



LEARNING FIRST AID FOR BURN MANAGEMENT THROUGH VIDEO-BASED INSTRUCTION AMONG CHILDREN WITH INTELLECTUAL DISABILITY

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Abstract: The present study was conducted to investigate learning first aid for burn management through video-based instruction among children with mild intellectual disability. The sample consists of children with mild intellectual disability age ranging from 11-14 years. Sample was drawn from “Skills and Ability School”, Mulund West, Mumbai. Size of the sample consists 10 subjects. They were randomly assigned into experimental and control groups. Each group consists of five subjects. The students in the experimental group were taught first aid for burn management through Video Based Instruction and control group were taught through conventional method (using flash card and worksheets). Intervention was carried out for 15 sessions. The results indicate that there is a significant improvement in learning First aid for Burn Management. In addition, the rate of learning among the students in experimental group was higher than the control group. From the results it is evident that the children who were taught through Video have achieved higher score than the children who were taught through conventional method. Video had created interest, eagerness and motivation in children with mild Intellectual Disability.

Keywords: First Aid, Video-based Instruction, Intellectual Disability

Introduction:

Audio-visual education or multimedia-based education is instruction where particular attention is paid to the audio and visual presentation of the material with the goal of improving comprehension and retention. Children learn best by observing and copying the behaviours of adults. It is therefore evident that learning is more effective when sensory experiences are stimulated. These include pictures, slides, radios, videos and other audio visual tools. The use of devices or audio-visual materials will stimulate the greatest number of senses. For this reason, good teachers have always used devices or audio-visual materials. A device is any means, other than the subject matter to the learner.

A device is an incentive introduced into the method of teaching for the purpose of stimulating the pupil and developing understanding through experiencing. The basis for all learning is experience, and usually the most effective type of learning is gained by concrete, direct, experience. Where direct experience is not possible, teacher can show the video to make the student understand the effect of the incident. Educational webcasts and video lectures as a teaching tool and a form of visual aid have become widely used with the rising prevalence of online and blended courses and with the increase of web-based video materials. For students with intellectual disability it is better to stimulate their most of the senses so that they can comprehend easily.

Computer-Based Video Instruction video recordings can provide multiple teaching examples, replicate stimuli in the environment, and allow repetitive practice of skills. A number of skills have been taught using this technology with students with intellectual disabilities including: assembly tasks reading community words; shopping appropriate behaviours self-help skills requests for assistance; fire safety and other community skills such as mailing letters, cashing checks, and crossing streets. Further, by combining video technology and computer-based instruction, interactive learning environments can be generated through software programs such as studio and PowerPoint (Microsoft) which access video recordings saved on the computer, an external drive.

Video Based Instruction:

The word video refers to the technology of electronically capturing and broadcasting a sequence of still images representing scenes in motion. The word learning refers to knowledge or skills acquired through study or by being taught. The term “video-based learning” is used in the sciences of learning and cognition to designate a knowledge or skills acquired by being taught via video.

Video Modelling:

Video Modelling as an academic durable training, treatment, and teaching program for children with intellectual disability. Video Modelling, as compared to In Vivo Modelling, seeks to promote visual learning by observing and imitating models that have been recorded on video and are observed by the child on a television, computer monitor, iPads or other mobile devices like iPhones. Clips from other video sources, such as from YouTube, may also be employed. Video Modelling can be used

- a) To teach skills to children with intellectual disability that are not yet in their behavioural repertoire
- b) And / or to improve children's emerging behaviours or skills. Video Modelling is an effective and well-researched intervention for children with intellectual disability, requiring them to simply watch short, filmed clips of a model completing a targeted behaviour or behaviours.

First Aid:

First aid is the provision of initial care for an illness or injury, usually by a non-expert but trained person, until medical treatment can be accessed. Provision of immediate first aid to patients who require emergency care can make a big difference to the outcome, as the first action taken for management of injuries and common illness decides the future course of disease and complication rates. In certain self-limiting illnesses or minor injuries, appropriate first aid measures may be sufficient to avoid a medical consultation. Parents' knowledge and practice about first aid is especially important in injury care for children, as many adverse consequences of injuries can be averted if parents know what actions to take. It's basic knowledge about how to help people who are suddenly sick (illnesses) or hurt (injuries or body damage). For example, first aid is used at accidents to help an injured person until they receive medical treatment (help by doctors, nurses or ambulances). First aid is also used to help people who suddenly become sick, until help arrives or they can be taken to medical care.

