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SRI LANKAN SPECIAL EDUCATION PROFESSIONAL'S COMPETENCIES ABOUT AUGMENTATIVE AND ALTERNATIVE COMMUNICATION (AAC) – A STUDY BASED ON NORTHERN PROVINCE OF SRI LANKA

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Abstract:
Special Needs Educational expert emphasis that Augmentative and Alternative Communication (AAC) is essential for communication disabilities (Light & McNaughton, 2014, p. 17). Based on this point of view this study aimed to investigate the level of AAC competencies of the special education professionals who are working in the government schools of the Northern Province of Sri Lanka. To achieve this objective, the researcher administered a questionnaire on 209 special teachers and 12 ISAs of special education and an interview schedule on 32 special teachers who work in the government schools. According to the analysis, the mean values have shown low level of knowledge – 1.89, average skills – 3.14 and attitude – 3.43 of participants and standard deviations range is 0.386 - 0.698 and p-Value of the Kruskal – Wallis Test and One-way ANOVA independent variables t-test shows significant difference in the participants' personal information and competencies on AAC. Moreover, some extent AAC has been using by teachers, the special education professionals have realized the importance of the knowledge and skills about AAC, the special education professionals have experienced with the benefits of AAC. However, teachers face challenges regarding the practices of AAC such as lack of resources, knowledge, and skills, management, etc. Workshops on AAC, adequate resources, training programs for special education professionals are necessary to make successful AAC implementation in the research area.

Keywords: augmentative and alternative communication (AAC); special education; competencies

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1. Introduction

It has estimated that globally 1.1-1.9% of the population experiences Severe Communication Difficulties (SCD) or has Complex Communication Needs (CCN) (Bunning, Gona, Newton, & Hartley, 2014, p. 39). Children with SCD or CCN require assistance from their communication partners to learn how to communicate effectively using AAC (Binger, Kent-Walsh, Ewing, & Taylor, 2010, p. 87). While the most acceptable estimations point out that the numbers of individuals who need for AAC services are likely to be in the tens of millions worldwide (Segafoos, Schlosser, & Sutherland, 2010, p. 1). Meanwhile, it is concerning that professionals such as teachers and para-educators who work closely with children with SCD or CCN often lack of knowledge and skills required to implement appropriate AAC interventions with these children (Douglas, 2012, p. 102). Therefore, AAC plays main role in communication of the children with communication related disability

Augmentative and Alternative Communication (AAC) allows students who are non-verbal or unintelligible to communicate via gesture, facial expression, sign language, mores code, communication aids (language boards, information bracelets, charts, etc.), and electronic devices. It takes a team of specialists and educators to put a communication system in place as well as learn how to program and implement a device. Academic preparation in AAC, while varying across academic programs, has in general increased over the past decade (Lloyd, Ratcliff & Koul, 2008, p. 57).

The World Report on Disability, WHO estimated the prevalence of disability to be higher than previously estimated, with a suggestion of up to 15% of the population said to experience disabilities in resource-limited countries including Sri Lanka (Ekanayake, et. al, 2016, p. 35). Moreover, The Foundation for the Rehabilitation of the Disabled estimates that there are 40,000 people disabled by the war living in Northern Sri Lanka due to 30 years of war (Perera, 2015, p. 3). Therefore, initiatives should be taken to improve special education especially in Northern Sri Lanka. Special education teachers play a vital role in implementation of special education; however, the attrition, or 'burn-out' rate for special education teachers is extremely high compared to most other professionals due to lack of factors such as appreciation, parental support, and public support, as well as heavy workload on paperwork. The need to collaboration with regular classroom teachers, data collection on evidence of growth of students and the diversity of student's needs (Ferry, 2012, p. 13). Therefore, special education teachers must develop themselves in relation to the updated knowledge and skills including AAC in Sri Lanka.

