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Knowledge Application and Comprehension: Cognitive Difficulties of Down Syndrome Children at Primary Level

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Abstract
The main purpose of this study was to find out the cognitive difficulties of Down syndrome children at primary level. The main objectives of this research study were to find out the cognitive difficulties regarding knowledge, comprehension and application of Down syndrome children the study was carried out in different schools of Rawalpindi. Teachers and parents of Down syndrome children were selected from public and private schools through stratified sampling technique. Questionnaire for respondents were developed by the researcher. To confirm the validity and reliability, different experts were involved in this this pilot. Testing process. Firstly; the instrument were revised in the light of the views of the experts. Secondly; the instruments were administered to the sampled members. The questionnaire was administered personally by the researcher to the respondents of the study (teachers and parents) for the data collection. The collected data was analysed through appropriate statistical techniques. The conclusion was drawn with the help of the data findings and suggestions were given in the light of the findings. This study will be helpful for the teachers to understand the cognition of Down syndrome children .this study may be helpful for the policy maker in the field of special education and school administration.
Keywords: Down syndrome, cognitive difficulties, (knowledge, comprehension, application.)

INTRODUCTION

Education gives people the information and facilities they need. Education is also essential for those children who are disable .The education given to them are called special education. For special students, special education experts plan scheduled activities for these students. Special children have psychologically, physically, informally or passionately weaknesses.

SPECIAL EDUCATION

Special Education programs includes facilities special curriculum, content, teaching methodology and pedagogy to meet the suitable needs of exceptional child.

Chapman & Hesketh (2000) stated that Education for special students provides the educational, physical, intellectual, social and emotional teaching to the special or disabled children. Down syndrome is an intellectual disability initiated by a chromosomal problem that occurs before birth. Kids with Down syndrome have definite structures. They also have many problems of cognition regarding knowledge, comprehension, application, and evaluation and mental illness.

DOWN SYNDROME

Down syndromes are produced by a problem with a baby 21st chromosomes. A normal person has 46 chromosomes. But Down syndromes people have 47 chromosomes. In rare cases, other chromosome disturbance cause mental retardation. Because of additional and irregular chromosomes variations the way the brain and figure development. This varies person to person. In most cases it is minor to modest. It is a lifetime disorder, with attention and support, we can make them a decent citizen. Down syndrome People have interval in mental growth with exact shortages in linguistic, philological construction and hearing short-term Weijerman & ME (2010) stated that Down syndrome well-known as trisomy 21, is a hereditary syndrome began by the existence of all or part of a third copy of chromosome 21. Patterson, D (2009) argue that it is naturally related with corporeal developmental delays, typical facial characteristics, and minor to modest cognitive disability. Malt (2013) say that average IQ of a young advanced adult with Down syndrome is 50, equal to the rational capability of an 8- or 9-year-old kid, but this can differ extensively. According to Hammer (2010) the parents of individual with Down syndrome are naturally and naturally ordinary. The extra chromosome occurs by chance. Morris (*2002)* have presented that the chance rises from less than 0.1% in 20-year-old mothers to 3% in those age 45. There is no identified developmental movement or ecological issue that variations the chance. Down syndrome can be recognized in pregnancy by prenatal screening followed through investigative testing or after birth by straight statement and genetic testing .Then the overview of screening, pregnancies with the finding are often concluded. Consistent screening for health complications mutual in Down syndrome is suggested during the individual's

life.

Roizen & Patterson (2003) *concluded that* there is no treatment for Down syndrome. Learning and appropriate attention can increase worth of lifecycle. According to National Association for Down syndrome. Archived from (2012) kids with Down syndrome are polished in usual institute courses, whereas others need more specific education. According to Steinbock & Bonnie (2011) *some* Down syndrome individuals graduate from high school and an unusual join post-secondary education. According to National Association for Down syndrome (2012), in majority, about 20% in the United States do funded labor in some ability, with many challenging a protected effort atmosphere. According to Kliegma & Robert M (2011) narrates that Provision in economic and permissible substances is often desirable. Lifespan expectation is around 50 to 60 years in the developed worlds with suitable health care. Down syndrome is one of the most mutual chromosome irregularities in human's beings.

