DESIGN AND DEVELOPMENT RESEARCH (DDR) APPROACHES IN THE DEVELOPMENT OF KOIN-ART COOPERATIVE LEARNING MODEL FOR STUDENT OF INCLUSIVE EDUCATION PROGRAM

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ABSTRACT

Teachers are considered to be the most influential individuals in the formation of educational policy since they directly impact the learning process and are accountable for students' well-being. Teachers should play an active and effective role in encouraging the acceptance of special-needs students into the Inclusive Education Program (IEP) and ensuring the wellbeing of all students in this regard. Diversity of teaching methods is one of the methods for meeting the demands of students in better comprehending the subject's syllabus and even increasing their motivation and interest in the subject. Cooperative Learning is a student-centred 21st-century learning model that emphasizes creative and critical thinking skills. It enhances all students' learning and emerged as one of the most basic teaching strategies for promoting inclusive education. The objective of this paper is to use a cooperative learning model to construct a learning model for secondary school visual art education students. This study applies a Design and Develop Research approach, in the needs analysis phase, interview techniques and document analysis are used. In the design and development phase, the researcher will adopt the Fuzzy Delphi Method (FDM) and Interpretive Structural Modelling (ISM). Finally, during the usability evaluation phase, the interview method will be used. The importance of the Visual Art Education subject in assisting special-needs students should be stressed and given more serious attention because it will assist these students in pursuing it as a career path and as a catapult to a career as an 'artist.'

Keywords: Cooperative Learning; Design and Develop Research; Inclusive; Special Need Students; Visual Art Education

INTRODUCTION

Teachers are believed to be the most influential individuals in the formation of educational policy since they are directly impacting the learning process and are responsible for students' well-being. Accordingly, teachers should play an active and effective role in encouraging student acceptance in the Inclusive Education Program (IEP) as well as ensuring well-being for all students (Li & Andrea Ruppar, 2020). In the context of education, inclusiveness refers to students with special needs' unconditional inclusion in the regular classroom. The provision of space and opportunities for them to learn together and in the mainstream while following the National Curriculum is known as IEP (Ang & Lee, 2018). According to Li and Andrea Ruppar (2021), the IEP strives to promote access, engagement, and

outcomes for all student populations that are normally excluded from formal education. There are different definitions of IEP, but as Muoz-Martnez, Y et al. (2020) pointed out, IEP is frequently recognised as a philosophy that encourages and welcomes diversity among all students around the world. Siti Fatimah and Mustafa (2018) claim in a study that the implementation of IEP is to give all students, including special needs students, a balanced right to gain educational knowledge. The Malaysian Education Blueprint 2013-2025 is a plan that outlines the reform of national education over the next 13 years to attain access, quality, equity, unity, and efficiency.

The plans of the Ministry of Education Malaysia (MOE) to provide special need students access to Inclusive Education are detailed in Chapter 4 of the Malaysian Education Blueprint (MEB, 2013-2025). The categories of special needs students registered in IEP are those with learning difficulties such as autistic spectrum disorders (ASD), down syndrome, attention-deficit hyperactivity disorders (ADHD) and dyslexia, hearing impairment, and vision impairment (Haslinah Abdullah & Hairiah Munip, 2020). Teachers face a problem in integrating special needs students into normal classes, which demands high levels of cooperation and dedication, as well as teaching and learning plans tailored to their needs. The principle of teaching is the teacher's effort to create a teaching and learning environment that is conducive so that students can carry out learning activities optimally. Teachers must plan the implementation of appropriate teaching strategies throughout the teaching and learning process, especially when students' learning conditions begin to deteriorate. In the teaching and learning process, teachers as teachers and students as learning subjects are demanded changes in knowledge, abilities, attitude values, and personal characteristics, so that the process takes place effectively and efficiently (Desnita et al., 2021). Cooperative learning is a teaching approach in which students are divided into small groups for learning tasks and are rewarded or recognised depending on their group's overall performance in accomplishing educational goals (Yu & Yuizono, 2021).

