A Study to Assess the Effectiveness of Self Instructional Module Regarding Dyslexia and Davis Dyslexia Correction Method among Primary School Teachers in Selected Schools at Bangalore, Karnataka.

Visanth V S,
Professor, Sherwood College of Nursing, Barabanki, Uttar Pradesh

Abstract:- Dyslexia refers to a difficulty in learning to read in a person who has good intelligence, strong motivation, and who has received appropriate teaching. School teachers can easily identify and take corrective measures for this type of learning disorders. By considering this the researcher investigates the effectiveness of self- instructional module regarding dyslexia and Davis dyslexia correction method among the primary school teachers. The study was conducted among primary school teachers at Bangalore. Pre-experimental one group pre-test post-test design is used and the data collection is done by structured knowledge questionnaire.

The paired t-test was carried out and it was found to be invariably significant at P< 0.05 level. It is evident that the Self Instructional Module is significantly effective on improving the knowledge regarding dyslexia and Davis Dyslexia correction method among primary school teachers.

Keywords:- Effectiveness, Self-Instructional Module, Dyslexia, Davis Dyslexia Correction Method, Knowledge, Primary School Teacher.

I. INTRODUCTION

As soon as the children enter the school, a key goal is learning to read, to enable lifelong reading to learn. Teachers accept this as one of their key roles and can receive training and resources to help in this endeavor. Dyslexia is one of the most widely known learning difficulties. [5]These children have problems differentiating between "b/d, j/g, 21/12" as well as problem reversing such letters. A person may read the word, "lice," as, "ice" or as, "like." The person may realize that these are incorrect, but cannot read those words correctly. Some dyslexics do better by moving their finger along the outline of a word or, by tracing the letters in the air.

Objectives of the study

1. To assess the knowledge of primary school teachers regarding dyslexia and Davis dyslexia correction method in terms of pretest knowledge scores.
2. To determine the effectiveness of self-instructional module regarding dyslexia and Davis dyslexia correction method by comparing the pretest and posttest scores.
3. To associate the pretest knowledge regarding dyslexia and Davis dyslexia correction method among the primary school teachers with their selected demographic variables.

Research Hypothesis

H_1: There is a significant difference between the mean pre-test and post-test knowledge scores.

H_2: There is a significant association between pre-test knowledge scores with selected demographic variables.

II. CONCEPTUAL FRAMEWORK

Concepts are images, abstracts, picture or mentally formed real world observation of things, objects or events that an individual experiences. A conceptual model or conceptual framework broadly explains phenomena of interest, expresses assumption and reflects a philosophical stance.

The conceptual framework is developed by the investigator based on Imogene King's goal attainment theory. According to Imogene King "If nurse are to assume the role and responsibilities expected of them, the discovery of knowledge, the system as a whole and all activities can be resolved into aggregation of circuits such as interaction, perception and transaction."

Perception: Perception is 'each person's representation of reality". In this study, it refers to the exploring information, energy and transforming by assessing the pre-test and post-test knowledge of the primary school teachers regarding dyslexia and Davis dyslexia correction method.

Judgment: It refers to the ability to form sound opinions and make sensible decisions or reliable guesses about any situation in a particular situation or event.

Action: It refers to the process of doing something in order to achieve a desirable purpose. In this study action of nurse investigator includes formulation of suitable instructional module for the primary school teachers.

Communication: It is a process whereby information is given from one person to another either directly or indirectly.

Clarification: It refers to make something clearer by explaining it in greater detail. In this study the nurse investigator explains in detail about dyslexia and Davis dyslexia correction method.

Reaction: It refers to a response to something that involves taking action, or an action taken in response to something.

In this study reaction includes assessment of knowledge using structured knowledge questionnaire.

Interaction: Interaction is the process of perception and communication between person and environment, between persons and person, represented by verbal and nonverbal behaviors that are goal directed. In this study, it refers to the communication between the investigator and subject by collecting basic demographic data of the individuals.

Transaction: It is an observable behavior of human beings interacting with that environment. Transactions represent the valuation component of human interactions and involve bargaining, negotiating and social exchange.

