

The development of I-Teach model to improve early childhood teachers professionalism

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Abstract

The study aims to find out the effectiveness of I-Teach model to improve teachers' professionalism in handling special-needs children in inclusive classes. This is the final part of a research and development project with the modification of its development stage by Sukmadinata (2017) to be a model testing stage. It explained the effectiveness of the I-Teach model through a true experimental design by classifying the control and experimental group. The subjects of the study were purposively selected, with a total of 24 inclusive teachers involved. The study signified the effectiveness of the I-Teach model in facilitating the improvement of teachers' professionalism in managing inclusive classes. The effectiveness of the model has been confirmed through an Independent Sample T-Test between the control and experimental group, as $\text{sig} = 0.000 < 0.05$ and $\text{tcalc} = -7.85 < -\text{ttab} = -2.074$. The result of analysis confirmed the significance of the teachers' professionalism at the experimental group compared to the control group. The study recommended the provision of trainings for all teachers to equip them with sufficient comprehension of inclusive education and special-needs children management, as part of the sustainable improvement of their professionalism.

Keywords: I-Teach Model, Teachers' Profesionalism, Inclusive Education;

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1. Introduction

The government represented by the Department of Education and Culture has initiated the development of teachers' professionalism in Indonesia since 1979 through the Teacher Performance Consolidation (TPC) to improve the teachers' performance. The project is part of the largest training agendas conducted in various countries with funding support from the UNESCO, UNDP, and World Bank (Adey et al, 2004, p. 12). It is currently still provided for teachers of the Junior High School (JHS) and Senior High School (SHS) level. A new form of the development of teachers' professionalism, as part of the implication of the project was the initiative of teacher certification that was conducted from 2007 to 2017 and was well-known as the Education and Training of Teaching Profession (ETTP). Starting in 2018, teacher certification for in-service teachers is carried out through Teacher Professional Education (TPE) in accordance with the mandate of article 66 of Government Regulation Number 19 of 2017 that for Teachers in Position who are appointed until the end of 2015 and already have bachelor degree (S1/ D-IV) academic qualifications but not yet obtaining an Educator Certificate can obtain an Educator Certificate through Teacher Professional Education. Through this TPE, it is expected to help improving teacher's professionalism, which is available for teachers of Early Childhood Education, Primary School, Junior High School, and Senior High School program. However, the presence of TPE is still considered insufficient to equip the teachers with relevant competencies and skills in elevating their professionalism. Moreover, the data from trainings held nationally in 2019 only produced less than 45% early childhood education teachers with sufficient competencies based on the threshold score of 80 (a standard score that determines a professional teacher based on the national standard), this percentage has improved compared with the previous year which was only 20%. Although this is a rough data from an interview that I did with the committee of Early Childhood TPE in 2019, this portrait shows that the quality of early childhood educators in Indonesia is indeed still inadequate in general, especially related to the current process of implementing inclusive education. The limitation of time and education materials even did not positively contribute to the improvement of learning management in their respective institutions. The development of competencies that should cover four intertwining aspects, consisting of pedagogy, professionalism, personality, and social aspect, has yet significantly to be implemented in the learning process, especially by early childhood education teachers.

The development of teachers' professionalism is the center of all plans regarding the improvement of learning system of school institutions. The Report for UNICEF Rights, Education, and Protection Project (REAP) in 2012 regarding the professional learning signified that most of the teachers demanded the improvement of a certain training system to lead to the advance of inclusive education based on their contexts. A firm agreement is urgent to promote inclusive education for people with disabilities (PwDs), yet the majority of the responses mentioned that inclusive education was excluded from the trainings (Pinnock, 2012, p. 4). The Interstate Teacher Assessment and Support Consortium (InTASC) (CCSSO, 2011, p. 8-9) classified the standard of teacher education, including: (a) development of learners, (b) differences of learning, (c) learning environment, (d) learning contents, (e) content applications, (f) assessment, (g) lesson plan, (h) learning strategies, (i) professional learning and ethical practices, as well as (j) leadership and collaboration. In accordance with these domains, professionalism is targeted to provide teachers with sufficient abilities in reflecting the learning activities, performing an accurate assessment, communicating with families/ parents, and developing their sustainable professionalism. Husein (2017, p. 16-17) highlighted three key pillars of professionalism, consisting of knowledge, skills, and academic plans. Mehta & Panju (2018, p. 3-5) specifically mapping the competencies of professional teachers who teach in inclusive classes, including; 1) have the belief that every child has the potential to be developed, 2) have knowledge

about inclusive education, 3) cooperation with other staff, 4) have classroom management skills, 5) have skills to carry out the assessment process, 6) master general and individual instruction technique, 6) and mastery of technology.

Based on those professional components, this study deduced a relevant idea pertaining to early childhood education teachers' professionalism based on the Attachment II of the Education and Culture Ministerial Decree No. 137/2014 on The National Standard of Early Childhood Education (PAUD), where the professionalism of teachers who teach in inclusive class covers knowledge, skills, and attitude domains in developing learning materials, structure, and concepts based on the needs and developmental stages of children and special-needs children at inclusive classes, organizing the development aspects based on the children and special-needs children's characteristics, analyzing theories pertaining to learning and playing activities based on the development stages, potentials, talents, managing learning activities (strategies, methods, media, and environment setting) and interests of the children and designing assessment, evaluation, and progress reports of the children and special-needs children. Specifically, Marjoko (2019, p.7) in his research described that there are four key elements of teachers competence in implementing inclusive education, they are: conducting child development screening and assessment, providing individual learning program, classroom management and behaviour, as well as collaborating with various parties.

