

IMPROVING COGNITIVE SOCIAL-SKILLS BY BEHAVIOR MODIFICATION TECHNIQUES: A STUDY ON ISLAMIC PRIMARY SCHOOL STUDENTS IN INDONESIA

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Abstrak

Perilaku siswa pada umumnya masih menjadi masalah. Masih banyak siswa yang tidak memiliki tanggung jawab dalam tugas sekolah, tidak mengerjakan PR dan tugas lainnya. Kepedulian terhadap lingkungan masih sangat rendah. Seperti membuang sampah pada tempatnya. Oleh karena itu, kemampuan guru untuk ikut campur dalam mengubah perilaku siswa menjadi sangat penting. Penelitian ini dilakukan untuk memberikan Model Modifikasi Perilaku untuk meningkatkan keterampilan sosial anak. Ini dibagi menjadi empat bagian: (1) studi pendahuluan, (2) loka karya modifikasi perilaku, (3) uji lapangan pada model modifikasi perilaku dan (4) perbaikan model sesuai dengan hasil pengujian. Peserta terdiri dari 225 siswa SD Islam se-Indonesia. Data diperiksa dengan SEM (*Structural Equation Modeling*). Keterampilan siswa dikembangkan dengan menggunakan teknik modifikasi perilaku yaitu *modelling*, *reinforcement*, *token economy*, *punishment*, *prompt*, relaksasi dan *shaping*. Hasil penelitian menunjukkan pentingnya proses kognitif (kesadaran) dan kontrak belajar melalui diskusi kelas untuk meningkatkan keterampilan sosial anak. Temuan yang menarik adalah adanya peningkatan yang signifikan dalam penerapan teknik modifikasi perilaku ketika siswa terlibat dalam berpikir dan terlibat dalam menentukan kegiatan atau tindakan yang mengganggu kelas dan konsekuensi yang akan diberikan jika siswa melakukan beberapa pelanggaran di kelas, melalui pembelajaran kontrak atau teknik perjanjian, pemodelan, penguatan, ekonomi token, hukuman, waktu istirahat, relaksasi dan kesadaran kognisi.

Kata kunci: Kognisi Sosial, Modifikasi Perilaku dan Keterampilan Sosial

Abstract

Student behaviour, in general, is still a problem. Many students still need to be responsible for school assignments and do not do homework or other assignments. Concern for the environment is still very low. Like they were throwing trash in its place. Therefore, the ability of the teacher to intervene in modifying student behaviour is essential. This research was carried out to provide Behavior Modification Models for improving children's social skills. It was divided into four parts: (1) a preliminary study, (2) a workshop on behaviour modification, (3) a field test on the behaviour modification models and (4) improvement to the models following the test results. The participants consisted of 225 Islamic elementary school students in Indonesia. The data were examined by SEM (*Structural Equation Modeling*). The students' skills were developed using behaviour modification techniques, namely *modelling*, *reinforcement*, *token economy*, *punishment*, *prompt*, relaxation and

shaping. The result suggested the importance of cognitive process (awareness) and learning contracts through class discussion for improving children's social skills. An interesting finding is that there is a significant increase in the application of behaviour modification techniques when students are involved in thinking and being involved in determining activities or actions that disturb the class and the consequences that will be given if students commit several violations in class through contract learning or agreement techniques, modelling, reinforcement, token economy, punishment, time out, relaxation and awareness of cognition.

Keywords: Social Cognition, Behaviour Modification and Social Skill

A. INTRODUCTION

Behaviour problems are common among children. They sometimes feel less accepted and affectionate and cannot express their feelings well. Most of them may give up or even be depressed because they do not know how to deal with it. Every child has different characteristics. Some might be easily agitated, irritated, or annoyed during their interaction with their school peers. These behaviours are influenced by how they raise at home. When they receive less affection, they try to find it from school.