Reinforcement: It refers to added support to make something stronger. In this study it refers to an additional support which helps to strengthen and improve the knowledge of the primary school teachers.
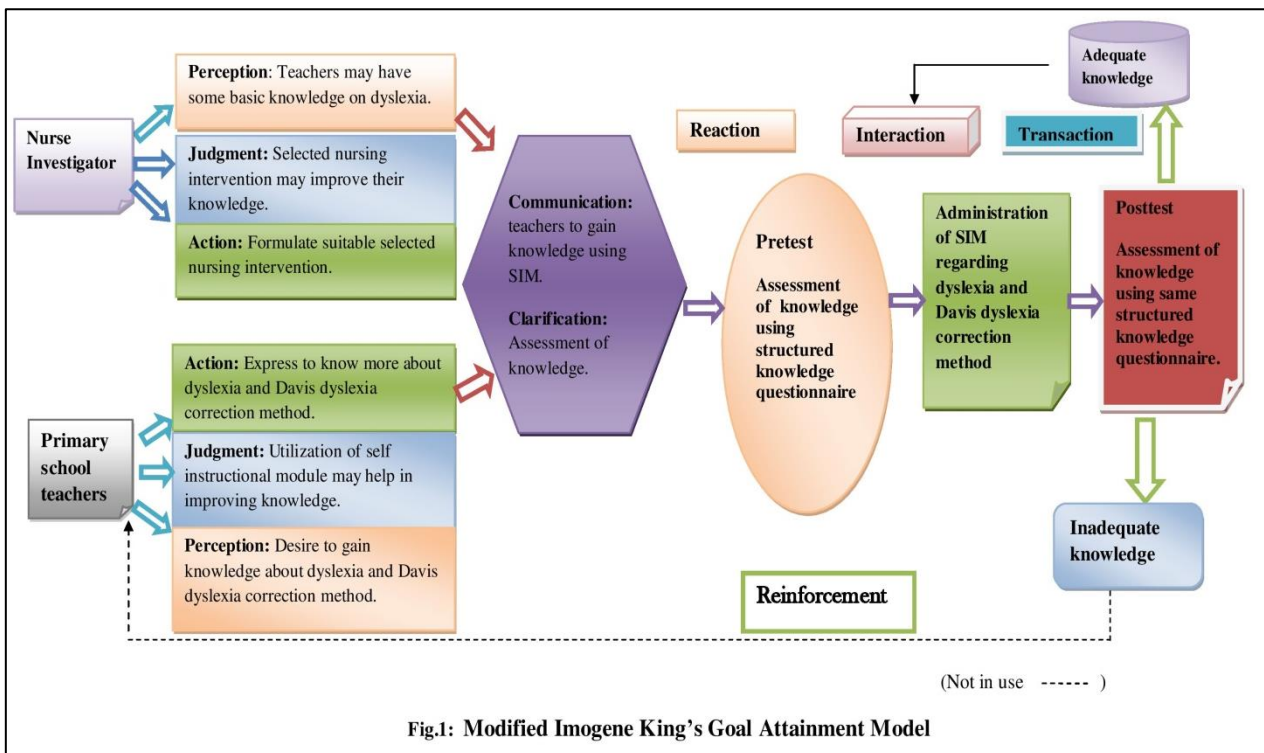

Fig.1: Modified Imogene King's Goal Attainment Model

III. RESEARCH METHODOLOGY

Research Approach:
Qualitative research approach was used to assess the knowledge of school teachers regarding dyslexia and Davis dyslexia correction method.

Research Design:
Pre experimental one group pretest-post-test design is adopted for this study

O$_1$	X	O$_2$
Pretest using structured questionnaire on dyslexia and Davis dyslexia correction method.	Self-instructional module on dyslexia and Davis dyslexia correction method.	Post-test using same structured questionnaire.

Population: The total population of the study comprised of the primary school teachers in selected schools at Bangalore
Sample: The sample size of the present study consists of 40 primary school teachers.

Sampling Technique: Non probability purposive sampling technique was adopted to select the samples

Description of the tool

The tool consists of 2 sections:

Part I: Structured questionnaire for collecting demographic data of the teachers Age, Gender, Educational qualification, Professional experience, Religion, Marital status, Type of family, Place of residence and Sources of information.

Part II: Structured knowledge questionnaire contains 24 questions on knowledge regarding dyslexia and Davis dyslexia correction method (General information about dyslexia (meaning, incidence, signs and symptoms of dyslexia) and about Davis dyslexia correction method.

Development of Self Instructional Module (SIM)

The Module was prepared on the basis of information obtained during extensive literature. The finalized content was in English and prepared as a Booklet.

IV. RESULTS

Objective 1: To assess the knowledge of primary school teachers regarding dyslexia and Davis dyslexia correction method in terms of pretest knowledge scores.

