The Level of Knowledge and Attitude of Primary School Teachers on Implementation Program i-THINK

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ABSTRACT: This study was carried out to identify teachers' knowledge and attitude toward implementing Program i-THINK in nine districts in Selangor state. A survey design was employed using a seven-point Likert Scale structured questionnaire. Respondents were selected using a multi-stage sampling procedure involving 500 teachers from nine districts in Selangor. Descriptive analysis was conducted to find the mean and standard division. The internal consistency reliability, often known as the alpha coefficient or Cronbach Alpha, was used to assess the instrument's reliability. This study proved the teachers had the highest knowledge level (5.35 mean value). The attitude level among the teachers towards the Program i-THINK is also the highest, with (a 5.23 mean value). This study shows that teachers well receive the Program i-THINK. Besides, these findings have the potential to be benchmarked on the status of implication Program i-THINK in Malaysia, particularly in Selangor. However, continuous monitoring should be carried out by the Ministry of Education to ensure the implication of Program i-THINK by teachers. This study implies that Program i-THINK should be used to enhance the teachers' knowledge and attitude on a larger scale to help the success of the Program i-THINK.

KEYWORDS: Program i-THINK, Knowledge, Attitude

INTRODUCTION

Program i-THINK is a purposeful program to improve and cultivate thinking skills among teachers towards producing innovative students. Teachers and students will use thinking tools in rooting checkers learning next implement activity high-level skills. Program i-THINK means innovative thinking (thoughts innovative), which is intended to improve and cultivate skills thinking among students towards producing creative, critical and innovative students. This programme is the result of the cooperation of the Ministry of Education Malaysia with the Malaysian Innovation Agency.

One of the essential tools is the mind map introduced through the Program i-THINK. Program i-THINK mind map is a thinking tool developed by Dr David Hyerle. Besides, the mind maps by Program i-THINK presented in eight maps form visual thinking that is easy to use and understand. Every mind map in Program i-THINK has its thought process, and its use can be adjusted according to the teaching needs (MOE, 2012). Furthermore, connection lines, codes, and symbols in mind maps are used to connect ideas, highlight important concepts, and stimulate creative thinking.

According to the Curriculum Development Division (2012), thinking maps by Program i-THINK have combined the learning process cognitively and the presentation of information visually and graphically. The researchers Sidek & Ahamad (2012a) have identified that the teaching process and learning that applies the mind maps by Program i-THINK, which is based on the latest technology, is fast and effective. In addition, Sidek's paper (2013) explains the role and the importance of the Program i-THINK to transform the mind as access to new thinking skills. The technique of teaching using the Program i-THINK mind map is one of the efforts in strengthening teacher pedagogy to help teachers change old mentality and practices technique. Furthermore, this technique can create a learning atmosphere that is fun for students, easy, and informative, in addition to saving time and materials.

PROBLEM STATEMENTS

There are several problems within the current education scenario in Malaysia for implementing Program i-THINK in the teaching and learning process. Norazilawati (2019) stated that teachers should have extensive knowledge about the function and use of the mind maps in Program i-THINK to make teaching and learning activities more beneficial to students. Besides, Shamsazila (2018) reported that teachers still lack knowledge about mind maps in Program i-THINK. According to Rajendran (2018), teachers are usually not prepared to carry out their teaching and learning proses as expected by the Ministry of Education. As a result, teachers still do not have a positive attitude in carrying out their duties and implementing Program i-THINK.

Fadilla and Zamri (2019) study aligns with the study above in that their findings show that teachers' attitudes towards using mind maps are still moderate. Also emphasized by Good & Brophy (1986), teachers who are optimistic about all reforms will

positively affect student achievement. The findings of Aziana & Fadzila's study (2018), also prove that a few teachers still have a less clear understanding of Program i-THINK and are not yet fully prepared to implement the Program i-THINK in learning and teaching activities.

Furthermore, in the study of Shamsazila et al., (2017), teachers still lack confidence towards the Program i-THINK and cannot fully accept this program. Therefore, this matter is appropriate from the aspect of knowledge and attitude towards the implementation of the Program i-THINK and should be carefully studied to achieve the success expected Ministry of Education.

AIM AND OBJECTIVE OF THE STUDY
The study determined the level of knowledge and attitude towards implementing Program i-THINK among nine district teachers in Selangor. Specifically, it sought answers to the following research objectives:
1. To identify the knowledge level on implementation of Program i-THINK
2. To identify the attitude level on implementation of Program i-THINK.

