

JoEMLS

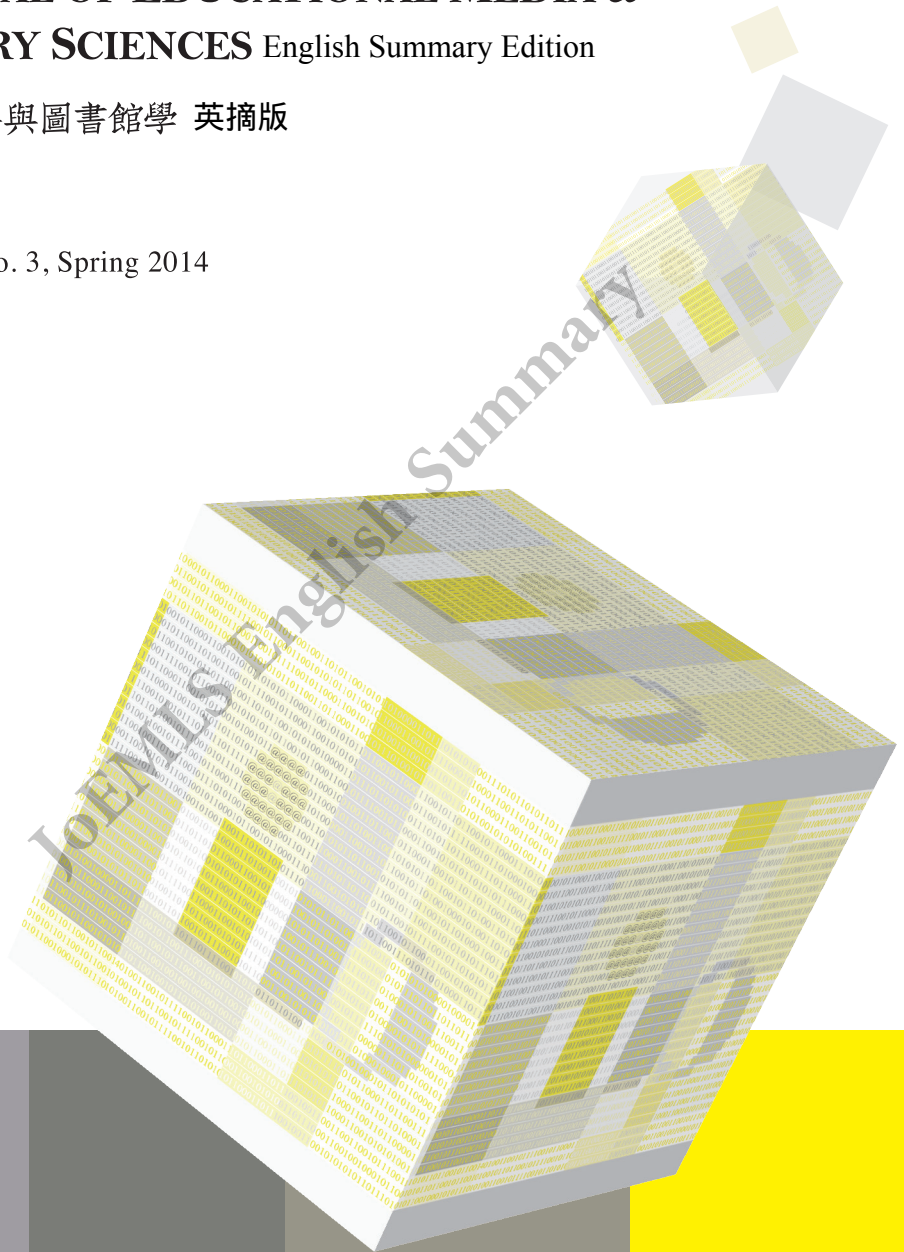
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教育資料與圖書館學，始於1970年3月創刊之教育資料科學月刊，其間於1980年9月更名為教育資料科學，改以季刊發行。自1982年9月起易今名，而仍為季刊，每年秋(10月)、冬(翌年1月)、春(4月)與夏季(7月)各出刊一期，合為一卷。現由淡江大學出版中心出版，淡江大學資訊與圖書館學系和覺生紀念圖書館合作策劃編輯。本刊為國際學術期刊，2008年獲國科會學術期刊評比為第一級，並廣為海內外知名資料庫所收錄(如下英文所列)。

