EVALUATING THE EFFICACY OF AN ORIENTATION PROGRAM USING TRADITIONAL AND QUALIFIER APPROACHES

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Abstract

To evaluate the efficacy of orientation program on communication disorders, by administering a pre- and post- test on students of Masters in Social Work (MSW). Data were collected in two phases, with 26 in Phase I and 20 participants in Phase II. An orientation program on Prevention of Communication Disorders was given to the participants in two phases. The orientation lecture was delivered by a qualified Audiologist and a Speech Language Pathologist in both the phases. A pre- and post- test was given in both phases, consisting of 10 multiple choice questions with a qualifier question of 'Are you guessing'; the answer was considered incorrect if the participant indicated that it was a guess. This gave information on whether the answer was a mere guess or was a result of the knowledge gained after orientation. Based on the post-test performance of Phase I, and before the initiation of Phase II, appropriate changes in the lecture were made to refine and increase the impact of the orientation program in Phase II. The pre- and post- test data of Phase II were analyzed using 'Traditional approach' which was scored for either correct or incorrect answer and 'Qualifier approach'. In the qualifier approach, the number of participants scoring correct answer in the post-test was 63% and 83% when compared to their pre-test score of 19% and 23.5%, in Phase I and Phase II respectively. The program also focused on correcting knowledge of the participants and also provided the instructor the feedback on modifications in the content and technique of teaching required when a concept was not clearly understood. This study highlights the importance of evaluating the impact of the orientation program about the communication disorders, for effective dissemination of knowledge to other allied professionals.

Key words: *Pre-test, Post-test, Qualifier approach, Traditional approach, Orientation program*

Introduction

"To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, use effectively and communicate information in its various forms" - American Library Association (1989). The communication disorders are potentially disabling conditions with widespread implications in a person's life.

Communication disorders include disorders in speech, language and hearing. Especially in children, communication disorders may have an impact on development of speech and language, social and emotional well-being, cognition, and behavior (Baker & Cantwell, 1987; Lewis, Freebairn & Taylor, 2000; Bryan, 2004). Lower speech and language development in children has significant effect on their educational, linguistic and auditory perceptual development and affect vocational choices later in adulthood (Ruben, 2000).

Prevention, early identification and early intervention of communication disorders are important to alleviate the impact of the communication disorders (Campbell, 2004) and should be a high priority in addressing the growing burden of communication disorders. Due to lack of manpower, especially in rural areas, speech therapy and audiological services are non-existent. Thus, individuals with communication disorders have several barriers in accessing the rehabilitation services Educating the grass-root level workers and allied professionals about the preventable causes, signs of different communication disorders that help in identification and management guidelines, will prevent the further consequences of the communication disorder. Thus, the orientation program should address all these aspects of communication disorders.

Training/orientation program is the systematic and organized procedure or act of increasing specific knowledge, attitudes, habits or skills of an employee or non-personnel to fulfill a specific purpose or for doing a particular job as well as for preparing to hold future positions (Hart, 1991). The main objective of this program to make aware of the possible causes of communication

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disorders to the target groups and also to facilitate them to prevent and/ or identify the communication disorders at the earliest. Therefore, orientation program becomes the prime necessity to facilitate the proper identification and referral of communication disorders by the allied professionals.

The outcome and effectiveness of any such training/orientation programme can be evaluated. Evaluation of such a program is an integral part which helps to determine the extent to which the objectives are met. Program Evaluation is the systematic collection of information about the activities, characteristics and outcomes of the programs; it assesses program effectiveness and/or informs decision about future programs (Patton, 1997). The type and application of program evaluation methods depend on the mission and goals of the program. Despite its importance, there is evidence that evaluations of training programs are often inconsistent or missing (Carnevale & Schulz, 1990; McMahon & Carter, 1990; Holcomb, 1993). Possible explanations for inadequate evaluations include insufficient budget allocated; insufficient time allocated; lack of expertise; blind trust in training solutions; or lack of methods and tools (McEvoy & Buller, 1990).