A teacher who is sensitive to the diversity of students 'abilities should be concerned with adapting teaching methods to suit students' abilities. Based on Yin et al. (2020) the diversity of teaching methods is one of the methods to meet the needs of students in understanding the subject syllabus more perfectly and even able to increase students' motivation and interest in the subject. Teachers must always follow the development of the world of education so that the teaching process runs in line with the requirements of the National Education Philosophy. There are still teachers who conduct teaching with conventional methods (Ummi Salehah Hamzah & Nurfaradila Mohamad Nasri, 2020). In the conventional teacher-centered learning process, students become inactive, lack communication skills and problem-solving in turn resulting in learning activities not achieving objectives (Azmi & Nurszatulshima, 2017). In line with that, it is proven that an approach or method should be practiced by teachers to ensure that no student is affected by the teaching session.

Accordingly, the cooperative learning STAD model is a kind of cooperative learning model that emphasizes group activities, the interaction between students to motivate and help each other and master the subject to achieve maximum achievement. Cooperative learning is an active activity that allows students to demonstrate skills while helping other peers. Cooperative learning can promote effective teacher-student interaction. Cooperative Learning is a 21st-century learning model that is student-based and prioritizes elements of creative and critical thinking skills. It also fosters communication skills among students when conducting group activities (McPherson, 2020). Table 1 shows the number of special education needs students in Inclusive Education Program nationwide (Special Education Division, MOE 2020).

Table 1: *Number of Students with Special Education Needs(SEN) in the Inclusive Education Program (IEP) Year 2013 to 2020.*

Year	Number of Schools	Number of SEN students	Total SEN students in IEP	Percentage
2013	1742	56406	5376	9.60
2014	2798	58006	10700	18.44
2015	4869	72715	16899	23.24
2016	5811	76166	23048	30.26
2017	6047	78642	32148	40.88

2018	6202	83598	42210	50.49
2019	6397	88419	53818	60.87
2020	6426	92755	62980	67.90

*(Source: Ministry of Education Malaysia, 2020)

SEN students enrollment in 2014 was 10,700 students which has jumped from only 5,376 students in 2013. This increase is a significant increase of 100%. In 2015, the number of students registered for SEN in IEP was 16,899 students, while there were 23,048 students in 2016. In 2017, there were 32,148 SEN students in IEP, followed by 42,210 SEN students in IEP 2018. While in 2019, there were 53,818 SEN students in IEP. 62,980 SEN students in 2020 in IEP. The increase in SEN in IEP is an extension of the launch of MEB in 2011, as commensurate education will be created for all school people including SEN students (Mohd Hanafi, 2016). In line with that, it is proven that an approach or method should be practiced by teachers to ensure that no student is affected by the teaching session.

The same teaching method used by subject teachers results in students feeling bored (Azman Ab. Rahim, 2017). The education system in the country focuses on external construction and lacks building aspects of teachers' skills, especially Visual Arts Education (Azman Ab. Rahim, 2017). In addition, diversity, current knowledge, skills in lesson planning are necessarily beneficial to SEN students (Chao e al., 2017; Durksen, Klassen, & Daniels, 2017). The purpose of this study is to develop an appropriate educational model in applying cooperative learning skills among inclusive education students of the subject of Visual Art Education. This recommended model is expected to overcome problems faced by SEN students during the learning of visual art education subject. This study that focuses on cooperating learning can contribute directly to producing students who are highly skilled, creative, innovative, and have high sustainability in line with the needs of the 21st-century work environment. This model is also intended to be a significant reference for teachers in producing competent students who can apply the elements of teamwork more effectively.

LITERATURE REVIEW

Inclusive Education Program

The Democratization of Education was initiated by the MOE to design an education system for all students. Education without limits or education without bias is the goal of KPM. Students are given equal opportunities regardless of race, background, economic status, and disability. Special need students are also given recognition to learn and socialize together in a healthy and positive school climate without barriers (barrier-free learning environment) (Dian Atnantomi Wiliyanto, 2017). MOE implements special education in Special Education Schools, Special Education Integration Program (SEIP), and Inclusive Education Program (IEP) in government schools or government assistance at the pre-school, primary, secondary and post-secondary levels. At the International Education level, the concept of Inclusive Education has been laid as the foundation in implementing 'Education For All'. This inclusive education aspiration has also been shared by special education experts as outlined in International Declarations such as the Salamanca Statement (1994), Dakar World Education Forum (2000), and the Convention on the Rights of Persons with Disabilities (UN, 2006). IEP is a tool for providing access and educational opportunities to special needs students (Djone & Suryani, 2019). At the initial stage, this IEP is implemented according to its mold in certain schools only involving students with physical disabilities and students with visual impairment (Khuluqo, 2017). However, at present, this IEP is extended to all categories of SEN students who can follow the national curriculum. The implementation of the IEP takes into account domestic and foreign policies, the concept of the IEP, the operational definition used, the goals, objectives, and the overall implementation of the IEP.