The JOURNAL OF EDUCATIONAL MEDIA & LIBRARY SCIENCES (JoEMLS), published by the Tamkang University Press and co-published with the Department of Information & Library Science (DILS) and Chueh Sheng Memorial Library, was formerly the **Bulletin of Educational Media Science** (March 1970 – June 1980) and the **Journal of Educational Media Science** (September 1980 – June 1982). The *JoEMLS* has been a quarterly as well as a new title since September 1982, appearing in Fall, Winter, Spring and Summer issues.

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L (Librarianship); **I** (Information Technology); **B** (Bibliophile and the Book trade)

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本刊係採開放存取 (Open Access) 與商業資料庫付費途徑，雙軌發行之國際學術期刊，兼具電子版與紙本之平行出版模式。本刊除秉持學術規範與同儕評閱精神外，亦積極邁向 InfoLibrary 寓意之學域整合與資訊數位化理念，以反映當代圖書資訊學研究趨勢、圖書館典藏內容與應用服務為本；且以探討國內外相關學術領域之理論與實務發展，包括圖書館學、資訊科學與科技、書業與出版研究等，並旁及符合圖書資訊應用發展之教學科技與資訊傳播論述。

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- (3) 任何稿件之典藏版本皆須註明其與 *JoEMLS* 之關係或出版後之卷期出處。

JoEMLS Editorial Policy

The *JoEMLS* is an Open Access (OA) Dual, double-blind reviewed and international scholarly journal dedicated to making accessible the results of research across a wide range of Information & Library-related disciplines. The *JoEMLS* invites manuscripts for a professional information & library audience that report empirical, historical, and philosophical research with implications for librarianship or that explore theoretical and practical aspects of the field. Peer-reviewed articles are devoted to studies regarding the field of library science, information science and IT, the book trade and publishing. Subjects on instructional technology and information communication, pertaining to librarianship are also appreciated. The *JoEMLS* encourages interdisciplinary authorship because, although library science is a distinct discipline, it is in the mainstream of information science leading to the future of **InfoLibrary**.

Open Access Archiving

The *JoEMLS*, as a role of “OA green publisher/journal”, provides free access online to all articles and utilizes a form of licensing, similar to Creative Commons Attribution license, that puts minimal restrictions on the use of *JoEMLS*'s articles. The minimal restrictions here in the *JoEMLS* are:

- (1) authors can archive both preprint and postprint version, the latter must be on a non-commercial base;
- (2) publisher's PDF version is the most recommend if self-archiving for postprint is applicable; and
- (3) published source must be acknowledged with citation.

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EDITORIAL

In and Beyond This Issue

According to the “2013 Download and Usage Statistical Report on Educational Media and Library Sciences”, issued recently by Airiti Library, the total number of our journal articles being downloaded from that full-text database was 6,091, higher than the database’s average article downloading number of 4,455 (time period: 2012/12/1 to 2013/11/30). Among which, the highest number of popular articles being downloaded was 185, and the downloading number of articles by popular authors reached 324. It is worth noticing that this report dealt with statistics of downloads in only one database—Airiti Library, and since *Journal of Educational Media & Library Sciences (JoEMLS)* is one of Open Access (OA) journals in nature, users could retrieve full-text data from both OA and non-OA databases. It then can be inferred that the total number of downloads and usage of *JoEMLS* articles should be even higher, and our influence of academic communication should not be overlooked. This 2013 report could be found on our journal website.