2. Literature Review

There are several studies internationally conducted in relation to the AAC. In line with that, Grönlund, Nena & Larsson (2010) conducted a research the results of this research shed light on the status quo of the use of AT for inclusive education in developing countries and provide useful guidance to parties who are interested in using assistive

technologies to achieve inclusive education (p. 23). Moreover, Muttiah, Drager & O' Connor (2016) conducted a study and identified some key implications including a need for Speech and Language Therapists to work in schools. It also discusses the benefits and challenges of implementing inclusive education in low- and middle-income (LAMI) countries (p. 2). Patel & Dakwar (2005) identified that, the responses also provided insights into the linguistic and cultural challenges of AAC implementation within the Palestinian Arab community (p. 215).

Moreover, the following studies conducted in relation to the academic performance and practices of AAC. Lloyd, Ratcliff & Koul (2008) suggested that, academic preparation in AAC, while varying across academic programs, has in general increased over the past decade (p. 57). The study also suggested a continuing critical need for more academic and clinical preparation in this area. Moreover, according to Tönsing & Dada (2016) there is evidence of provision and also implementation of aided AAC in classrooms, various limitations still exist (p. 21). Teachers identified an array of factors that influenced the implementation of aided AAC, including those related to themselves, the classroom context, the characteristics of aided AAC, students using AAC, and other stakeholders. In countries where there are limited number of Speech and Language Pathologists (SLPs), the number of skilled professionals specializing in AAC is extremely small (Fuller et al., 2009, p. 23). Therefore, the responsibility of providing AAC supports often falls on the individuals' communication partners. To date, the field has only a limited understanding of how best to support the development of knowledge and skills of individuals who provide AAC supports in low- and middle-income countries (Bunning et al., 2014, p. 39).

There are no studies conducted in relation to the AAC in Sri Lanka. However, studies conducted in relation to the assistive technology for students with special educational need. Wedasinghe & Wicramarachchi (n.d) indicated that many Sri Lankans with disabilities are reluctant to use information technology due to poverty, lack of awareness, lack of interest and their social and cultural backgrounds and also as their first language is not very well supported by the computer system. These factors are highly co-related with digital disability in Sri Lanka. Meanwhile, recommended to implementation of several projects under the supervision of the central government. They are to introduce a web portal for visually disabled people with language support, more training and awareness of the ICT among this community, encourage and develop screen reader software which can support first languages such as Tamil and Sinhala. Moreover, the lack of congruence on what constitutes 'inclusive education' and the perceived limitations in current teacher knowledge and skills stress the need to review available pre-service and in-service training packages (Hettiarachchi & Das, 2014, p. 151). The above reviewed literatures show AAC implementation in schools.

3. Objectives

- To identify the competencies in relation to the AAC of special education teachers in the Northern Sri Lanka.
- To examine the relationship between competencies in relation to the AAC and personal factors of special education teachers in the Northern Sri Lanka.
- To find out the factors that affect the competencies in relation to the AAC of special education teachers in the Northern Sri Lanka.
- To make suggestions to improve the competencies in relation to the AAC of special education teachers in the Northern Sri Lanka.

4. Methodology

This study followed the survey design and mixed (qualitative and quantitative) method approach.

4.1 Participants

Purposive sampling method was used in this study. Participants of the study were teachers who were employed under the special education unit system in regular schools, ISAs of special education of educational zones in the Northern Province the time of the study. Sample considered of both female and male teachers (72 Male, 149 Female) and both professionals Teachers and ISAs (209 special education teachers and 12 ISAs) who different in terms of years of experience as special education teacher (from a month to on or above 17 years).

4.2 Data Collection Instruments

Both questionnaires and interview schedules were utilized to collect the required data. The questionnaire was used to collect both quantitative and qualitative data. In addition, qualitative data and interviews were conducted to obtain qualitative data that could help explore details collected from the quantitative survey in-depth.

4.2.1 Questionnaire

The purpose of this questionnaire was to collect demographic data about special education unit teachers and ISAs of special education in Northern Province Sri Lanka (gender, age, experience, educational qualifications etc.) and their competencies (aspects in relation to knowledge, skills and attitude). The questionnaire was developed by the researcher and was piloted on twenty-nine (29) special education unit teachers and three (3) ISAs of special education of the Northern Province of Sri Lanka. Subsequently, Cronbach's alpha coefficient was calculated.