The goal of IEP is to increase participation and provide opportunities for special needs students to pursue academic and non-academic programs alongside mainstream students (Sharma, Forlin, Marella & Jitoko, 2017). IEP also give awareness to the community not to deny the potential of special need students and believe that their disability can be minimized if given the same opportunity. The concept of inclusive education relates to the areas of special education and disability. There is an

ongoing debate that has resulted in the evolution of the concept of inclusion (Opertti, Brady, & Duncombe, 2014; Gibson, 2015). Malaysia follows the Salamanca Declaration (UNESCO, 1994), the term "inclusive" has been widely used in research in Malaysia, indicating that IEP has grown rapidly since then (Hosshan, 2020). These special needs students are expected to be able to "follow" academically and be independent. While special need students registered in partially inclusive follow academic subjects based on the national curriculum or which changes according to the ability and suitability of special need students with minimal assistance or without the help of support services (Lee & Sailajah Nair Sukumaran, 2018).

Issues and Challenges of Special Need Students in Learning

According to Siti Fatimah Salleh and Mustafa Che Omar (2018), students who follow IEP are similar to normal students in the mainstream because they can master the skills of reading, writing, and counting. Yet but it is undeniable that IEP students face other challenges such as difficulty concentrating, easily feeling tired, difficulty understanding complex information, and other challenges caused by their disability. IEP students who are eligible to sit for the examination are given the same set of examination questions as normal students although some IEP students with learning difficulties have cognitive disabilities. According to Hamzah Ishak and Khodori Ahmad (2018), Sijil Pelajaran Malaysia (SPM) is the only assessment system that allows IEP students to obtain certificates of achievement and since SPM is provided specifically for normal students, it is not suitable for students with learning disabilities. Although IEP students are given extra time according to disability (Examination Board, 2017), IEP students with learning disabilities cannot respond to the assignments in the examination paper which causes the actual abilities of IEP students and the level of achievement of students with learning disabilities cannot be obtained (Hamzah Ishak & Khodori Ahmad, 2018). Fully or partially IEP students learn to follow the same national curriculum as mainstream students. However, the findings of the study of Nur Khairul Nisha Roslan and Haris Abdul Wahab (2017) found that the disability of IEP students still exists especially when answering exam questions. The results of the study on student achievement in IEP found that 68 out of 83 IEP students showed moderate (69.9%) and low (12.0%) levels of academic achievement scores. This statement is supported by the results of a previous study by Wallace and Kauffman (2018) who stated that most students with disabilities are often associated with unproductive and illiterate well as obtaining moderate and low academic achievement during the teaching and learning process is implemented.

IEP students have difficulty socializing and interacting well coupled with shortcomings in themselves causing them to be less confident in socializing and interacting with friends and teachers. This statement is supported by a study by Abd Aziz Sulaiman and Siti Rubiyani Omar (2018) where the difficulty of finding friends, sidelined, and infrequent interaction with teachers is experienced by students with poor social skills. Weakness in communication skills makes it difficult for teachers to understand and meet their learning needs, then will affect their academic achievement in learning. A study by Krawinkel, Sudkamp, and Troster (2017) compared the social involvement of SEN students with and without in IEP and noted less involvement by IEP students in social activities in the classroom. The problems faced by SEN students in IEP have influenced students' self-concept, social behavior, and student achievement in academics (Hosshan et al., 2020). The study also noted that one of the barriers to improving IEP students 'access to mainstream schools was negative attitudes from peers. As a result, students become dissatisfied, inferior, and not motivated to learn. In addition, students also often act to isolate themselves from their peers because they feel unnecessary, thus making them often involved in disciplinary problems (Adams, 2017). Therefore, researchers need to develop good strategies and planning so that teaching and learning in schools can help improve the self-concept of IEP students and overcome the issues and challenges faced by them.