In addition, in responding to the fast changes of digital environments, and for promoting interactions among authors, readers and editors, and for enhancing the academic quality and influence of *JoEMLS*, there will be several changes in the future:

1. In the near future, our journal will adopt the ScholarOne system, an online submission and peer review system, developed by Thomson Reuters. It is still at a scheduling stage. We hope we could successfully complete the system transforming and staff training in a short time, and provide more effective and user-friendly publishing services to authors and reviewers.

2. In the last issue of every two-year period, we will publish review articles on specific research topics, exploring the historical development within the decade and the future trends of specific research topics around the world. It has been decided that in the special issue of October 2014, two to three review articles of such specific research topics will be published. I will invite scholars with substantial research outcomes in related research fields to take charge of the biennial review article.

3. For our journal’s quarterly issues to be published within the same year, and for the beginning of years to start a new volume and issue, we have planned to publish the Volume 51 Issue 4 in July 2014; the Special Issue in October 2014; and the Volume 52 Issue 1 in January 2015.

4. Depending on the needs and willingness of authors and reviewers, we will add reviewers' opinions and authors' rebuttals of published manuscripts to our OA web pages, on an irregular basis. This function could be deemed as "peer commentary"; it would promote academic communication between authors and reviewers, as well as help readers understand the inside/original meanings and academic significance of manuscripts.

In this Volume 51 Issue 3, five articles have been published, ten rejected, with a rejection rate of 66.67%. Research topics include "A Comparative Study of Bibliographic Records Described and Value-Added with MARC, DC, and MODS-From Users' Viewpoints", "The Development of Teacher and Teacher-Librarian Collaboration Scale and Examining the Levels of Collaboration Models", "Investigating the Quality and Maintenance Issues of Bibliographic Records Provided by the E-Book Supply Chain", "Citation Type Analysis on Humanity Literature of Taiwan", and "A Study on the Competence Map for Digital Publishing Editors". Each of these five articles is with research significance, and worth careful reading.

Jeong-Yeou Chiu
JoEMLS Chief Editor



Citation Type Analysis on Humanity Literature of Taiwan

Ming-Yueh Tsay^{a*} Chi-Ju Chiu^b

Abstract

Using informetrics and citation analysis, the present study explores and compares characteristics and types of citations in the humanity journal articles that published in Taiwan. Research articles published in 2011, from top humanity journals, assessed by the Institute of Humanities and Social Sciences, National Science Council in Taiwan, were collected and analyzed. The analysis was done by structure of journal article and location of citations. In addition to citations appearing in the text, the phenomena of citation type will be compared and discussed in the latter part. The results of this study revealed articles of literature, history, philosophy and arts were mostly argumentative, while linguistic articles tended to comply with IMRAD (Introduction, Methods and Materials, Results, And Discussion) formats. Introducing primary materials from original works, humanity scholars tended to cite for factual descriptions or to support authors' perspectives. Secondary materials, such as later studies on the original works by other scholars, were seen the most in the disciplines of linguistics while the least in that of history. In general, the distribution of citation types is similar between articles in domestic and foreign journals; merely minor differences occurred among disciplines. While citing characteristics and information needs of humanities scholars revealed in this study may contribute to collection development of libraries or refinement of information services to researchers, suggestions based on analysis of research results may also serve as reference for standardization of writing and publication of journal articles in Taiwan. Aiming at further exploration of citations, this study is expected to provide a better understanding of the nature of citations and to serve as a foundation for future empirical studies.

