

LIBRARY DIGITAL SERVICES AND THEIR USE BY GRADUATE STUDENTS AT UNIVERSIDAD VERACRUZANA

(Los servicios de la biblioteca virtual y sus servicios en demanda entre los egresados de la Universidad Veracruzana)

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RESUMEN

Este documento analiza algunas características de las referencias bibliográficas que se encontraron en las tesis de posgrado de dos Maestrías que ofrece la Universidad Veracruzana, una en el área de ciencias de la salud (de 2007 a 2011) y otra en el área económico-administrativa (del año 2003 a 2013). Las tesis consultadas son las que se encuentran en el repositorio de la Universidad Veracruzana. Se presenta la metodología y literatura que se revisó, se incluyeron algunos estudios relativos al análisis de citas y otros acerca de implementación de programas de evaluación en algunas bibliotecas mexicanas. En el análisis se identifica el soporte de las referencias, tipo de documento, idioma de la fuente consultada y edad de la referencia. En el análisis se obtuvieron los porcentajes de las referencias de acuerdo al soporte, tipo e idioma de la referencia, y para la edad, se obtuvo la estadística descriptiva para cada una de las maestrías. Se analizaron las referencias en quince tesis de cada maestría, las cuales tuvieron aproximadamente mil referencias para la Maestría en Salud Pública y 500 para la Maestría en Ciencias Administrativas. El estudio y análisis acerca de las referencias en las tesis de Programas de Maestría puede ser una herramienta para identificar necesidades relacionadas con la búsqueda y consulta de información.

Palabras clave: servicios digitales, análisis de referencias, tesis, fuentes de información

ABSTRACT

This paper discusses some features of the references cited in dissertations of two Master's offered at the Universidad Veracruzana, one in the area of Health Sciences (2007-2011) and another in Management Science (2003-2013). Consulted dissertations were those located at the repository of the Universidad Veracruzana. This document presents the methodology and the literature review; there were included some studies about citation analysis and some other about the implementation of evaluation programs in some Mexican libraries. It is presented an analysis of percentages of references according to the support, document type and language, besides the age of each reference is analyzed in a study based on descriptive statistic for each Master's Program. There were analyzed fifteen dissertations of each Master's Program, which had about a thousand citations for the Master of Public Health and five hundred for Master of Administrative Sciences. The study and analysis of references about dissertations of Master's Program can be a tool for identifying student needs related to information search and retrieval.

Key words: digital services, citation analysis, references, dissertations, information sources

Classification JEL: I2,I3

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I. INTRODUCTION

The study and analysis of the sources of information that dissertations of master degree Program can be a tool for identifying needs counseling students about documents can be consulted. In this paper are presented some characteristics of the references that were found in the dissertations of two Master's offering the Universidad Veracruzana, one in the area of Health Sciences (2007-2011) and another in the Management Science.

"A reference is the acknowledgement that one document gives to another; the citation is the acknowledgement that one document receives from another. In general, a citation implies a relationship between a part of the whole of cited document and a part or the whole of the citing document. Citation analysis is the area of bibliometrics which deals of the study of these relationships" (Potter, 2007, p. 83). Citation analysis describes the characteristics of cited documents identifying, for instance, the most frequently cited journals, the type of cited documents, the age of cited literature, the most frequently cited authors, and the languages utilized in citations (Urbizagástegui Alvarado & Restrepo Arango, 2007). In this document, we analyze master's dissertations submitted to the institutional repository of the University of Veracruz. "A reference is the acknowledgement that one document gives to another; the citation is the acknowledgement that one document receives from another. In general, a citation implies a relationship between a part of the whole of cited document and a part or the whole of the citing document.

The main research question of this study is: which are the information sources used by graduate students? The citation analysis actually has so many applications, one of them is to study the way in which journals, books and other information sources are accessed and referenced by graduate students. University of Veracruz Libraries have invested in many books, different bibliographic material and databases that are available at its virtual library (Biv UV), and although the University has a lot of digital information through this virtual library, graduate students don't know them or only some students use them.