Based on the results of the FGD (focus group discussion) that the researchers conducted on March 18, 2012 with 18 teachers of MIN 1 Ciputat and FGD on November 3, 2012 together with teachers who are members of KKM Pamulang, it was found that various behavioural problems in students in elementary schools such as students who are lazy to write, disturb their friends while studying, play around in class while studying, cry when asked to write lessons, do not complete their assignments on time, speak harshly to their parents, do not say greetings when entering class, come late to school, and others. Other. What causes the behaviour mentioned above causes learning activities to be hampered. Of course, the teacher should correct student behaviour that deviates from accordance with the norms prevailing in the school and becomes part of the educational process to change student behaviour.

Teachers do many things to tackle the problems. They usually approach the children and check out the actual situation. After the situation is understood, the children are asked to apologize. What the teachers do might be appropriate, but it only sometimes works well because the same behaviours may reappear at some point since there are no systematic approaches to change or modify children's behaviour, and teachers must have the knowledge to deal with the problems. These facts are known from the researcher's observation during the research.

Laurie (2008) stated that social skills training helps others interpret subtle cues to determine how to act appropriately and adapt well in various situations. Effective social skills programming (2008) explains that role play could help younger students to practice new skills. During the role-play, children's attitudes and behaviours can be modified since feedback and reinforcement are given during the activities.

Behaviour modification systematically applies learning principles and techniques to assess and improve individuals' covert and overt behaviours to enhance their daily functioning (Martin, 1999). Sarafino (in Scott, 1992) stated that this psychological intervention could be applied in many different research settings and has been scientifically proven for dealing with physiological problems, including children's social skills, based on some theories such as "learning theory".

Something is happening to behaviour therapy. Its "learning theory" basis is being challenged and partially replaced by a cognitive orientation. The conceptual basis of "learning theory" that provided the framework and heuristic background for various behaviour therapy procedures is being opposed on both theoretical and empirical grounds (Meichenbaum, 1977).

On the other hand, the character-building and behaviour of children determine how they can act and behave in their social environment. Character is the key to where a person can survive in a social community. Early character building is essential through educational institutions and the family environment. In his research, Huda (2018) suggests that character-building should be done early because children are still easy to direct. Thus, stimuli stimulating children's social aspects regarding good behaviour must be applied in the learning process, especially at the first level of education.

The above can provide fundamental knowledge for educational institutions through teaching staff related to forming and strengthening character at an early age, which can be started from early childhood education. This study raises the formation and revitalization (modification) of the character of students at the elementary school level who have problems. Basic education is the second education after early childhood education, so indirectly, children who have taken early childhood education have interacted and reflected on their communication patterns with their environment. This research is expected to be an additional insight into the revitalization and modification of character in elementary school students with problems. At least, an educational institution does not only involve guidance and counselling to provide guidance and justification for elementary school student behaviour problems but can find the latest ways and models to deal with these problems effectively.

There is considerable evidence that behaviour can be effectively modified through behaviour change interventions (Albarracín et al., 2005; Hobbs et al., 2013). However, evidence for the sustainability of behaviour change in response to interventions is limited (Avenell et al., 2004; Carpenter et al., 2013; Dombrowski et al., 2014; Fjeldsoe et al., 2011). This is partly because few studies evaluate long-term effects and partly because intervention effects diminish over time (Curioni & Lourenco, 2005; Dombrowski et al., 2010).

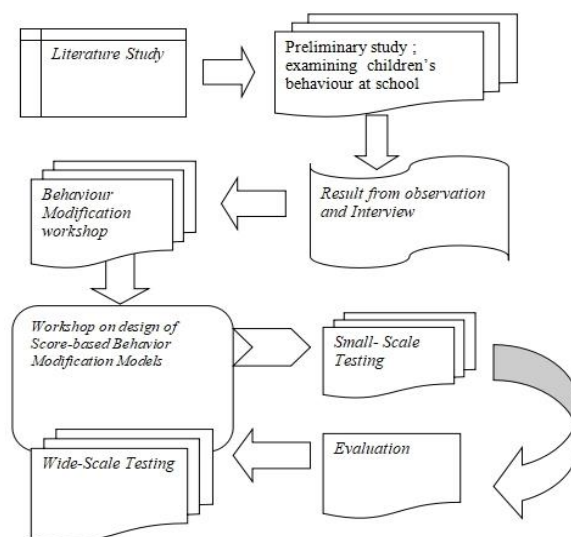
Thus, character modification to students in primary school education is an evaluation effort of applying early childhood. Because character is a construct of a person's personality when he interacts with his environment, this study focuses on how character modification carried out in elementary school (SD) children can work effectively and produce good social skills for children.