An inclusive teaching process for early childhood education stage is considered more effective through the implementation of understanding and appreciation regarding diversity. As the teachers have yet to gain sufficient experience in handling special-needs children, they require relevant teaching strategies for inclusive classes. Zigmond and Baker (1997) (in Essay, 2017) mentioned two inclusive teaching models, including (1) Collaborative Teaching Model (CTM) and (2) Minnesota Early Learning Design (MELD). The CTM is considered to ignite collaboration among teachers from general schools and inclusive schools in conducting effective learning activities. Meanwhile, the MELD presents all students with their respective learning adversities and competencies, causing the limitation to join the activities at general schools. In addition, Hallahan & Kauffman (2006: 24) describe the full inclusion education program model as having a key element that is contained in most definitions so it can be concluded that full inclusion education presents children with special needs in the general education process. There is no separation of classes for children with special needs from other children, regular or general education has an obligation and is actively involved in accepting children with special needs. Rudiwati (2010, 54) stated that the education system at school has not yet been adjusted to accommodate students with special needs, but the students must follow general education system. Based on the inclusive learning model, this study presents a learning process by presenting children with special needs in inclusive classes at early childhood education institutions, and involving supporting components that are still very rare in early childhood education institutions in particular, such as accompanying teachers, doctors, psychologists, counselors and parental involvement are the second main components after teachers and school officials.

Based on the previous relevant study, the implementation of inclusive teaching model development in Indonesia has touched in the elementary stage, yet the practice is still unfamiliarly perceived in early childhood education stage (Rudiwati, 2013). Furthermore, the latest research conducted by Nugraheni, Salim and Hidayatullah (2019: 60) on teachers of junior high school institutions found that 89% of teachers who teach at the junior secondary level in Surakarta City are at low and moderate levels in terms of inclusive education. This shows that teachers are still lack of knowledge regarding what and how inclusive education is. Yusuf (2019, 35-34) also described that teachers must consider the children's needs in designing learning instruments. Therefore modification and adaptation are

needed in inclusive class which means that teachers must have the necessary knowledge and skills to specifically design the class.

The current study is urgent to provide references for teachers, especially early childhood education teachers in implementing the concept of inclusive education. Early childhood education teachers are substantially requiring practical and applicative knowledge in designing inclusive learning activities. Numerous trainings initiated by Education Agencies related to the matter have yet to be considered adequate to equip them with management skills for inclusive classes.

The management of inclusive education for early childhood education level has yet to be significantly highlighted in Indonesia. In fact, the quality of education for early childhood education level students will remarkably produce meaningful experiences and benefits for the children's physical and mental growth. The intervention of early childhood education is widely acceptable to prevent learning adversities and promote sound development for special-needs children (Baglama & Demirok, 2016). A number of foreign studies related to the implementation of inclusive education concluded that teachers commonly perceived a less optimum concept of inclusivity, possessed insufficient knowledge and skills in assisting special-needs children at inclusive classes, and grasped a low comprehension in the inclusive learning process (Barbara & Joyline, 2014; Fleig, Forno, & Veiga, 2015; Sylod, 2016). One of the successful indicators of inclusive education is defined by the teaching resources who are involved in various trainings, as part of the efforts in elevating their abilities to assist the development of their special-needs students' skills and competencies (Ajodhia, Andrews, & Frankel, 2010; Obeng, 2012; Mukhopadhyay, Nenty, & Abosi, 2012). Based on the SWOT analysis conducted by Anshory (2018), the implementation of inclusive education in Indonesia has its weakness, particularly regarding the curriculum quality, lesson plans, and school facilities which is viewed from various levels of education.

This study proposed the I-Teach model, as a conceptual framework for teachers in implementing inclusive education and performing the learning process. I-Teach stands for "Inclusive Teaching", as part of the inclusive learning method by introducing diversity and special-needs children in the same class through a multiparty collaboration, as part of its optimization. Other models of Inclusive Teaching have been developed in each country according to the needs of increasing the competence of educators, so that there are specificities in developing this model, such as Inclusive Pedagogical Approach in Action (IPAA). The model was developed to prepare prospective teachers who will teach inclusive classes in Thailand. The immersion program using IPAA has a strong influence on prospective teachers, this program provides in-depth understanding of inclusive pedagogical knowledge about children with special needs and transforms how to teach children with special needs (Klibthong & Agbenyega, 2018).

Meanwhile, the I-Teach Model in this study was developed with the aim of increasing the professionalism of early childhood education teachers Central Java, Indonesia, in order to have adequate knowledge and skills in providing educational services in inclusive classes. Besides that, the teachers are also expected to have positive attitude in implementing inclusive education. This is the requirement to be a professional teacher who can adapt in the face of diversity, including working with special needs children. Teachers in this study are those who have the experience with special needs children, however, so far they have not been able to provide maximum service in the learning process, so the application of the I-Teach model provides guidance for them in implementing inclusive education in their institutions.

