

## THE KIRKPATRICK MODEL: A TOOL FOR EVALUATING MADRASA TEACHER TRAINING

Atim Rinawati<sup>1</sup>, Siti Fatimah<sup>2</sup>  
Institut Agama Islam Nahdlatul Ulama Kebumen  
E-mail: [atimrinawati87@gmail.com](mailto:atimrinawati87@gmail.com)

### ABSTRAK

Penelitian ini bertujuan untuk mengimplementasikan model Kirkpatrick untuk mengevaluasi pelaksanaan pelatihan penyusunan instrument soal berbasis HOTS untuk guru MI di Kebumen. Subjek dalam penelitian ini adalah guru MI yang terdiri dari 3 MI di Kebumen. Teknik pengambilan data melalui observasi, wawancara, angket, dan dokumentasi. Metode evaluasi yang digunakan adalah model Kirkpatrick yang dalam pelaksanaannya dibatasi 3 tahap yaitu reaksi, belajar, dan perilaku. Hasil analisis menunjukkan bahwa Model Evaluasi *Kirkpatrick* dapat diimplementasikan dan dijadikan dasar evaluasi pelaksanaan untuk mengevaluasi pelaksanaan pelatihan penyusunan instrument soal berbasis HOTS guna untuk menentukan efektifitas dan ketepatangunaan pelatihan yang dilakukan. Hasil evaluasi dapat menggambarkan tingkat kepuasan peserta dalam mengikuti pelatihan, serta dapat memberikan gambaran pemahaman dan implementasi tindak lanjut di madrasah masing-masing, sehingga dapat diketahui perbaikan-perbaikan yang perlu untuk dilakukan guna pencapaian tujuan pelatihan.

**Kata kunci:** Model Kirkpatrick, evaluasi, pelatihan, instrument, HOTS

### ABSTRACT

*This study aims to implement the Kirkpatrick model to evaluate the implementation of Higher Order Thinking Skills-Based Instrument preparation training for Madrasah Ibtidaiyah teachers in Kebumen. The subjects in this study were Madrasah Ibtidaiyah teachers consisting of 3 Madrasah Ibtidaiyah in Kebumen. Data collection techniques through observation, interviews, questionnaires, and documentation. The evaluation method used is the Kirkpatrick model which in its implementation is limited to 3 stages, namely reaction, learning, and behavior. The results of the analysis show that the Kirkpatrick Evaluation Model can be implemented and used as the basis for implementation evaluation to evaluate the implementation of Higher Order Thinking Skills-Based Instrument preparation training to determine the effectiveness and effectiveness of the training carried out. The results of the evaluation can describe the level of satisfaction of participants in participating in the training and can provide an overview of understanding and implementation of follow-up in each madrasa so that improvements need to be made to achieve the training objectives can be identified.*

**Keywords:** *Kirkpatrick model, evaluation, training, instrument, higher order thinking skills*

## **INTRODUCTION**

Higher order thinking skills (HOTS) are an important aspect in the teaching and learning process, especially at the basic education level. Thinking skills are one of the general skills that must be instilled in all subjects. Students with higher order thinking skills are able to learn to improve their performance and reduce their weaknesses (Heong, dkk: 2011). High-level thinking makes students able manipulate information and ideas that change their meaning and implications, as when students combining facts and ideas to synthesize, generalize, explain, hypnotize, or arrive at some conclusion or interpretation (Newman & Wehlage, 1993). Therefore, educational institutions must ensure that the learning activities that take place are based on the HOTS principles.

Various efforts have been made by the government and educational institutions to further improve the quality of HOTS implementation in madrasas. Teachers who are at the forefront of implementing learning absolutely must understand the concept of

HOTs. Teachers need to receive regular and continuous training to upgrade their understanding and skills in implementing HOTs in madrasas. In order to ensure the success of training carried out by the government and educational institutions, it is necessary to conduct a professional evaluation of training programs (Pateda, et al: 2020). Various evaluation models can be used to obtain results that are oriented towards program improvement. This article describes the results of the evaluation of the HOTs-Based Question Writing Training program for Madrasah Ibdidaiyah teachers in Kebumen Regency. In carrying out the evaluation, a special evaluation model was chosen for the implementation of the training, namely the Kirkpatrick Evaluation Model (Dewi & Kartowagiran: 2018; Alsalamah & Callinan, 2021; Cahapay, 2021).