B. METHODS

This research and development type aims to change student behaviour, especially those who have problems at school. Borg and Gall (1983) describe research and development (R&D) as measurement tools in educational research employing steps in chronological order in which every procedure in each step refers back to the previous one so that the product of the educational research is always new. The research was conducted at MIN I Ciputat and SD Islam Ruhama Ciputat South Tangerang by involving grade 1 students in both schools. This research was conducted to improve school students' character, including responsible, caring, rewarding, cooperative, and proactive behaviour. The involvement of these two elementary schools also indicates that this study also wants to find out how the character modification model carried out by public schools (SD) and Islamic-based schools (MI) in seeing, responding to, and overcoming students who have problems with their character. This study only focuses on how this research can provide new models and methods for improving the character of students who have problems at school.

Research Procedures

The procedure steps are as follows; First, the researcher conducted Research and Information Collection. Secondly, the researcher designed procedures for developing learning products. Thirdly, the researcher conducted the Development of the preliminary design of the product. Preliminary field test. The next is (5) Initial improvement (Revised model); The next is the First Field Test and Operational Improvements. The process was illustrated as follows :



Data collection technique

Data collection is done in 2 ways: (1) Observe and record the behaviour of students who have problems (2 only)—change student behaviour with behaviour modification (prompt, reward, punishment, token, shaping techniques, learning contracts, cognition, relaxation). Performed for 2-3 months; and (2) Distributed questionnaires to 325 teachers regarding the implementation of behaviour modification techniques, and this data is analyzed through SEM.

Statistical analysis

This research uses the SEM analysis method. Structural equation modelling (SEM) is a quantitative modelling of factors showing a causal relationship between several dependent and independent factors (Byrne, 2001; Kline, 2005). SEM can model factors that cannot be measured directly or variables that are latent. Many topics investigated in the social sciences refer to more or less abstract hypothetical constructs that can be investigated only indirectly using observable indicators devised to define them empirically. Most manifest indicators employed for this purpose contain random or systematic measurement errors. To define the measurement process and to take these errors into account, formal models with latent variables and multiple indicators are increasingly employed in all social science research areas (Glockner-Rist & Hoijtink, 2003). Overall, this research can be explained operationally as follows.

1. It was conducting observations in Class I for 2 weeks to see the techniques used by the teacher in changing the behaviour of problematic students from the end of January - Early February 2012. From the results of these observations, it can be found that the baseline (starting point) of the target / behavioural behaviour Objectives can later be used as the target of student behaviour which will be changed/improved.
2. Organizing a Behavior Modification Workshop in Classroom Learning and Making Learning Implementation Plans for one day, March 17, 2012. The workshop involved 18 public and private class 1 Madrasah Ibtidaiyah teachers as participants. As well as the second workshop on December 4, 2012, in Mumtaza with 50 participants.
3. Prepare materials and handouts for the workshop activities.
4. Based on the results of the FGD and findings in the field, a value-based behaviour development model is compiled to improve children's social skills.

The results of the development of the Behavior Modification Model were tested on students of Class 1 MIN 1 Ciputat from February 2012 - June 2012.

C. RESULT AND DISCUSSION

To develop the model the researcher developed three models for this research: (1) Conceptual Model and (2) Procedural Model. Both are formulated to improve children's social skills in their early childhood.

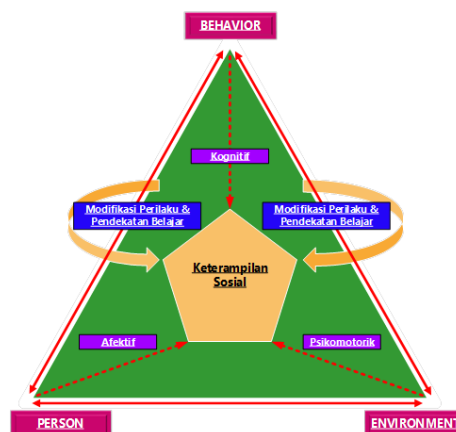


Figure 1. Conceptual Model of the combination of three Behavior Modification Theories (Mutiah, 2015)