Keywords: Humanity; Citation type; Journal article structure; Classification of citation; Citation analysis

SUMMARY

This study conducted informetric and citation analysis on a sample of research articles published by top domestic scholarly journals, which assessed by the Institute of Humanities and Social Sciences, National Science Council in Taiwan, in the humanities disciplines: literature, history, philosophy, linguistics and fine arts and investigated the article structure and the location (in text) of

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citations. The study conducted purposive sampling method and selected 160 research articles from the five disciplines that were published in 2011. The full-text and references of the selected articles were either downloaded from electronic journal databases or photocopied from the print journals and were the data source for citation analysis by the disciplines. After processing the collected citation data was processed using the spreadsheet software Excel, a custom bibliographic database was established. In addition, the study applied the citation types identified by Frost and analyzed the differences in citation types across disciplines domestically and the disciplines overseas.

The study found: 1) Humanities journal articles were mostly argumentative—the article structure in literature, history and philosophy were very similar and the writing style was mostly free-form critiques and discussion based on the authors' thinking. Additionally, humanities journal articles often consisted of Introduction, Body and Conclusion sections and did not have a clear format specification because the act of writing was part of conducting research. Linguistics journal articles followed the IMRAD structure. Writing styles and journal publication styles varied among the disciplines which demonstrated the fact that the thinking and theory of each discipline had its own unique characteristics and system. 2) Domestically, the humanities argumentative articles used citations in the Body sections most and in the Conclusion sections least. It showed that the conclusions of these articles were often concluding statements therefore other scholars' opinions were rarely cited. The structured articles with IMRAD (Introduction, Methods and Materials, Results, And Discussion) format published in the linguistics journals and some fine arts journals cited mostly in the Introduction sections and in the Methodology sections (second-most). This type of citations primarily focused on developing the definition and the conception of the research. 3) Humanities disciplines often cited primary resources from original works and the citations were used mainly to support authors' perspectives or to describe facts. The history and the philosophy disciplines valued the citations of original works and texts most while the discipline of linguistics cited the least amount of original works. 4) Secondary resources, such as later studies on the original works by other scholars, were cited most by the articles from the linguistics discipline while least by the articles from the history discipline. Linguistics is a newer discipline, which cited the meaning and history of vocabularies most frequently. The philosophy discipline also cited some new vocabulary. For the history discipline, citing about vocabulary was rare because there were consensus established about the usage of the vocabulary. 5) To author papers for the linguistics or the fine arts discipline, scholars essentially cited original works or text of primary resources and secondary resources which discoursed the primary resources.

Furthermore, the references, readings or bibliographic information related to the specific editions of the resources were commonly used to recommend additional resources for readers. 6) There was a significant difference between the linguistics discipline and other humanities disciplines. The linguistics discipline rarely cited primary resources or documents. Among all humanities disciplines, there was a higher chance to find citations that were in agreement with the authors' point of view in the linguistics discipline. 7) In general, the distribution of citation types was similar among articles in domestic and foreign journals; merely minor differences occurred among disciplines. Foreign journals of the literature discipline did not use citation types other than primary or secondary resources while a small number of domestic literature journals used this type of citations. Some foreign journals of the history discipline provided the type of citations that addressed the bibliographic information about a specific edition (of the resources); this citation type was not found among the domestic history journals. Domestically, the study of philosophy focused on utilizing references as well as related original works or texts for research. Foreign philosophy research more emphasized on the critiques and discussion of the secondary resources and often opposed the information presented in the cited works. Domestically the fine arts journals cited primary works and secondary works in a similar way while the foreign fine arts journals more often cited primary works than secondary works. For the linguistics discipline, the distribution of citation types were completely opposite in the domestic and foreign journals: the domestic linguistics journals cited primary works more (cited secondary works less) while the foreign journals cited secondary works more (cited primary works less).