Table 1: The Results of the Reliability Test Variables

No. of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
18	.883	.895

Shown in Table 1, the Cronbach's alpha value for the variable exceeded the minimum required value of 0.7 (Salehi, Taghavi & Yunus, 2015) and hence, the scale of variable is highly reliable.

4.2.2 Semi – Structured Interview

The second tool for gathering information was the interview process, the semi – structured interview has consisted five (5) questions. The interview was the qualitative part in this study, was used to gain in-depth information in addition to the data collected through the questionnaire. Thirty-two (32) special education unit teachers were selected for the interview. While the questionnaire gave a general understanding regarding competencies of educational professionals about AAC, the interviews provided more detailed information such as advantages and challenges in practices of AAC, etc. The purpose of the interview questions was to probe more deeply the perceptions of Northern Province special education unit teachers on their overall competencies about AAC.

4.3 Data Collection Procedure

Two hundred and fifty-one (251) questionnaires were distributed among the special education unit teachers teaching and ISAs in the Northern provincial in Sri Lanka. After forty (40) days, two hundred and thirty-six (236) questionnaires were collected; however, fifteen (15) questionnaires were discarded from the analysis process due to major data-missing and only two hundred and twenty-one (221) (12 ISAs and 209 special education teachers) questionnaires were considered for data entry and analysis. Thirty six (36) (three - 3 teachers from each zone) special education unit teachers from twelve educational zones of Northern Province who had already participated in the survey were invited for the semi structured interview; however, only thirty two special education teachers were participated in the interview. All the interviews were recorded and transcribed verbatim so that the risk of missing the interviewees' comments was reduced. Finally, the transcribed interviews were organized, coded and analyzed.

5. Results

The data was tabulated and analyzed using statistical package SPSS, version 16.0. Moreover, mean value of the responses, p -Value of the Kruskal – Wallis Test and One-way ANOVA independent variables t-test were found in quantitative analysis. The analysis of the qualitative part of the study, which considered of open-ended questions included in questionnaires and involved personal interviews with teachers, started after collecting the qualitative data because the collected information was fresh in the researcher's mind.

5.1 Data Analysis (Quantitative Part 1)

The first part of the questionnaire has consisted of five (5) items on special educational professionals' personal characteristics related to demographic information including gender, age, academic qualifications, professional qualifications, types of appointment, years of teaching experience etc. As shown in Diagram 1, the majority of the respondents were female constituting 67% of the samples.

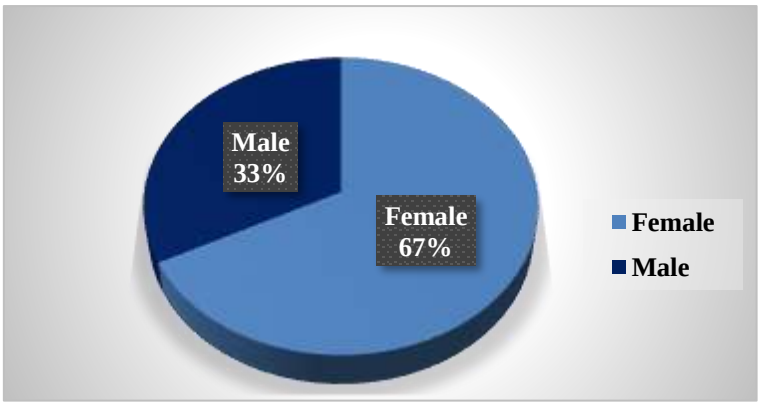

Diagram 1: Gender Variation of Participants

Following Diagram 2 illustrates the age profiles of the participants. As shown, 76% of participants less than 35 years old in responded participants. It shows that most of the special education professionals have less experience in research area.