Significance of the study:

Teaching Basic First-Aid Skills against Home Accidents to Children with Intellectual Disability (ID) The longest term objective of the education of individuals with Developmental Disabilities (DD) is to teach them the skills which are essential for them to live as a part of the society as independent as possible. Individuals with DD have difficulties in giving information to their parents about the negative events that they face and have limitations in judging the dangerous situations and escaping or avoiding these situations. If those skills are not a part of teaching plans of individuals with ID, safety risks may increase in the daily lives of those people. For this reason, it is very important for individuals with DD to be taught to be aware of safe and unsafe situations via their teaching programs. Safety skills are important for the individuals with ID to be independent in the community, live safely in their daily lives, work in jobs safely, and be a part of the community activities. Safety skills can be grouped into two groups: skills needed at home and skills needed in the community environments. Although these skills are very important less than half of the teachers in the United States of America mentioned that they took safety skills as a part of their teaching programs for the individuals with ID. Observations in Turkish 36 schools revealed that although teaching safety skills is a part of the program for children with ID, they are either not taken as teaching objectives by the teachers or these skills are trying to be taught without practices in the class. For individuals with ID, safety skills are as important as motor, communication, academic and social skills. Hence, it is crucial for these students to teach safety skills as a part of their Individualized Education Programs (IEP). Besides, including targets of safety skills into their IEPs and teaching these skills to children with ID in the early years will help these children be aware of safe and unsafe situations and taking care of themselves

during these situations. Basic first-aid skills are included in the home safety skills. First-aid skills can be conducted for cuts, abrasions, minor burns, minor wounds, insect bites, choking, sun burns, putting unfamiliar things into the nose or ear, fractures or dislocations, etc. Basic first-aid skills are one of the community survival skills. Since primary school students are the ones who face the most injuries and accidents both in their school and daily lives, teaching safety skills and especially first-aid skills are very essential for this age group of children with ID.

Objectives of the Study:

- To find the level of learning first aid for burn management among children with mild intellectual disability through videobased instruction (Experimental Group).
- To find the level of learning first aid for burn management among children with mild intellectual disability through conventional method (Control Group).
- To compare the post-test achievement scores of learning first aid for burn management among children with mild intellectual disability between experimental group and control group

Hypothesis of the Study:

- There will be significant difference between pre-test and post-test mean scores of learning first aid for burn management among children with mild intellectual disability who are taught through videobased instruction (Experimental Group).
- There will be significant difference between pre-test and post-test mean scores of learning first aid for burn management among children with mild intellectual disability who are taught through conventional method (Control Group).
- There will be significant difference between Experimental Group and Control Group in post-test mean achievement scores of learning first aid for burn management among children with mild intellectual disability.

Research Method:

Experimental method of research was used for conducting the study. Pre-test post-test control Group Design was used for this because the combination of random assignment and the presence of a pre-test and control group serve to control for all sources of internal validity.

Sample:

The sample consists of children with mild Intellectual disability age ranging from 11 to 14 years. Sample was drawn from ICMH Skills and Ability Special School, Mulund West, Mumbai. Size of the sample consists of 10 subjects. The total of 27 students in secondary class was assessed using the checklist for identifying the base line in visual comprehension. Based on the performance, 10 students were selected randomly. They were again randomly assigned into experimental and control groups. Each group consists of five subjects.

Instrument:

Researcher reviewed the existing checklists on Video Based Instruction. Based on the reviewed checklists, researcher had prepared two checklists keeping the methods in teaching such as Visual, Auditory, Kinaesthetic, and Tactile.

Checklist -1 was used for finding out the pre- requisites for learning First Aid skills for burn management in case of mild burn.

Checklist – 2 was used for pre and post-test intervention. Another important tool for this study was the Video by which the intervention was done. It was also reviewed and validated by the researcher.

Experiment Procedure:

Experimental Group: Researcher developed a Video based instruction. The duration of the video was 15 minutes. The video consists of the steps for first aid skill of burn management with a complete story in two parts. The video was shown to the experimental group for 10 sessions. To increase the performance level of an individual, reinforcement techniques were used on the subject. During the intervention period, social reinforcement was used. This method increased the performance level of the students. Control group: The subjects in the control group were provided instruction through conventional method using black board and flash cards and pictures.

Intervention Schedule:

A total 15 sessions were carried out for experimental and control group. Weekly 7 sessions were conducted by the researcher. The duration of each session was 30 minutes. 15 minutes for showing the video and 15 minutes were allotted for evaluation of the performance of the students. Morning sessions were taken for a period of one hour for both the groups. The timings of teacher of both the groups were balanced and alternated suitably. The experimental group was taught through the video in the respective classroom.

Administering the checklist:

Before administering the check list for data collection, permission from the Principal, SEC, ICMH was taken and also parent's consent was taken for their children participating in the experiment. To control internal threats the researcher requested the teacher and parents not to teach first aid skill during experimental period.

Results:

During the intervention data was collected for 15 sessions from Experimental and control group. Mean, standard deviation was calculated. Paired and independent t-test was conducted to find out statistical significance. Data analysis and interpretation is presented in the following Tables.