RESEARCH METHODOLOGY
This study adopted a quantitative research methodology. The survey instrument was a questionnaire with a seven-point Likert scale (strongly disagree to agree strongly) distributed to 500 primary school teachers in districts Selangor.

The Instrument
The instrument was developed in stages. First, the researchers conducted a comprehensive literature search on various theories. Second, the researchers also referred to past instruments and constructs developed by the ministry in its documents. Finally, an evaluation was conducted with the help of seven field specialists: two evaluation experts, two subject matter experts, one language expert, and two institutional and department representatives, as recommended by Lynn (1986). Next, to determine the content validity of the instrument, the researcher calculated the content validity index for each item (Item-Content validity index- I-CVI) and the content validity index for the full scale (Scale-Content validity index- S-CVI) as suggested by Lynn (1986). This procedure is primarily utilised to verify the content validity of each questionnaire item. The researcher took into account the recommendations of Lynn (1986) and Davis (1992), and decided and accepted items that reached the value of I-CVI ≥ 0.83 only. The researchers made corrections and improvements in response to expert comments and suggestions. After completing the final draft, the researchers submitted it to the academic advisor for finalisation before distributing the instrument to the teachers.

According to Sekaran (2016); Mohd Majid, (1990), values of Cronbach's alpha coefficient (a) less than 0.60 are not acceptable, and values between 0.60 to 0.80 are accepted, and values above 0.80 are categorized as good. The instrument was answered using 500 teachers and generated high-reliability values of Cronbach's alpha coefficient (a) as shown in table 1. Thus, a value of 0.960 and 0.962 indicates that each item in the questionnaire questions has sufficient to be processed with the study.

Table 1. Overall Cronbach's Alpha values for knowledge and attitude level.

Statements	Overall Cronbach's Alpha Value
Teacher's knowledge of the i-THINK programme	0.986
The attitude of teachers in implementing the i-THINK programme	0.98

Descriptive analysis was used to answer the objective and used the mean score interpretation by Best & Kahn (1977) to identify the teacher's knowledge and attitude level in the implementation of the Program i-THINK. The mean scale interpretation is based on Best & Khan (1977), as shown in Table 2.

Table 2. Min Interpretation of the Implementation Stage of the i-THINK Program

Min Score	Interpretation Score Mean
1.00 to 2.20	Very low
2.21 to 3.41	Low
3.42 to 4.62	Average
4.63 to 5.83	Heigh
5.84 to 7.00	Highest

Source: Best & Khan (1977)

RESULTS AND DISCUSSION
Tables 3 and 4 show the mean score of teachers' knowledge and attitude towards implementing Program i-THINK.

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Table 3. Teachers' knowledge level towards Program i-THINK.

Statements: Teacher's knowledge of the i-THINK programme	mean score	Standard Division	Interpretation Score Mean
1. Circke map	5.75	1.06	High
2. Bubble map	5.69	1.08	High
3. Double Bubble map	5.69	1.06	High
4. Tree Map	5.49	1.11	High
5. Brance map	5.65	1.07	High
6. Flow map	5.53	1.14	High
7. Multi-follow map	5.47	1.11	High
8. Bridge Map	5.41	1.11	High
9. 8 thought process	5.26	1.11	High
10. question based on the frame of reference	5.12	1.14	High
11. hand signals per thinking maps	5.07	1.12	High
12. questioning techniques	4.98	1.17	High
13. keywords of each thinking process	5.17	1.10	High
14. high-level questioning Bloom's Taxonomy Anderson revision	5.17	1.10	High
15. student-centred learning using thinking maps	5.29	1.09	High
16. construct an appropriate thinking map according to a particular thinking process	5.26	1.08	High
17. construct an appropriate thinking map according to the questions presented	5.26	1.09	High
18. build a suitable thinking map according to the content of the lesson	5.27	1.06	High
19. constructs questions based on the frame of reference	5.14	1.08	High
Overall mean	5.35	0.97	High

As shown in table 3, the teachers have a high knowledge level in implementing Program i-THINK, as indicated by the overall mean of 4.34 (SD=1.03). The highest mean was noted in the statement regarding the level of knowledge about mind maps in Program i-THINK, a mean of 5.75. Meanwhile, the lowest means, although in the acceptable range in the statement regarding questioning techniques in Program i-THINK. However, the studies show all the items reached a high mean score ranging from 4.98 to 5.75. Therefore, the teachers' knowledge of implementing Program i-THINK in teaching and learning activities is high.