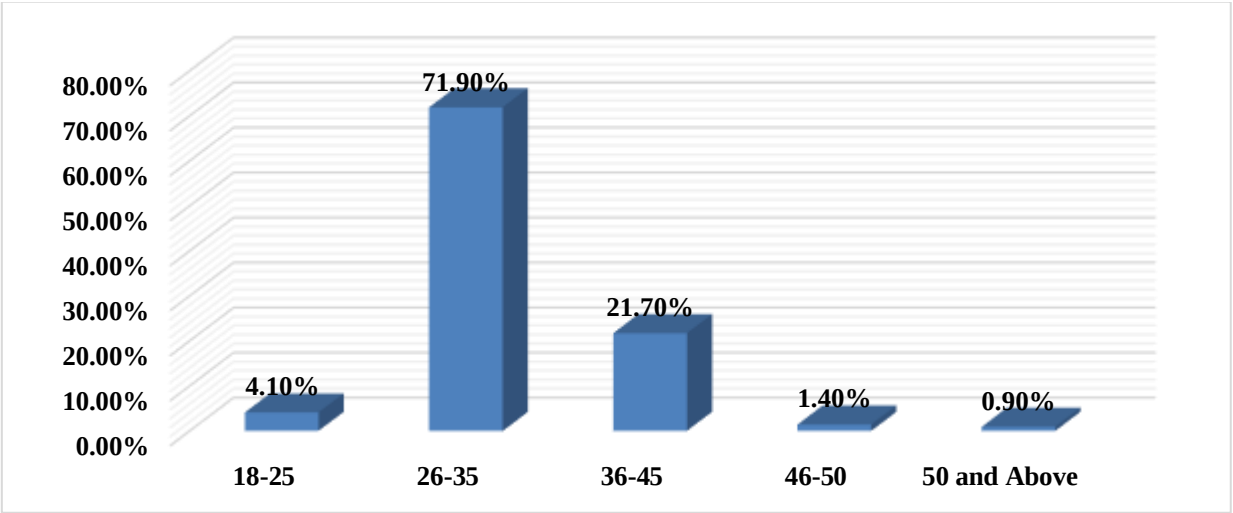

Diagram 2: Age Profile of the Participants

The following Diagram 3 shows majority of participants (80%) have less than 8 years of experiences as a special education teacher. 3% of participants (ISAs) do not have experiences as a special education teacher. This output comparable with output of Diagram 2.

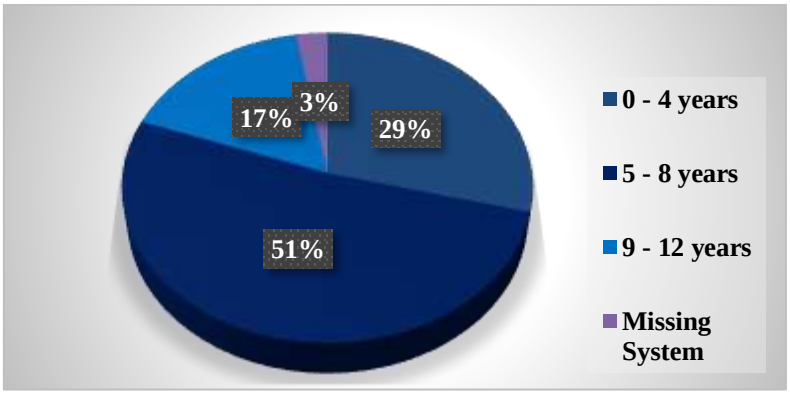

Diagram 3: Experiences of Participants as a Special Education Teacher

According to the following Diagram 4, majority (95%) of participants is special education teachers and 5% of participants are ISAs of the research area.

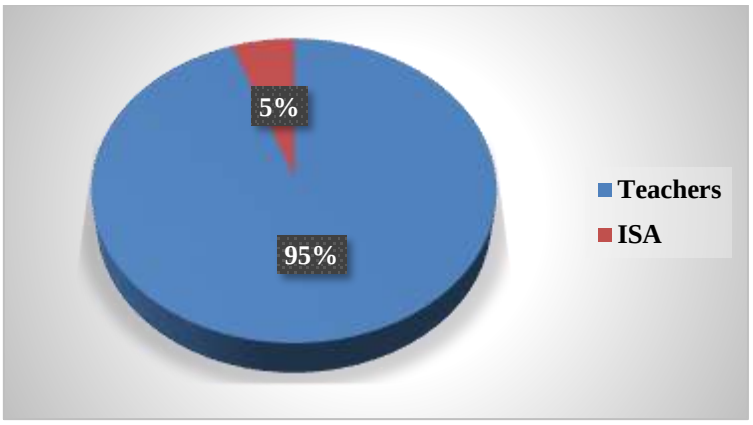

Diagram 4: Professions of Participants

According to the Diagram 5, 68% of participants have diploma in special needs education and 32% of participants have degree in different field.