According to Weijerman *(2010*) narrate that it happens in about one per 1,000 babies born each year .According to Hickey (2012) narrate that it is termed after John Langdon Down a British doctor who completely defined the condition in 1866.According to Evans & Fay (2009*)* Some structures of the procedure were defined former by Jean Etienne Dominique Esquirol in 1838 and Edouard Seguin in 1844. In 1959, the hereditary reason of Down syndrome, an extra copy of chromosome 21, was exposed.

Joe Jerman (1998) concluded that Down syndrome, trisomy21, or Mangolism is one of the intellectual retardation. The most of the Down syndrome individuals have a modest retardation though it can series from minor to severe. Trisomy 21 happens in about 1 in 800 live births. This frequency rise obviously as the age of the mother rises above 35. The frequency in children born to young mothers is 1 in 1000, while it rise to almost 1 in 40 in children born to mothers over 40. Most persons with Down syndrome have features such as slanted eyes, broad flattened face, small neck, and a flat tongue. Muscle organization is regularly lessened in these patients, causing in uncoordinated posture and balance. Inherited heart diseases is originate in forty percent of these people, along with near twenty rise in the danger of kidney malformation, thyroid abnormalities, diabetes etc. Neurological retardation and reduced resistant system reduce these persons more susceptible to infection and disease.

Joe Jerman (1998) writes that in the early 1900s, Down syndrome patients hardly survived to reach the age of twenty, as they only had a life practice of about ten years. With the developments of recent health care, most individuals, without those with permanent heart diseases, living to reach adulthood. Though it is still smaller than normal adults, their lifetime expectation has increase.

COGNITIVE DIFFICULTIES OF DOWN SYNDROME.

Education for Down syndrome children is as important as for common students .In their day-to-day learning procedure, these kids face many cognitive difficulties. According to oxford dictionary cognition is "the mental action or procedure of getting knowledge and understanding through thought, practice, and the senses". It contains methods such as thoughtfulness, the construction of knowledge, preservation and operational memory, decision and evaluation, intellectual, problem solving, understanding and creation of language. Cognitive procedures use present knowledge and produce new knowledge

Individuals vary across all sides of social and cognitive development as well as in their family care and educational opportunities. Down syndrome kids need expert instructors so that they comprehend their present abilities, aptitudes, assets, benefits, who can polish their skills and aptitudes with the help of different teaching methods. Down syndrome children need to be welcome, socially included members within their classrooms and schools. Schools need a strong and subtle policy on inclusion with dedicated and helpful staff. During class, Down syndrome children face many difficulties; sometimes teacher does not comprehend their abilities. Sometimes teacher cannot comprehend the behaviour and cognitive difficulties of Down syndrome children. The process of teaching and learning can fail if the teacher can't understand the cognitive difficulties of these children, or student has cognitive difficulties. The cognitive problems accrues when children face problems in knowledge and the progress of rational skills. Cognition contains memory or acknowledgement of exact realities, concrete forms, ideas that helps the growth of academic aptitudes and expertise. Cognitive processes have six levels. They are knowledge, comprehension, application, this groups consider to a steps of problems. Down syndrome children face many cognitive difficulties like to recall something, application of ideas in new situation, to understand class room activities, and overall analysis, synthesis and evaluation of many ideas.

Knowledge

Armstrong & Patricia (2016*)* concluded that identifying or memorizing proofs, expressions, simple ideas, or responses without essentially accepting what they mean. Its characteristics are as under:

- Familiarity of particulars—language, detailed evidences
- Awareness of conducts and means of dealing with particulars settlements, styles and orders, organizations and groups, standards, procedure
- Information of the universals and concepts in a field—values and simplifications, concepts and

constructions,

Down syndrome children face many difficulties regarding knowledge. They have low Familiarity of particulars—language, detailed evidences, and have low Awareness of conducts and means of dealing with particulars settlements, styles and orders, organizations and groups, standards, procedure.