TABLE.1.Percentage and frequency distribution of knowledge score before SIM **N=40**

Level of Knowledge	Classification of Respondents	
	Pre test	
	Number	Percentage
Adequate(> 75 %)	2	5%
Moderate (51-75%)	20	50%
Inadequate (< 50%)	18	45%

The above table shows that only 2 teachers (5%) have adequate knowledge, 20 (50%) have moderate knowledge and 18 (45%) have knowledge regarding dyslexia and Davis dyslexia correction method among primary school teachers in selected schools at Bangalore.
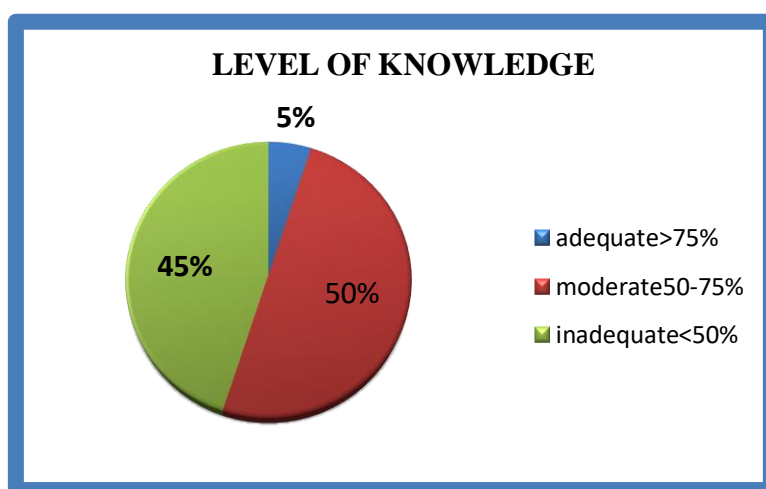

Figure 2: Distribution of level of knowledge before SIM.

Table 2 Overall Knowledge score before SIM

Sl: No	Aspects	Statements	Max Score	Score range	Knowledge Score		
					Mean	SD	Mean %
1.	Over All	24	24	5-20	11.55	3.36	48.12%

The table 2 shows primary school teachers overall knowledge regarding dyslexia and Davis Dyslexia correction method. The Knowledge score in overall before SIM is 11.55 in mean 3.36 in S., D 48.12% in mean percentage.
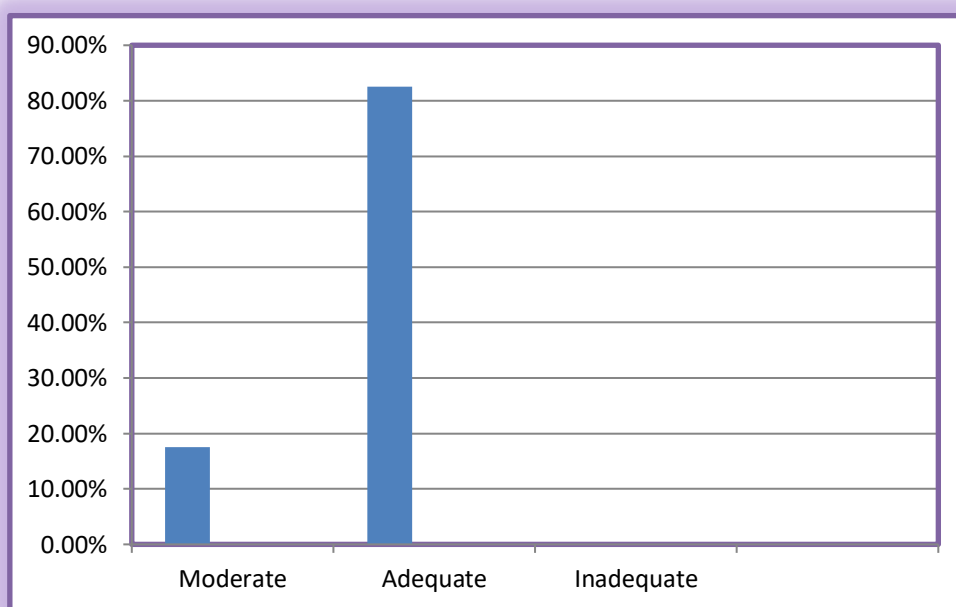
Objective 2: To determine the effectiveness of self-instructional module regarding dyslexia and Davis dyslexia correction method by comparing the pretest and posttest scores.

Table–3: Percentage and frequency distribution of knowledge score after SIM   N=40

Level of Knowledge	Classification of Respondents	
	Post test	
	Number	Percentage
Adequate (>75%)	33	82.5
Moderate (51-75%)	7	17.5
Inadequate (<50 %)	0	00.0

Table 3 shows that 33 (82.2%) of the teachers acquired adequate knowledge, 7 (17.5%) of the respondents had moderate knowledge and none of the respondents had inadequate knowledge in the posttest.

Table 2 reveals that Knowledge score in overall is 20.12 in mean 2.56 in S. D 83.83% in mean percentage after SIM.

Figure: 3: Distribution of knowledge level after SIM.