To accomplish this study, we have chosen dissertations from Public Health Master's Program, which includes years from 2007 to 2011 and dissertations from Management Science Master's Program that includes years from 2003 to 2013. Our main source of information was the institutional repository of the University of Veracruz. In the case of Management Science

Master's Program, it was possible to have some additional information about dissertations from the Department that offers this master's degree program.

Studies about the impact of information resources on doctoral thesis and master's degree dissertations are very important for universities, for example in decision-making in acquisition of new resources or when promoting their utilization. Libraries are very important for universities, because by means of them, students and professors usually have recent worldwide information readily available. Libraries offer panoply of resources composed of printed information and digital documents like e-books and databases. However, sometimes it is not enough that those resources were at libraries; it is necessary to introduce students and professors to learn how to use them by different ways, for example, by means of tutorials or some human resources training courses.

The purpose of this paper is to identify the sources of information used by graduate students of the University of Veracruz (UV), one of the biggest universities in Mexico. Particularly, we are going to study the case of two master's degree programs: Public Health and Management Science. The specific objectives of this study are to know the distribution of used languages in cited information sources, the age of information sources, and to identify the type of document support used by graduate students of the University of Veracruz.

The availability of innovative information sources in libraries has changed in an important way because of the evolution in new technologies of communication and information. However, this evolution is not enough to provide better information resources to students and faculty. The information literacy is a factor that helps users of information to be able to identify, locate and evaluate the information that they need. Due to the evolution of technologies, the University of Veracruz has had many library innovations. One of its strategies has been to introduce digital resources to students and professors through the virtual library. The virtual library began its services in 2003. The University of Veracruz has increased the availability of databases, but according to its use, authorities of university libraries need sometimes to decide which databases they will keep. A way to evaluate how frequently or to have a measure about the use of them by the graduate students, is the citation analysis. For this study, this method was applied for dissertations of two master's degree programs.

Following these introductory paragraphs, we present the methodology and the literature review, where we present some studies about citation analysis and other studies about the implementation of evaluation programs in some Mexican libraries. Next, some results are presented, mainly by means of tables.

II. METHODOLOGY

This study is based on the references of thirty dissertations, fifteen of each one of master's

degree program. There were analyzed about one thousand references for Public Health Master's Program and about five hundred references for Management Science Master's Program. This information was coded, captured, and analyzed. Then, we compared the result of both graduate programs. The age is the difference between the dissertation year and the publication year of the cited work. Using Excel, each dissertation was checked for every reference shown in Table 1.

Table 1. Categories analyzed

Category	Indicator	Item
Academic program	Master's program	Public Health Management Science
Reference	Document type	<ul style="list-style-type: none"> • Annals • Books • Book chapter • Dissertations • Journal articles • Newspapers • Official documents • Conference proceedings • Non published documents • Others
	Document support type	<ul style="list-style-type: none"> • Digital • Printed
	Reference language	<ul style="list-style-type: none"> • Spanish • English • French • Italian • Portuguese • Other
	Reference age	<ul style="list-style-type: none"> • Difference between dissertation year and publication year of cited work

III. LITERATURE REVIEW

Researchers of the National Autonomous University of Mexico (Brito Ocampo, Ladrón de Guevara Solís, & Rosas Poblano, 2010) studied the impact of university libraries on graduate studies. They analyze dissertation and thesis citations of three graduate programs. They found that the most cited documents were journal articles, then monographs. Other kind of documents followed: thesis, conference proceedings, reports and electronic resources. Projects like these are useful for library tasks as collections development, helping, for instance, to decision-making about title acquisition, subscription, and renewal.

An example of a study of citations and references developed with thesis is that written by Mirja Iivonen, (published in 2009). Author analyzed thesis of Business and Management fields Ph.D. programs, issued in 2005 and 2006 in Finnish universities. This research shows that 87% of references were available at the University libraries (cited by Brito Ocampo et al, 2010). According to a research based on dissertations of

the Paulista State University (Brazil), Social Sciences and Humanities field students use mainly books than journals (Tannuri de Oliveira et al, 2007). Besides, students do not include information about consulted databases, which are available thanks to their own universities.