Comprehension

It includes suggesting tolerant of realities and thoughts by establishing, associating, understanding, and understanding, giving reports, and testifying the key concepts. For example associate the recognising structures of a golden tempting apple with a granny smith apple. Down syndrome children have no understanding of basic concepts. They have poor recognition of so e figures.

Application

It is related to consuming learned knowledge clarifying complications and resolving problems in new circumstances by connecting learnt knowledge, truths, methods and rules. Pupils would use previous knowledge to resolve complications, categorize associations, links and how to relate in new circumstances, like would apples stop scurvy, a sickness affected by a deficit in vitamin C Use an idea in a new situation or unforced use of a concept. Application is something that what was educated in the classroom into novel circumstances in the place of work. Enable transmission of information to new or matchless situations

OBJECTIVES OF THE STUDY

1. Find out the cognitive difficulties of Down syndrome children.
2. To identify the factors of cognitive difficulties regarding knowledge, comprehension and application of Down syndrome children.

HYPOTHESIS OF THE STUDY

The hypothesis of the study was as follow:

H1: Down syndrome children find it difficult to retain their knowledge.
H0: Down syndrome children do not find it difficult to retain their knowledge.
H1: Down syndrome children have short term memory.
H0: Down syndrome children do not have short term memory.
H1: Down syndrome children find it difficult to comprehend ideas easily.
H0: It is not difficult for Down syndrome children to comprehend ideas easily.

Materials and Methods

Population

Population refers to a collection of humans. Demography is a social science which contains the statistical study of human populations. Population in modest terms is the number of people in a city or town, region, country or world; population is typically determined by a procedure called survey (a procedure of collecting, investigative, assembling and publishing data) the population of this study was teachers and parents of Down syndrome students.

Sample and Sampling Techniques

Chaudhary (1984) stated that the sample is a smaller demonstration of a large whole. Sampling may be defined as the process in which a sample is selected from a single or a group of people of certain kind for research purpose. In sampling, the population is divided into a number of parts called sampling units.

Stratified sampling technique was used to draw the data from the population.20 schools were selected in which 150 parents and 150 teachers were taken as sample of the study.

Table 1

Respondents		Rawalpindi	Islamabad
Schools	N	20	20
	n	10	10
Parents	N	300	300
	n	150	150
Teachers	N	300	300
	n	150	150

Research design and Instrument

The present study was descriptive and design to investigate the cognitive difficulties of Down syndrome children at primary level.in Rawalpindi and Islamabad city. After going through the review literature questionnaires were used to collect data from teachers and parents regarding knowledge, comprehension and application difficulties

of Down syndrome children. These questionnaire were developed by researcher for parents and these questionnaires were based on the objectives of the study. The instrument was designed on Likert scale .the questionnaire limited on 15 items.

Pilot study Validity, Reliability

For determining the reliability and validity of the tools a pilot study was carried out. The aim of the pilot study was to check and understanding ability reliability and validity of the items including the questionnaires.

In order to find validity, different experts check the questionnaires. And secondly, questionnaires administered on a small group of respondents the researchers individually administered questionnaires .The data was analysed, some ambiguous words in questionnaire were identified. Cronbach alpha was applied for determining the reliability. Values of Cronbach coefficient of alpha each of the instrument were calculated. There values were considered to be quite suitable for study. Pilot testing was carried out to classify the lacks in questionnaire. For study validation and reliability of the instrument.

The reliability of scales is determined through Cronbach`s alpha scale and the variables were found reliable**.** There were two questionnaires first was for parents and the second was for teachers.

