Training Program on Special Education: A Development of Teachers' Knowledge and Skills for the Proper Implementation of Inclusive Education

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Abstract The study was carried out with the main purpose of developing and enhancing the general education teachers' knowledge and skills on special education for the proper implementation of inclusive education. This study was conducted on 25 teachers of Kinoguitan Central School. Data were gathered by using three (3) essential tools: demographic information survey, test and evaluation form. Collected data sets were tallied, summarized and analyzed through descriptive statistics. The results revealed that 100% of the teacher-participants have very limited knowledge and skills on special education; resulting in the negligence of proper implementation of Inclusive Education. However, with the use of the training program as an intervention, the teacher-participants' knowledge and skills have developed. The scores of the teacher-participants on the posttest have significantly improved. From 11.96 as the average score in the pretest, it has increased to 27.88 in the posttest. Furthermore, the evaluation results of the training program obtained a total of 4.67, 4.56 and 4.60 ratings in the three (3) criteria: content & organization, trainer and instructional materials used respectively. The findings indicated that the teachers' knowledge and skills on Special Education after the training have improved. Given the increased average score on the posttest as an indicator that a training program can help the teachers improve their knowledge and skills on special education for the proper implementation of inclusive education, it is necessary to encourage and support any training programs that would aid in bridging the gap between special education and inclusive education.

Keywords: special education, inclusive education, knowledge & skills

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1. Introduction

Over time, special education researchers, policy-makers and teachers have adopted and adapted the language of Inclusive education. Individual schools around the world have become more inclusive through specific reforms that meet the needs of all students, including children with disabilities. Individual with Disabilities Education Act (IDEA) provides a policy that every school district must accommodate every learner with special educational needs in a least restrictive environment [1]. With this policy, schools have restructured their organizations so that they no longer have a separate division for special education, and learners with disabilities are now educated together with the learners with no disabilities.

Inclusive Education first emerged in the United States, and has been a constant feature of UNESCO's works since the pioneering calls for Education for All in Jomtien, Thailand-1990. Incheon Education 2030 Declaration and Framework for Action [2] recognized with great concern that the world is far from having reached education for all and as a response to educational underachievement and diminished social opportunities of vulnerable students-children with disabilities, UNESCO has demonstrated a commitment to shaping the aspirations of and strategies for inclusive education for students with disabilities. The World Conference on Special Needs Education: Access and Quality in Salamanca, Spain in 1994 is generally regarded as foundational to setting a global framework, agenda and movement for inclusive education for students with disabilities [3].

[4] People with disabilities living in developed countries experience worse educational outcomes, and they are more likely to be poor and marginalized than persons without disabilities [5]. In the United States, there is an increasing number of students that are being identified as to be needing of special services. Due to the fact that more of these students are being included in the regular classroom environment, it is imperative for teachers to understand all aspects of special education [6] to be effective advocates for these students. They must have a working knowledge of special education [7]. Since more than a million students are labelled as having a disability under 13 categories recognized by IDEA and

with more than half of the students with special needs being included in the regular classroom environment [8], teachers' understanding of special education is imperative. Learners with special educational needs devote an ample of school time in the general education classrooms; and yet are not properly accommodated and resourcefully taught [9].

Looking at the special and inclusive education scenario in other countries, the subsequent references entail the need for teacher training in handling children with special needs. [10] Most Australian teachers feel unprepared to teach students with special needs. The teachers find difficulty in handling these students with special needs in the regular classroom setting. The situation worsens for children with disabilities living in developing countries [11]. [12] The advanced and western countries have been far ahead in the implementation of inclusive education while the developing countries have tried to implement it but are struggling to overcome the many problems facing them in implementing effective inclusive education. [13] Several countries in the continents of Asia, Africa and even South America to be showing growing levels of poverty and inadequate learning opportunities and resources for learners with disability. This results to worse educational outcomes and more limited educational and vocational opportunities for students with special educational needs [5].

Hence, the implementation of Inclusive Education in the country became the Department of Education's thrust. However, there seemed to be a massive hole that exists in its implementation. [14] There is an insufficiency of professional development programs for teachers. This caused teachers to be less capable of handling and educating learners with special educational needs. Specifically, in Kinoguitan Central School under the division of Misamis Oriental [15]. It has been observed that teachers are experiencing difficulty in handling learners both with and without special educational needs all at once. One of the likely reasons to delve into is the lack of trainings and workshops necessary to equip the teachers with knowledge and skills they need to provide an effective inclusive education. Thus, providing these practicing teachers with a training program will enable them to provide an educational setting that fosters meaningful learning and experiences necessary to succeed in life.