The models are constructed by three theories: (1) The outer triangle is composed of Albert Bandura's social cognitive theory, with behaviour, environment, and person (cognition) occupying each corner and each having some influence on the other two. Those three aspects were intervened using behaviour modification techniques: modelling, token economy, reinforcement, punishment, relaxation, shaping, time out, self-awareness, prompt and learning contract. (2) The intervention will affect students' cognition, affection and psychomotor domains. The behaviour modification and its dynamics are illustrated by arrows on the right and the left side. (3) The process improves five social skills, namely responsibility, caring, proactive, appreciative and cooperative behaviour, as depicted by the pentagon inside the triangle.

1. Procedural Model

The following procedure applied the Behavior Modification Model: 1). it is identifying the problematic behaviour in the classroom through observation and instruments. 2). Defining the behaviours that should be improved (behavioural objective) 3). Setting goals and behavioural indicators to be improved and changes over time. Designing learning plans to be tested in Ciputat 1 Islamic Elementary School. 4). Determining the behaviour modification techniques appropriate to students' situations, conditions and characteristics. 5). listing intervention tools such as the media, reinforcement type, and rewards. 6). Data analysis. 7). Program Evaluation.

The model is illustrated as follows:

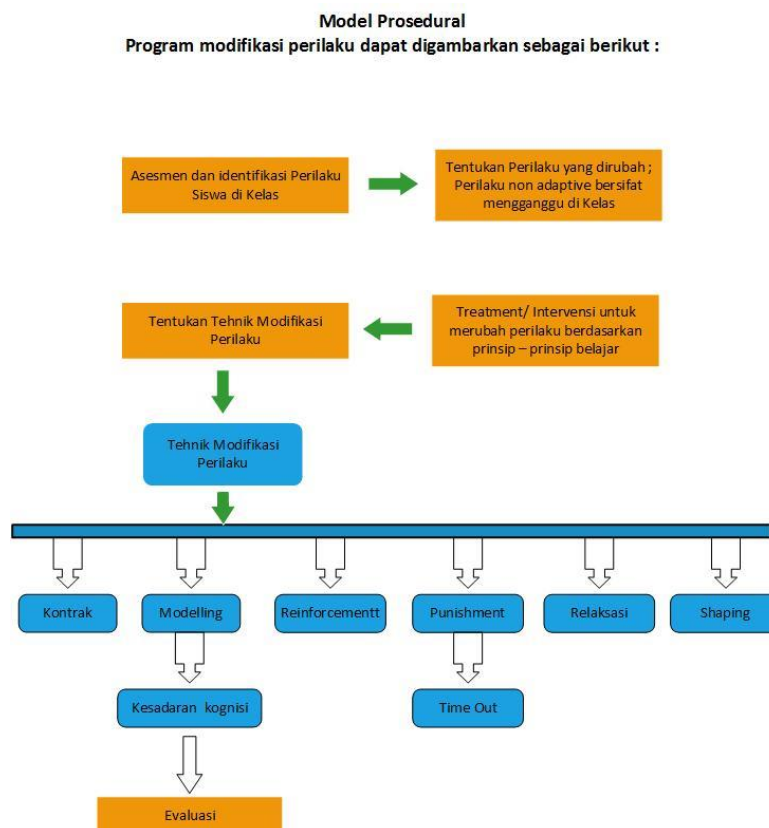


Figure 2. Procedural model (Mutiah, 2015)

During the first test, modification techniques were mainly modelling, token economy, punishment and prompt. The test suggested the technique that should be applied most is a learning contract between teacher and student to deal with the behaviour problems. The technique was applied in discussion, where students could express their ideas. Through the discussion, teachers opened children's opportunity to share their thought (cognition) and feeling (affection). Not only serve as a means to express ideas, but the discussion also allowed teachers to teach students about the importance of fulfilling commitments between teachers and students.