Table 2

categories	**Cronbach alpha**	**Items**
Parents	.744	15
teachers	.766	15

The validity of the scale was determined through the experts working in different universities. The suggested changes by the educationists were addressed and tool is modified. Additionally the statements of questionnaire were also matched with the issues of cognitive difficulties of Down syndrome students.

Data Collection, Data Analysis

The researcher started data collection on 15 November 2017 and completed on 12 January 2018.The researcher personally visited the sampled schools. The questionnaires were personally administered by the researcher to collect data from respondents to full fill the study. Respondent were approach in sample schools for data collection. Few extra questionnaires were administered to control and avoid non response or other issues. Mean and standard deviation were applied for general analysis. T test was applied to examine the comparison of teachers and parents views about the cognitive difficulties of Down syndrome children at primary level.

Results

To complete this study properly, it is compulsory to analyse data collected in order to test hypothesis and answer the research questions. Data is interpreted in a descriptive form. The present chapter defines the analysis and interpretation of computable data followed by a conversation of the research findings. The conclusion relate to the research questions that concentrating the study. First of all, the researcher determined difficulty level by dividing difficulty level at four stages. After determining the levels of difficulty, its frequencies compared with the mean score of respondent.in this way difficulty level of respondent found, these stages are as under:

Table 3

Frequency	Difficulty level	Difficulty type
3.5---5	Level 1	No difficulty
2.75—3.5	Level 2	Low difficulty
2—2.75	Level 3	Medium difficulty
1---2	Level 4	High difficulty

After determining the levels of difficulty, its frequencies compared with the mean score of respondent.in this way the cognitive difficulty level of Down syndrome found.

Table 4: KNOWLEDGE |

H0=Down syndrome children do not find it difficult to retain their knowledge.

Sr.n	Statement	Group	Observed frequencies and %					Mean	SD	Diff level	t-test	Df	Sig
			SA	A	UN	DA	SDA						
1.	New Ideas	Parents	4932	8657	32	32	96.0	4.09	.983	1	-21.428	298	.000
		teachers	--	13 8.6	-	92 60	45 30	1.87	.797	4			
2.	Basic Information	Parents	--	2 .7	2 .7	73 74	73 25	1.55	.597	4	2.561	298	.183
		teachers	--	4 1.3	2 .7	94 31	50 17	1.73	.620	4			
3.	Name	Parents	52	62	2 .7	58 19	79 26	1.67	.946	4	35.946	298	.000
		teachers	110 37	40 13	- -	- -	- -	4.73	.444	1			
4.	Date & Day	Parents	6522	6622	103	83	1 .3	4.24	.849	1	-22.021	298	.000
		teachers	--	17 5.6	12 4.0	70 23	51 17	1.97	.937	4			
5.	Information About Family.	Parents	--	2 .7	3 1.0	68 23	78 30	1.52	.610	4	23.526	298	.000
		teachers	5518	6621	93	114	93	3.98	1.126	1			

SA=strongly agree, A=Agree, UD=Undecided, A=Disagrees=strongly disagree

Table 1 shows that the results of 1,2,3,4 and 5 statements. Statement 1 revealed that Child can get new ideas easily. Parents mean value was 4.09, SD was .983 and teachers mean was 1.87 SD was .797.The difference between their t value was -21.428 and the level of significance is .000. Statement 2 revealed that Child know about basic information of a lesion. Parents mean value was 1.55, SD was .597 and teachers mean was 1.73 SD was .620.The difference between their t value was 2.561 and the level of significance is .183.Statement 3 revealed that Child knows your name. Parents mean value was 1.67, SD was .946 and teachers mean was 4.73 SD was .444.The difference between their t value was 35.946 and the level of significance is .000. Statement 4 revealed that Child normally knows date and day. Parents mean value was 4.24, SD was .849 and teachers mean was 1.97 SD was .937.The difference between their t value was -22.021 and the level of significance is .000. Statement 5 revealed that Child normally knows the basic information about his/her family. Parents mean value was 1.52, SD was .610 and teachers mean was 3.98 SD was 1.126.The difference between their t value was 23.526 and the level of significance is .000.Hence the majority statements shows that the null hypothesis was rejected and results expressed that it's difficult for children's to retain their knowledge.