Evaluation of training programs is always carried out against their set measurable and observable goals and objectives (Venkatesan, 2012). Generally, the goal is to assess changes in three areas: knowledge, attitude, and behavior. Evaluation information is collected in essentially three ways: questionnaires, interviews, and observation (Lakin, 1971; Hart, 1991). Evaluation can occur prior to the event, during the training, or following the activity. Often, a combination is used. Though less useful for evaluating long-term effects of training, pre- and post-test models can also be used to evaluate the effectiveness of short-term effect of the training (Hart, 1991).

The major objective of this investigation was to effectively educate the allied professionals about their contribution in prevention, identification of communication disorders; and, referral of persons with disabilities to the speech and hearing professionals for a detailed evaluation and management. The target participants were students from Masters in Social Work since their arena of practice encompasses direct practice, group work, community development, policy practice, research and advocacy. This group of professionals practice in hospitals, schools, child welfare agencies, mental health agencies which would constitute of a significant number of persons with disabilities. They have played an important role in the development of anti-discrimination legislation, policies that support persons with disability and the development of disability programs. Also, they work in conjunction with people having disabilities and families to realize social inclusion, community living, employment, family support, and rehabilitation (International Federation of Social Workers, 2013). Thus, the students of social work were chosen for the purpose of sensitization.

The training/orientation program was intended to educate students from Masters in Social Work about their role in prevention, identification of communication disorders, immunization/ vaccinations for infants, adolescent girls and expectant mothers against infectious diseases such as measles, mumps, meningitis, rubella - which are directly linked to communication disorders; and various acts/regulations for persons with disability in India. The orientation program also intended to teach them to determine whether a given person/infant is at-risk for communication disorders and to provide appropriate referrals.

To determine the impact or effectiveness of the program and to assess the knowledge gained by the participants due to the orientation program, a pre-/post-test interventional study design was used. The pre-test attempted to quantify the baseline knowledge of target group and the post-test attempted to assess the impact of the orientation program. This was done by utilizing the traditional pre-test post-test approach, in which ten multiple choice questions were given before and after the orientation program. In the qualifier approach, a qualifier question of "Are you guessing" was included. If the answer to this question was "yes", then the answer was considered as incorrect while scoring (Barge, 2007).

Hence, the present study was undertaken to find out the efficacy of the orientation program on prevention, identification and management of communication disorders through Traditional and Qualifier approaches.

Method

The current study used a pre-test, post-test controlled interventional design under the broad category of evaluation research.

Participants: The participants for the study were post-graduate students of MSW (Masters of Social Work) from a recognized university. Two separate groups of participants were included, one in each phase of the procedure. There were 26 participants in Phase I and 20 participants in the Phase II of the study.

Material: Orientation lecture in English on Prevention, early identification and management of communication disorders. Power point presentation with picture illustrations was used. Video clippings of different communication disorders were included in Phase II. A test material with ten Multiple Choice Questions (MCQs), covering different aspects of the orientation, was provided to the participants before and after the orientation program.

Procedure: The orientation program was conducted in English, in two phases, by a qualified audiologist and a speech language pathologist. In both the phases, the program was supplemented with the power point presentation. Prior to the orientation lecture, a Multiple Choice Questionnaire (MCQ) was administered which consisted of ten questions on prevention, identification and rehabilitation of communication disorders. The questions were checked by two qualified professionals for its simple and unambiguous nature, so that it was easy for the participants to comprehend the questions (Appendix 1). Each MCQ had four options, out of which three were distracters and one was the correct answer. Out of the ten questions one question (Q3) had two correct answers, which got 0.5 weightage while scoring. The questions were framed such that it did not require too much of memorization of detail but rather focused on whether the participants have learned concepts and related facts.

The questionnaire consisted of ten questions out of which three each were on prevention (Q3, Q4, Q6), identification (Q2, Q5, Q8), and rehabilitation (Q1, Q7, Q9) communication disorders respectively; and one question (Q10) focused on the role of the target participants in dealing with people having disabilities. Before the questionnaire was administered, the participants were instructed to circle the correct answer/answers and put a tick mark (√) against the qualifier question as either "Yes, I know the answer" or "No, I am guessing" for each question.

The orientation program focused on prevention, identification and rehabilitation of communication disorders; the role of social workers for referral purpose and team work in management. A power point presentation was used with many visual illustrations for understanding of the concepts better. The duration of the lecture was two hours. The lecture was followed by visits to relevant clinical departments at the All India Institute of Speech & Hearing. The participants were instructed to ask questions or interact during the program, if any concept was not clear. The response from the group of participants in Phase I gave a feedback on the modifications required for in the orientation program. These modifications were incorporated before conducting the Phase II on a separate group of participants.