Table-1

Comparison of Pre-test and Post-test Mean Achievement scores of Experimental Group with regard to learning first aid for burn management among children with mild intellectual disability through video-based instruction

	N	Mean	S.D	t. Value
Pre-test	5	13.00	1.00	34.10**
Post-test	5	55.60	2.19	df=4

** Highly significant at 0.01

It is observed that the mean scores of pre-test is 13.0 and the mean achievement scores of post-test is 55. The difference in pre-test and post-test mean scores of learning first aid 37. This indicates that there is a difference between pre-test and post-test mean scores which is clearly indicating that there is a higher improvement in learning first aid for burn management among children with mild intellectual disability through video-based instruction. To see whether there is any statistical significance a paired t test was conducted. The result indicated that t value for experimental group is 34.10 is higher than the table value which is highly significant at 0.01. Children got improvement in learning through video-based instruction. Therefore, hypothesis states that there will be significant difference between pre-test and post-test mean scores of learning first aid for burn management in children with mild intellectual disability who received video-based instruction is accepted.

Table-2

Comparison of Pre-test and Post-test Mean scores of Control Group with regard to learning first aid for burn management among children with mild intellectual disability through conventional method

	N	Mean	S.D	t. Value
Pre-test	5	13.40	1.34	21.95**
Post-test	5	26.20	2.48	df=4

** Highly significant at 0.01

The table-2 shows that the mean scores of control group of pre-test mean scores is 13.40 and post-test mean achievement scores of learning first aid who were taught through conventional methods is 26.20. There is a difference in Pre-test and Post-test mean scores of learning first aid through conventional method. This indicates that there is a difference between pre-test and post-test mean scores which clearly indicates that there is an improvement in children learning through conventional method. To see whether there is any statistical significant difference, a paired t-test was conducted. The 't' value is 21.95 which is higher than the table value. Hence, it is highly significant at 0.01 level. Findings are in consonance with the hypothesis that 'there will be significant difference in pre-test and post-test mean scores of learning first aid for burn management in children with mild intellectual disability who are taught through conventional method' is accepted.

Table-3

Comparison of Post-test mean achievement scores of Control and Experimental Group with regard to learning first aid for burn management among children with mild intellectual disability

Group	N	Mean	S.D	t-Value
Control	5	26.20	2.48	19.82**
Experimental	5	55.60	2.19	df=8

** Highly significant at 0.01

The table-3 indicates that the post mean achievement scores of experimental group of learning first aid for burn management among children with mild intellectual disability through video based instruction is 55.60. The post-test mean achievement scores control group of learning first aid for burn management among children with mild intellectual disability through conventional method is 26.20. The difference in Post-test mean scores of experimental and control groups of learning first aid for burn management among children with mild intellectual disability is 29.40. This indicates that there is a much difference observed between post-test means scores of control and experiment group. To see whether there is any statistical significant difference in mean scores, an independent t-test was carried out. The t value is 19.82 which is higher than the table value. Hence, it is highly significant at 0.01. Findings are in consonance with the hypothesis that there will be a significant difference in the achievement scores of learning first aid for burn management among children with mild intellectual disability who are taught through video based instruction compared to conventional method is accepted. This shows that the children who were taught through video got higher performance than the children who were taught through conventional method. For the experimental group, researcher used video. This video software had created interest, innovation, eagerness and motivation in children with intellectual disability. In video has animation effects, real pictures, sounds, colour pens and so on.

Discussion:

This Video Based Instruction can be used in teaching the concept. Through this, the concept can be presented in a simpler and pleasant manner which can draw the attention of the students and the concept can be taught to the students. This video can be prepared by the teachers which does not involve extra cost on the management of the schools. The results of the study support that Video Based Instruction was effective method in teaching children with intellectual disability in learning first Aid. Teacher can employ this method for teaching various concepts like money, time, fruits for different levels and age groups. Teachers can easily prepare videos to suit the needs of students in his/her classroom. Now days, everyone is having electronic gadgets like mobile phones. Hence, teachers can use videos effectively for individualized education program and also for group teaching.

Conclusion:

Videos will never replace the teacher. But the effective use of videos enhances the desired learning. Technology is a must to reach international standards in education. This is not the end. But there is a long way to go before reaching excellence in the international scenario. Let us strive for creating High-Tech classrooms to make our children have global outlook. Present study favours video technology application in special education can accelerate the appropriate development of children with intellectual disability. By using Video Based Instruction, the special educators can handle these children in proper way. Child can learn with their own capacity and speed. The computer technology can be helpful in implementing Individualized Education Program for student with intellectual disability. The teacher and student both can make self-evaluation and determine the goal achievement. The results of the study further support the video was effective method in teaching children with intellectual disability in learning first aid. Teacher can employ this method for teaching various concepts. Through this method children can enjoy the activities and competes to complete the task successfully. The findings of the study have implications for innovative way of teaching concepts like shapes, sizes, money, daily life skills and safety skills etc., through this method. A variety of videos should be provided by the teacher where motivation, interest, creativity can be aroused to perform the given activity successfully.

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