Kirkpatric's evaluation model, known as the four-level evaluation model, was first recognized in 1959 when Donald L. Kirkpatrick wrote a series of four articles entitled "Techniques for

Evaluating Training Programs" published in *Training and Development*, the journal of The American Society for Training and Development (ASTD). The articles describe a four-level evaluation formulated by Kirkpatrick based on concepts from his dissertation at the University of Wisconsin, Madison (Kirkpatrick, D., L. & Kirkpatrick J., D., 2006).

Kirkpatrick, D., L. & Kirkpatrick J., D. (2006) suggested three reasons for the need to evaluate training activities, namely: 1) justifies the existence of a training budget by showing how the training program contributes to the goals and objectives of the organization. 2) Determine whether a training program is continued or not. 3) obtain information on how to improve the training program in the future. Teknik pelaksanaan evaluasi Kirkpatrick dilakukan dengan empat tahap, yaitu: 1. Evaluating Reaction (Evaluating Reaction), the reaction evaluation stage can also be interpreted as the stage of measuring customer satisfaction, in this case the training participants. A trainer in using a reaction sheet as an

instrument for measuring the level of consumer satisfaction. There are 3 reasons that reinforce the importance of knowing the reactions of the trainees. First, providing valuable feedback to program organizers through criticism and suggestions that can be used as material for improvement in the next program. Second, reassure trainees that trainers are employed to help them perform the task or job and that they need feedback to determine how effective their performance is. Third, test sheets can provide quantitative information that you can provide to managers and others with an interest in the program. They are 8 (eight) guidelines for evaluating reaction: 1) Deciding what to ask, 2) Designing forms/instruments, 3) Encouraging trainees to provide written comments, 4) getting 100 % of trainees' responses, 5) Ensuring the honesty of the comments given, 6) determining the standard of responses received, 7) taking measurements, 8) communicating the results; 2. Evaluating Learning, there are 3 (three) things taught by the instructor in a training, namely knowledge, skills, and attitudes. In

the Evaluating learning stage, an evaluation of what knowledge was learned by the trainees, what skills were developed or improved, and what attitudes would be changed.

The measurement of learning is more difficult and time-consuming than the measurement of reaction. They are 6 (six) guidelines for evaluating learning: 1) Use a control group if practical. 2) Evaluate knowledge, skills, and/or attitudes both before and after the program. 3) Use a paper-and-pencil test to measure knowledge and attitudes. 4) Use a performance test to measure skills. 5) Get a 100 percent response. 6) Use the results of the evaluation to take appropriate action; 3. Evaluating Behaviour, in contrast to evaluating reaction and evaluating learning, which can be done immediately during training, evaluating behavior requires special time and preparation. They are 7 (seven) guidelines for evaluating behaviour: 1) Use a control group if practical. 2) Allow time for behavior change to take place. 3) Evaluate both before and after the program if practical. 4) Survey and/or interview one or more of the following: trainees, their

immediate supervisor, their subordinates, and others who often observe their behavior. 5) Get 100 percent response or a sampling. 6) Repeat the evaluation at appropriate times. 7) Consider cost versus benefits; 4. Evaluating Result, the evaluating result stage aims to find out how much there is an increase in the quality of trainees and institutions after attending training. This quality improvement is measured both qualitatively and quantitatively. They are 5 (five) guidelines for Evaluating Results: 1) Use a control group if practical. 2) Allow time for results to be achieved. 3) Measure both before and after the program if practical. 4) Repeat the measurement at appropriate times. 5) Consider cost versus benefits. 6) Be satisfied with evidence if proof is not possible.

Several studies have studied the evaluation model of a training. As research by Dewi & Kartowagiran (2018), it is stated that the Kirkpatrick model can be used as a training evaluation model. Likewise, the findings of Heydari, et al (2019) stated that the Kirkpatrick program evaluation model can be

used as a model in evaluating a training. This model is effectively used as a model in evaluating a training, which is one technique in determining the level of participant satisfaction after attending the training. This model will be used in evaluating the training of teachers in making HOTS-based evaluation instruments. Based on the explanation above, the purpose of this study was to evaluate training in making HOTS-based evaluation instruments for MI teachers in Kebumen using the Kirkpatrick model.