In the I-Teach model, the teacher has a duty to implement each learning process item in the inclusive class. The main component in this model are in accordance with the three professional competencies according to McClelland (in Soemantri, 2010) which teachers must have, including: knowledge, skills and attitude. The I-Teach model was developed to meet the needs of every child in the classroom learning process, as well as the involvement/ supporting system carried out by various related parties including: school principals, parents, accompanying teachers, doctors, psychologists and counselors to provide services together to optimize the growth and development of children both at school and at home. The learning process with the I-Teach model is carried out in an integrated thematic manner, while the learning process developed include planning, implementation and evaluation which is carried out holistically and integratively by the teacher. In the planning section, the main and first aspect that must be done by the teacher is identification and assessment (Directorate of Early Childhood Education Development, 2018, p. 4-5, 12-13), where this aims at children who experience disorders/ deviations or barriers, so that the teacher can plan the right program for the children by making the most suitable activities, determining strategies, appropriate methods and media as well as environmental settings.

This inclusive teaching model is developed based on the need analysis of inclusive class teachers, especially in early childhood education. This model is expected to aid teachers in managing their classroom by: 1) conducting development analysis on children with special needs, 2) creating need assessment for each child, especially the children with special need specification, 3) determining learning strategy (the method and media that will be used, 4) setting up the learning environment that supports diversity, 5) conducting the appropriate assessment for children with special needs.

Related to the planning of development programs for children with special needs, the I-Teach model is designed in the form of welcome activities such as motoric physical activities and special development activities according to specifications in the form of playing activities and habituation activities (life skills). The model is explained through the following Figure.

The current study designed an I-Teach model through a collaboration with relevant school institutions and the adjustment with the learning models from respective institutions. The involvement of professionals is also important in the inclusive teaching process. Fields et al (2018) affirmed the urgency of a multiparty collaboration to achieve the success of inclusive education. The model was developed based on various theories that supported the concept of inclusive teaching. Whitworth's model (1999, p.5) explained that an effective learning activity should be supported with the provision of understanding and appreciation to the diversity since most of the teachers had yet to gain sufficient experience in handling special-needs children. Ediyanto et.al explained that ideally teachers in inclusive classes are consist of teachers, shadow teachers and a teacher who has expertise in the field of orthopedics. Based on the observations of researchers on field teachers in early childhood education institutions, the ratio of teachers to children is 1: 17, there is even a ratio of 1: 20 children in one class, including one to 2 children with special needs in it (Diana, 2019, 116). This becomes an obstacle for teachers, especially in early childhood education, with the diversity and uniqueness of each child. Such condition required appropriate learning strategies and experiences for inclusive classes. Therefore, the conceptual model of inclusive teaching was initiated based on the management of early childhood education learning in Indonesia. The model is believed to improve the teachers' professionalism in managing inclusive classes.