Cooperative Learning

Cooperative learning is to achieve a common goal referring to teaching methods that require students to work in small groups with various abilities (Slavin, 2009). In general, cooperative learning uses small groups of students and is a teaching and learning strategy. It is also a learning process to allows students to interact with each other. Cooperative Learning is defined as a set of learning processes to obtain an

end-product that is related to the content of the subject or help students interact with each other to achieve a specific goal. The structural approach in cooperative learning by Kagan (2009) results from the process of creating, analysing, and applying structures (which are not tied to the content of the lesson) systematically including ways to manage social interaction in the classroom. Slavin (1996) stressed that the cooperative learning approach is a systematic and structured approach that can be used in any level of schooling and is suitable for teaching any subject. The rationale behind cooperative learning is that if they want their group to succeed students will be willing to help a groupmate. In addition, peers are said to be able to use language that is easily understood by students while explaining difficult concepts (Slavin, 1995). In general, cooperative learning is based on two main theories, namely Cognitive Theory and Slavin's (1992) Motivational Theory. From the perspective of cognitive theory, it emphasizes the impact of interactions between students in the process of completing joint assignments. Whereas from the perspective of motivation theory, cooperative learning focuses on group goals and the effect of reward structure. Based on this perspective, a cooperatively intensive structure forms a situation in which the way for a student to achieve his or her own goal is when his or her group achieves that goal. Thus, students are encouraged to take self-initiative to help their group members to learn and be equally successful (Deutsch, 1949; Slavin, 1985). It is found that interaction between students can improve a student's ability to process information and in turn improve student achievement (Slavin, 1995).

According to Vygotsky (1978) meanwhile, the enhancement of mature mind development among children is through collaborative activities and Piaget (1978), believes that interactions with each other can be mastered through knowledge such as language, values, and symbol systems. In short, interactions in small groups help to increase students 'level of thinking and understanding in a more meaningful context. Improving the mastery of critical thinking is through the interaction of peer children on the same learning topic. This is because, during the discussion, the cognitive conflict will occur where inefficient reasoning will emerge and thus a high-quality understanding can be created. According to Johnson and Johnson (1994), cooperative learning theory can be classified into three theories, namely Social Interdependent Theory, Cognitive Development Theory, and Behavioural Learning Theory. Social Dependence Theory states that social dependence is determined by interactions between students (Johnson & Johnson, 1994). As is well known, cooperative learning requires members of a support group to help each other and work together. The groups formed are diverse, not only in terms of academic level but also in terms of different ethnicities. This situation requires students to respect, tolerate and understand each other with teammates. Based on this statement, it can be concluded that social dependence is a basic requirement in cooperative learning.

Visual Arts Education

The subject of Visual Arts Education (VAE) aims to provide opportunities for students to cultivate interest, develop personality, provide awareness and sensitivity to the values of environmental arts and its relationship with other subjects. Following the implementation of the Malaysian Education Development Plan (2013-2025, MOE launched the Secondary School Standard Curriculum (KSSM). KSSM is a new policy formulated to meet the world's transition so that the standard of the new curriculum is on par with international standards. International curriculum practices are published in KSSM as the Curriculum and Assessment Standard Document (DSKP). The content of the VAE curriculum is carefully formulated and takes into account every aspect that can develop the ability and personality of students based on exploration, research, and creativity. In the process of earning a work or product of art, students will use the cognitive, psychomotor, and affective domains. This process creates opportunities for students to intensify their imagination, talent, and experience. In preparation for HOTS, students are equipped with inquiry-based learning, collaborative learning, and lifelong learning. In addition, the application of Cross-Curricular Elements (CCE) can strengthen competence and identity to be able to overcome the challenges (Curriculum and Assessment Standard Document, Visual Arts Education Forms 4 & 5). Pupils apply the knowledge gained in the production of works or art products by linking creative and innovative imagination and ideas. KSSM PSV was formulated to successfully generate holistic human capital guided by knowledge and artistic skills as well as to fully optimize the potential of students as well as contribute to personal development, society, and national development.

