International Journal of Library and Information Studies
Vol. 6(3) Jul-Sep, 2016 www.ijlis.org ISSN: 2231-4911

APPLICATION OF GARRET RANKING TECHNIQUE: PRACTICAL APPROACH

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Abstract - *This paper discussed about the garret ranking and its calculation methods. To find out the most significant factor which influences the respondent, Garrett's ranking technique was used. With the help of Garrett's Table, the percent position estimated is converted into scores. Then for each factor, the scores of each individual are added and then total value of scores and mean values of score is calculated. Further, it practically explained the user preferences of using e-resources.*

Keywords: Garrett's Ranking, Calculation methods, user preferences

INTRODUCTION

Research Methodology is a way to systematically solvea a problem in the resaerch. It may be understood as a science of study where research is done scientifically. It includes various steps that are generally adopted by a researcher in studying his research problem. According to J.W. Best (1999) "Research is considered to be formal, systematic, intensive process of carrying on the scientific method of analysis. It involves a more systematic structure of investigation usually resulting in some of formal record of procedures and report of result or conclusions

HENRY GARRETT'S RANKING TECHNIQUE

This techniques was used to evaluate the problems faced by the researchers. The orders of merit given by the respondents were converted in to rank by suing the formula. To find out the most significant factor which influences the respondent, Garrett's ranking technique was used. As per this method, respondents have been asked to assign the rank for all factors and the outcomes of such ranking have been converted into score value with the help of the following formula:

$$\text{Percent position} = \frac{100\,(Rij - 0.5)}{Nj}$$

Where

Rij = Rank given for the ith variable by jth respondents
Nj = Number of variable ranked by jth respondents

With the help of Garrett's Table, the percent position estimated is converted into scores. Then for each factor, the scores of each individual are added and then total value of scores and mean values of score is calculated. The factors having highest mean value is considered to be the most important factor.

REVIEW OF LITERATURE

Meyers, W. C., Foley, D. P., Garrett, W. E., Lohnes, J. H., & Mandlebaum, B. R. (2000). Studied was to gain insight into the pathophysiologic processes of severe lower-abdominal or inguinal pain in high-performance athletes. And found that evaluated 276 patients; 175 underwent pelvic floor repairs. Of the 157 athletes who had not undergone previous surgery, 124 (79%) participated at a professional or other highly competitive level, and 138 patients (88%) had adductor pain that accompanied the lower-abdominal or inguinal pain. More patients underwent related adductor releases during the later operative period in the series. Evaluation revealed 38 other abnormalities, including severe hip problems and malignancies. There were 152 athletes (97%) who returned to previous levels of performance. The syndrome was uncommon in women and the results were less predictable in nonathletic. A distinct syndrome of lower-abdominal/adductor pain in male athletes appears correctable by a procedure designed to strengthen the anterior pelvic floor. The location and pattern of pain and the operative success suggest the cause to be a combination of abdominal hyperextension and thigh hyper abduction, with the pivot point being the pubic symphysis. Diagnosis of "athletic pubalgia" and surgery should be limited to a select group of high-performance athletes. The consideration of other causes of groin pain in the patient is critical.

Sedaghat, R. (2011) studied the critical constraints and to suggest the best way to reduce them. Necessary data were collected through personal interview of randomly selected sample of farmers and exporters/ processors. One hundred farmers and ten processor/ exporters interviewed in Kerman province in the crop year 2007-08.The Garret ranking technique adopted to identify the constraints. Results indicated that; Inadequate irrigation, Unsuitable domestic market structure accompanied with low received prices and price fluctuations and Lack of appropriate chemical fertilizers were the major problems from the farmers point of view, while Aflatoxin contamination standards, Changing government policies toward export and Irregular supply of produce to the market during the year were the sole hindrances from the traders/exports point of view

Butler, D. J., Wulff, J., Stanley, G. B., & Black, M. J. (2012). resulted optical flow data sets are restricted in terms of size, complexity, and diversity, making optical flow algorithms difficult to train and test on realistic data. We introduce a new optical flow data set derived from the open source 3D animated short film *Sintel*. This data set has important features not present in the popular Middlebury flow evaluation: long sequences, large motions, specular reflections, motion blur, defocus blur, and atmospheric effects. Because the graphics data that generated the movie is open source, we are able to render scenes under conditions of varying complexity to evaluate where existing flow algorithms fail. We evaluate several recent optical flow algorithms and find that current highly-ranked methods on the Middlebury evaluation have difficulty with this more

complex data set suggesting further research on optical flow estimation is needed. To validate the use of synthetic data, we compare the image- and flow-statistics of Sintel to those of real films and videos and show that they are similar. The data set, metrics, and evaluation website are publicly available.