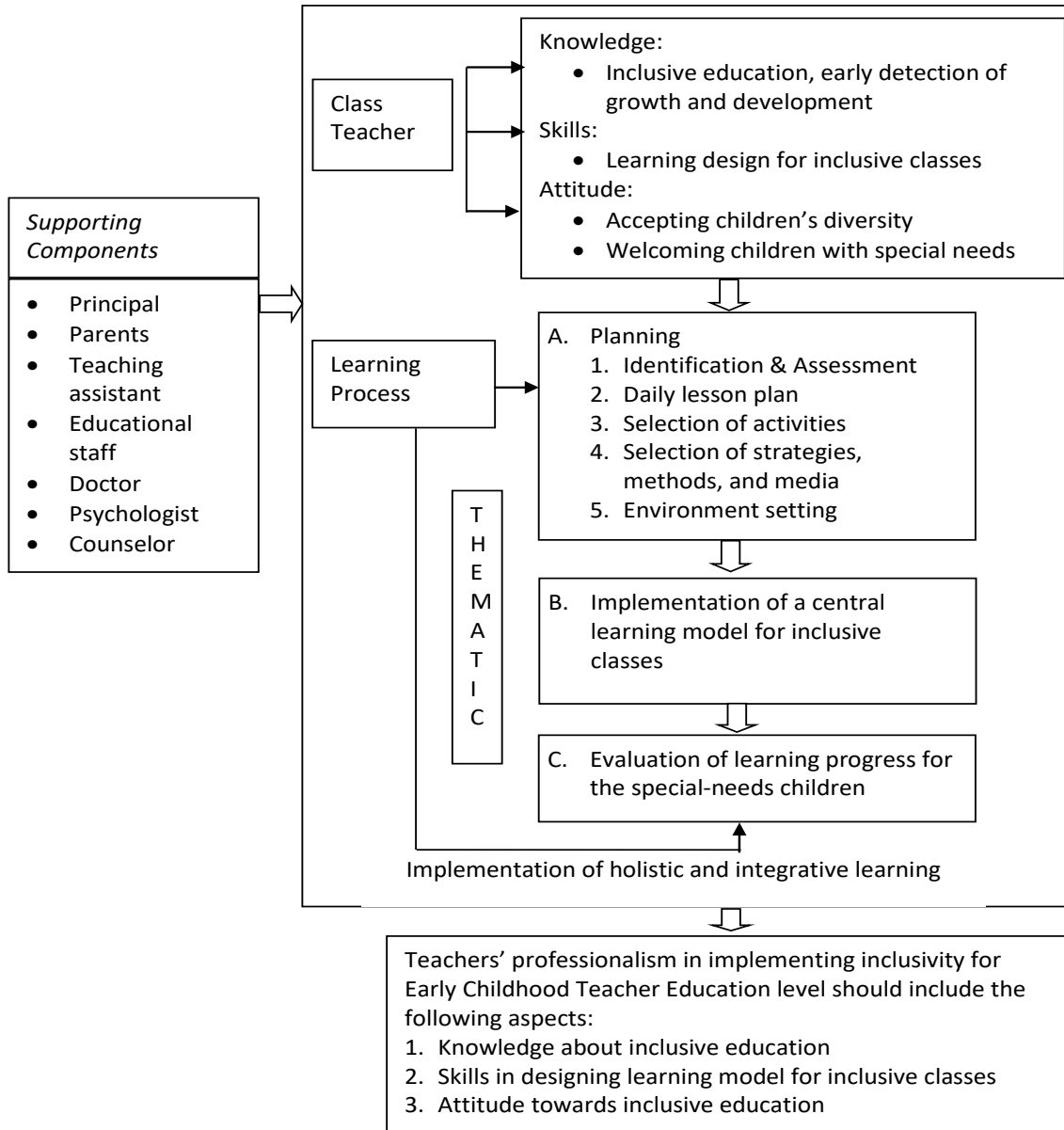


Figure 1. I-Teach Model to Improve Professionalism of Early Childhood Education Teachers

Based on the previous relevant studies, the success of inclusive education in developing countries requires external assistances to provide references and supports to achieve sustainable local development (Sharma, Forlin, Deppeler & Guang-xue, 2013, p.13; Wearmouth, Edwards, & Richmond, 2000, p.60). Kusuma & Ramadevi (2013, p. 13) describe that teachers who are not equipped with skills related to inclusive education really need programs for the development of skills in class management to meet the needs of children with special needs. Based on the results of observations made in this study, most of the teachers do not yet have adequate knowledge and teaching skills along with children with special needs in the inclusive class. Teachers have not been

able to provide optimal activity materials such as the development of physical skills which are generally needed by children with special needs, materials related to life skills are less of an emphasis.

In addition, teachers also need to get guidance related to meeting the basic needs of children with special needs, such as facilities and infrastructure, as well as various supporting tools in the learning process. It is hoped that equal access to opportunities in teacher professional development can help teachers to obtain information and self-development on an ongoing basis. This research is targeted to reveal the effectiveness of I-Teach model in developing the teachers' management skills for inclusive classes. As part of the implementation of the model, the author has also composed learning guidelines to assist the teachers in performing the model for inclusive learning activities. I-Teach model as one of the development models in the training program for Early Childhood Education teachers who teach inclusive classes.

2. Methodology

2.1 Sample and Data Collection

There were 24 inclusive early childhood education institutions in Semarang, Central Java and a representative teacher for respective groups that were selected through purposive sampling. The number of subjects in the study was limited, as not all early childhood education institutions in Central Java admitted special needs children. The sample in this study amounted to N = 24 teachers representing each institution, which were divided into control group and experimental group. This limited sample size will reduce external validation in a broader generalization. Therefore, it is necessary to conduct similar research with a larger sample so that the research results can be generalized to a wider area.

2.2 Instruments

The data were collected through a questionnaire regarding the teachers' professionalism in handling the inclusive classes. The measuring instrument consisted of 35 questions that focused on the professionalism aspects, including knowledge, skills, and attitude in managing the learning process in inclusive classes. The indicators for each aspect are presented on the following table.

Table 1. The Indicators of Early Childhood Education

Teachers Professionalism No	Aspect	Indicators
1	Knowledge	<ul style="list-style-type: none"> Develop the material, structure, and concept which support and are in line with the needs and development stages of children with special needs. Organize the development aspect based on the characteristics of children in general and children with special needs. Analyze the theory of play based on the aspect and development needs of children's potential, talent and interests.
2	Skills	<ul style="list-style-type: none"> Design various development activities creatively based on the development stages and the special needs of inclusive

		class students.
		<ul style="list-style-type: none"> • Design the assessment process and learning evaluation for children with special needs in the inclusive class. • Conduct a reflective activity to improve the learning quality in inclusive class. • Manage learning activities (using learning environment strategies, methods, media, and setting) based on the children's needs in inclusive class.
3	Attitude	<ul style="list-style-type: none"> • Act inclusively, objectively, and do not discriminate based on gender, religion, race, ethnicity, physical condition, background, family and socio-economic status. • Communicate effectively, empathetically, and politely with students, fellow teachers, staff, parents and community. • Able to adapt with both Indonesian socio-cultural diversity and various characteristics of children. • Present themselves as people who are confident, stable, mature, considerate, wise, responsible and proud of being early childhood educators.

The instrument was validated by relevant experts, consisting of an expert in learning materials, an expert in early childhood education, and an expert in special needs children. The validity of the instrument is explained through the following Table.

Table 2. Instrument Validity Regarding the Professionalism of Early Childhood Education Teachers in Inclusive Classes

Validity Aspects	Expertise
Learning Materials	<ul style="list-style-type: none"> • Curriculum and Education Technologies
Materials for Early Childhood and Special Needs Education	<ul style="list-style-type: none"> • Early Childhood Education • The Psychology and Development of Special Needs Children

The result shows all the professionalism instruments. Meanwhile, the reliability test of this study utilized the Cronbach's Alpha formula, in which the reliable data should meet the requirement of Cronbach's Alpha value of > 0.70. The result signifies the value of Cronbach's Alpha = 0.958 > 0.70. It confirms the reliability of the questionnaire items.

