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Teacher's attitude towards using ICT for children with disabilities in Inclusive classrooms in Indonesia

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Abstract. Inclusive education approach is a new program and procedures which is required for supporting children with disabilities (CwDs) in Indonesia. Utilizing ICT in inclusive classrooms has demonstrated to be helpful both in supporting and strengthening learning process. There are some evidences that prove the use of ICT in the classrooms is essential, particularly impacted the teacher's attitudes and beliefs. This paper examined the frames of mind on that approach based on semi-organized interview with 40 instructors in 16 schools in Surabaya and questionnaire responses from 100 educators and educational experts across Indonesia. Research findings recommend that teachers have comprehensive and inspirational attitudes for utilizing of ICT in their classrooms. Thus, These issues should be considered wilsely if the advancement of an Indonesian comprehensive methodology is continuing effectively.

1. Introduction

Nowadays, each school is hoping to begin and maintain the education dependent on equity and available to all children.[1], [2] Inside this unique circumstance, the new hypotheses of learning and educational models have been presented in various schools. "Innovative learning Environments" , for example have been made to support the learning. The utilization of "different senses" to guarantee better correspondence between teacher, students and students to teacher has additionally been contemplated in learning [3], [4]Such advancement in today's schools is known as inclusive education[5].

Inclusion is a critical part of equal opportunity in education[6]. Education for all is a right which is being worked globally and it has been expressed as a major aspect of the Universal Declaration of Human Rights. A key piece of the inclusive education is an agreement that all children, including those with disabilities and impairments, ought to have access in quality education alongside with their peers [4].

The idea and difficulties of educational incorporation have specific resonance in Indonesia national aphorism which is Bhinneka Tunggal Ika ('unity in diversity'). Moreover, Indonesia is also most diversity multi-ethnic state on the world, with more than 220 million people over the world's biggest archipelagic nation of in excess of 17,524 islands.[7] The Indonesian government has promised to implement inclusive education as the procedure to beat educational obstacles for all school-age children, including those with special educational needs[5].

The implementation of inclusive education in Indonesia has started in 200 through Minister of Education's mandate in which every district should has no less than four inclusive schools and by 2008, supported by government subsidizing, 925 inclusive 'pioneer' schools has existed. Furthermore, this change was also supported by the Indonesia's Education Law 2003, which commanded free elementary education for all and moved over school management to a local government.

However, since that period the quantity of inclusive schools has increased. One reserach on 186 inclusive schools found out that around 12% of the students are having unique educational necessities, with the biggest problem is academic performance.

Moreover, Colaborative Learning delineate how to form groups, participation in dialogue, cognitive conflict management, goals setting, timing, help, and performing exercises, tackling the issue and choosing innovation permitting coordinated effort[8]. In other words, in classroom context collaborative learning manages how to shape gatherings and standards to work in gathering to empower students to accomplish their joint objectives.

Inclusion in education deals with variety of students and diverse procedure in teaching them. Furthermore, inclusive understanding is an investigation of combined variety of understudies by choosing fitting instructional method and innovation to educate them[9].

ICT based learning deals with support such as resources (equipment; programming; educational software, applications and program), prompts, and furthermore offer teaching method to these resources to help the group of students in understanding learning materials and doing academic duties[10].

The significance of usage ICT in the consideration of the diversity since they can be used as a powerful tool to favour the inclusion [11], [12]. It is basic to dissect the perceptions and attitude that the educators have about ICT, and explicitly in light of decent variety consideration as the instructors, contrasted with the utilization of ICT is a key viewpoint joined to different angles as the aptitudes and assets accessible to complete this incorporation, yet in addition fundamental on the grounds that the utilization of ICT advances changes in the educational framework.

2. Method

Data were collected from sixteen schools including public and private schools in both junior schools and senior high schools across East Java Province. In detail, 6 schools were located in Surabaya (3 public schools and 3 private schools), 6 schools were located Sidoarjo (3 public schools and 3 private schools), 6 schools were located Bojonegoro (3 public schools and 3 private schools), M6 schools were located alang (3 public schools and 3 private schools), Pacitan (3 public schools and 3 private schools), and 1 public school in Bangkalan, Madura (figure 1). A mixed methods approach was used through subjective semi-organized meetings and quantitative survey from various groups of participants. In order to improve the arrangement between these two techniques, the meeting prompts and the survey things were comparable and secured in a typical setting[13].

Figure 1. Area of School Participants in East Java.

2.1 Questionnaire participants

The questionarre was completed by hundred of teachers around East Java Province who have many experiences teaching students with disabilities. Moreover, the survey was made accessible to instructors from over Indonesia. Finished polls were returned by 100 educators, speaking to around half of the gathering participants. The reactions were examined utilizing the software Statistical Package for the Social Sciences (SPSS version 21). A list of questionnaires were raised to measure the teachers attitude towards the usage of ICT, using Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1). The questionnaires is contained by three of factors which divided by numbers of question numbers (Table 1).

Table 1. Specification of Questions

Factor	Indicators
Experience with ICT for teaching	1,2,3
ICT access for teaching	4,5,6,7,8
Support to teachers for using ICT	9,10,11
ICT based activities and material used for teaching	12,13

2.2 Interview participants

40 teachers (18 men and 22 women), from sixteen inclusive schools participated in the interviews. Their ages approximately from 25 to 55 year old. Furthermore they also rich in experiences to teach student with disabilities in inclusive school setting.