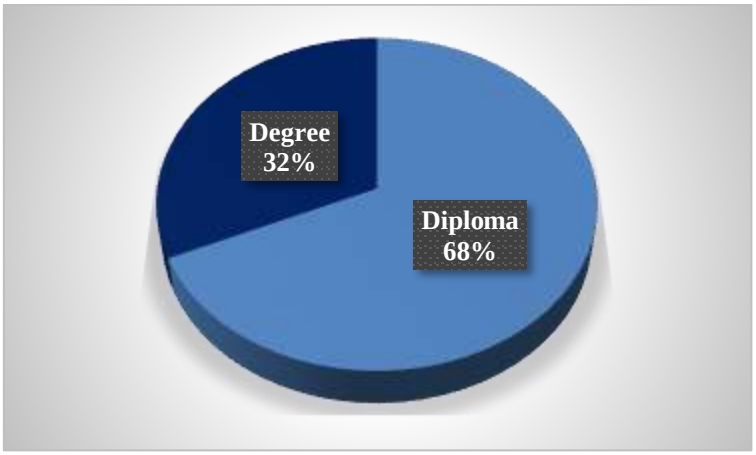

Diagram 5: Educational Qualification of Participants

According to the analysis of personal data of participants, majority of participants are females, most of the participants are younger and less experiences in relation to the special education, majority of the participant have diploma in special education, and majority of participants are special education teachers.

5.2 Data Analysis (Quantitative Part 2)

The second part consisted of 18 statements under knowledge, skills and attitudes in relation to the AAC of profession who are employed under special education system. According to the following Table 2, most of the participants do not have knowledge about AAC and knowledge and skills for development of AAC. Moreover, use of AAC in classroom and skills regarding preparation of AAC also in low level among participation.

However, majority of participants positively responded about following statements, workshop on knowledge and skill development regarding AAC, participants like to improve the knowledge on AAC, AAC make easier their teaching in classroom, AAC supports to behavior development of students with communication disabilities, AAC necessary for teaching learning process, knowledge and skills about AAC is necessary for special education professions, participants proud to use AAC in classroom, teachers are interested to use AAC in classroom, students are more interested in learning with support of AAC, parents and community members need knowledge about AAC, policy development on AAC, actions from education department on AAC and integration of high-tech on AAC is necessary.

Table 2: Mean Value and SD of Data Analysis

Questions	Mean	SD
Knowledge		
I have enough knowledge about AAC	1.90	0.418
I have enough knowledge and skills for development of AAC	1.88	0.386
Skills		
I use the AAC for development of my students	2.97	0.693
I need training workshops for developing knowledge and skills on AAC	3.66	0.476
I have some skills regarding preparation of AAC	2.81	0.534
Attitudes		
I would like to improve the knowledge on AAC	3.38	0.654
AAC make easier my teaching in classroom	3.26	0.441
I think AAC will support to behavior development of the students with communication disabilities	3.28	0.450
AAC necessary for teaching learning process of classroom	3.48	0.501
I think, the knowledge on AAC is necessary for my professional	3.52	0.501
I am proud to use AAC in my classroom	3.31	0.576
I am interested in learning about AAC	3.40	0.698
Students are more interested in learning with support of AAC	3.23	0.508
I think, parents need knowledge about AAC	3.33	0.550
I think, knowledge on AAC essential for community members	3.49	0.501
Education department want to take necessary actions on AAC development	3.62	0.487
Policy development is necessary on AAC	3.62	0.488
Integration of high-tech on AAC is necessary	3.69	0.461

According to the analysis, SD is strengthened in relation to statements about knowledge and skills. However, SD is weak in relation to attitude on AAC.

According to the mean value and SD data analysis, participants are poor in knowledge and skills about AAC and good in attitudes about AAC.