2.3 Analyzing of Data

This is a true experimental study that utilizes experimental and control group to test the effectiveness of I-Teach in improving teachers' professionalism through expert validation. In this study the experimental group implemented the I-Teach model in the inclusion class, while the control group used conventional learning as before without any models. The model has run through a limited and wide scale dissemination.

Based on the design, the study examined its hypothesis through the Independent Sample T-Test and N-gain Test. The normality test and homogeneity test were previously conducted with respective groups prior to the analysis (for normality test the p-value > 0,1 and for homogeneity test the p-value 0,936 > 0,05, with n=24).

3. Findings/Result

This research emphasized on the teachers' professionalism based on three components, including knowledge, skills in inclusive class management, and attitude in response to the implementation of inclusivity. Sheridan et al (2009) revealed three stages that teachers should pass in order to achieve their professionalism status, including: (1) the awareness of new strategies in assisting the students to achieve their learning progress, (2) the understanding that the early beginning of the new strategies would feel awkward and require a certain period of adjustment, and (3) the completion of constructed skills to achieve good practices. Kargin (2004) mentioned that the achievement of inclusivity should take into account early preparation, setting, adaptation, and general principles (Yazicioglu, 2020: 88). This I-Teach model is expected to assist the teachers with sufficient knowledge regarding the implementation of inclusivity and learning design that meet the needs of inclusive students.

Zakiyah and Nurfaizah (2019, 360) affirmed that teachers' professionalism would affect their performance in the learning process, implying the urgency of professionalism development in inclusive class management. Rabbi and Zulkefli (2018, 1780) mentioned that the teaching for special needs students required teachers with proper competencies in handling inclusive classes. There should be a change of paradigm in the implementation of inclusive education to optimally fulfill the students' needs.

The I-Teach model offers a new strategy for teachers that handle inclusive classes. The current study signified an improvement in teachers' professionalism in managing inclusive classes after the treatment with the model. The improvement was remarkably marked based on the teachers' knowledge, skills, and attitude in leading the classroom learning process. Following is the result from independent sample t-test of the teachers' professionalism in managing inclusive classes in early childhood education.

Two Sample T-Test and CI: Post-Kontrol; Post-Eksperimen

Method
 μ_1 : mean of Post-Kontrol
 μ_2 : mean of Post-Eksperimen
 Difference: $\mu_1 - \mu_2$
 Equal variances are assumed for this analysis

Descriptive Statistics

Sample	N	Mean	StDev	SE Mean
Post-Kontrol	12	107,9	12,6	3,6
Post-Eksperimen	12	146,3	11,4	3,3

Estimation for Difference

Difference	Pooled StDev	95% Lower Bound for Difference
-38,42	11,9878	-28,27

Test

Null hypothesis $H_0: \mu_1 - \mu_2 = 0$
 Alternatif hypothesis $H_1: \mu_1 - \mu_2 > 0$

T-Value	DF	P-Value
-7,85	22	0,000

Figure 2. The result of Independent Sample T-Test Analysis (Control-Experimental Group)

The above analysis results in p-value 0.00 less than α 0.05, which means that there is an improvement in experiment class compared to the control class. The result has signified the effectiveness of I-Teach model to improve teachers' professionalism in early childhood education institutions that admitted special-needs students. The further analysis with N-Gain test also marked that 11 out of 12 teachers gained an intermediate predicate in their professionalism, while another one secured a high category at the experimental class. Meanwhile, the control group showed a low category of professionalism.

The training on the utilization of I-Teach learning model proved the improvement of early childhood education teachers' professionalism, especially regarding with their knowledge at the metacognitive stage (in accordance with Anderson dan Krathwohl (2001, 46), as they could sustain the welcome activities at their institutions together with the acceptance and implementation of the I-Teach model. The improvement of knowledge was also supported with the sustainable improvement of skills, as the teachers currently still manage to hold the welcome activities, as part of their routine in mixing up physical-motoric activities and other life skill-related activities, such as tooth brushing activity which does not only rely on the discussion about five senses but is also considered as part of the daily routine that children should do after the afternoon break and free time.

The improvement of attitude reached the stage of "characterization by value", as explained by Krathwohl (2001). The teachers that were involved in the training significantly improved their confidence to accept special needs children in their institutions. They previously admitted of having insufficient capacities to manage special classes for those children. Such a condition implied that all teachers have developed positivity towards all students and willing to collaborate with their partners (Borg, Hunter, Sigurjonsdottir, & D 'Alessio, 2011: 14-15). A multiparty collaboration is substantially required to support the teachers' positive perception in handling special needs students and supporting the principals, administrative officers, school security officers, and general assistants that were involved in the same education circle. The results of teacher professionalism improvement in the aspects of knowledge, skills, and attitudes after implementing the I-Teach model for children with special needs in the inclusive class is described in Figure 3. The units are presented in percent.