2.3 Interview method

The interview approach was qualitative in exploring attitudes of ICT usage for helping students with disabilities. The interviews were analysed using thematic analysis. Semi-structure interviews were collected by forty teachers form sixteen inclusive school which located across East Java province.

3. Result

3.1 Teacher's experience

Previous studies has resulted that 'teacher various' are depending on attitudes towards using ICT in teaching. These are analysed in term of the use of ICT for students with disabilities. Two questions

items related to teachers experience of teaching, using ICT for teaching, modifying learning materials for student with disabilities.

There was a significant gap according age participants, namely between a group of teachers with over 40 years old and under 40 years old. The younger group produce a better ICT experiences than another, they have many activities related engaging ICT such as chatting (79%), browsing news (67%), and applying ICT for teaching (72%) (Table 2).

Table 2. Differences Activities Related Engaging ICT

	Age 25-39	Age 40-55
Chatting	79	21
Browsing	67	33
Teaching by using ICT	72	28

The result in term of teachers' attitudes in the use of ICT related to gender and abilities to apply ICT shows that scores of men are higher in (X: 3.97) in ability (X: 3.12), compared to women. Implying that their attitudes in general are more positive especially with regard to perceived ability and availability in use of ICT. This result similar with other previous studies focusing on teachers' attitude in secondary education which showing gender have significant influence according with ability and inability using ICT in classroom[14].

Also, the important fact to be noted is how teachers have the attitudes to use ICT is experiences activities and material ICT used for teaching. In the result , in general, that the media mark given to the technology encountered went from 1) never, 2) rarely, 3) sometimes, 4) often, and 5) all the time referred to the support received by the teachers (figure 2).
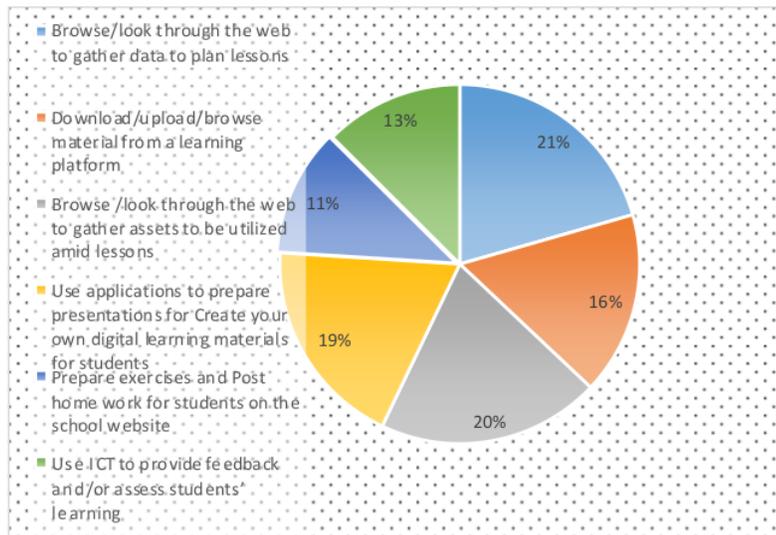
Figure 2. Experiences activities and material ICT used for teaching

3.2. Interview results

The participants in interview session think about their individual educative centres focuses have submitted official groups, having great innovative resources and the start have uplifting attitudes and motivation to utilize and coordinate ICT. However, in spite of ideal mechanical conditions assemble to start procedures of development and execution of ICT in help of showing helps in the classroom, the teacher demonstrates the lack of specific materials to help in educating.

"My school has exceptional technological equipment and we cannot complain about it, but the problem I see is in relation to the use of specific software support for specific educational needs they presented our students. With this, I don't mean we cannot work with. But we have to be very creative" (Participants Group 1).

Content analysis shows that among the factors that most stands out are the stimulate learning or acquiring knowledge using ICT in classroom practices where the vast majority of teachers believe that the use of ICT increases quality of learning.

"It is clear that the use of ICT is a revolution in the classroom, because it promotes a very positive acquisition of knowledge by students. It's a tool that motivates a lot, and therefore helps in the acquisition of knowledge"(Participants Group 2).

4. Conclusion

To sum up, concise and specific conclusion was made to comprehend the object of this research: 1) The fact that sufficient computing resources, updated and in correct operation, it is an essential factand necessary to qualify the possibility of applying technology in educational contexts requirement; 2) There is a positive attitude of educators in inclusive classrooms to the utilization of ICT. Educators know that ICT is an essential device to help attention to students with disabilities; 3) Male teachers have more positive than female educators towards ICT attitudes. On the other hand, no differences between the sexes are in the factor of the job of ICT in expert and educational advancement; 4) The workforce has very positive attitudes towards ICT and attention to combined variety accordingly share with associates the positive encounters where ICT is utilized, investigate and reflect on classroom practices so as to improve exhibitions with these advancements. The implementation of constructivist hypotheses for the structure and backing of activities or errands with ICT support adds to the positive development of such attitudes.

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