GARRETT RANKING CONVERSION TABLE

The conversion of orders of merits into units of amount of "socres"

Percent	Score	Percent	Score	Percent	Score
0.09	99	22.32	65	83.31	31
0.20	98	23.88	64	84.56	30
0.32	97	25.48	63	85.75	29
0.45	96	27.15	62	86.89	28
0.61	95	28.86	61	87.96	27
0.78	94	30.61	60	88.97	26
0.97	93	32.42	59	89.94	25
1.18	92	34.25	58	90.83	24
1.42	91	36.15	57	91.67	23
1.68	90	38.06	56	92.45	22
1.96	89	40.01	55	93.19	21
2.28	88	41.97	54	93.86	20
2.69	87	43.97	53	94.49	19
3.01	86	45.97	52	95.08	18
3.43	85	47.98	51	95.62	17
3.89	84	50.00	50	96.11	16
4.38	83	52.02	49	96.57	15
4.92	82	54.03	48	96.99	14
5.51	81	56.03	47	97.37	13
6.14	80	58.03	46	97.72	12
6.81	79	59.99	45	98.04	11
7.55	78	61.94	44	98.32	10
8.33	77	63.85	43	98.58	9
9.17	76	65.75	42	98.82	8
10.06	75	67.48	41	99.03	7
11.03	74	69.39	40	99.22	6
12.04	73	71.14	39	99.39	5
13.11	72	72.85	38	99.55	4
14.25	71	74.52	37	99.68	3
15.44	70	76.12	36	99.80	2
16.69	69	77.68	35	99.91	1
18.01	68	79.17	34	100.00	0
19.39	67	80.61	33		
20.93	66	81.99	32		

Study on Preference and Ranking of E-Resources Accessed By the Faculty

The preference and Ranking of Electronic Resources accessed by the Faculty in higher educational institution are shown in table 5

Table 1: Preference and Ranking of E-Resources Accessed by the Faculty

S. No.	E-Resources Availability	Rank Given by the Respondents								
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th
1	E-Journals	326	301	92	107	89	32	11	3	7
2	ETD	98	276	241	126	103	82	28	5	9
3	Web Portals	69	104	289	208	129	65	92	7	5
4	OPAC /WEBOPAC	43	55	146	216	336	92	55	12	13
5	E-books	26	30	75	116	236	281	145	36	23
6	Online Database	16	60	79	98	127	309	176	93	10
7	CD-ROMs	8	18	28	66	174	176	278	210	10
8	Subject Gateways	4	23	0	48	54	151	168	290	230
9	Specialized Collections	11	32	20	26	85	90	156	198	350

The table 1 shows the Preference and Ranking of E-Resources Accessed by the Faculty in higher educational institutions in Dindigul District. Among the 968, The E-Journal ranked as first by 326 respondents, second ranked by 301 respondent and 7 of them mentioned as lost rank. Similarly, The Electronic Theses and Dissertation (ETD) ranked as first by 98 respondents, second ranked by 276 respondent and9 of them mentioned as lost rank. It is highlighted from the table, the E-Journal as the first rank preferred by the respondents.

The Percent Position and Garret Value

The Garret ranks were calculated by using appropriate Garret Ranking formula. The based on the Garret ranks, the garret value was calculated. The Garret tables and scores of each E-Resources in above table, and multiplied to records scores in table 2, finally by adding each row, the total Garret score were obtained.

$$\text{Percent position} = \frac{100\ (Rij - 0.5)}{Nj}$$

Rji = Rank given for the i^{th} variable by the j^{th} respondent
Nj = number of variables ranked by the j^{th} respondent
The result is provided in the following table.