This research is evaluation research with a qualitative approach. The subjects in this study were 25 MI teachers training of 3 MI teachers in Kebumen. Data collection techniques through observation, interviews, questionnaires, and documentation. The evaluation method used is the Kirkpatrick model which in its implementation is limited to 3 stages, namely reaction, learning, and behavior. The data analysis technique used is the Miles and Huberman model which uses three steps, namely data reduction, data presentation, and concluding.

The criteria for participant satisfaction with this training were analyzed using the percentage criteria (see table 1).

Table 1. Training Satisfaction

Criteria		
No	Percentage Range	Criteria
1	76% - 100%	Very satisfied
2	51% - 75%	Satisfied
3	26% - 50%	Dissatisfied
4	0% - 25%	Very Dissatisfied

## RESULT AND DISCUSSION

In general, the purpose of this evaluation is to measure the level of success of the training that has been carried out so that it can be used as a reference in providing follow-up to conduct further training. Evaluation of the implementation of the HOTS-based instrument preparation training was carried out using the Kirkpatrick model which in its implementation was limited to 3 stages, namely reaction, learning, and behavior. The following is a description of the three evaluation stages that have been carried out:

### *Evaluating Reaction*

The reaction stage is the stage where trainee react to the implementation of the HOTS-based instrument preparation training. Sari (2021) states that the reaction stage is

the stage of the trainee's response to the training program such as materials, resource persons, facilities, and others. Continued in Sari (2021), this stage measures the level of trainee satisfaction with the results that have been obtained. The aim of the reaction is program/training improvement.

This study measures trainee against the material and resource persons, both in terms of the depth of the material that has been delivered, the knowledge of the resource persons about the material that has been delivered, the delivery of material on the absorption of trainee ' understanding of the material, the interaction between the resource persons and trainee during the training, and so on. Figure 1 is a description of the trainee's reactions to the training material, which is about HOTS based evaluation.

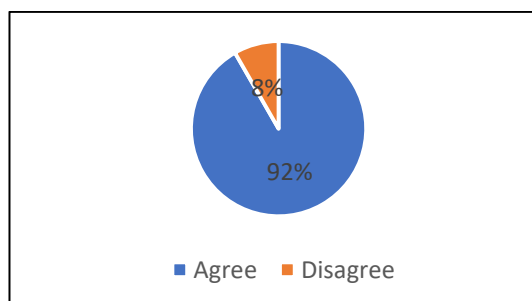


Figure 1. Trainee' reactions to the material

Figure 1 shows the responses of trainees to the HOTS-based evaluation material. Based on the results of the analysis, it is known that as many as 92% of trainees understand the material well and 8% indicate strongly agree that the material that has been conveyed can be understood well by the participants. The ease of trainees in understanding the material will make it easier for resource persons to provide assistance to the next stage. Based on the observations, the trainees showed great interest in understanding the material that had been explained. Nurhayati (2018) explains that the success of the learning activity process cannot be separated from the interest, attention, and motivation of trainees in participating in the training. Trainees can learn well if trainees give positive reactions.

The great interest of the trainees is influenced by several factors, one of which is the trainees' initial knowledge which is still minimal about the material so that trainees are more motivated to learn more deeply. This is evidenced from the results of the analysis of

observations and interviews that there are still many participants who do not understand how to make HOTs-based evaluation instruments. This result is also corroborated by the questionnaire data obtained as can be seen in Figure 2.

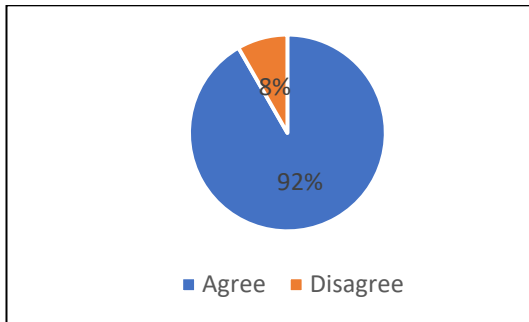


Figure 2. Trainees' prior knowledge of the material

Figure 2 shows that 82% of trainees answered that they were new to HOTs-based evaluation. While as many as 18% already know it. However, based on interviews, participants who are familiar with HOTs-based instruments have not applied them to learning (Fatimah & Rinawati, 2022). This is also a factor in the number of trainees who are enthusiastic to listen to the material and take part in the training. The enthusiasm and high interest of the trainees made the trainees feel satisfied with the material presented.

