High
Item 18	Skills to conduct T&L according to students' abilities.	3.67	0.67	High

Table 7 shows the analysis of the dimension Classroom Management Skills. The means obtained range from 3.64 to 3.67 and almost all are moderate, except for item 21 (3.67). The overall mean is 3.65 which is at the moderate level. Table 8 shows the analysis of the dimension

Teaching Evaluation. The means obtained range from 3.45 to 3.60 which is at a moderate level. The overall mean is 3.54 which is at the moderate level.

Table 7 Dimension of Classroom Management Skills

Item	Statement	Mean	SD	Level
Item 19	Skills to develop students' discipline.	3.64	0.75	Moderate
Item 20	Skills to motivate students.	3.65	0.75	Moderate
Item 21	Skills to create attractive T&L.	3.67	0.70	High
Item 22	Skills to enhance interaction in the classroom.	3.65	0.71	Moderate
Item 23	Skills to create conducive T&L environment.	3.64	0.74	Moderate
Item 24	Skills in applying systematic classroom management.	3.64	0.71	Moderate

Table 8 Dimension of Teaching Evaluation Skills

Item	Statement	Mean	SD	Level
Item 25	Skills to assess appropriateness of content.	3.60	0.69	Moderate
Item 26	Skills to assess suitability of teaching aids used.	3.56	0.69	Moderate
Item 27	Skills to assess the effectiveness of T&L.	3.58	0.67	Moderate
Item 28	Skills to test students based on evaluation form.	3.48	0.71	Moderate
Item 29	Skills to evaluate lessons conducted.	3.55	0.72	Moderate
Item 30	Skills to build assessment instruments.	3.45	0.72	Moderate

The study indicates teachers have increased teaching skills after attending the IST but only moderately. The findings are consistent with the findings of a study conducted by the MOE (1999), which also showed a modest increase in teachers skills in planning lessons and aspects of teaching and learning. Jasmi and Tamuri (2007) emphasized that the qualities of an effective teacher is teaching skills, including the knowledge, skills and values in teaching. Yahaya and Mohd Nor (2010) posited that teacher certainly has a deep knowledge of their subject matter, have a variety of skills in communicating their subject matter, and have the right attitude as a teacher and is able to carry out the process of teaching and learning effectively. Clarke and Cutler (1990) indicated the effectiveness of teaching depends on the planning, implementation, and evaluation of the process and learning objectives. Mohd Ali (2005) also showed the same view that most teachers require training programme in increasing knowledge and general knowledge content and managerial skills like controlling and communication skills.

5.3 Analysis of Student Performance

Table 9 shows the analysis of PMR results in 2010 for Perak based on 18 schools involved in the study. The number of students involved in the PMR in 2010 was over 4,025 candidates. Most schools surveyed were in grades 50-64% (Grade C) followed by 65-79% (Grade B). A total of 37 respondents (11.4%) were in 80-100% grade (Grade A), 28 in grades 0-39% (Grade E) and 21 (6.5%) in grades 40-49% (Grade D).

Analysis of student achievement in the PMR shows only 11.4% was in category 80% - 100%. This shows that only a small number of students get excellent results. Most students achieve good or moderate scores.

Table 9 Distribution of PMR Scores

PMR Score	Grade	Frequency	Percentage
80-100	A	37	11.4
65-79	B	117	36.1
50-64	C	121	37.3
40-49	D	21	6.5
0-39	E	28	8.7
Total		324	100.0

Source: Perak Education Department (2010b, 2010c)

5.4 IST Needs and Teaching Skills Based on Gender, Age and Teaching Experience

Based on Table 10, t-test conducted shows p = 0.767> 0.05. This means there is no significant difference between the IST needs of teachers based on gender.

Based on Tables 11 and 12, the results of ANOVA are p = 0.609 > 0.05 and p = 0.813 > 0.05. This means there is no significant difference in the IST needs based on age and experience. Based on Table 13, the results of t-test shows p = 0.119 > 0.05. This means there is no significant difference in the level of teaching skills by gender. Based on Tables 14 and 15, the results of ANOVA are p = 0.201 > 0.05 and p = 0.106 > 0.05. This means there is no significant difference in the level of teaching skills based on age and teaching experience.

Table 10 Differences in IST Needs of Teacher Based on Gender

	Variance Test F	Levene's Test Sig
IST Needs of Teachers	.088	.767

Table 11 Differences in IST Needs of Teacher Based on Age

	Total Square	df	Square	F	Sig
Between Group	338.882	4	84.720	.676	.609
Within Group	40003.033	319	125.401		
Total	40341.915	323			

Table 12 Differences in IST Needs of Teacher Based on Teaching Experience

	Total Square	df	Square	F	Sig
Between Group	198.599	4	49.650	.395	.813
Within Group	40143.316	319	125.841		
Total	40341.915	323			

Table 13 Differences in Teaching Skills Based on Gender

	Variance Test F	Levene's Test Sig
Teaching Skills	2.443	.119

Table 14 Differences in Teaching Skills Based on Age

	Total Square	df	Square	F	Sig
Between Group	1517.874	4	379.468	1.502	.201
Within Group	80591.322	319	252.637		
Total	82109.196	323			