Table.4 Knowledge score after SIM

Sl: No	Aspects	Statements	Max Score	Score range	Knowledge Score		
					Mean	SD	Mean %
1.	Over All	24	24	14-24	20.56	2.56	83.83%

Table 4 shows that after pretest and post-test there is 13.3% gain in knowledge, in incidence there is 38.3% gain in knowledge, in cause 37.7% gain in knowledge in clinical manifestation there is 30.6% gain in knowledge., in management there is 40.67% gain, in correction method there is 36.43% gain and in over all there is 35.71% gain

Table 5: Gain in Knowledge after SIM

Sl: No	Aspect of Knowledge	Maximum Possible Score	Pretest		Posttest		Gain in Mean Score
			Mean	Mean Score%	Mean	Mean Score%	
1.	Over All	24	3.36	48.12	20.12	83.83	35.71

Table 6 shows the mean pre and post -test knowledge regarding dyslexia and Davis dyslexia correction method. The paired t-test was carried out and it was found to be significant at $P < 0.05$ level, hence null hypothesis (H_{01}) is rejected and research hypothesis (H_1) was accepted. It is evident that the Self Instructional Module is significantly effective on improving the knowledge regarding dyslexia and Davis Dyslexia correction method among primary school teachers.

Table 6: Effectiveness of SIM

Sl: No	Aspect of knowledge	Pre Test		Post Test		Paired 't' Value	P value
		Mean	S.D	Mean	S.D		
1.	Over All	11.55	3.36	20.56	2.56	12.98	P<0.05

Objective 3: To associate the pretest knowledge regarding dyslexia and Davis dyslexia correction method among the primary school teachers with their selected demographic variables.

The result of the Chi-square ($\chi 2$) analysis indicates that there is no significant association between knowledge score with selected demographic variables of primary school teachers.

The association between socio-demographic variables and pre-test knowledge score is observed as age (0.068), gender (0.28), educational qualification (9.07), professional experience (1.04), religion (1.5), marital status (0.014), type of family (1.23), place of residence (0.34), and source of information (2.27).

V. CONCLUSION

➢ The overall knowledge score of primary school teachers before SIM is 48.12% and after SIM is 83.13.
➢ It is evident that administration of SIM improves the knowledge of primary school teachers regarding dyslexia and Davis dyslexia correction method.
➢ The finding of the study statistically shows that there is no significant association between the knowledge scores and with the selected demographic variables at 5% level.

RECOMMENDATIONS

1. A similar study can be undertaken by utilizing other domains like attitude and practice.
2. A descriptive study may be conducted to describe all the aspects dyslexia and Davis dyslexia correction methods.
3. An explorative study may be conducted to identify the awareness, knowledge, practice and attitude among teacher's regarding dyslexia and Davis dyslexia correction methods.
4. A similar study can be conducted to identify the awareness, knowledge, practice and attitude among parents regarding dyslexia and Davis dyslexia correction methods.

REFERENCES

[1]. Trieman R, Mullennie J, Bijeljac babic R. The Special role of rimes in the description, use and acquisition of English orthography, Journal of Experimental psychology, General 124,7-136, 1995.
[2]. OECD, Equally Prepared for Life? How 15 year old boys and girls perform in school (OECD, Paris 2009)
[3]. Sanders.M (2001), Understanding Dyslexia and the Reading process. Needham heights, MA: Allyn and Bacan.
[4]. Vallutino. F. R, Fletcher J. M, Snowling M J. Specific reading disability: what have we learned in the past four decades? Journal of child psychology and psychiatry, 45(1). 2004
[5]. Lee Laid Wah. Understanding dyslexia in Malaysia from the parent's perspective. Proceedings of Hawaii international conference on education university of Hawaii, Wesh Oahu. 2004; Jan 3- 6.
[6]. Stephen M. Kosslyn and Oliver Koeuig. Wet Mind: The New Cognitive Neuroscience, New York, The Free Press: 1990; p.185-207.
[7]. Simpson, S. () 'Dyslexia: A Developmental Language Disorder', Child: Care, Health and Development, 2000; vol 26(5): p. 355–80.
[8]. URL:www.bda.dyslexia.org.uk
[9]. Gregor, P. Dickinson, A. Macaffer, A. and Andreasen, P. 'SeeWord–A Personal Word Processing Environment for Dyslexic Computer Users', British Journal of Educational Technology, 2003; 34(3):p. 341–55.
[10]. Joshi, R. M., Dahlgren, M. and Boulware-Gooden, R. 'Teaching Reading in an Inner City School through a Multisensory Teaching Approach', Annals of Dyslexia, 2002;52,:p 229–42.URL: http://www.pubmed.com
[11]. Amos, J. 'Promoting Dyslexia Friendliness in East Sussex Schools'. Paper presented at the Sixth BDA International Conference, University of Warwick:14March, 2007
[12]. Tsovili, T. D. 'The Relationship Between Language Teachers' Attitudes and the State-Trait Anxiety of Adolescents with Dyslexia', Journal of Research in Reading, 2004; 27(1) :p.69–86.:URL: http://www.pubmed.com