Table 4. Teachers' attitude towards Program i-THINK.

Statements: The attitude of teachers in implementing the i-THINK programme	mean score	Standard Division	Interpretation Score Mean
1. help me understand the content of the lessons taught	5.35	1.08	High
2. suitable to be used for all topics taught	5.13	1.14	High
3. easy to use to make notes	5.45	1.08	High
4. suitable for use by all students who are taught from various levels in primary school	5.21	1.14	High
5. suitable for use by all students of various mastery levels	5.17	1.15	High
6. easy to use in student question-and-answer sessions	5.23	1.09	High
7. quickly adapted according to the content taught	5.23	1.08	High
8. encourage the students to question each other's learning problems	5.14	1.10	High
8. increase the effectiveness of questioning techniques	5.22	1.10	High
9. suitable for group teaching and learning activities	5.35	1.10	High
10. suitable for all types of student assignments.	5.11	1.17	High
11. I am more confident using the i-THINK thought map to deliver the lesson content.	5.18	1.14	High
Overall Mean	5.23	1.02	High

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Table 4 shows teachers have a "high" attitude towards Program i-THINK, as shown by the overall mean of 5.23 (SD= 1.02). The teachers have a very positive attitude that the mind maps in Program i-THINK are easy to use to make notes, help them understand the content of the lessons taught and are suitable for all the group for teaching and learning activities.

DISCUSSION

This study showed that teachers' level of knowledge and attitude was excellent. It is in line with Norazilawati's study (2019) that teachers have extensive knowledge about the functions and how to use the mind maps in Program i-THINK to make teaching and learning more effective for students. Also, this study is supported by the findings of Ab. Halim et al. 2021; Layang & Mahamod (2019) ; Hazlin (2016) ; Nor Hamaliza (2016) ; Chan Mee Khoo (2015) shows that teachers have a high level of knowledge in the use of thinking maps by Program i-THINK and can implement effective teaching and learning activities in the classroom.

Besides high mean score value by the teacher shows that the teacher has a positive attitude towards the Program i-THINK and believes that using i-THINK mind maps can facilitate the learning and teaching process. The findings of this study support the study of Roslan , (2020) which states that teachers are positive about using the Program i-THINK maps in the teaching and learning process to achieve a high level. The study's results are also supported by Fadilla & Zamri (2019), which shows the level of attitude teachers are at a high level in using Program i-THINK thinking maps. So also with the results of Nur Shahirah & Zamri's study (2021) ; Nor Hasmaliza (2016) shows that teachers' attitude towards using i-THINK thinking maps thinking also helps teachers in effective teaching in the classroom.

CONCLUSION

The study ascertained the level of knowledge and the degree of an attitude of Selangor state teachers towards the Program i-THINK. The teachers are aware of Program i-THINK. Hence, the results prove that the participants showed high knowledge and positive attitude towards implementing Program i-THINK. These findings can potentially be benchmarked on the implementation status of Program i-THINK in Malaysia. The point is, although this study shows that teachers reach a high mean level in knowledge and also a positive attitude towards Program i-THINK implementation, the teacher should always be careful with the latest knowledge so that it can change according to the needs of the world education from time to time as stated by Khairuddin et al., (2008).

Meanwhile, continuous monitoring should be done to view teachers' needs in implementing Program i-THINK. This study implicates Program i-THINK should be used to enhance the progress and development of the country in line with religious, ideological, economic, social, and environmental demands. The researchers hope this study can motivate others to study the implementation of Program i-THINK in teaching and learning in other states.