Table 15 Differences in Teaching Skills Based on Teaching Experience

	Total Square	df	Square	F	Sig
Between Group	1938.154	4	484.539	1.928	.106
Within Group	80171.041	319	251.320		
Total	82109.196	323			

The results show no significant differences in the IST needs based on demographic variables of gender, age and experience. The finding is in line with the findings by Lay (2003), which showed no significant difference in the overall performance of the integrated Science process skills between male and female Science teachers. The study also showed a significant difference in the overall performance of the integrated Science process skills in different age groups of teachers. This finding is also contrary to the findings of Yahaya and Mohd Nor (2010) who argued that there were significant relationships based on age and teaching experience in terms of knowledge, skills and attitudes of teachers towards teaching. The findings are consistent with studies by Mohd Tahir and Saleh (2009) and Abd Ghani, Raja Hussin and Jusoff (2009) who found no significant difference based on teaching experience and no significant correlation between the impact factors of internal training needs of teachers. However, contrary to the findings of this study, Johari et al. (2009) found that there were significant differences in all dimensions of teacher efficacy by type of training and teaching experience. The teaching experience showed a greater effect on teacher efficacy compared to other types of training.

5.5 Relationship between IST Needs and Teaching Skills

Based on Table 16, the correlation test shows value of p = 0.000 < 0.05. This means that there is a significant relationship between the level of the IST Needs and Teaching Skills of teachers in Perak. The analysis shows positive relationship (r = 0.434) between the two variables.

Table 16 Relationship between IST Needs and Teaching Skills

		Teaching Skills
IST Needs	Pearson Correlation	.434**
	**Sig (2-tail)	.000
	N	324

Pearson correlation analysis results found that there is a correlation between IST needs for teachers and teaching skills. The IST needs have a weak positive relationship with teaching skills. This shows that any changes to the IST needs will need to show the impact on teaching skills. The finding is consistent with a study by Razali (2006) who found a significant relationship between IST with the effectiveness of teaching and research by Abdul Sattar (2007) that showed training of teachers has a significant impact on classroom performance. Jamil et al. (2011) argued that the IST improved the performance and expertise of teachers.

5.6   Relationship between Teaching Skills and Student Achievement
Based on Table 17, the correlation test shows value of p = 0.416 > 0.05. This means there is no significant relationship between the Teaching Skills of teachers and student achievement. The analysis shows a weak negative correlation (r = -0.045) between the two variables.

Table 17 Relationship between Teaching Skills and PMR Achievement

		PMR Achievement
Teaching Skills	Pearson Correlation	- .045
	Sig (2-tail)	.416
	N	324

Pearson correlation analysis results showed that there was no significant correlation between the teaching skills and achievement. This finding is supported by Akiri and Ugborugbo (2009) and Aaronson, Barrow and Sander (2007) who found no significant relationship between teacher experience and student achievement. This is contrary to some studies (Rahman et al., 2011; Kasirye, 2009; Kingdon, 2006) which revealed that teacher training is crucial to improve school performance. This finding is also supported by Harris and Sass (2006, 2007) who found positive correlation between student achievement and teacher experience and Razali (2006) who proved a significant correlation between the IST and the effectiveness of teaching, between teaching effectiveness and student achievement, and between the IST and achievement. The level of teachers' needs for IST is high and explains the moderate student achievement. The absence of a significant relationship with student achievement may be due to less favorable student outcomes. This is contrary to the findings of Razali (2006) who found a significant relationship between the effectiveness of teaching and achievement. In real life, the skills taught are the skills that are needed and learned by the teachers in the process of R&D. The skills assist teachers in improving student achievement.

The findings may be caused by other factors that are not covered in this research. The first factor may be related to the students themselves like background, environment, peer influence, the economy and the student's parents. The second factor may be due to the way the management of the IST and IST content is implemented. The management and implementation of the IST need to be suitable for the implementation, delivery method of facilitator, cost of implementation, etc., to achieve the goal. In addition, IST content should include tasks and responsibilities, according to the position held and the like in order to achieve

the goal of its implementation. The training content should be in line with the latest syllabus, clear and easy to understand.

6.0   CONCLUSION

The high level of IST needs indicated by the respondents reflects the low level of teaching skills and student achievement. This proves the implemented IST has not yet reached a satisfactory level despite a lot of money, energy and time consumed. The implementation of the IST must be suited to the needs of teachers, particularly in terms of improving student achievement. The parties concerned should design training to suit teachers from the aspect concerned to achieve maximum effectiveness. District Education Office should collect data, especially the implications of the IST performed and submit it to the State Education Department in order to formulate IST appropriate to the needs of teachers and schools. IST should put more emphasis on the mastery of the latest teaching methods and techniques so that teachers are more confident and motivated to build skills. The ministry should take appropriate actions such as monitoring and evaluating the IST programme implemented from time to time, seeking to improve the identified weaknesses and making improvements so as to maximize the purpose of the programme implemented so that it does not become a cause of wastage in terms of finance, time, and energy. Record keeping system should also be regularly updated. The implications of the IST should be recorded so that revision, reference, research and plan for the next training can be made to complete the deficiencies and weaknesses.

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