5.3 Data Analysis (Quantitative Part 3)

P Value of the Kruskal – Wallis Test and One-Way ANOVA Independent Variables T-Test methods were utilized in order to find significant difference of personal information such as Gender, Professions, Educational Qualification, Age and Experiences with responses of statements in relation to the competencies about AAC of participants. The confidence level was 5% ($\alpha = 0.05$) for this study. According to the following table all the p – values for conservation concept are greater than 0.05 ($p > \alpha$).

Following Table 3 implies that, gender, profession and educational qualification have significant difference with knowledge on AAC of participants and gender has relationship with skills for development of AAC of participants.

Experience has relationship with use of AAC for development of classroom students, age, experiences and educational qualification have relationship with need of training workshops for developing knowledge and skills on AAC of participants. Professions and expectances have relationship with skills for preparation of AAC of participants.

Table 3: P Value of the Kruskal – Wallis Test and One-Way ANOVA Independent Variables T-Test

Questions	P Value of Kruskal – Wallis Test			One-way ANOVA independent variables t-test	
	Age	Experiences	Education Qualification	Gender	Professions
Knowledge					
I have enough knowledge on AAC	.625	.164	**.000**	**.000**	**.008**
I have enough knowledge and skills for development of AAC	.252	.132	.587	**.040**	.064
Skills					
I use the AAC for development of my students	.746	**.000**	.283	.298	.155
I need training workshops for developing knowledge and skills on AAC	**.000**	**.000**	**.000**	.202	.484
I have some skills regarding preparation of AAC	.225	**.007**	.568	.593	**.016**
Attitudes					
I would like to improve the knowledge on AAC	**.008**	.113	**.001**	.426	.480
AAC make easier my teaching in classroom	.059	.131	.240	.055	.568
I think AAC will support to behavior development of the students with communication disabilities	**.026**	**.003**	**.000**	**.043**	.730
AAC necessary for teaching learning process of classroom	**.005**	**.000**	**.000**	**.001**	.502
I think, the knowledge and skills on AAC is necessary for my professional	**.002**	.113	**.000**	.201	.655
I am proud to use AAC in my classroom	.136	**.002**	**.000**	**.000**	.502

I am interested in learning about AAC	**.007**	**.000**	**.001**	**.007**	.178
students are more interested in learning with support of AAC	.136	**.000**	**.000**	.519	.182
I think, parents need knowledge about AAC	**.039**	**.000**	.233	.688	**.006**
I think, knowledge on AAC essential for community members	**.006**	**.000**	**.000**	.735	.063
Education department want to take necessary actions on AAC development	**.000**	.399	**.007**	.852	.118
Policy development is necessary on AAC	**.000**	**.003**	**.006**	.701	.327
Integration of high tech and low tech for AAC	**.000**	.399	**.014**	**.025**	.682

Moreover, age and experiences have relationship with participant's wishes to improve the knowledge on AAC. Age, experiences, educational qualifications and gender have relationship with attitude that AAC supports to behavior of students with SEN, proud to use AAC in the classroom and AAC necessary for teaching learning process of classroom. Age and educational qualifications have relationship with attitude that, educational department want to take necessary action on AAC development and knowledge on AAC is necessary for the profession. Age, educational qualification and gender have relationship with the high and low tech integration in AAC. Age, experiences and educational qualification have relationship with policy development on AAC is necessary and knowledge and skills necessary for community members.

According to the above table, AAC make easier the teaching in classroom does not have any relationship with personal information of the participants. Professions have low level of relationship with competencies of participants. However, educational qualifications of participants have higher relationship with competencies of participants.

5.4 Qualitative Analysis

Qualitative analysis method was applied data collected by interviews. The semi structured interview schedule was consisted five (5) questions. The first question was 'what are the AAC do you use in your classroom' the following Table 4 illustrates participant's responses.

Table 4: AAC use by Teachers in Classroom

No of Respondents	Responses
Fourteen teachers (14)	Some quality inputs
Three teachers (3)	Hearing aids
Nine teachers (9)	Television
Twelve teachers (12)	Audio Materials (Radio and Voice recorder)
Twenty-three teachers (23)	Computer and related instruments
Four teachers (4)	Braille machine
Nineteen teachers (9)	Picture cards
Eleven teachers (11)	Symbols
Three teachers (3)	Video clips
Twenty-five teachers (25)	Body language

According to the following Table 5, special education teachers responded to the question that 'why do you need knowledge and skills about AAC.