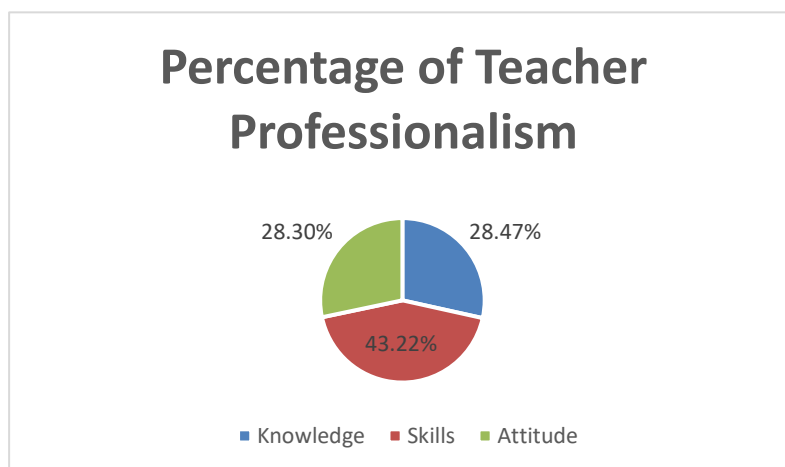


Figure 3. The Percentage of Teachers' Professionalism in Three Components (Knowledge, Skills, and Attitude)

4. Discussion

Based on the results of the I-Teach model implementation for teachers who teach in inclusive classes, broadly speaking, the teachers experienced an increase in knowledge about inclusion and the implementation of inclusive education by 28.30%. Mehta and Panju (2018, p.3) also emphasized that the knowledge that professional teachers must have is in the context of inclusive education which includes knowledge and understanding of the basic terminology and concepts used in special education; history of inclusive education; policies, programs and laws related to inclusive education; rights, roles and responsibilities of parents, students, teachers and other professionals. The increase in the skills to manage learning and planning activities for children with special needs was 28.47%, besides that, the I-Teach model is equipped with the skills to identify and assess children's development, so that they can design learning to facilitate every child's needs. The European Agency for Development in Special Needs (2012, p.15) describes the skills that teachers who teach in inclusive classes must have, among others, are being able to identify and assess children who have significant barriers/ disorders in order to design, determine approaches and strategies as well as environmental settings in the learning process. Haldanita (2016, 24) emphasized that teachers in an inclusive class setting must master teaching strategies which are suitable for their students' special characteristics. Because every special needs child has their own learning characteristics which can be very different from one student to the other.

The teacher's attitude towards diversity and providing opportunities for every child to get the same services in the learning process and optimizing their growth and development also increased by 43.22% after participating in the training using the I-Teach model. This teacher's positive attitude has a positive influence on the acceptance and learning process with special needs children in the inclusive class. Several studies have also found the same result where teachers who take training about children with special needs have a positive attitude compared to teachers who do not attend the training (Surban & Sharma, 2006; Khochen & Radford, 2011; Supriyanto, 2019). In this study, it was found that most teachers are ready to accept all children who will enter their institution, including children with special needs, but sometimes parents lack openness regarding the condition of their children who have challenges. Conditions like this are still commonly found in early childhood education institutions in the city of Semarang, Central Java which have not implemented initial assessment activities when children registered to their institutions, so teachers only found out that those children were facing challenges later on when the learning process is underway, even then this often went unnoticed by teachers. Training programs using the I-Teach model for teachers do not only increase professionalism, but also become a form of sustainable development in the field of inclusive education.

The I-Teach model offers a strategy for teachers that handle inclusive classes in assisting the life skill development of their students through certain welcome activities. Gamutu & Kathuri (2018, p. 5) stated that life skills at preschool can be the basis for predicting how well a child will perform at school and in his future. Teaching life skills to preschoolers opens the way for them to fulfill their social responsibilities and school skills, which means that life skills activities are central to the children's future. In addition, the I-Teach model provides an overview of the learning management implementation with various approaches in early childhood education institutions, including the area and center learning models, so that this model provides readiness for teachers in managing learning in inclusive classes. The welcome activities are categorized as additional activities for special-needs students in early childhood education level to optimize their capability of adaptation, socialization,

and skills. The model also demands the teachers to explore the children's needs, as part of the efforts in assisting them during the class.

The inclusive learning activities for early childhood education level should contain three principles of good practices, including: (1) individual instruction for every child in every learning activity, (2) service integrality in all learning activities inside and outside of school (at home), and (3) provision of systemic support for inclusive practices through professional policies and relations (Booth et al, 2006; Guralnick, 2008; Frankel & Underwood, 2012; Underwood et al, 2012). Bubpha (2014, 328) in his research also emphasized that a successful inclusion needs active cooperation between all parties including teachers, students, parents, and community. Therefore, this is a big and challenging responsibility for leaders and education staff. This inclusive learning model will develop early childhood education teachers' professionalism in leading the learning process. Their knowledge will sharpen their skills in managing inclusive classes and improve their positive perception in the implementation of inclusive education in their respective institutions.

Conclusion

The development of I-Teach is effective to improve teachers' knowledge and skills in managing inclusive classes and contribute positive impacts to the improvement of special-needs children's life skills in inclusive early childhood education institutions. This model provides a concrete example of how teachers should design learning and playing activities, in addition to prepare supporting learning media for special-needs students during the class. The model is completed with the guidelines for teachers that serve inclusive early childhood education institutions to reinforce their comprehension regarding the implementation of inclusive education.

Recommendation

This study recommends Education Agencies in Central Java to facilitate specific trainings for early childhood education teachers that can assist them to implement the principles of inclusive education. The I-Teach Model can be used in teacher's development program and training activities on the implementation of inclusive education in Semarang. With this regard, the availability of supporting facilities to actualize learning activities for special-needs children is considered essential in the implementation of inclusivity. Furthermore, the implementation of inclusive education also requires a special policy regarding the availability of teaching assistants. Therefore, the "one teacher-one class" policy should be reconsidered.