Table 5: Comprehension:

H0=it is not difficult for children to comprehend ideas easily;

Sr.n	Statement	Group	Observed frequencies and % SA	A	UN	DA	SDA	MEAN	SD	Difficulty level	t-test	Df	Sig
1.	basic idea	Parents	8 3	9 3.0	3 1.0	100 33	30 10	2.10	.968	2	2.053	298	.041
		teachers	15 5		9 3	121 40	5 1.7	2.33	.945	3			
2.	his/her feelings.	Parents	3 1.0	5 1.7	3 1.0	79 26.2	60 19.9	1.75	.821	1	-1.541	298	.124
		teachers	- -	- -	- -	94 31	56 18	1.63	.485	1			
3.	sketch of any incident	Parents	64 21.3	77 25.6	4 1.3	5 1.7	- -	4.33	.692	4	- 23.499	298	.000
		teachers	10 3		15 5.0	114 38	11 8	2.23	.853	2			
4.	compare things effetely.	Parents	3 1.0	6 2.0	10 3.3	68 22.6	63 20.9	1.59	.877	1	-468	298	.640
		teachers		2 .7	3 1.0	100 33.2	45 15.0	1.75	.558	1			
5.	performing a complex tasks.	Parents	3 1.0	4 1.3	5 1.7	59 19.6	79 26.2	1.62	.841	1	-4.458	298	.000
		Teachers	- -	- -	- -	41 14	109 36.3	1.27	.44 7	1			

SA=strongly agree, A=Agree, UD=Undecided, A=Disagrees=strongly disagree

Table 3 shows that the results of 1,2,3,4 and 5 statements. Statement 1 revealed that Child can explain the basic idea of delivered lesion. Parents mean value was 2.10, SD was.968 and teachers mean was 2.33 SD was .945.The difference between their t value was 2.053 and the level of significance is .041. Statement 2 revealed that Child can interpret his/her feelings. Parents mean value was1.75, SD was .821and teachers mean was 1.63 SD was .485.The difference between their t value was -1.541and the level of significance is .124.Statement 3 revealed that Child can make a sketch of any incident they have observed. Parents mean value was 4.33, SD was .692 and teachers mean was 2.23 SD was.853 .The difference between their t value was-23.499 and the level of significance is .000. Statement 4 revealed that Child can compare things effetely. Parent mean value was 1.59, SD was.877 and teachers mean was1.75 SD was .558.The difference between their t values was -468 and the level of significance is .000. Statement 5 revealed that Child can explain in his/her own words the steps for performing a complex tasks. Parents mean value was 1.62, SD was .841and teachers mean was 1.27 SD was.447.The difference between their t values was -4.458 and the level of significance is .000.the null hypothesis was rejected and results expressed that it's difficult for children to comprehend ideas easily.

Table 6 APPLICATION

H0=Power of applying old ideas in new situation is not poor in Down syndrome children.

Sr.n	statement	Group	Observed frequencies SA	A	UN	DA	SDA	MEAN	SD	Difficulty level	t-test	Df	Sig
1.	old experience	Parents	5	7	8	69	61	1.84	.963		4.732	298	.000
			1.7	2.3	2.7	22.9	20.3						
		teachers	45	3		49	53	2.59	1.676				
			15.0	1.0		16.3	17.6						
2.	classifies objects	Parents	-	4	9	21	116	1.34	.713		-.481	298	.631
			-	1.3	3.0	7.0	38.5						
		teachers	-	-	-	46	104	1.31	.463				
			-	-	-	15.3	34.6						
3.	He or she can completes task using previous experiences.	Parents	91	50	9	-	-	4.55	.609		-	298	.000
			30.2	16.6	3.0	-	-				38.621		
				1	14	91	44	1.81	.617				
		teachers		.3	4.7	30.3	14.6						
4.	Child can apply what was learned in the class room	Parents	-	-	14	94	42	1.47	.598		-5.079	298	.000
			-	-	4.7	31.2	14.0						
			-	-	8	54	88	1.81	.584				
		teachers	-	-	2.5	17.9	29.2						
5.	Child have his\her lunch or juice without assistance.	Parents	140	-	10	-	-	4.45	.691		-5.932	298	.000
			46.5	-	3.3	-	-						
		teachers	84	51	14	1	-	4.87	.501				
			28	17	5	.3	-						