A research of the Pennsylvania State University consist of an analysis of consulted sources of African American Studies from the year 2000 to 2007. Researcher take in account elements as, for example, the reference age, obtained knowing the difference between publication year of the source and publication year of the thesis (Nyana, S., 2010). We have adopted this procedure in our study.

IV. RESEARCH FINDINGS

At first place, we present the findings for dissertations of Public Health Master's Program. Table 2 shows the work cited, by support type (digital or printed). In this case, we analyzed 999 references. Table 3 shows the citations by language and support type.

Table 2.

Citations by Support and Document Type

Support / Document type	Number of references	Percentage %
Digital	329	32.93
Annals of events	1	0.1
Journal article	86	8.61
Newspaper	10	1
Book chapter	3	0.3
Non published documents	2	0.2
Official documents	164	16.42
Book	55	5.51
Others	8	0.8
Printed	670	67.07
Annals de events	1	0.1
Journal article	162	16.22
Newspaper	5	0.5
Book chapter	3	0.3
Non published documents	4	0.4

Official documents	173	17.32
Book	314	31.43
Others	6	0.6
Conference proceedings	1	0.1
Dissertations	1	0.1
Total	999	100%

Table 3: Citations by Support and Language

Support / Language	Number of references	Percentage %
Digital	329	32.93
Spanish	293	29.33
French	2	0.2
English	34	3.4
Printed	670	67.07
Spanish	492	49.25
French	8	0.8
English	168	16.82
Italian	1	0.1
Portuguese	1	0.1
Total	999	100.00%

Table 4 presents descriptive statistic for references age.

Table 4: Descriptive Statistic

Reference Age	
Average	6.8335
Standard error	0.1911
Median	6
Mode	3
Standard deviation	5.8682
Variance	34.4362
Kurtosis	5.7829
Skewness	1.8812
Range	47
Minimum	0
Maximum	47
Sample size	943

The research findings for Management Science Program are presented in tables five to seven.

Table 5: Citations by Support and Document Type

Support / Document type	Number of references	Percentage %
Digital	162	31.76
Journal article	8	1.57
Newspaper	1	0.2
Official documents	69	13.53
Book	26	5.1
Others	58	11.37
Printed	348	68.24
Support / Document type	Number of references	Percentage %
Annals of events	4	0.78
Journal article	25	4.9
Newspaper	3	0.59

Non published documents	1	0.2
Official documents	81	15.88
Book	213	41.76
Others	13	2.55
Conference proceedings	2	0.39
Dissertations	6	1.18
Total	510	100%

Table 6: Citations by Support and Language

Support / Language	Number of references	Percentage %
Digital	162	31.64
Spanish	152	29.69
English	9	1.76
Italian	1	0.2
Printed	350	68.36
Spanish	347	67.77
English	3	0.59
Total	512	100.00%

Table 7: Descriptive Statistic

Reference Age	
Average	9.1800
Standard error	0.45049
Median	6
Mode	3
Standard deviation	9.0097
Variance	81.1755
Kurtosis	21.6087
Skewness	3.7474
Range	76

Minimum	0
Maximum	76
Sample size	400

V. CONCLUSIONS

The main differences found in this document, refer to the document type, language and age of the consulted reference. At first place, we present the findings for dissertations of Public Health Master's Program. For digital references, journals were the most consulted, and for printed documents, were books the most consulted, followed for official documents and journals. Digital and printed journal were 25.03%. The citation by language was: for Spanish 78.58%, English 20.22%. The reference age was 6.83 years old. For Management Science Master's Program, analysis shows that printed books are the most consulted, 41.76 %, and digital

books 5.1%. Journal articles digital and printed were only 6.47%. By language, Spanish sources were the first (97.46%), and English, only with 2.35%. The reference age was 9.18 years old.

Both Programs could increase the number of English resources consulted or in other languages; but, the Public Health Master's Program has better results. Professors should motivate their students to consult recent documents, journals and digital documents in Spanish and other languages; this would be possible if digital services at University of Veracruz were more consulted.

VI. REFERENCES

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