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References

- Adey, P., Hewitt, G., Hewitt, J., & Landau, N. (2004). *The professional development of teachers: Practice and theory*. New York: Kluwer Academic Publisher.
- Ajodhia, A., Andrews., & Frankel, E. (2010). Inclusive education in Guyana: A call for change. *International Journal Of Special Education*, 25(674), pp. 126-144.
<https://eric.ed.gov/?id=EJ890573>
- Anderson, L., W., & Krathwohl, D., R.(2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of education objectives*. New York: Addison Wesley Longman Inc.
- Anshory, I. (2018). SWOT analysis on inclusive education in Indonesia, 231 (Amca). *Advances In Social Science, Education And Humanities Research*, pp. 255-258.
<https://doi.org/10.2991/amca-18.2018.70>
- Baglama, B & Demirok, M. (2016). Determination of preservice special education teachers' views on early childhood intervention. *Cypriot Journal of Educational Sciences*, 11 (4), pp. 13-222.
DOI: 10.18844/cjes.v11i4.1297
- Barbara, M, & Joyline, N. (2014). The inclusion of children with mental disabilities: A teacher's perspective. *International Journal of Humanities Social Sciences and Education (IJHSSE)*, 1 (2), pp. 65-75.
ISSN 2349-0373 (Print) & ISSN 2349-0381 (Online)
- Borg, G., Hunter, J., Sigurjonsdottir, B., & D'Alessio, S. (2011). *Key principles for promoting quality in inclusive education*. Brussels, Belgium: European Agency for Development in Special Needs Education.
- Booth, T., Ainscow, M. & Kingston D. (2006) *Index for Inclusion: Developing play, learning and participation in early years and childcare*. Bristol: Centre for Studies on Inclusive Education.
- Bubpha, S. (2014). Models of inclusive education: One size does not fit all. *International Journal of Technology and Inclusive Education (IJTIE)*, 3 (2), 328-334.
- Council of Chief State School Officers. (2011, April). *Interstate teacher assessment and support consortium (InTASC) model core teaching standards: A resource for state dialogue*. Washington, DC.
- Diana. (2019). *Disertation: Inclusive teaching model: Facilitating early childhood education teachers in inclusive classroom*. Surakarta: UNS.
- Directorate of Early Childhood Education Development. (2018). *Prosedur operasional standar pendidikan anak usia dini: Identifikasi dan asesmen*. Jakarta: Kemendikbud.
- Ediyanto, Atika, I., N., Kawai, N., & Prabowo, E. (2017). Inclusive education in Indonesia from the perspective of widyaiswara in centre for development and empowerment of teachers and education personnel of kindergartens and special education. *Indonesian Journal of Disability Studies (IJDS)*, 4 (2), 104-116.
- Essays, UK. (November 2018). Models of inclusion in education. retrieved from. <https://www.ukessays.com/essays/Teaching/current-models-of-inclusion.php?vref=1>. Accessed on 17 June 2019
- European Agency Development in Special Needs. (2012). *Teacher education for inclusion: Profile of inclusive teachers*. Brussels: Belgium.
- Fields, A., Akpan, J., Beard, L., Notar, C. (2018). Inclusive education: Which inclusion model provides higer academic gains for students with mild to severe dissabilities in the secondary setting?. *European Journal of Special Education Research*, 3(1), pp. 52-57.
<http://dx.doi.org/10.46827/ejse.v0i0.1361>

- Diana, Sunardi, Gunarhadi, & Munawir Y., (2020). The development of I-Teach model to improve early childhood teacher's professionalism. *Cypriot Journal of Educational Science*. 15(6), 1614-1628. <https://doi.org/10.18844/cjes.v15i6.5321>
- Fleig, L., Forno, D., Bahia, S., & Veiga, F. H. (2015). Gifted amongst preschool children: An analysis on how teachers recognize giftedness. *Australian Journal of Teacher Education* 5 (1), pp. 707-715.
- Frankel, E. & Underwood, K. (2012). Early intervention for young children, in I. Brown & M. Percy (Eds) *Developmental Disabilities in Ontario* (3rd ed). Toronto: OADD.
- Gamutu, J., C., & Kathuri, W., N. (2018). An exploration of life skills programme on pre-school children in Embu West, Kenya. *Journal of Curriculum and Teaching*, 7(1), 1-6.
- Guralnick, M. (2008) International Perspectives on Early Intervention. *Journal of Early Intervention*, 30, 90-101. <http://dx.doi.org/10.1177/1053815107313483>
- Hallahan, D.P. & Kauffman, J.M. (2006). *Exceptional learners: An introduction to special education* (10th ed). New York: Pearson Education, Inc.
- Heldanita. (2016). Konsep pendidikan inklusif pada lembaga pendidikan anak usia dini. *Golden Age Jurnal Ilmiah Tumbuh kembang Anak Usia Dini*, 1(3), 15-24. e-ISSN: 2502-3519
- Husein, L. (2017). *Profesi keguruan: menjadi guru profesional* (Cetakan Pertama). Yogyakarta: Pustaka Baru Press.
- Khochen, M., Radford, J. (2011). Attitudes of teachers and headteachers towards inclusion in Lebanon. *International Journal of Inclusive Education*, 16(2), 139-53. <https://doi.org/10.1080/13603111003671665>
- Klibthong, S., & Agbenyega, J. S. (2018). Exploring professional knowing, being and becoming through inclusive pedagogical approach in action (IPAA) Framework. *Australian Journal of Teacher Education*, 43(3), 109-123. DOI: [10.14221/ajte.2018v43n3.7](https://doi.org/10.14221/ajte.2018v43n3.7)
- Kusuma, A., Ramdevi, K. (2013). Inclusive education-teacher competencies. *Shanlax International Journal of Education*, 1(3), 24-40.
- Majoko, T. (2019). Teacher key competencies for inclusive education: Tapping pragmatic realities of Zimbabwean special needs education teachers. *SAGE Journal*, January-March, 1-14. <https://journals.sagepub.com/doi/full/10.1177/2158244018823455>
- Mehta, A., & Panju, N. (2018). Teaching competencies in inclusive classroom. *International Journal of Research in Humanities, Arts and Literature*, 6(8), pp. 131-136. <http://oaji.net/articles/2017/488-1537502980.pdf>.
- Mukhopadhyay, S., Nenty, H. J., & Abosi, O. (2012). Inclusive Education For Learners With Disabilities In Botswana Primary Schools. *SAGE Open*, 2(2), pp. 1-9. <https://doi.org/10.1177/2158244012451584>
- Obeng, C. S. (2012). Children With Disabilities In early care in Ghana. *International Journal of Early Childhood Special Education*, 4(2), pp. 50-63.
- Pinnock, H. (2012). Global Teacher training and inclusion survey report for UNICEF rights, education and protection project (REAP). (October), 1-24.
- Rabi, N.M., Zulkefli, M.Y. (2018). Mainstream teachers' competency requirement for inclusive education program. *International Journal of Academic Research in Business and Social Science*, 8(11), pp. 1780-1791.
- Rudiyati. (2010). Pengembangan dan pengelolaan program pendidikan individual "individualized educational program"/IEP bagi anak berkelainan di sekolah inklusi. *Jurnal Pendidikan Khusus*, 6(1), 54-64.