Table 4 shows that the results of 1,2,3,4 and 5 statements. Statement 1 revealed that Child can applies old experience into new situation. Parents mean value was1.84, SD was.963 and teachers mean was2.59 SD was1.676 .The difference between their t value was4.732 and the level of significance is .000. Statement 2 revealed that Child can classifies objects into groups. Parents mean value was 1.34, SD was .713 and teachers mean was 1.31, SD was .463.The difference between their t value was-.481 and the level of significance is.631 .Statement 3 revealed that Child can apply simple ideas to solve problem. Parents mean value was4.55, SD was .609 and teachers mean was 1.81 SD was .617.The difference between their t value was -38.621 and the level of significance is .000. Statement 4 revealed that He or she can completes task using previous experiences. Parents mean value was1.47, SD was .598 and teachers mean was1.81 SD was .584.The difference between their t value was -5.079 and the level of significance is .000. Statement 5 Child have his\her lunch or juice without assistance Parents mean value was4.45, SD was691 and teachers mean was4.87 SD was .501 .The difference between their t value was -5.932 and the level of significance is .000.the null hypothesis was rejected and results expressed that Power of applying old ideas in new situation is not poor in down syndrome children.

DISCUSSIONS

The appreciation and seeing the significance of elementary needs of special individuals are now mandate of the day. Like other person with cognitive disabilities, Down syndrome face many cognitive challenges .the face many cognitive problems during class and in routine. Families and teachers face many cognitive issues of them because they are involved with them all times.

Present research is based on blooms taxonomy of cognitive domain and Paget theory of cognition. We divide cognitive difficulties in several sections .the present research study was designed to find out the cognitive difficulties of Down syndrome children at primary level, to find out the factors of cognitive difficulties of Down syndrome children, to recommend ideas and suggestions to address the cognitive difficulties foe the ultimate improvement for the cognitive process.

There are many cognitive difficulties of Down syndrome children. Some difficulties are related to their knowledge, researches shows that because of poor knowledge ability, Down syndrome children face many problems .In classroom, they can't get new ideas easily.

Normally children don't know even date and day. They even don't know about the basic information about his/her family. This idea was supported by Laws.G et al. (2014) that the children with Down syndrome have poor knowledge. Regarding knowledge, they face many problem in routine e life. Down syndrome children face many problems and shortfalls in grammatical knowledge. More research is essential to realize the theoretical

beginning of grammatical shortfalls and to create whether cultivating the range and organization of children`s knowledge base would generalized to developments in other working.

Down syndrome children do not understand concepts, they face many difficulties in understanding something they have short term memory this idea was supported by Bird and Chapman (1994) Down syndrome face difficulties in the comprehension of concepts they also have limited memory capabilities.

Children face problem in eating something this idea was rejected by E Hopman et al (1998) they concluded that condition of Down syndrome do not affected by nutritional status parents should give attention to the children to promote multidisciplinary health, late introduction of solid food can be deleterious to oral motor development.

Down syndrome children do not understand concepts, they face many difficulties in understanding something they have short term memory this idea was supported by Bird and Chapman (1994) Down syndrome face difficulties in the comprehension of concepts they also have limited memory capabilities.