2. Materials and Methods

This is a quantitative research design that made use of the one group pre-test and post-test design in which a single group of subjects was given a pretest (0), treatment (x), and the post-test (0). The sample population was comprised of 25 general education teachers of Kinoguitan Central School. The researcher used three (3) essential tools such as: demographic survey, pre and post test, and evaluation form. The demographic survey served as a tool to identify the teachers who were suitable to receive the training. The test was used to determine the level of knowledge and skills of teachers before and after the training. It has undergone through face and content validity by using TOS and consultation of 3 experts of the field. Pilot testing was undertaken for the validity of test questions using Cronbachs Alpha, obtaining a score of 0.7071 which has an internal consistency of acceptable. The test was administered before and after the training program. Before the program, the test was used to determine the current knowledge and skills of the teacher participants. It was then used to measure the extent of the increased level of knowledge and skills of the teacher participants.

The K-12 descriptive level was adopted to interpret the mathematics comprehension level as shown in the rating scale below:

Table 1. K-12 Descriptive level

Mean Score Range	Description
29 – 35	Outstanding
22 – 28	Satisfactory
15 – 21	Very Satisfactory
8 – 14	Fairly Satisfactory
0 – 7	Did Not Meet Expectations

Lastly, an evaluation form was used to ensure that the content of the training program, instructional materials used and credibility of the speaker were evaluated. The evaluation form was adopted from the Instructional Plan about Developing Communication Skills of Teachers created by Charito G. Ong, Ph.D as shown below:

Table 2. Evaluation Form Rating Scale

5	4	3	2		1	
Very effective	Effective	Average	Slightly effective		Not effective at all	
Items			**Ratings**			
CONTENT						
1. Instructional Objectives		5	4	3	2	1
2. Scope and Sequence		5	4	3	2	1
3. Brevity and Clarity		5	4	3	2	1
4. Individualization		5	4	3	2	1
5. Span		5	4	3	2	1
6. Instructional Pattern		5	4	3	2	1
TRAINER						
1. Physical Appearance		5	4	3	2	1
2. Approach		5	4	3	2	1
3. Style		5	4	3	2	1
4. Delivery		5	4	3	2	1
5. Sensitivity to participants		5	4	3	2	1
6. Ability to answer questions		5	4	3	2	1
7. Knowledge and skills of the subject matter		5	4	3	2	1
8. Management System		5	4	3	2	1
9. Timeliness		5	4	3	2	1
INSTRUCTIONAL MATERIALS USED						
1. General Appearance		5	4	3	2	1
2. Element		5	4	3	2	1
3. Quality		5	4	3	2	1
4. Appropriateness of		5	4	3	2	1
5. Readability of the Materials		5	4	3	2	1

Appropriate statistical treatments were used to interpret the results, and these were the following: descriptive statistics (Mean and Standard Deviation), to describe the pre-test and post-test scores of the teachers; descriptive rating, to describe the evaluation results of the training

program given to the participants; standard deviation, to determine with a great deal of accuracy where the values of the distribution are located in relation to the mean and in describing the dispersion of the teachers' scores in the pre-test and post-test; and T-test of correlated, to compare the means between two related groups obtained from the same sample.

3. Results and Discussion

Table 3 elucidates the level of teachers' knowledge and skills before and after the training.

Table 3. Teachers Test Scores Before and After the Training

Test	Mean	Standard Deviation	Verbal Description
Pretest	11.96	2.894	Fairly Satisfactory
Posttest	27.88	1.691	Very Satisfactory

As shown above, the teacher-participants obtained an average score of 11.96 and a standard deviation of 2.894 which denotes that they had a fairly satisfactory performance prior to the conduct of the training. Although the garnered descriptive level of the teacher-participants' mean score is fairly satisfactory, it is still quite below the half score (19) of the total number of items (35) which implies that most of the participants, if not all, failed in the test pre-test. This is explicable since all of the teacher-participants have no exposure to the language of special education.

However, after the training, the participants obtained an average post-test score of 27.88 with standard deviation of 1.691 which indicates that they have a very satisfactory performance. This is supported with the post-test result which was higher than the pre-test. This also means that the post-test scores of the respondents were closer to the mean and therefore homogeneous. This can be substantiated that training aided in the development and enhancement of the teachers' knowledge and skills on special education. The results of the study coincide with other previous studies [16] which revealed that intervention greatly ensures positive outcome.