Phase I: An overview of the orientation program and the structure of the program were told to the participants. The questionnaire that was constructed and was administered on 26 participants prior to (pre-test) and after (post-test) the orientation program, to derive the knowledge gained due to the orientation program and also to study the short-term impact of the orientation program. The pre-test was given before the orientation program and the same set of questions (post-test) was provided when the orientation program was concluded. The participants were asked to provide their names to compare their pre-test and post-test scores.

Phase II: The Phase II of the study consisted of a separate group of 20 participants. The program was conducted by the same Audiologist and Speech Language Pathologist to maintain consistency across the two phases. The purpose of conducting phase II on another group of participants was to find any differences in the results after refinement of the teaching methods on the concepts surrounding the questions, which were not clearly understood in Phase I. A number of additions in the orientation program conducted were made such as inclusion of video clippings, change in the teaching methods to obtain better results in Phase II. Unlike in Phase I in which the names of the participants were used to match the pre-and post-test, the participants in the Phase II were asked to provide their date of birth and last four digits of their cell phone numbers to match the pre- / post- test scores. Thus, their identity was kept confidential during the process of evaluation. However, the procedure and the analysis of results remained the same as in Phase I.

Scoring: The questionnaire as mentioned consisted of 10 questions, each question carrying one mark. Therefore, the maximum score was 10. Each correct answer was given a score of 1 and each incorrect answer was given a score of zero. In a question which had two correct answers, a score of 0.5 was given for each correct answer. The analysis was done in two ways. In Traditional approach, the answers are scored based on number of correct answers excluding the qualifier question (Guess: yes/no). On contrary, in qualifier approach, each correct answer was assigned one mark or half-mark (in case of two correct options for the same question). This was done only when

they were put a tick (√) mark for "Yes I know the answer"; whereas a score of zero was awarded if they "guessed" ("No, I am guessing") the answer.

The Qualifier approach in the pattern of MCQs allowed the participants to satisfy their need to answer all the questions while giving the instructor additional information on whether the answer was a lucky guess or whether they were applying the knowledge previously gained. Any question where the participant indicated that they were guessing was counted as incorrect and was given a score of „0"in the qualifier approach. Thus, in qualifier approach the chance factor was eliminated. The scores were then converted to percentages for further analysis. The post- versus pre-test score differences were taken as indication of knowledge gain or loss, depending on the scores, due to orientation program. The data were fed into the SPSS version 16.0 and used for analysis in order to find out the significant difference in pre- and post- testing, if any.

Results and Discussion

The Shapiro-Wilk's test of normality was used to know if the scores obtained on the pre-and post-tests in Phase I and Phase II were normally distributed. Table 1 shows the p values for each dependent variable under each test conditions. The p values are greater than 0.05 for all the dependent variables for the two conditions. Therefore, it can be assumed that the data represent the sample from normal distribution. Since the results showed that the groups were normally distributed, parametric tests were administered.

Table 1: Normality-test statistic (W) and p-values of Shapiro-Wilk's test for each dependent variable under pre- and post-test, in Phase I and Phase II.

Orientation Program	Conditions	Traditional approach		Qualifier approach	
		W	P	W	p
Phase I	Pre-test	0.9	0.1	0.2	0. 9
	Post-test	0.9	0.2	0.0	0.9
Phase II	Pre-test	0.9	0.4	0.9	0.1
	Post-test	0.8	0.1	0.8	0.2

Descriptive statistics was done on the test scores obtained during pre- and post-orientation program, under both traditional and qualifier approaches, in Phase I and Phase II in order to obtain the mean, median and standard deviation. The results are outlined in Table 2.

Table 2: Mean, median and standard deviation (SD) values of test scores (Maximum Score-10) obtained during pre- and post-test of the orientation program, under traditional and qualifier approaches, in Phase I and Phase II.