Table 5: Importance of Knowledge and Skills on AAC

No of Respondents	Responses
Sixteen teachers (16)	Knowledge and skills on AAC support to prepare AAC according to the needs of students with SEN
Eight teachers (8)	Knowledge and skills on AAC support to make interaction with each student appropriately in the classroom
Twenty-five teachers (25)	Knowledge and skills on AAC support to do teaching – learning effectively
Four teachers (4)	Knowledge and skills on AAC support to develop students with SEN through strength-based approach
Twelve teachers (12)	Knowledge and skills on AAC support to develop skill on day to day works among students with SEN
Three teachers (3)	As a teacher knowledge and skills on AAC is very important
Fourteen teachers (14)	Knowledge and skills on AAC support to develop communication skills among students with SEN
Twelve teachers (12)	Knowledge and skills on AAC support to learn with interest and happiness among students with SEN

The following Table 6 explores the responses of participants for question on 'how AAC support in teaching learning process of special classroom'.

Table 6: Supports of AAC in Teaching Learning Process of Special Classroom

No of Respondents	Responses
Twenty-five teachers (25)	AAC supports to make easier teaching – learning for students with SEN
Seven teachers (7)	AAC supports to develop expected behaviors among students with SEN
Two teachers (2)	AAC supports to achieve the education goal
Fourteen teachers (14)	AAC supports to learn students with SEN with interest and happiness
Eight teachers (8)	AAC supports to future development of students with SEN
Eight teachers (8)	AAC supports to enhance the activities of students with SEN
Three teachers (3)	AAC supports to explain concepts in appropriate manner to students with SEN
Eleven teachers (11)	AAC supports to equally communicate normal students and students with SEN in classroom
Six teachers (6)	AAC supports to socialization of students with SEN
Four teachers (4)	AAC supports to language development of students with SEN
Five teachers (5)	AAC supports to students with SEN for communicating community members in the society

The following Table 7 shows the responses of participants for the question about 'what are the challenges do you face in relation to the practice of AAC in your classroom'

Table 7: Challenges in Relation to the AAC Practices

No of Respondents	Responses
Twenty-eight teachers (28)	Inadequateness of resources in relation to the AAC
Sixteen teachers (16)	Lack of knowledge and skills in relation to the AAC
Four teachers (4)	Lack of resource implementation and management
Eleven teachers (11)	Lack of technical knowledge in relation to the AAC
Two teachers (2)	Lack of support of the school administration
Four teachers (4)	Lack of supports of the parents
Three teachers (3)	Primary understanding about AAC of students with SEN is the challenge
Seven teachers (7)	Barriers in relation to the following grammar in AAC
Three teachers (3)	Identification of special educational needs of students with disabilities
Four teachers (4)	Lack of awareness about AAC

The following Table 8 illustrates the suggestions recommended by participants to overcome the challenges in relation to the practices of AAC.

Table 8: Suggestions to Overcome the Challenges about Practices of AAC

No of Respondents	Responses
Eighteen teachers (18)	Gain enough resources
Sixteen teachers (16)	conducting more workshops on AAC for teachers
Twelve teachers (12)	Conducting training programmes on AAC
Four teachers (4)	Monitoring about special education practices in relation to the AAC
Eleven teachers (11)	Giving awareness about AAC to special education teachers
Three teachers (3)	Make access in schools in relation to the AAC for students with SEN
Thirteen teachers (13)	Enhance the technical knowledge and skills among teachers
Three teachers (3)	Consider the language grammar in preparation of AAC

6. Discussion

According to the analysis of personal information, majority of special needs teachers are female, majority of teacher's age range is 26-35, majority of teachers have less than 8 years of experiences in their profession, and majority of teacher's educational qualification is National Diploma in Teacher Education (special education). Subihi (2013) suggested that, an inadequacy of participants' knowledge of AAC and a dire need for relevant education and training. When considering analyzed data in-relation to the competencies of AAC, majority of participant don't have enough knowledge and skills in relation to the AAC (para. 27) (Mean – 1.90 and SD – 0.418) and preparation to the AAC (Mean - 1.88 and SD – 0.386) the low level of SD and Mean value shows their response is very strong. Moreover, skills in relation to the AAC also in average of educational professions of the research area. The mean value average is 3.14.