Table 4. Paired t-test results

Test	Degrees of Freedom (df)	T-value	Probability Value	Conclusion
Pretest vs Posttest	38	11.96	<0.001*	Significant

Significant at $p < 0.05$ alpha level.

Table 4 revealed the significant difference of the pre-test and post-test scores of the participants using paired t-test and the analysis yielded a T-value of 11.96 and probability value of <0.001 which led to the rejection of the null hypothesis. This implied that there is a significant improvement of the test scores of the respondents after the training. Thus, it is analytically safe to conclude that the training was effective in improving the knowledge and skills of the teachers on special education.

[17] A training program is the driving factor that builds and enhances the employees' abilities and capabilities. It is one of the methods that different organizations use to build and enhance personal growth and professional development of their people. [18] Training is one of the most universal approaches for developing performance and efficiency of teachers. [19] Trainings are the element of increasing teachers' competence in teaching learners with special educational needs. Thus, the more intensified is the training for teachers on special education the more they have considerable successful effects on teaching the learners with diverse special educational needs.

Grounded on the results of the study, the researcher recognized the high value of training programs as this builds not only the relevant knowledge to the field but also hones perception, confidence and competence. All of these are vital to construct a more unvarying and effective Inclusive Education.

Table 5. Evaluation Results of the Training Program in the Teacher's Knowledge and Skills in terms of the Content

Indicators	Mean	SD	Verbal Description
1. Instructional Objectives	4.80	0.408	Very Effective
2. Scope and Sequence	4.64	0.638	Very Effective
3. Clarity and Brevity	4.80	0.408	Very Effective
4. Individualization	4.80	0.408	Very Effective
5. Span	4.36	0.700	Effective
6. Instructional Pattern	4.64	0.490	Very Effective
Overall	4.67	0.509	VERY EFFECTIVE

Table 5 revealed the evaluation result of the training program in the teachers' knowledge and skills in terms of the content of the training. There were six (6) key indicators emphasized in the evaluation: instructional objectives; scope and sequence; clarity and brevity; individualization; span and instructional pattern. The teachers' assessment on key indicators 1, 2, 3, 4 and 6 were very effective. This means that the objectives of training was effectively met (4.80), the scope and sequence (4.64) of the training program was compatible with the time frame indicated, the content was clear and comprehensive (4.80), and the pattern (4.64) tickled an excitement to the participants. However, the time span was only effective with the mean of 4.36. This implied that there is a shortage of the training span. The teacher-participants voiced out in the personal feedbacks that extending the length of the training to four (4) more days would make more time for practicing the knowledge gained and skills acquired on the topic.

On the other hand, training programs are not all reliable. Therefore, training programs must be checked and verified as to quality and efficiency. One of the key elements for the professional developments to be effective is content focus [16]. Previous studies have likewise disclosed that running of careful reflections, comments and preparations in the training programs must be done to guarantee the fidelity in the implementation of instructional practices [16].

Overall, the content of the training was rated as very effective as indicated in the overall mean of 4.67 and

standard deviation of 0.509. From this, it can be constructed that the content of the training was carefully planned and therefore very effective in improving the knowledge and skills of the teachers. Most of the teacher-participants even pointed out that they gained deep understanding on the different categories of special educational needs.

For these reasons, the researcher strongly believed that district supervisors, school administrators together with the classroom teachers both in regular and special education classes must be committed to working together to create training programs that contain the five key elements of effective professional developments.

Table 6. Evaluation Results of the Training Program in the Teacher's Knowledge and Skills in terms of the Speaker/Trainer

Indicators	Mean	SD	Verbal Description
1. Physical Appearance:	4.92	0.276	Very Effective
2. Approach	5.00	0.000	Very Effective
3. Style	4.92	0.277	Very Effective
4. Delivery	4.84	0.374	Very Effective
5. Sensitivity to participants	4.84	0.473	Very Effective
6. Ability to answer questions	4.84	0.374	Very Effective
7. Knowledge and skills of the subject matter	4.64	0.700	Very Effective
8. Management System	4.56	0.507	Very Effective
9. Timeliness	4.68	0.476	Very Effective
Overall	4.80	0.384	Very Effective