Orientation Program	Condi-tions	Traditional approach			Qualifier approach		
		Mean	Median	SD	Mean	Median	SD
Phase I	Pre Test	4.7	4.5	1.6	2.0	1.5	1.9
	Post Test	6.6	7.2	1.7	6.0	6.0	1.8
Phase II	Pre Test	4.8	5.2	2.2	2.3	2	1.7
	Post Test	7.9	8.5	1.7	7.8	8.5	1.7

From Table 2, it can be inferred that as expected, the mean post-test scores of the orientation program was greater than the scores obtained in pre-test condition. This was true for both traditional and qualifier approaches, in Phase I and Phase II of the orientation study. Further, the differences between the scores obtained before and after the orientation program under the two approaches, in both Phase I and Phase II, were compared. The results revealed that the mean difference in scores obtained under qualifier approach is greater than that obtained under the traditional approach, in both Phase I and Phase II (Figure 1).

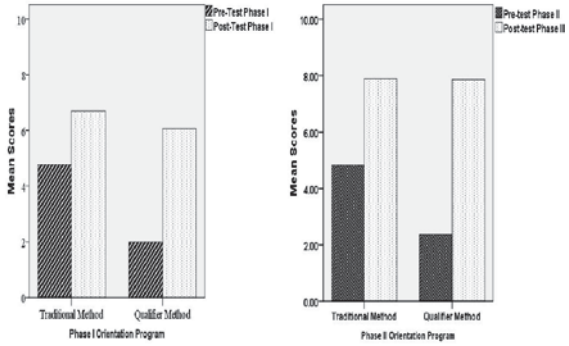

Figure 1: Mean scores for pre- and post- tests obtained under traditional and qualifier approaches, in Phase I and Phase II of the study.

Table 3: Mean and standard deviation (in brackets) of the difference scores (Post-minus Pre) under both traditional and qualifier approaches, in Phase I and Phase II.

Orientation program	Mean different of pre- and post-test scores	
	Traditional approach	Qualifier approach
Phase I	2.0 (1.2)	4.1 (1.9)
Phase II	3.2 (1.4)	5.4 (2.0)

Descriptive statistics as depicted in Figure 1 reveals a difference in score between the pre- and post- tests. The qualifier approach reveals a greater impact of the orientation program. To know if this difference was significant, paired samples t-test was done. The pair-wise comparison was done between pre-test scores and post-test scores computed using the two approaches, i.e., traditional and qualifier, in both Phase I and Phase II. Details of the paired sample t-test are shown in Table 4. The paired samples t-test revealed a significantly higher post-test score, under traditional and qualifier approaches, in both the phases of the orientation program.

Table 4: t-values, degrees of freedom (df) and the level of significance (p) for the pair-wise comparison of test scores between pre- and post-test, under two approaches, in Phase I and Phase II.

Orientation Program	Approaches	t- value	df	Sig. (2 tailed) p value
Phase I	Traditional	-6.6	25	0.00
	Qualifier	-9.8	25	0.00
Phase II	Traditional	-7.7	19	0.00
	Qualifier	-13.0	19	0.00

Results in Table 5 show the percentage of participants who gave correct answers using the traditional compared to the qualifier approach. Under the traditional approach, an average 50% in Phase I (Table 5) and 53% in Phase II (Table 6) of the participants scored correctly for the 10 questions in pre-test, whereas the post-test results showed an average of 70% in Phase I (Table 5) and 86.5% in Phase II (Table 6). Thus, there is 20% and 33.5% increase in the number of participants who gave correct answers due to the orientation program in Phase I and Phase II respectively.

In the qualifier approach, the number of participants scoring correct answer in the post-test was 63% and 83% when compared to their pre-test score of 19% and 23.5% in Phase I and Phase II respectively. Thus, in the qualifier approach, the actual impact of knowledge gained by the participants from the orientation program becomes 44% in Phase I and 59.5% in Phase II. Whereas, in the traditional approach, there is only 20% of participants who gained knowledge from the orientation program in Phase I and 31.5% in Phase II (Table 5 and 6).

Therefore, the qualifier approach is the better approach to assess the effectiveness of the orientation program compared to traditional approach. Alliger and Horowitz (1989) have noted a 15% difference in the knowledge gained measurement when comparing the qualifier approach to the traditional approach. Also, a 52% difference was seen in pre-/post-testing during six Soil Fertility Workshops (Barge, 2007). These two studies also complement the employment of qualifier approach in evaluating the knowledge gained by the participants.