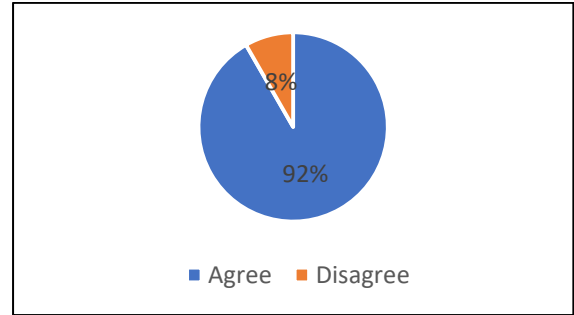


Figure 3. Trainees' satisfaction with the material

Figure 3 shows that 85% of trainees are very satisfied, while 15% indicate that they are satisfied with the material presented. Trainees' satisfaction with the material was seen from the depth and clarity of the material presented by the trainer. Viewed from the aspect of resource persons, trainees gave good reactions both in terms of resource persons' understanding of the material, teaching skills, systematic presentation of material, establishing good communication with trainees, and providing feedback to trainees. Table 1 shows the level of trainees' satisfaction with the resource persons.

Table 1. Level of satisfaction with resource persons

N	Aspect	Percentage	Criteria
1	Understanding of the material	85%	Very satisfied
2	Teaching skills	88%	Very satisfied
3	Systematic presentation	86%	Very satisfied

4	of material There is interaction with trainees	90%	Very satisfied
5	There is feedback for trainees	88%	Very satisfied
Average		87%	Very satisfied

Table 1 shows that the level of satisfaction of participants with the resource persons shows a very high satisfaction of 87%. The interaction of resource persons with participants is the biggest aspect. During delivering the material, the resource persons used various techniques and learning methods such as brainstorming techniques, question and answer methods, discussion methods, and practical methods. The methods of brainstorming, question and answer, discussion, and practice have been proven to increase participants' activity, understanding, and skills (Hasibuan, 2021; Chasanah & Supriani, 2016; Fatimah, 2020).

**Evaluating Learning**

This stage aims to determine the level of achievement of learning outcomes (Nurhayati, 2018). Aspects that are measured in the effectiveness of the learning program cover three domains, namely knowledge,

attitudes, and psychomotor. Nurhayati (2018) states that the success of this stage is a change in the participants in these three aspects. Without changes in attitudes, knowledge, and skills, training can be said to be a failure. Figure 4 is an assessment of the knowledge aspect.

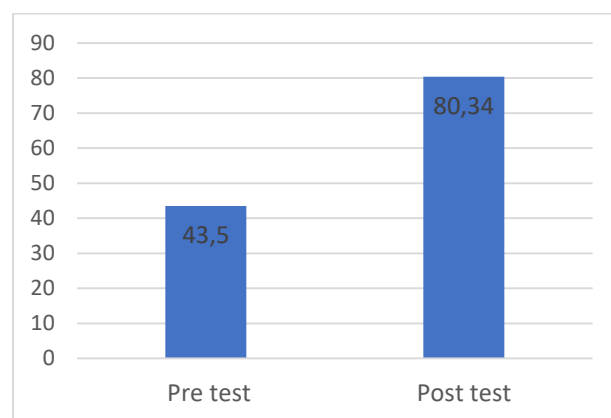


Figure 4. Average Pre-test and Post-test of trainees

Figure 4 shows that there was an increase in the knowledge aspect of the trainees after the training program was held with an average pre-test score of 43.5 and a post-test score of 80.34. Based on the results of the interviews, the majority of participants before participating in the training did not understand how to blindly evaluate the HOTS-based evaluation instrument. The majority of trainees only made questions according to the material presented without paying attention to the



guidelines for making questions and the maximum number of questions that had been made at the level of application and analysis. However, after the training, there was a big improvement.