Next, it is undeniable that art education is a multidisciplinary subject that can be applied starting from preschool, in the subjects of mathematics and science education, language education, and special education (Penketh, 2017). Every student needs the opportunity to learn and engage in the arts (Uzunboylu et al., 2017). In addition, it is also an area that can contribute to individuals with special needs in terms of socialization and academic development. However, the turmoil of PSV option teachers is a major problem in achieving the objectives of the PSV curriculum. PSV non-option teachers face obstacles in implementing teaching and learning creatively and innovatively. To overcome this problem, the school appoints other teachers and regularly changes teachers to implement it. The constraint faced by these teachers is not mastering the principles and concepts of PSV. Thus, it fails the learning objectives and creativity of students in the teaching process (Mohd Mohsin & Nasrudin, 2008).

Visual Arts Education and IEP students

The International Arts Education Seminar, which is included in the Art Education Tour or "Road Map for Arts Education" states, arts and culture are important components in a comprehensive education, which can result in full individual development. Today, Visual Arts Education must be studied by all students in the school, not excluding people with disabilities. Communication skills and self-confidence are very important to ensure that daily life can be managed well. Moreover, a study by Hussein et al. (2020) stated various problems faced by students in the category of learning difficulties. They generally experience delays in the development of thinking, memory, concentration, coordination, communication, reading, writing, spelling, and counting as well as social skills and emotional maturity. VAE is a subject that can encourage students to communicate when teachers and students collaborate to carry out hands-on activities using a variety of media and freely create expressive activities. A study by Ida Puteri Mahsan (2021) supports that the role of PSV subjects in adapting art as one of the forms of self-expression methods among SEN students is still underway. Detailed monitoring should be carried out by the teacher by reviewing the expressions and expressions of emotions in the work produced. Quality and effective teacher teaching produce creative and artistic work by students (Ramli & Musa, 2020).

Painting is one of the mediums that can channel children's emotions because it is more seen as a medium for expressing children's emotions. Drawing can be a liaison agent of communication for teachers and students. Additionally, it can be used as self-therapy. According to Nas Norziela (2018), art therapy can help move underdeveloped parts of the brain and help children with special needs in expressing emotions and feelings. According to Fareez and Mohd Zahuri (2019) well -being can be achieved through art therapy. In the study, Ida Puteri Mahsan (2021) describes the expression of art as a communication measure from the aspect of art in forming human capital that is more creative, innovative, and productive, especially for the disabled including MBK. The variety of techniques and media used in art activities can stimulate students' creativity to help develop their communication and help in handling the thinking process. Integrating art into general and special education settings to facilitate self-expression, impart emotion and enhance a range of skills has certainly caught the attention of educators in this century. Therefore, VAE subjects can be used as a backbone to provide a paradigm shift to achieve the aspirations of National Education Philosophy.

METHODOLOGY

This study aims to develop a learning model that can help the teaching and learning process. The users of this study are secondary school VAE subject teachers. Thus, based on Richey & Klein (2014), this study uses a Design and Develop Research approach that is in line with the main objectives of this study. Design and development research is a systematic study that consists of three phases namely design, development, and evaluation. The aim is to establish empirical policy through the construction of instructional and non -instructional products and tools as well as the construction of new or perfected models that will go through each phase in its development (Richey & Klein, 2007).

Holistically, the study of design and development is the study of the processes and effects of a particular design and development, the study of the design and development process as a whole, as well

as the components of a particular process. Thus, as with the efforts of all studies, design and development studies lead to the production of knowledge and the ability to make predictions.

Design and development studies achieve this goal through two main categories (Norlidah Alias et.al 2013; Richey & Klein, 2007 & 2014):

(1) Studies related to products and tools.
(2) Model-related studies.

These two main categories differ in terms of focus and outcomes (Richey & Klein, 2007, 2014).

Table 2: *Types of Design and Development Research*

	Type 1 (Products and Tools)	Type 2 (Model Development)
Emphasis	Study of the design and development project of a particular product or too	Study of model development, validation, or application
Results/ Findings	Results obtained from developing a particular product and analysing the conditions that facilitate its use. Specific conclusions.	New design and development procedures or models, and conditions that facilitate their use. General Conclusion.
Research Approach	Formative and Summative Assessment, Qualitative Study, and Case Study	Qualitative Studies, Case Studies, and Questionnaire Methods

Source: Richey, Klein & Nielson (2004)

The development of the model in this study will be done as per the flow below.

