REVIEW OF RESEARCH
IMPACT FACTOR : 5.2331(UIF) UGC APPROVED JOURNAL NO. 48514 ISSN: 2249-894X
VOLUME - 7 | ISSUE - 8 | MAY - 2018

DEVELOPMENT OF A TEST TO MEASURE E-RESOURCES KNOWLEDGE (EKT)

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ABSTRACT:

An electronic resource is defined as a resource which require computer access or any electronic product that delivers a collection of data, be it text referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim to being marketed. In this research paper an attempt has been made to construct and standardize the E- Resources knowledge test to measure E- Resources knowledge, as there is no suitable questionnaire available to measure the E- Resources knowledge.

KEYWORDS : *electronic resource , electronic journals, image collections.*

INTRODUCTION

Advances in computer applications during the past few decades have brought radical changes in the way information is gathered, store, organized, accessed, retrieved and consumed. The application of computers in information processing has brought several products and services to the scene. The Internet and the Web are constantly influencing the development of new modes of scholarly communication; their potential for delivering goods is quite vast, as they overcome successfully the geographical limitations associated with the print media. Further, the distribution time between product publication and its delivery has been drastically reduced. The Internet can be used for efficient retrieval and meeting information needs. This is very important for university libraries since most of them call for more and more research work. This important fact is convincing many libraries to move towards digital e-resources, which are found to be less expensive and more useful for easy access. This is especially helpful to distant learners who have limited time to access the libraries from outside by dial-up access to commonly available electronic resources, mainly CD-ROM, OPACs and Internet, which are replacing the print media. If there is any lagging found, it's the appropriate time to promote the knowledge about the E-Resources. As yet there seems to be no questionnaire for assessing E-Resources knowledge in Tamil Nadu.

E-RESOURCES KNOWLEDGE TEST

Hence, the investigator decided to construct a test to assess E-Resources knowledge. In order to construct the test the investigator collected a variety of information regarding E-Resources form the experts and other sources, Based on that as many as 84 multiple choice questions covering the following dimensions were coined:

1. E-Books
2. E-Journal
3. E-Thesis
4. E-Library
5. E-Data bases

6. E-Portfolio
7. E-Governance

There were 10 questions in each of the seven dimensions. The maximum mark for a question is 1 and the minimum mark is 0. Therefore one can get a maximum score of 70 and a minimum score of 0 on this test. After having constructed the aforesaid E-Resources knowledge test the investigator administered this test on a sample of 200 College Students for pilot study in order to carry out the item analysis.

Then all the test papers of 200 College Students were scored carefully and based on the total score, the papers were arranged in the descending order from the highest to the lowest score. Then they were subjected to item analysis.

ITEM ANALYSIS

Item analysis is an important step in the standardization of any test. The two criterion groups with 54 scripts each in the upper (top 27%) and the lower (top 27%) were formed. Then the index of difficulty and the index of discrimination for all the 70 questions were computed.

By convention items with difficulty index higher than 10% or lower than 90% are retained. Similarly, items with index of discrimination above 0.30 are retained. In the present study, only items having index of difficulty in the range of 50% to 80% and index of discrimination ranging from 0.30 to 0.50 were selected. Accordingly 49 items were selected out of 70 items and this constituted the final form of the test. The details of item analysis are given in Table 1.

TABLE 1

ITEM ANALYSIS – INDICES OF ITEM DIFFICULTY & DISCRIMINATION IN PILOT STUDY

S. No	No. of Trainees (54) in the high group who responded correctly	No. of Trainees (54) in the low group who responded correctly	Index of item difficulty	Index of discrimination	Item selected
1	29	09	71	0.37	S
2	25	06	57	0.35	S
3	30	13	80	0.31	S
4	27	09	67	0.33	S
5	33	06	72	0.50	S
6	29	08	69	0.39	S
7	18	09	49	0.16	NS
8	30	20	93	0.18	NS
9	32	10	78	0.41	S
10	32	18	92	0.25	NS
11	32	06	70	0.48	S
12	24	07	57	0.31	S
13	26	08	61	0.33	S
14	34	09	80	0.46	S
15	21	09	55	0.22	NS
16	29	05	63	0.44	S
17	28	05	61	0.43	S
18	20	11	57	0.16	NS
19	31	05	66	0.48	S
20	22	11	64	0.20	NS
21	30	05	65	0.46	S
22	20	07	49	0.24	NS