A study done by Venkatesan (2012) investigated the evaluation of sensitivity training program on academic problems. The mean pre-test score was 22.89 (N-564) whereas post-test score 24.27 (N-548). This was done utilizing the traditional approach. If the qualifier approach was utilized in the study, then the difference between the pre- and post- test scores would have been enhanced.

Table 5: Percent of correct answer for each question in pre- and post-test conditions using traditional and qualifier approaches, in Phase I (N=26)

Question	Pre-Test Results			Post-Test Results		
	Traditional	Qualifier		Traditional	Qualifier	
	% of correct answers	% of correct answer, & Selecting "Knew"	% of correct, & selecting "Guess"	% of correct answers	% of correct answer, & selecting "Knew"	% of correct, & selecting "Guess"
Q1	42	19	23	92	88	4
Q2	73	50	23	100	92	7
Q3	58	12	46	61	57	4
Q4	42	15	26	54	50	4
Q5	53	19	34	84	76	8
Q6	73	26	46	81	77	4
Q7	38	11	27	61	46	15
Q8	30	7	23	57	46	11
Q9	38	11	27	42	35	8
Q10	58	23	34	65	62	8
Average	50	19	31	70	63	7

Table 6: Percent correct answer for each question in pre- and post- test conditions using traditional and qualifier approaches, in Phase II (N=20).

Question	Pre-Test Results			Post-Test Results		
	Traditional	Qualifier		Traditional	Qualifier	
	% of correct answers	% of correct answer, & Selecting "Knew"	% of correct, & selecting "Guess"	% of correct answers	% of correct answer, & selecting "Knew"	% of correct, & selecting "Guess"
Q1	40	10	30	85	85	0
Q2	75	45	30	95	95	0
Q3	55	20	35	80	75	5
Q4	55	15	40	70	65	5
Q5	55	35	20	95	90	5
Q6	70	25	45	100	85	15
Q7	30	5	25	85	85	0
Q8	65	40	25	85	85	0
Q9	20	5	15	90	85	5
Q10	65	35	30	80	80	5
Average	53	23.5	29.5	86.5	83	3.5

The qualitative factor that can be measured from the qualifier approach is reduction in guess work after orientation. Guessing whether the answer was correct or incorrect was reduced from 31% pre-test average to a 7% post-test average in Phase I (Table 5) and from 29.5% to 3.5% in Phase II (Table 6). The orientation program significantly increased the participant's confidence in answering correctly during the post-test, in both phases of the study.

Evaluating the individual question results in Table 7 also provides valuable feedback to the instructor/s as they refine teaching methods in the orientation programs for future audiences. In Phase I, the area represented in Q2 generated the highest percentage under correct "Knew" in the pre-test condition, and hence may require less time to teach the content, as the 50% of the target group already knew the answer. Whereas, Q7 and Q9 generated a low correct "Knew" percentage of 11% on the pre-test and also a lower post-test score of 46% (Q7) and 35% (Q9). Thus, it may require more time or a different teaching method, such as utilizing visuals/video clippings, to explain the concepts surrounding this question. Also, the pre-test and post-test score for Q1 was 19% pre-test and 88% respectively, which explains that the issue addressed in Q1 has very well reached the target group and the participants got the concept right in Phase I of the study.

Similarly, in Phase II, Q2 obtained highest correct "Knew" percentage of 45% in pre-test. On the other hand, both Q7 and Q9 generated a low pre-test percentage of 5% and a post-test score of 85% under correct "Knew" category.

Table 7: Summary of incorrect responses when the participants indicated they 'knew' the correct answer, in Phase I and Phase II.

Question	Phase I		Phase II	
	Pre-test	Post-test	Pre-test	Post-test
	% Incorrect Selecting "Knew"	% Incorrect Selecting "Knew"	% Incorrect Selecting "Knew"	% Incorrect Selecting "Knew"
Q1	23	7	10	5
Q2	4	0	5	0
Q3	38	31	10	5
Q4	46	27	25	15
Q5	30	8	25	5
Q6	15	8	10	0
Q7	31	15	10	5
Q8	35	19	10	5
Q9	58	23	25	0
Q10	19	8	10	5
Average	30	15	14	4.5

Note: Selecting "Yes, I know the answer" even when the answers were incorrect.