Phase	Research Question	Research Objective	Research Design/Data Collection/Data Analyze	Sample
I Need Analyze	What are the requirements of the "KoIn-Art" Cooperative Learning model for Secondary School Inclusive Education Program (IEP) students?	Identify the needs of users on the Cooperative Learning model "KoIn-Art" for students of the Inclusive Education Program (IEP) Secondary School.	**Model Discrepancy** -Interview (Thematic coding)	**-Purposive Sampling** • 4 VAE teachers • 4 SEN students
II Design & Develop	What is the design and development of the "KoIn-Art" Cooperative Learning model for Secondary School Inclusive Education Program (IEP) students?	Develop a Cooperative Learning Model "KoIn-Art" for students of the Inclusive Education Program (IEP) Secondary School.	I) **Design and Development (FDM)-** Questionnaire - Item formation - Validation of the main construct of the model - Validation of elements to the main construct II) **Model Development - (ISM)** - Determine the ranking order of elements	**-Purposive Sampling** • 4 curriculum development specialists, • 4 VAE specialists • 4 Special Education specialists • 9 specialist
III Model Usability Assessment	What is the applicability of the "KoIn-Art" Cooperative Learning model for Secondary School Inclusive Education Program (IEP) students?	Evaluate the applicability of the "KoIn-Art" Cooperative Learning model for Secondary School Inclusive Education Program (IEP) students?	**Model KIPP** -Interview	**-Purposive Sampling** • **8 SEN students** • **2 VAE teacher**

Figure 1. KoIn-Art Cooperative Learning Model Development Flow by Phase.

In the DDR method approach, the first phase is the needs analysis phase. This phase is among the important phases as in this phase the researcher will be able to identify each research question conducted in the study used in shaping the model to be developed (Ridhuan, Saedah, Zaharah, Nurulrabihah and Ahmad Arifin, 2014). Therefore, this phase is an important phase for researchers to identify the need to build a "KoIn-Art" Cooperative Learning Model among students of Inclusive Education Program in Secondary Schools. In order to explore information from teachers and students about the study conducted, there are several procedures to be followed. First, the researcher will obtain permission to conduct a study from the Ministry of Education Malaysia through the Education Policy Planning and Research Division (EPRD) once the research proposal is approved by the Sultan Idris University of Education. Then the researcher identified three selected study participants and sent an invitation letter to become study participants through the Perak State Director of Education. Having

reached an agreement on an appropriate date and time, the researcher conducted individual interviews with the study participants.

In the second phase, the researcher has separated into two sub-phases, the first sub-phase refers to the design and the second sub-phase refers to the development of the "KoIn-Art" Cooperative Learning Model. The design sub-phase refers to the production and construction of the main components and elements for each component found in the "KoIn-Art" Cooperative Learning Model. To design these main components and elements, researchers have applied the Fuzzy Delphi Method (FDM) approach where it is through the agreement of a group of experts to validate, evaluate and subtract and add each component and element in the model developed. The selection of experts is very important and it should fit the context of the study. Mohd Ridhuan Mohd Jamil et al. (2017) argue that the Fuzzy Delphi method is a more effective measurement tool because it is seen to be able to solve problems that have ambiguity and uncertainty for a study.

The sub-phase of model development involves the development process of "KoIn-Art" Cooperative Learning Model. In this sub-phase, each element that has been designed through the Fuzzy Delphi Method (FDM) will be developed using the Interpretive Structural Modeling (ISM) approach. The development of this model is to look at the priority of each item within the main components. The use of ISM is also able to see the driving power for each element. This approach also involves a group of experts who will meet face to face to conduct a vote (voting) to develop the "KoIn-Art" Cooperative Learning Model.

CONCLUSION

This model can assist teachers in conducting learning for SEN students through the cooperative learning Model, and IEP students and mainstream students so that they can collaborate and optimize learning outcomes together. The subject of VAE is a subject that creates opportunities for students to explore students' talents and interests. Awareness of the importance of VAE subjects in helping IEP students' needs to be emphasized and given more serious focus because it will help these students to make it a direction after school and also as an opener to a career as an 'artist'. Through this study, it is hoped that schools understands better the IEP, students with learning difficulties in mainstream classes, teachers who teach SEN students in IEP, and manage all aspects related to IEP more effectively and empathetically. Teachers are the drivers of teaching and learning activities in the classroom, so this study can provide exposure to teachers in mainstream schools, especially VAE teachers to improve the weaknesses, shortcomings, defects or strengths, strengths, and effectiveness of their teaching and learning in the classroom. This research is expected to provide information to VAE teachers or other subject teachers in designing appropriate measures and programs to encourage IEP students to learn and collaborate with other students in the learning process in the classroom following their abilities.