This study conducted citation analysis and the results revealed the fact that, for humanities research, original texts, works and primary materials and documents, such primary resources had a significant effect on the promotion and dissemination of scholarship; the effect was greater than the effect of secondary resources, which are later studies on the original works. With the exception of linguistics, primary resources are the major source of references for the humanities research, particularly for the history and the philosophy studies. Humanities scholars' citing characteristics and information needs can be understood through the results of this study. The results can also apply to library collection development practices and to improve information services to researchers. Furthermore, this study compared domestic journal article structures and composition specifications and provided recommendations which serve as reference for standardization of writing and publication of journal articles in Taiwan. This study of domestic and foreign humanities research, citation types and location of citations can also advise domestic humanities scholars to reflect

on what effect and impact previous studies have and applied that as a foundation for related research. In addition, this study is expected to provide a better understanding of the nature of citations and to serve as a foundation for future empirical studies. However, the small number of samples involved in this study preclude from making confident generalizations regarding the frequency of the citation types across these humanity disciplines as a whole. Thus, the collection and analysis of a larger sample size is also suggested for further study.

ROMANIZED & TRANSLATED REFERENCE FOR ORIGINAL TEXT

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- 方德隆[Fang, Te-Lung](2000)。人文學科的主要概念[Key concept: Humanities]。在教育大辭書編纂委員會(編),教育大辭書[In *Encyclopedic dictionary of education bianzuan weiyuanhui* (Ed.), *Encyclopedic dictionary of education*]。台北市:文景[Taipei: Win Join Book]。檢索自[Retrieved from] <http://terms.naer.edu.tw/detail/1301669/>
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A Comparative Study of Bibliographic Records Described and Value-Added with MARC, DC, and MODS—From Users' Viewpoints

Huei-Chu Chang

Abstract

The purpose of this study is to understand which bibliographic data are the core elements of the user's queries? What users' viewpoints about resource descriptions using different metadata standards? What kinds of value-added items are the users' favorite when they conduct a bibliographic search? What are users' viewpoints about bibliographic records integrated with the Digital Archival and Institutional Repository resources through metadata interoperability methods? This research adopted experiments, observation and interviews. The sample subjects are drawn from 14 students of The Graduate Institute of Library and Information Science and College of Agriculture and Natural Resources. First of all, the researcher displayed the bibliographic records using original MARC from the library. Secondly, users compared the images of OPAC from the library with the format of DC and MODS transformed through the MarcEdit software. Additionally, the researcher conducted interviews to understand users' viewpoints about using three metadata schemas to describe the same book. Finally, the researcher asked the degree of users' satisfaction about using bibliographic records alone and bibliographic records integrated with the Digital Archival and Institutional Repository resources. The findings suggest that libraries could provide more value-added and comprehensive services of bibliographic records and information retrieval, in order for all kinds of resources to be fully utilized, which helps to meet the users' information needs.

Keywords: MODS; DC; Value-added bibliographic records; Metadata interoperability

SUMMARY

Facing the internet era, libraries are challenged to not only integrate various information carriers and organize relevant knowledge and information, but also to provide the public with more comprehensive and sound information searching services. In recent years, with the need for digitalizing various forms of collections, several metadata schemas have been developed for different forms of collections to be stored and searched in the same system, revealing the importance of metadata interoperability. Although frontend users do not need to

understand the relevant techniques of metadata interoperability, for assisting users in searching and retrieving needed items, metadata schemas and interoperability have become important research topics. In this study, methods of experiments, observations and interviews were adopted. Users were first asked to compare the interoperability of Machine-Readable Cataloging (MARC), Dublin Core (DC), and Metadata Object Description Schema (MODS). Users were then interviewed for understanding their thoughts about the three different ways of describing the same bibliographic record. This study aimed to make suggestions based on findings, for libraries to provide more comprehensive valued-added bibliographic records and information searching services for meeting users' information needs.

The research goals of this study included 1) investigating whether users were satisfied with libraries' bibliographic records; 2) understanding library users' thoughts about the differences of using different metadata schemas of MARC, DC, and MODS to describe the same bibliographic record; 3) adding the original MARC into DC and DC+VRA, and then comparing the effects of value-added bibliographic records, for understanding users' opinions.