Results shows that Down syndrome children face cognition difficulties ,that results of this study expressed that it's difficult for children's to recall their knowledge. Down syndrome kids do not have long term memory. It's problematic for children to understand concepts simply. Power of relating old ideas in new condition is poor in Down syndrome children. Down syndrome children have little attention span Children do not examines things properly. Down syndrome children have reduced combining power.

CONCLUSIONS

Conclusions of this study based on findings, following conclusion was drawn:

The data shows that mostly teachers and parents agreed that children with Down syndrome do not learn new ideas during class easily. Most of them are against of opinion that child with Down syndrome know about the basic information of a lesion. They even don't know about name of their teachers or parents' names. Most of them are event don't know about the basic information about their family. So it is a fact that Down syndrome children face many cognitive difficulties regarding knowledge. Almost all teachers and parents agreed that Down syndrome children have poor application and comprehension abilities for that reason they face many cognitive difficulties during studies and daily life.

RECOMMENDATION

Down syndrome children have short memory problems. For this problem, the student's level of comprehension will remain low, but low memory does not stop them from schooling. Individual incentive is very important in education. Education. Contemporary data in a clear, neat manner during instructions. Explain the links among data to form a system of information. Let these children more time to learn. Let more movements to put on knowledge.

It is expected that 65 to 80% of kids with DS have conductive hearing loss, and that 50% percent have visualization difficulties. There is also a progressive degree of hypothyroidism, which can cause sluggishness, fatness and psychological wound. Do a yearly hearing and vision checkup. Hearing damage may differ when fluid is current or when a pupil is feeling ear pain. A pupil may not being ignored your instructions, but may not be able to hear you. Notify parents of your remarks. When left raw, these glitches can expressively disturb a student's ability to do well academically and socially.so we can say that attention complications in Down syndrome children are mostly because of hearing and vision

Teacher should follow the following tips and strategies that are optional to support visual skills always place the pupil at the forward-facing of the class. Practice superior lettering. Habit graphic aids, e.g., symbols on grounds or walls in this way kids take interest in learning and will better understand teacher's point of view.

Every DS student is an exclusive separate and the similar speaking treatment method will not be active for all pupil. Treatment is always personality based based on a child's specific powers. DS students obviously need to converse and many will need unusual procedures, plans and movements to help them in their communication development. Rejection to obey or persistent activities may really be affected by a pupil's obstruction with their ability to communicate efficiently. The Speech Therapist will be able to deal proposals for plans to use in your classroom. Graphics like pictures consider an excessive tools for statement and spoken.

In all DS children, there is an extensive variety of aptitudes, performance and bodily growth. Though, as a universal law, maximum DS kids obtain best a multi-sensory grounded database .DS students are visual learners, pair pictures with spoken name, show, exemplary, visual signals, and kinesthetic strengthening, .Auditory memory and auditory processing weak, allow satisfactory response time. Short-term memory networks, always pause down instructions into smaller steps, repetition. Reiteration, recurrence, repeat, small shares of data. Precise pupils' best to avoid colloquial speech, multiple meaning terms.

There is no hard and fast rule to acclimatizing classroom program for DS students. Every students have s needs are single. The process is simple, but it does require that all team members work collaboratively. Subtle adaptations - Subtle accommodations to daily work will assist your student without drawing attention to the

adaptation. For instance, textbooks with the same cover but different contents will minimize the variation. Same timetable/same subject - Materials and methods may vary but if all students work on the same subject matter at the same time a student's sense of competence will increase. Allow adequate response time. Some students need time to process your question. Be patient. Visual accommodations work best for your students with Down syndrome. Visual schedules may help compensate for memory difficulties.

The Down syndrome Association of Greater St. Louis (DSAGSL) strongly believes that creative collaboration between all team members is the best strategy for success. Each child possesses a unique potential and when the parents, teachers, assistants, specialists, school administrators, bus drivers, etc. all work in the best interest of the child, your student will have a productive year. We offer a Down Syndrome Specialist Training Program for the team of general education and special education staff. Please contact us to enroll.

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