Table 2: Percent Position And Garret Value

Sl. No.	100 (Rij- 0.5) Nj	Calculated Value	Garret Value
1	100 (1 – 0.5)/ 9	5.51	81
2	100 (2 – 0.5)/ 9	16.66	69
3	100 (3 – 0.5)/ 9	27.62	62
4	100 (4 – 0.5)/ 9	38	56

5	100 (5 – 0.5)/ 9	50	50
6	100 (6 – 0.5)/ 9	61.14	44
7	100 (7 – 0.5)/ 9	7.22	38
8	100 (8 – 0.5)/ 9	83.33	31
9	100 (9 – 0.5)/ 9	94.44	19

Calculation of Garret Value and Ranking

The calculation of Garret value and ranking of the E-Resources accessed by the Faculty in higher educational institutions are shown in the table 3

Table 3: Calculation of Garret Value and Ranking

Sl. No.	Description	Rank Given by the Respondents									Total	%	Rank
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th			
1	E-Journals	26406	20769	5704	5992	4450	1408	418	93	133	65373	67.53	1
2	ETD	7938	19044	14942	7056	5150	3608	1064	155	171	59128	61.08	2
3	Web Portals	5589	7176	17918	11648	6450	2860	3496	217	95	55449	57.28	3
4	OPAC /WEBOPAC	3483	3795	9052	12096	16800	4048	2090	372	247	51983	53.70	4
5	E-Books	2106	2070	4650	6496	11800	12364	5510	1116	437	46549	48.09	5
6	Online Database	1296	4140	4898	5488	6350	13596	6688	2883	190	45529	47.03	6
7	CD-ROMs	648	1242	1736	3696	8700	7744	10564	6510	190	41030	42.39	7
8	Subject Gateways	324	1587	0	2688	2700	6644	6384	8990	4370	33687	34.80	8
9	Specialized Collections	891	2208	1240	1456	4250	3960	5928	6138	6650	32721	33.80	9

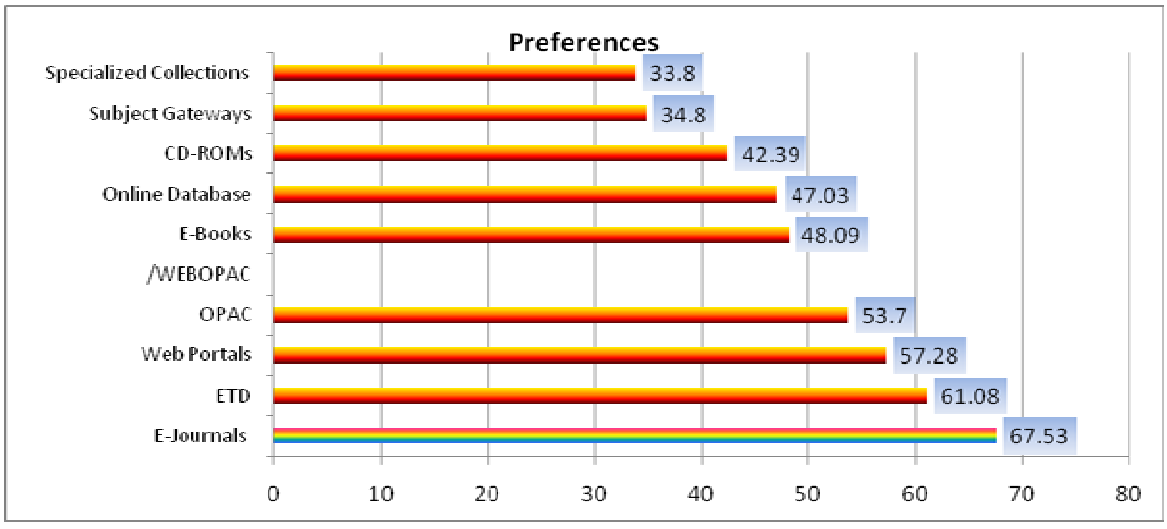

Fig.1. User Preferences of E-Resources using Garret Value Ranking

The 7 table shows that all the E-Resources ranked by the Faculty in higher educational institution in Dindigul Dt. The respondents given the rank for all the E-Resources are available in the academic libraries. The ranks have obtained with the help of Garret ranking method. E-Journal got the 1st rank, followed by E-Thesis and Dissertation, Web Portals, OPAC/WEBOPAC, E-Books, Online Databases, CD-ROMs, Subject Gateways, Specialized Collections 2nd , 3rd, 4th, 5th, 6th, 7th, 8th, 9th ranks respectively.

CONCLUSION

The Chi square test is very essential to identify the level of significance and association among the variable. It is convenient to calculate the association among the expected vale and the observed the value. Similarly the Garret ranking method may be used the researcher to know the preference among the variable. It is very simple to use by the each and every researcher. But the researcher must know the Chi-square and Garret ranking tolls where to be used and why should be used.

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