The total fourteen participants were grouped into pre-test and formal test parts. The pre-test group was consisted of graduate students of Library and Information Science at National Chung-Hsing University; the formal test group was mostly students of College of Agriculture and Natural Resources of the same university.

Methods of experiments, observations and interviews were adopted in this study. The procedure of conducting the study was described below.

1. Three searching assignments were designed for participants to search in the library system of National Chung-Hsing University, for observing and documenting which library catalog or the new discovery system they used as the entry point.

2. MarcEdit program was used to convert the ISO2709 format of the original MARC bibliographic records they retrieved into DC and MODS formats.

3. The converted data was used to produce simulative formats in library OPAC.

4. The data in existing the digital archive and institutional repository system of National Chung-Hsing University Library was used to match the fields of MARC and DC, making the formats of different systems consistent.

5. Make simulations of search result by four methods, including results transferred from MARC to MODS, MARC to DC, and the bibliographic record value-added with related information from the digital archive and institutional repository system separately. By making use data of these two systems, interoperability was reached between MARC and DC. Thus data structure

between the two systems was unified. Interoperated data was used in the making of the simulative results.

6. Pre-test was conducted. The searching assignments were pre-tested on the graduate students of Library and Information Science at National Chung-Hsing University. The searching assignments were modified based on the pre-test results.

7. Tests were implemented at three stages of pre-test survey, formal test, and after-test survey.

In responding to the research goals of this study, research findings were discussed as below.

1. Library users' satisfaction of library bibliographic records.

The results revealed that participants were most satisfied with the fields of "Title" (11 persons) and "Author" (8 persons). "Call Number" and "Location" were selected by four persons each. The reasons of their satisfaction were related to the access to retrieving collections. In addition, users considered the data should be supplemented with abstracts, references, table of contents, outlines, and recommended references.

2. Comparison of metadata records presented in formats of MARC, DC and MODS. The results showed that seven participants preferred bibliographic records presented in the format of MARC; two participants preferred MODS format, and only one preferred DC.

3. Comparison of the effects of adding original MARC into DC from the institutional repository system (see Figure 1) and DC+VRA from the digital archive (see Figure 2).

All participants considered that it helped to integrate MARC, DC, and DC+VRA through interoperability, because it could provide references for expanding research topics.

It is difficult to predict library users' behaviors with quantitative methods; however, based on research findings, it revealed that some users preferred library catalogues to new discovery systems provided by libraries. Most participants considered the bibliographic records provided by the libraries satisfying and meeting their needs. They reported that the most helpful fields of bibliographic records included Title, Author, Publication and Call Number. All participants expressed that they hoped libraries could provide brief introduction of content of relevant resources. After the original MARC was converted into DC and MODS formats, more than half of the participants found they still preferred bibliographic records presented in MARC format, and most of the participants considered it helpful to add resources from other systems such as the digital archive and institutional repository into MARC record. Based on the findings, it suggests

that if libraries could add values to their bibliographic records, it could expand library users' reading scopes and enhance the visibility of resources, for libraries to provide more valuable services.



Figure 1 MARC record Value-Added with Related Resource from the Digital Archive of NCHU Library



Figure 2 MARC Record Value-Added with Related Resource from the Digital Archive and Institutional Repository System of NCHU Library

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JoEMLS English Summary



Investigating the Quality and Maintenance Issues of Bibliographic Records Provided by the e-Book Supply Chain: Using the Operations of the Taiwan Academic E-Book & Database Consortium as an Example

Chao-Chen Chen

Abstract

It is an important trend to expand the use of bibliographic records from the supply chain for libraries. However, what are the sources of vendors' bibliographic records? Their quality? How do libraries deal with these bibliographic records? Are they satisfied them? This study first drawn 1,080 bibliographic records from 29 e-book products, and MarcEdit was used to check their quality and 14% were found to contain errors. Secondly, this study interviewed 12 vendors and found out that bibliographic records of western books were mostly copied from the OCLC, and there were also bibliographic records from the original vendors who commissioned outsource companies to do the cataloging process. In addition, there were those cataloged by Taiwanese manufacturers themselves. Lastly, this study sent questionnaires to Taiwan Academic E-Book & Database Consortium members to survey their satisfaction on bibliographic records provided by vendors and their recommendations thereof. This study shows that most libraries have inputted the bibliographic records of the e-books into their OPAC system and are generally satisfied with the bibliographic records provided by the vendors, though opinions vary on the accuracy of these records.