Discussions are commonly held after children watch movies. Teachers and students discussed the movie they watched together, mainly about the appropriate behaviour children could learn from the movie. The discussion helps children to change their inappropriate behaviour. The star-shaped stickers would be awarded to children who maintain positive behaviours. The more good behaviour they show, the more stickers they get. The award makes them study harder, and they become more satisfied with what they achieve.

Another behaviour technique used during the research was punishment. Punishment is conducted by isolating, in stages, the problematic students from their classroom. Besides punishment, relaxation was commonly used during the research, mainly in dealing with physically active children. They were asked to take a deep breath, breathe in and sit down, and if necessary, asked to drink to be more relaxed. From all techniques prepared in the previous stage, only shaping was not applied in the Ciputat elementary school.

The result of the research involving 225 students from seven sub-district (kecamatan) suggested that the behaviour modification technique contributing to improving children's social skills are learning contracts, modelling, punishment, reinforcement, relaxation, shaping, time-out and token.

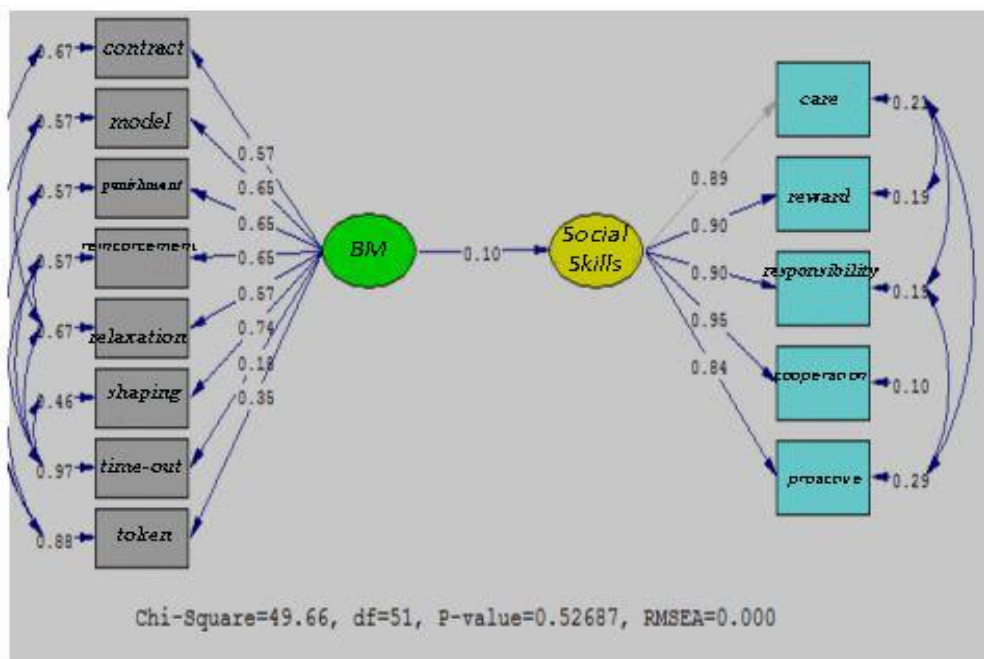


Figure 3. Illustration showing The influence of behaviour modification techniques on social skills

Figure 3 shows the theoretical model stating that the contract significantly affects the dimensions of the behaviour modification fitted with the data ($p > 0.05$). Moreover, the load factor coefficient for each latent variable of the model is presented in the following table:

Table 1. Load factor coefficient of each behaviour modification variable

No	Dimensi	Koef.	Std. Error	T-value	Information
1	Contract	0.57	0.05	12.75	Valid
2	Modelling	0.65	0.05	14.48	Valid
3	Punishment	0.65	0.04	14.69	Valid
4	Reinforcement	0.65	0.05	14.43	Valid
5	Relaxation	0.57	0.05	11.70	Valid
6	Shaping	0.74	0.04	17.09	Valid
7	Time-Out	0.18	0.06	3.13	Valid
8	Token	0.35	0.05	6.98	Valid

The regression coefficient of Behavior modification is (0.10) are significant with a t value of 1.97 ($t > 1.96$). The coefficient indicates that behaviour modification variables significantly affect the social skills variables. Despite being scientifically proven, qualitative and quantitative research has several limitations. First, changing student behaviour requires patience and perseverance, mainly in obtaining accurate measurements through observation. Second, behaviour change should not only occur at school but also home. Interaction between students and their parents is required. There needs to be more information about the interaction between the two since the research is not focused on it.