- Diana, Sunardi, Gunarhadi, & Munawir Y., (2020). The development of I-Teach model to improve early childhood teacher's professionalism. *Cypriot Journal of Educational Science*. 15(6), 1614-1628. <https://doi.org/10.18844/cjes.v15i6.5321>
- Rudiyati, S. (2013). Peningkatan kompetensi guru sekolah inklusif dalam penanganan anak berkebutuhan pendidikan khusus melalui pembelajaran kolaboratif. *Cakrawala Pendidikan*, 2 (2), 296-306.
- Sharma, U., Forlin, C., Deppeler, J., & Guang-xue, Y. (2013). Reforming teacher education for inclusion in developing countries in The Asia –Pasific Region. *Asian Journal of Inclusive Education*, 1(1), 3-16.
<http://www.ajie-bd.net>
- Sheridan, S. M., Edwards, C.P., Marvin, C.A., & Knoche, L.L. (2009). Professional development in early childhood programs: process issues And research needs. *EARLY EDUCATION AND DEVELOPMENT*, 20(3), 377-401.
<https://doi.org/10.1080/10409280802582795>
- Soemantri, H. (2010). "Kompetensi" sebagai landasan konseptual kebijakan kurikulum sekolah di indonesia. *Jurnal Pendidikan Dan Kebudayaan*, 16(6), 684-689.
- Surban, P., Sharma, U. (2006). Primary school teachers' perceptions of inclusive education in Victoria, Australia. *International Journal of Special Education*, 21(1), 42-52.
- Suparno. (2011). Desain Pembelajaran untuk guru TK inklusif. *Cakrawala Pendidikan, Jurnal Ilmiah Pendidikan*, Nopember Th. XXX No. 3, 388-448.
- Supriyanto, D. (2019). Teachers' attitudes towards inclusive education: A literature review. *Indonesian Journal of Disability Studies (IJDS)*, 6(1), 29-37.
<http://dx.doi.org/10.21776/ub.ijds.2019.006.01.4>
- Sylod, C. (2016). The Implementation of Inclusive Education for children with disabilities in primary school: A Theoretical probability or Practical Possibility. *Asian Journal of Education Research*, 4 (4), pp. 28-35.
- Underwood, K., Valeo, A., & Wood, R. (2012). Understanding inclusive early childhood education: a capability approach. *Contemporary Issues in Early Childhood*, 13(4), 290-299.
<https://doi.org/10.2304%2Fciec.2012.13.4.290>
- Wearmouth, J., Edwards, G., & Richmond, R. (2000). Teachers' professional development to support inclusive practices. *Journal of In-Service Education*, 26(1), 49-61.
<https://doi.org/10.1080/13674580000200111>
- Whitworth, J. W. (1999). A model for inclusive teacher preparation, *Electronic Journal for Inclusive Education*, 1 (2).
- Yazicioglu, T. (2020). Determining the views of school principals and guidance teachers on inclusive practices at Anatolia High-School. *Journal of Education and Learning*, 9(1), pp. 87-98.
<https://doi.org/10.5539/jel.v9n1p87>
- Yusuf, M. (2019). Inclusive education: new paradigm of education for children with special needs and its implication on school management (*pidato pengukuhan Guru Besar bidang Ilmu Manajemen Pendidikan Inklusif*). Surakarta: Sebelas Maret University.
- Zakiyah, & Nurfaizah. (2019). Pengembangan keprofesian berkelanjutan dalam meningkatkan profesionalisme guru pendidikan anak usia dini. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 3(2), 356-365.
<https://doi.org/10.31004/obsesi.v3i2.196>