REFERENCES

1) Best, J. & Kahn, .(1977). Education research. 9th ed. Chicago: University of Illinois.
2) Davis, L.L. (1992). Instrument review: Getting the most from your panel of experts.Applied Nursing Research 5: 194-197
3) Farah Aziana Abdul Aziz & Fadzilah Abd Rahman. (2018). Sorotan Kajian Kesediaan Guru dan Keperluan Guru Bahasa Melayu Dalam Pelaksanaan Kemahiran Berfikir Aras Tinggi Di Bilik Darjah [Literature review on teachers readiness and the need of Malay language teacher in implementing Higher Order Thinking Skills in the classroom].Pendeta Journal of Malay Language, Education and Literature, 9(1), 80-101.
4) Isa, N. S. M., & Mahamod, Z. (2021). Tahap pengetahuan, sikap dan masalah guru bahasa Melayu terhadap penerapan kemahiran berfikir aras tinggi dalam pengajaran dan pembelajaran komsas. *Asian People Journal (APJ)*, *4*(1), 93-107.
5) Good, T.L. and Brophy, J.E. (1986) 'School effects', in Wittrock, M. (ed.), Third Handbook of Research on Teaching, New York: Macmillan, pp.570–602.
6) Khairuddin, A. Z., Abd Razak, A., Idrus, F., & Ismail, N. A. H. (2019). Challenges of Offering Peace Education among Educational Leaders: A Case Study of Malaysian Public Primary School. *American Journal of Qualitative Research*, *3*(1), 57-71.
7) Kementerian Pendidikan Malaysia. (2012a). Dasar Pendidikan Kebangsaan. Edisi ke-3. Bahagian Perancangan dan Penyelidikan Dasar Pendidikan, Kementerian Pendidikan Malaysia.
8) Layang, F. A., & Mahamod, Z. (2019). Tahap Pengetahuan, kesediaan dan sikap guru Bahasa Melayu sekolah rendah dalam melaksanakan pengajaran dan pembelajaran peta pemikiran i-Think. *Jurnal Pendidikan Malaysia*, *44*(1), 37-44.
9) Lynn, M.R. (1986). Determination and quantification of content validity. Nursing Research 35: 382– 385
10) Mohd Majid Konting (1990), Kaedah Penyelidikan Pendidikan. Kuala Lumpur: Dewan Bahasa dan Pustaka.
11) Muhamad Sidek Said & Ahamad Rahim. (2012a). Inovasi pengajaran dan pembelajaran melalui program i-THINK. Kertas kerja dibentangkan di IPGM International Convention in Teacher Learning & Development, Pearl International Hotel, Kuala Lumpur, 19-21 Nov 2012.

12) Muhamad Sidek Said. (2013). Aplikasi menggunakan "thinking map" dalam program praktikum KPLD Di Tadika Yayasan Islam Terengganu, Seberang Takir, Kuala Terengganu. Kertas kerja dibentangkan di Seminar Kajian Tindakan Peringkat Kebangsaan, Tanjung Vista Hotel, Kuala Terengganu, 23-25 April 2013.

13) Norazilawati Abdullah, Kung-Teck Wong, Noraini Mohamed Noh, Mahizer Hamzah, Nor Hasnida Che Md Ghazali (2019). An Evaluation of Implementing the Dual Language Programme (DLP) among Science and Mathematics Teachers. *International Journal of Recent Technology and Engineering*, *8*(4), 13–15. https://doi.org/10.35940/ijrte.c4250.118419

14) Nor Hasmaliza Hasan. 2016. Persepsi guru bahasa melayu sekolah Menengah Kebangsaan terhadap Penerapan KBAT dalam pengajaran dan pembelajaran. Tesis Sarjana Pendidikan. Fakulti Pendidikan: Univeristi Kebangsaan Malaysia.

15) Roslan, A. R., Roselizam, D., & Noradilah, A. W. (2020). Sikap dan tingkah laku guru terhadap penggunaan peta pemikiran i-Think dalam proses pengajaran pendidikan Islam di sekolah.(Attitude and behaviour of teachers towards the use of i-Think maps in the teaching of Islamic Education in schools). *Asian People Journal*, *3*(2), 24-35.

16) Sekaran, U. (2009). Research methods for business 4th edition. Hoboken.

17) Shamsazila Sa'aban. (2018). Penilaian Program i-Think di Sekolah Wilayah Persekutuan Kuala Lumpur.Universiti Malaya, Kuala Lumpur.

18) Shamsazila Sa'aban, Muhammad Faizal Abdul Ghani & Ghazali Darusalam.(2017). Pendedahan Program i-THINK di Peringkat Sekolah Mengikut Pendekatan Sekolah Secara Menyeluruh: Satu Kajian Awal. Jurnal Kepimpinan Pendidikan, 4(2):2-20.