D. CONCLUSION

This study has shown that students' behaviours can be changed as long as their way of thinking is also changed through discussion or watching movies. The cognitive process also occurs when students discuss learning contracts, mainly when discussing the content of the contract and the consequences that follow from the fulfilment or the breach of the contract. Students can learn new behaviours from the models. Models can be provided from any source, for example, from story books, movies, the behaviours of students' peers or models created by teachers. For children, the more concrete the models are, the better they can imitate, for example, models from comic characters, historical figures, or religious figures. Discussion should be held when the models are performed to stimulate children's cognitive processes. The results of this study are expected to become a reference for several educational institutions, especially for the level of primary school education, to apply different methods and techniques in overcoming student character problems effectively and objectively. Further relevant research is expected to explain and investigate the latest models of behavioural modification based on different levels of school education, considering the importance of character and social skills in students' lives.

REFERENCES

- Albaraccin, D., Johnson, B. T., & Zanna, M. P. (2005). *The Handbook of Attitudes*. Mahwah, NJ: Lawrence Erlbaum.
- Avenell, A., Broom, J. Brown, T. J. Poobalan, A., Aucott, L., Stearns, S. C. & Grant, A. M. (2004). Systematic review of the long-term effects and economic consequences of treatments for obesity and implications for health improvement.
- Bandura, A. (1971). *Social Learning Theory*. Morristown, New Jersey. Learning Press.
- Borg, R. & Gall, M. D. (1983). *Educational Research*. New York: Longmann.
- Byrne, B. M. (2001). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Carpenter, M.J., Jardin, B. F., Burriss, J. L., Mathew, A. R. Schnoll, R. A., Rigotti, N. A., & Cummings, K. M. (2013). Clinical strategies to enhance the efficacy of nicotine replacement therapy for smoking cessation: a review of the literature, 73(5), 407-426.
- Curioni, C. C., & Lourenco, P. M. (2005). Long-term weight loss after diet and exercise: a systematic review. *Internasional Journal of Obesity*, 29(10), 1168-1174.
- Dombrowski, S. U., Avenell, A., & Sniehotta, F. (2010). Behavioural interventions for obese adults with additional risk factors for morbidity: systematic review of effects on behaviour, weight and disease risk factors. *Obesity Facts*, 3(6), 377-396.
- Dombrowski, S. U., Kwasnicka, D., White, M., & Sniehotta, F. (2014). Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories. *Health Psychology Review*, (1), 1-39.
- Fjeldsoe, B., Neuhaus, M., Winkler, E., & Eakin, E. (2011). Systematic review of maintenance of behavior change following physical activity and dietary interventions. *Health Psychology*, 30(1), 99.
- Glockner-Rist, A. & Hoijtink, H. (2003). The MIMIC model as a method for detecting DIF: Comparison with mantel-haenszel, SIBTEST and the IRT likelihood ratio. *Applied Psychological Measurement*, 29(4), 278-295.
- Hobbs, N., Godfrey, A., Lara, J., Errington, L., Meyer, T., Rochester, L., & Sniehotta, F. (2013). Are behavioral interventions effective in increasing physical activity at 12 to 36 months in adults aged 55 to 70 years? A systematic review and meta-analysis. *BMC Medicine*, 11 (1), 75.
- Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling*, 2nd ed. Guilford Publication
- Laurie J. F., & Jeffrey W. (2008). *Social Skills Training*. The Gale Encyclopedia of Mental Health, Vol. 2nd ed. Detroit: Gale Learning.
- Martin, G. & Joseph P. (1999). *Behavior Modification What It Is and How to Do It*. New Jersey: Prentice Hall, Inc.
- Meichenbaum, D. (1977). *Cognitive-Behavioral Modification*. New York: Plenum Press.
- Scott W. P., & And Henry, C. R. (1992). *Behaviour Therapy with Children, Handbook of clinical Child Psychology*, second edition. A Wiley Interscience Publication.