Hence, the difference in the post-test percentage scores of Phase I and Phase II of the study for both Q7 andQ9 is 50%. In other words, 17 participants have clearly understood the concept surrounding the Q7 and Q9in Phase II compared to only 9 participants in Phase I. The difference in the scores is attributed to the teaching method being incorporated by the presenter for Q7 in Phase II of the study. Since the Q7 was based on the disability acts, more time was allotted in teaching the facilities that can be availed by a person with disability. A short interactive session was conducted in which the participants asked

questions and clarified their queries regarding the acts mentioned. For Q9, videos were projected on the dysfluencies seen in a person with stuttering before and after the fluency shaping therapy. Thus analytical evaluation of the responses of the participants in Phase I helped in improving the effectiveness of the orientation program in Phase II.

The qualifier approach also helps to identify areas that initially seemed to receive equal emphasis but the guessing qualifier shows a difference in confidence the participants have in their answer. In Phase I, the percentage post-test scores of Q3 and Q7 are same (61%, 16 out of 26) by the traditional approach (Table 5). But, using the qualifier approach there is a substantially lower confidence in the Q7 answers (15%) when compared to Q3 (4%). In other words, 4 participants out of 16 who answered right for Q7 were guessing whereas only 1 participant guessed in Q3. Similarly in Phase II, Q3 and Q10 had same post- test scores in traditional approach (80%, N-16 out of 20 participants). Whereas, in the qualifier approach 15 participants are certain of the answer and 1 amongst the 16 participants is guessing for Q3 and all 16 participants were sure of the answer for Q10 by the end of the Phase II of the study.

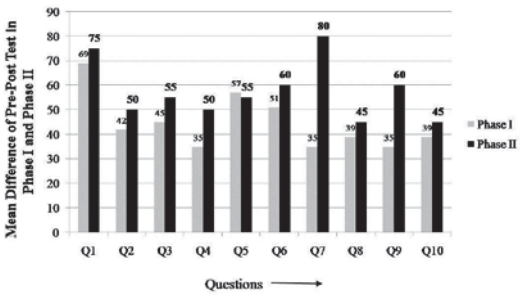

Figure 2: Question-wise score in percentage for the mean difference between pre- and post-test, in Phase I and Phase II

Another factor that can be evaluated with the qualifier approach is the number of participants who gave an incorrect answer but indicated they were not guessing at the answer ("incorrect selecting Knew"). Table 7 highlights the results of this comparison. In Table 7, several questions generated a greater number of incorrect scores but a "Knew" response in pre-test. However, this number of incorrect answers with a "Knew" response was considerably reduced in the post-test scores of both Phase I and Phase II. It could be argued that correcting incorrect knowledge would be a more important result of the orientation program than just the increased percentage of correct responses.

Concepts in Q9 generated a 35% (N-9 out of 26) Correct "Knew" (Table 5) and 23% (6 out of 26) incorrect "Knew" (Table 7) on the post-test, in Phase I. In Phase I, it could be concluded that the teaching method needed to be changed because 6 participants learnt the concepts surrounding Q9 incorrectly whereas 11 did not learn the concepts being taught related to this question. After the modifications in the teaching methods in Phase II, Q9 generated a 85% (N-17 out of 20) Correct "Knew" responses (Table 6), 0% "incorrect Knew" (Table 7) and 3 participants did not learn the concept on the post-test.

Hence, the number of incorrect answers with a "Knew" response was considerably reduced in the post-test scores of both Phase I and Phase II, but to greater amount in Phase II when compared to Phase I. The question-wise mean difference of pre- post- test scores in Phase I and Phase II is depicted in Figure 2. Such kind of analytical evaluation will really help to improve the quality of the program. However, while interpreting the results, it should be kept in mind that the participants were different in Phase I and II of the study.

Summary and Conclusions

The current study aimed to investigate the efficacy of the orientation program on prevention, identification and rehabilitation of communication disorders. The program utilized a pre-and post- test interventional design using a multiple choice questionnaire of 10 questions. The program was conducted in two phases, viz., Phase I and Phase II with 26 and 20 participants respectively. Based on the post-test score of Phase I, teaching techniques were refined to increase the knowledge gained in Phase II. The data were analyzed using traditional and qualifier approaches.