However, the attitude in relation to the practices of AAC is good of the participants of the study. The mean value is 3.43. The participants responses to statements were the professional related, self-related, community related, students with SNE related etc.

According to the correlation test, some personal information have significant difference with competencies and some personal information don't have relationship, the statement in relation to the competencies such as, AAC make easier the teaching in classroom does not have any relationship with personal information of the participants. Professions have low relationship with competencies of participants. However, educational qualifications of participants have higher relationship with competencies on AAC of participants.

AAC is another system such as a device or paper-based board with symbols that a student uses to communicate (Gallagher & Litton, 2014, para. 7) special education teachers use aided (computer and related instruments, picture card) and unaided (body language) AAC in classroom. Moreover, special education teachers use low tech (computer card), mid tech (voice recorder) and high tech (picture cards) AAC in classroom.

Moreover, majority of special education teachers mentioned that knowledge and skills on AAC support to do teaching – learning effectively, support to prepare AAC

according to the needs of students with SEN, support to develop communication skills among students with SEN. In addition to that, majority of special education said that, AAC supports to make easier teaching – learning for students with SEN.

Tönsing & Dada (2016) stated that, there is evidence of provision and also implementation of aided AAC in classrooms, various limitations still exist (p. 20). Moreover, the responses also provided insights into the linguistic and cultural challenges of AAC implementation within the Palestinian Arab community (Patel & Dakwar, 2005, p. 214). This research also identified the challenges in relation to the implementation of AAC in research area such as inadequateness of resources, lack of the knowledge and skills, resource implementation and management, technical knowledge, support of the school administration, supports of the parents, barriers in relation to the following grammar in AAC, identification of special educational needs of students with disabilities and lack of awareness about AAC are challenges in relation to the practices of AAC in research area.

7. Conclusion and Implication

Internationally there are number of studies conducted in relation to the special education teacher's competencies on AAC (Tönsing & Dada, 2016, p. 21; Patel & Dakwar; 2005, p. 215 & Subihi, 2013, para. 26). However, no study has been conducted in relation to special education teacher's competencies on AAC in the Northern Province, Sri Lanka. In order to gain a better understanding about competency level of special education teachers on AAC, research questions were formed, and data was collected and appropriate research methods were utilized to collect and analyze the data to achieve the goal of the study.

The quantitative findings of the study clearly indicated that, majority of special education professionals are females, and young when compare with low level of experiences, the personal profile may be a challenge in getting competencies an AAC.

The special educational professionals don't have adequate knowledge and skills about AAC implementation and developments in the research area. However, the educational professionals have attitudes to develop the knowledge and skills in relation to the AAC. Moreover, the special educational professional has positive attitudes on AAC such as AAC supports to development of students with SEN, as a teachers' knowledge on AAC is necessary, and community members and departments of education should be committed to practices AAC.

Moreover, personal profile of special educational professional has significant difference with competencies about AAC, for an example; educational qualification has higher relationship with competencies of special education professionals.

The special education professionals utilize the unaided and aided AAC in their teaching learning process for developing their students with SEN and improve their teaching learning process.

Inadequateness of resources, knowledge and skills, resource implementation and management, support of the school administration, support of the parents, barriers in

relation to the following grammar in AAC, identification of special educational needs of students with disabilities and lack of awareness about AAC are the challenges in relation to the AAC practices in the research area.

Provide adequate resources in relation to the AAC, conducting more workshops on AAC for improve the knowledge and skills among special education teachers, conductional training programmes for giving hands-on experiences on AAC for special education professionals, giving awareness about AAC to teachers, administrative staff, parents, principals, peers, community members, etc. make access in schools, home and society in relation to the AAC for students with SEN, enhance the technical knowledge and skills among teachers and educational professionals, and follow an alternative method with consideration of the language grammar in preparation of AAC.

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