REFERENCES

Abdul Aziz Sulaiman., & Siti Rubaiyani Omar. (2018). *Pelaksanaan program pendidikan inklusif bagi murid berkeperluaan khas bermasalah pembelajaran di Malaysia satu tinjauan*. Kertas dibentangkan dalam Internasional Seminar on Al-Quran in Contemporary Society.

Ang, C. T., & Lee, L. W. (2018). Pendidikan Inklusif. Sasbadi: Petaling Jaya.

Chao, C. N. G., Chow, W. S. E., Forlin, C., & Ho, F.C. (2017). Improving teachers' self-efficacy in applying teaching and learning strategies and classroom management to students with special education needs in Hong Kong. *Teaching and Teacher Education, 66*, 360-369.

Dakar Framework for Action - Education for All, Meeting our Collective Commitment. Retrieved from: http://www2.uncsco.org/wef/enconf/dakframeng.shtm.

Desnita, Rr.Sri Kartikowati., & Makhdalena. (2021). Application od STAD Type Learning Models to Improve Activity and Student Learning Outcomes. *Journal of Educational Sciences*, Vol 5(1), 119-129.

Deutsch, M. (1949). A theory of co-operation and competition. *Human relations*, 2(2), 129-152.

Dian Atnantomi Wiliyanto. (2017). *Analysis of Teachers' Understanding Level, Needs, and Difficulties in Identifying Children with Special Needs in Inclusive School in Surakarta*. Journal of Education and Learning, 11(4), 352–357.

Djone, R. R., & Suryani, A. (2019). Child workers and inclusive education in Indonesia. *International Education Journal: Comparative Perspectives*, *18*(1), 48-65.

Durksen, T. L., Klassen, R. M., & Daniels, L.M. (2017). Motivation and collaboration: the keys to a development framework for teachers' professional learning. *Teaching and Teacher Education, 67*, 53-66.

Hamzah Ishak., & Khodori Ahmad. (2018). *Pentaksiran Alternat Sekolah Menengah (PASM): Melalui Jendela Pentaksiran dan Model ERRA*. Kertas dibentangkan dalam Internasional Conference on the Future of Education (IConFEd), Penang, Malaysia.

Haslinah Abdullah., & Hairiah Munip. (2020). *Meniti Kejayaan Pendidikan Inklusif di Malaysia*. Jurnal Refleksi Kepemimpinan Jilid III, 2020 (ISSN 2636-9885).

Hosshan, H., Stancliffe, R. J., Villeneuve, M., & Bonati, M. L. (2020). *Inclusive schooling in Southeast Asian countries: a scoping review of the literature*. Asia Pacific Education Review, 21(1), 99-119. doi:10.1007/s12564-019-09613-0

Ida Puteri Mahsan. (2021). Expression of art and visual communication among special needed students of visual arts education subjects in primary schools. *Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan*, *10*(1), 41-54.

Johnson, D.W., & Johnson, R. (1994). *Learning together and alone: cooperative competitive and invidialistic learning*. Boston: Allyn & Bacon. First Edition.

Kagan, S., & Kagan, M. (2009). Kagan cooperative learning. Kagan Publishing.

Khuluqo, I. E. (2017). Developing Indonesian Inclusive Educational Model. *International Journal for Studies on Children, Women, Elderly and Disabled, vol. 2,* June, 118–124.

Krawinkel, S., Südkamp, A., & Tröster, H. (2017). Social participation in inclusive classrooms: Relevance of classroom and teacher characteristics. *Empirische Sonderpädagogik*, *3*, 277–295

Lee, K. C., & Sailajah Nair Sukumaran. (2018). Pendidikan Inklusif. Oxford Fajar: Kuala Lumpur.

Lembaga Peperiksaan. (2019). Laporan Analisis Keputusan Sijil Pelajaran Malaysia (SPM) Tahun 2017 [PDF]. Kementerian Pendidikan Malaysia.