Using the qualifier approach, the actual impact of the orientation program on the participants could be assessed better when compared to the traditional approach. The number of participants scoring correct answer in the post-test was 63% and 83% when compared to their pre-test score of 19% and 23.5%, in Phase I and Phase II respectively.

The qualitative factor of increase in confidence in the knowledge is another impact that can be measured from the qualifier approach. Guessing as to whether the answer was correct or incorrect was reduced from 31% pre-test average to a 7% post-test average in Phase I; whereas, it was reduced from 29.5% to 3.5% in Phase II.

The qualifier approach enables to evaluate the individual question and provides valuable feedback to the instructor(s) as they help in refining the teaching methods in the orientation programs for future target groups.

Another factor that could be evaluated with the qualifier approaches the number of participants who gave an incorrect answer but indicated they were sure of the answer. This approach will give the instructor feedback on correcting the incorrect knowledge of the participants. In Phase I, the teaching method needed to be because 6 participants learnt the concepts surrounding Q9 incorrect; whereas 11 did not learn the concepts being taught related to this question. After the modifications in the teaching methods in Phase II, Q9 generated a 85% (N-17 out of 20) Correct "Knew" responses, 0% "incorrect Knew" (Table 7) and 3 participants did not learn the concept on the post-test.

Therefore, this study highlights the necessity of such evaluation of the orientation programs to improve the impact of the orientation program. Also, such orientation programs will aid the professionals or resource persons in refining their teaching techniques during the orientation and dissemination of the knowledge to different target groups.

Directions for future research: The study can be replicated by including the follow-up paradigm on the same target groups over a period of time to ascertain the long-term retention of knowledge and assure that training was applied at the work site.

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Appendix 1

All India Institute of Speech & Hearing

DEPARTMENT OF PREVENTION OF COMMUNICATION DISORDERS (POCD)

Pre-post efficacy form

1. The Government of India provides free body level hearing aids through the ADIP scheme to persons with hearing loss who are
   a. Below poverty line
   b. Above 50 years of age
   c. In rural areas
   d. Socially backward

Yes, I know the answer	No, I am guessing

2. Whom do you consult, if you are suspecting a hearing problem?
   a. Psychologist
   b. Audiologist
   c. Psychiatrist
   d. Family doctor

Yes, I know the answer	No, I am guessing

3. Which among the below is the cause for Voice disorders?
   a. Excessive water consumption
   b. Vocal abuse and misuse
   c. Speaking slowly and softly
   d. Excessive gargling

Yes, I know the answer	No, I am guessing

4. Which among the following is the risk factor that can lead to hearing loss?
   a. Inter religious marriages
   b. Exposure to ultraviolet radiations during pregnancy
   c. Attack of rubella during pregnancy
   d. Lifting heavy objects during pregnancy

Yes, I know the answer	No, I am guessing

5. How early can hearing loss be identified?
   a. 2 years
   b. 5 years
   c. At birth
   d. After schooling

Yes, I know the answer	No, I am guessing

6. The cancer of larynx can be caused due to excessive
   a. Stress
   b. Injuries to the larynx
   c. Consumption of tobacco and alcohol
   d. Faulty medications

Yes, I know the answer	No, I am guessing

7. Which of the following acts is catering to the equal participation and protection of rights of Persons with Disability?
   a. CPA 1986
   b. NSA 1980
   c. WLPA 1972
   d. PWD

Yes, I know the answer	No, I am guessing

8. Speech and Language Disorders affect learning and academic performances at school
   a. Strongly agree
   b. Partially agree
   c. Disagree
   d. Strongly disagree

Yes, I know the answer	No, I am guessing

9. Stuttering can be treated through
   a. Adopting coping mechanisms
   b. Fluency shaping therapy
   c. Escaping fearful situations
   d. Increasing the rate of speech

Yes, I know the answer	No, I am guessing

10. Which among the below is **NOT** addressed by the Social worker for Persons with Disability?
    a. Creating a barrier free environment
    b. Rebuilding person's relation with community and integrate into society
    c. Providing speech language therapy services
    d. Referral of the cases for professional help

Yes, I know the answer	No, I am guessing