Table 2. Assessment of Attitude

Aspects			
No	Aspect	Percentage	Criteria
1	Discipline	80%	Very Good
2	Cooperation	83%	Very Good
3	Participation	85%	Very Good
4	Responsibility	85%	Very Good
Average		83%	Very Good

Table 2 shows the assessment of the attitude aspects of the participants during the training, which is very good with a percentage of 83%. While the assessment on the psychomotor aspect is to measure how the trainees' ability to make HOTS-based evaluation instruments. Figure 5 is an aspect of the trainee's psychomotor assessment.

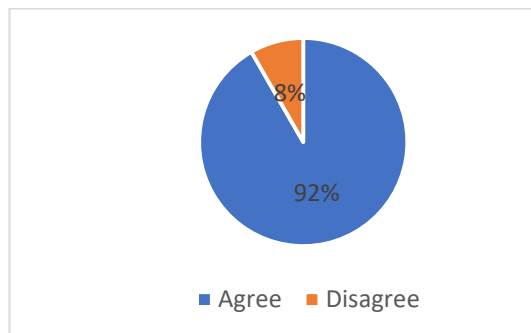


Figure 5. Psychomotor Aspect Assessment

Figure 5 shows that the psychomotoric aspects of participants, namely in terms of making HOTS-based evaluation instruments, were as many as 92% of participants were able to make these instruments. Overall, the results of the psychomotor aspect assessment showed a very good category. However, 8% of participants have not been able to make instruments based on HOTS. The results of the interview analysis stated that participants who had not been able to make HOTS instruments felt that it was difficult to make stimuli in questions. Jusra & Alyani (2021) that one of the characteristics of HOTS questions is contextual problem-based. A stimulus can be in the form of problems, dialogues, text, pictures, scenarios, tables, graphs, and so on. This stimulus serves as a medium for students to think. Without a stimulus, questions tend to be recalled (Ministry of education and culture, 2018).

In addition to the psychomotor aspect in the form of making HOTS-based

instruments participants are also directed to develop communication skills by presenting questions that have been made. Technically, participants can present the results well. This is also proven by the high confidence of the participants in presenting the results.

### ***Evaluating Behaviour***

Kirkpatrick (2006) states that the behavioral stage is defined as the extent to which changes in behavior arise because trainees attend training. Tan & Newman (2013) explained that behavioral evaluation measures the knowledge, skills, or attitudes that are learned to be applied or transferred to work. Some of the ways that can be done get behavior change are that four conditions are needed including one must have the desire to change, one must know what to do and how to do it, one must work in the right work environment, and one must get a reward. of the changes that have been made. The behavioral stage in this study is a commitment from the participants that they will apply the training material to learning at school. This is evidenced from the results of interviews with

questionnaires that 100% of trainees will implement the training materials into learning. At the end of the training session, trainees were asked to create a HOTS-based evaluation instrument for use in schools. However, the results of implementation in schools have not been reported by teachers due to the limited time for implementing the training. Evaluation for this stage is expected that the training can be carried out more optimally, one of which is by increasing the duration of the training time.

This evaluation model of training activities is important to do because it can be taken into consideration in producing quality training. The existence of quality training will also provide good output in the development of professional human resources. The evaluation model is carried out in stages aiming to determine the level of satisfaction of the training participants from the lowest level to the highest level.

### **CONCLUSION**

The results of the analysis show that the evaluation of training

in making HOTs-based evaluation instruments using the Kirkpatrick model uses three stages, namely the reaction stage, the learning stage, and the behavior stage. The results showed that the trainees were very satisfied with the HOTs-based evaluation instrument training. This is evidenced by the very high level of participant satisfaction with the depth of the material and the ability of the resource persons to deliver the material. In addition, the learning stage in terms of changes in trainees seen from the cognitive, affective, and psychomotor aspects resulted in a better understanding. Meanwhile, the behavioral stage shows that 100% of the participants are committed to implementing HOTs-based evaluation instruments in schools.

Suggestions for further evaluation are to apply the last Kirkpatrick Model evaluation stage, namely the impact/outcome stage. With the implementation of the results stage, the ongoing training can be said to have achieved the expected goal, which is to produce quality trainees.

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