23	33	09	78	0.44	S
24	29	06	64	0.43	S
25	29	07	67	0.41	S
26	32	11	79	0.39	S
27	27	07	63	0.37	S
28	33	18	94	0.28	NS
29	30	11	78	0.35	S
30	23	10	62	0.24	NS
31	25	08	61	0.31	S
32	30	16	85	0.25	NS
33	24	05	53	0.35	S
34	21	11	60	0.18	NS
35	34	07	76	0.50	S
36	33	07	74	0.48	S
37	27	06	61	0.39	S
38	30	15	83	0.28	NS
39	33	10	80	0.43	S
40	27	05	59	0.41	S
41	31	07	70	0.44	S
42	32	07	72	0.46	S
43	26	09	65	0.31	S
44	30	19	91	0.20	NS
45	28	09	69	0.35	S
46	32	05	68	0.50	S
47	21	12	60	0.16	NS
48	31	16	86	0.28	NS
49	28	06	63	0.41	S
50	31	11	77	0.37	S
51	21	08	53	0.24	NS
52	26	05	57	0.39	S
53	23	06	54	0.31	S
54	34	19	98	0.28	NS
55	34	08	78	0.48	S
56	31	06	68	0.46	S
57	27	08	65	0.35	S
58	31	17	88	0.25	NS
59	23	05	52	0.33	S
60	30	12	78	0.33	S
61	26	06	59	0.37	S
62	28	07	65	0.39	S
63	20	08	52	0.22	NS
64	30	08	71	0.41	S
65	31	08	72	0.43	S
66	20	11	57	0.16	NS
67	30	06	67	0.44	S
68	20	10	56	0.18	NS
69	33	08	76	0.46	S

70	32	09	76	0.43	S

(S – Selected ; N.S – Not Selected)

RELIABILITY AND VALIDITY OF THE TEST

The reliability of the test has been established by using the test-retest method and was found to be 0.63; the intrinsic validity has been calculated by taking the square root of the reliability of the co-efficient, i.e., 0.63= 0.79. Thus from the two co-efficient it may be inferred that this test is highly reliable and valid.

Norms for the E-Resources Knowledge Test

The 'Z' score and the 'T' scores are given in Table 2.

TABLE 2
Z AND T SCORES OF THE SAMPLE ON THE E-RESOURCES KNOWLEDGE TEST

S. No	Raw Scores X	$Z = \frac{X - M}{\sigma}$	T = 10 Z + 50
1	66	0.8682	58.682
2	65	0.7958	57.958
3	64	0.7233	57.233
4	63	0.6509	56.509
5	62	0.5785	55.785
6	61	0.5061	55.061
7	60	0.4337	54.337
8	59	0.3613	53.613
9	58	0.2889	52.889
10	57	0.2165	52.165
11	56	0.1440	51.440
12	55	0.0716	50.716
13	54	-0.0007	49.993
14	53	-0.0731	49.269
15	52	-0.1455	48.545
16	51	-0.2179	47.821
17	50	-0.2903	47.097
18	49	-0.3627	46.373
19	48	-0.4351	45.649
20	47	-0.5076	44.924
21	46	-0.5800	44.200
22	45	-0.6524	43.476
23	44	-0.7248	42.752
24	43	-0.7972	42.028
25	42	-0.8696	41.304
26	41	-0.9420	40.580
27	40	-1.0144	39.856
28	39	-1.0890	39.110
29	38	-1.1593	38.407
30	37	-1.2317	37.683
31	36	-1.3041	36.959
32	35	-1.3765	36.235

33	34	-1.4489	35.511
34	33	-1.5213	34.787
35	32	-1.5937	34.063
36	31	-1.6661	33.339
37	30	-1.7385	32.615
38	29	-1.8110	31.890
39	28	-1.8834	31.66

The percentile norms are presented in Table 3 below.

TABLE 3
PERCENTILE NORMS FORTHE E-RESOURCES KNOWLEDGE TEST

Percentiles	EKT
10	34
20	41
30	45
40	50
50	55
60	58
70	63
80	68
90	73

The final version of the E-Resources Knowledge test has been prepared with the 49 valid items. The maximum possible score will be 49 and the minimum will be zero. Higher the score in the test, greater is the E-Resources knowledge of the candidate.

REFERENCES

Ebel, R.L., Measuring Educational Achievement, New Delhi; Prentice Hall of India (P) Ltd., 1966.

Garrett, H.E., Statistics in Psychology and Education, Hyderabad; International Book, Bureau, 1979.

Guilford, J.P., psychometric Method (2nd Edition) Bombay, Tata Mc Graw Hill Publishing Company Ltd., 1954.

Kaur Amritpal, (2006), Use of E-resources by Teachers and Researchers of the Science and Engineering & Technology Faculties in Guru Nanak Dev University: A Survey. In: NACLIN, P267-285.

Kaur Baljinder & Verma Rama, (2006), Use of Electronic Resources at TIET Library Patiala: A Case Study. ILA Bulletin, V.42, n3,P 18-20.

Renwick Shamin, (2004), Knoweledge and Use of Electronic Resources by Medical Science Faculty at the University of the West Indies. Libri, V. 43, n3, , P58-64.