Li, L., & Andrea Ruppar. (2020). Conceptualizing Teacher Agency for Inclusive Education: A Systematic and International Review. DOI: 10.1177/0888406420926976

McPherson, J. (2020). Active Learning Principles with Illustrations from Shakespeare Education. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *93*(1), 42-49.

Muhamad Firdaus Muhamad., & Rofidah Musa. (2020). Ekplorasi seni visual melalui aktiviti lakaran asas terhadap kanak-kanak prasekolah. *Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan*, *9*(1), 35-47.

Muñoz-Martínez, Y., Monge-López, C., & Torrego Seijo, J. C. (2020). Teacher education in cooperative learning and its influence on inclusive education. *Improving Schools*, *23*(3), 277-290. https://doi.org/10.1177/1365480220929440.

Nas Norziela Nasbah. (2018). Terapi seni ekspresif. https://www.pressreader.com/malaysia/berita-harian-alaysia/20180129/281951723250397

Norliah Mohd Amin., & Mohd Hanafi Mohd Yasin. (2016). Pelaksanaan program pendidikan inklusif murid berkeperluan khas dalam Pelan Pembangunan Pendidikan Malaysia 2013-2015. In *Seminar Antarabangsa Pendidikan Khas Rantau Asia Tenggara Siri Ke* (Vol. 6).

Nur Khairul Nisha Roslan., & Haris Abd. Wahab. (2017). Pendekatan akademik pelajar kurang upaya penglihatan yang mengikuti program pendidikan khas. *The Malaysian Journal of Social Adminstration, 11*(1), 45-64.

Nurul Azmi Mat Nor., & Nurszatulshima Kamarudin. (2017). Penerapan Kemahiran Berfikir Aras Tinggi (KBAT): Kesediaan Guru dalam Pengajaran dan Pembelajaran Reka Bentuk dan Teknologi (RBT) di Sekolah Rendah. *International Research Journal of Education and Sciences (IRJES)* Vol.1. Special Issue 1 (Malay).

Opertti, R., Walker, Z., & Zhang, Y. (2014). Inclusive education: From targeting groups and schools to achieving quality education as the core of EFA. In L. Florian (Ed.), *The SAGE Handbook of Special Education: Two Volume Set* (2nd ed., pp. 149-170). London: SAGE Publications Inc.

Pelan Pembangunan Pendidikan Malaysia. (2013-2025) (Pendidikan Prasekolah Hingga Lepas Menengah). 2013. Kementerian Pendidikan Malaysia.

Penketh, C. (2017). 'Children see before they speak': an exploration of ableism in art education. *Disability & Society*, *32*(1), 110-127.

Piaget, J. (1978). The Development of Thought: Equilibration of Cognitive Structures. Basil Blackwell: Oxford, UK.

Sharma, U., Forlin, C., Marella, M., & Jitoko, F. (2017). Using Indicators As a Catalyst for Inclusive Education in The Solomon Island. *Australian Journal of Teacher Education, vol. 40*(5), 103–116.

Siti Fatimah Salleh., & Mustafa Che Omar. (2018). Masalah Pengajaran Guru Dalam Program Pendidikan Inklusif Di Sekolah. *Asian People Journal* (APJ), *1*(2), 243-263.

Slavin, R. E. (1995). Cooperative Learning: Theory, Research, and Practice, second ed. Allyn & Bacon, Boston.

Slavin, R. E. (1996). Research on cooperative learning and achievement: What we know, what we need to know. Contemp. Educ. Psychol.21, 43–69.

Slavin, R. E. (2009). Cooperative learning. In: McCulloch, G., Crook, D. (Eds.), Inter- national Encyclopedia of Education. Routledge, Abington, UK.

UNESCO. (1994). The Salamanca Statement and Framework for Action.

UNESCO. (2007). Global Monitoring Report 2008: Education for All by 2015. Will We Make it. Paris: United Nations Education, Science and Cultural Organization.

Uzunboylu, H., Bicen, A., & Vehapi, S. (2017). The analysis of research problems regarding physical education lecture. *PONTE International Journal of Science and Research*, *73*(5).

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Cambridge, MA: Harvard University Press.

Yin, H., Lee, J. C. K., & Zhang, Z. (2020). Catering For Learner Diversity in Hong Kong Secondary Schools; Insights From The Relationships Between Students' Learning Styles and Approaches. *ECNU Review of Education.*