Table 6 depicted the teachers' evaluation results of the training program in the teacher's knowledge and skills in terms of the speaker/trainer competency. There were nine (9) key indicators of this evaluation such as: physical appearance; approach; style; delivery; sensitivity to participants; ability to answer questions; knowledge and skills of the subject matter; management system, and timeliness. All the key indicators, though have varying mean values, reaped a description level of very effective. This means the speaker potently used an approach (5.00) that is easy, simple and relevant to the training. [20] Utilizing plainness and consistency in the strategy transports aid to efficaciously carry out a training program. The physical appearance and style (4.92) of the speaker also motivated participants to engage in activities of the trainings/workshops. [16] A speaker who had dressed appropriately during the training period and adeptly used different techniques gain the participants' attention and engagement in the training. In addition, a well-known Filipino inspirational speaker and writer, Francis Kong has undoubtedly caught and continued to catch the attention of people as he encountered in formal or casual talk events. He is famous not only for his ability to deliver meaningful life lessons to people from all ages but also for his neat and well-dressed looks in all events that he participated in. The researcher placed confidence in the fact that a speaker with a stunning aura and ability draw people's attention with his words brings an immense contribution to the achievement of a training.

While speaker's delivery, sensitivity to participants, and ability to answer questions (4.84) in the trainings also contributed a lot in the effective participation of the participants. As a speaker/trainer, one must have an encouraging and supportive attitude, using feedback to identify specific areas for attention, being approachable, and being willing to answer questions. More importantly, the active interaction of the participants that lead to substantial inputs of the training [21].

Moreover, the speaker abled to start and end the training within the allotted time thus very effective in terms of timeliness (4.68). This is considered as one important key indicator in conducting training to accomplish tasks on time and continue to do more of the activities given. All activities in the training were done smoothly because the speaker was knowledgeable and skilled (4.64) in the field of special education and had good time management system (4.56). [22] Proficient knowledge and training techniques provide harmony in the success of the training.

Overall, the evaluation for the trainer/speaker of the training was very effective with a mean of 4.80. This implied that the speaker of the training held competence and with high qualifications. These characteristics clasp an immense probability of a successful training. A training program remains a plain concept without its operation. The researcher concurred with the results of the study that for the training to successfully take place, a competent speaker with highly relevant qualification must be taken into consideration.

Table 7. Evaluation Results of the Training Program in the Teacher's Knowledge and Skills in terms of the Instructional Materials Used

Indicators	Mean	SD	Verbal Description
1. General Appearance	4.60	0.500	Very Effective
2. Element/Components	4.64	0.490	Very Effective
3. Quality	4.60	0.500	Very Effective
4. Appropriateness of Illustrations	4.64	0.490	Very Effective
5. Readability of the Materials	4.52	0.510	Very Effective
Overall	4.60	0.498	Very Effective

Table 7 showed the distribution of the teacher-participants' evaluation results of the training program in the teacher's knowledge and skills in terms of the instructional materials used during the training. As can be seen above, (5) Readability of Materials obtained the lowest mean score among all the key indicators. Although, its mean score is 4.52 which still has the quality index of very effective, it can be assumed that there is a minor inaccuracy with the materials used. It could be with the choice of font size and style in the powerpoint presentation. As recorded, there were 2-3 teacher-participants seated at the back part of the venue complained about the size and styles used of the text for not more than 5 times in the entire duration of the training. However, (2) Element and (4) Appropriateness of illustrations were the key indicators that reaped a mean score of 4.64 with the quality index of very effective. It can be constructed from the results that the teacher-participants believed that all the components needed to make the training effective and the activities and graphics are suitable to the topic covered.

In general, the teacher-participants' evaluation results on the use of instructional materials is very effective, having a mean score of 4.60 and a standard deviation of 0.498. This denotes that the instructional materials used all throughout the training period enriched and helped the trainer in the delivery of the training conducted on special education. In particular, the teacher-participants strongly agreed that the instructional materials' general appearance, elements, quality, appropriateness of illustrations and readability were very effective. This means that all of these aspects of the instructional materials used during the training was very effective in enhancing the knowledge and skills of the participants of the training.

[23] Making use of instructional materials that are both appealing and suitable to the teaching process contributed to the success of learners' learning. By the same token, the used of instructional materials to the said training provided beneficial effects to the effective attainment of the training.

The researcher strongly hold onto the fact that instructional materials certainly contribute to the positive and beneficial outcome of trainings may it be in the academe or any fields. Each individual has different ways of learning. Some better learn through listening, some through seeing, some through writing and while some learn through the combination of all these. Having a concrete material to show will possibly give assistance to the speaker and enable the trainees to understand better the concept. For this reason, instructional materials must be carefully created and wisely ensured that all are suitable to the training. Additionally, [23] instructional materials must be alluring in terms of appearance, user friendliness and durability.

Acknowledgements

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