Keywords: *E-Books; Supply chain; Information organization; Bibliographic records; MARC records*

SUMMARY

Deanna B. Marcum (2005) mentioned in a speech that “The Library of Congress spent \$44 million dollars on cataloging every year. We live in an era that a large quantity of digital resources are provided, and users used to referring to digital information as their priority and searching with keywords in Google. In such a time, how libraries do their cataloging? Do bibliographies of libraries need to be changed? This is a critical issue that people in library field need to face together.” Since Marcum’s speech, the Library of Congress has set up a

committee for studying ways of changing library bibliographies, with Karen Calhoun as the committee director. The committee then published a report titled, "Changing Nature of the Catalog and Its Integration with Other Discovery Tools", in which it suggested that libraries should expand their bibliographies by adopting bibliographic records from the publisher supply chain, for enhancing efficiency of building bibliographies (Calhoun, 2006)

Applying "supply chain" concept to bibliographic records for enhancing efficiency of building bibliographies has become a trend since libraries began purchasing e-books. Since 2007, the libraries of more than 90 universities in Taiwan have collaborated to form the Taiwan Academic E-book and Database Consortium for purchasing e-books written in Chinese and western languages. More than 15 E-book vendors have also participated in this consortium (Taiwan Academic E-Books & Database Consortium, 2013). When considering which items to purchase, the Consortium will ask the vendors to provide MARC bibliographic records. However, few studies have ever investigated related issues, such as the sources and qualities of bibliographic records, how libraries deal with these bibliographic records, and whether libraries are satisfied with bibliographic records provided by the vendors. Therefore, in this study, the researcher analyzes these questions.

Research Goals and Methods

There are two research goals of this study:

1. To investigate the sources and quality of bibliographic records provided by e-book vendors.
2. To understand whether libraries are satisfied with those e-book bibliographic records, and how libraries deal with and maintain bibliographic records.

Three research methods are adopted in this study:

1. Using MarcEdit software program to analyze the quality of bibliographic record samples provided by vendors to Taiwan Academic e-book and Database Consortium during the period of 2008-2012. During this period, the Consortium purchased 29 items from 15 vendors. Bibliographic records were chosen by a simple random sample, with 10 items drawn from the 1-300 records, 20 items from 301-600 records, 30 items from 601-900 records, etc. The total sampled records were 1080.
2. Using interview method to investigate the sources and quality control issue of bibliographic records provided by vendors.
3. Using surveys to investigate 1) whether member libraries of the Taiwan Academic E-book and Database Consortium are satisfied with bibliographic

records provided by vendors, 2) how libraries handle bibliographic records provided by vendors, and 3) what suggestions the libraries would have for vendors regarding bibliographic records.

Research Findings

1. Sources of bibliographic records:

Most of the bibliographic records provided by vendors are copied from the joint bibliography built up by libraries. Bibliographic records of books written in English are mostly from OCLC. Some vendors modify the records for meeting the requirements of the Consortium.

2. Quality of bibliographic records:

After being analyzed with MarcEdit software program, 14% of bibliographic records were found to have errors. The field with most errors was 008 Fixed-length Data Elements; the most serious error was without 245 Title Statement. Other common errors include inconsistent ISBN formats, incomplete records, inaccurate raw data, or unmatched formats. The surveys showed that most libraries considered the bibliographic records of the vendors to meet requirements; however, 29 libraries expected the vendors could modify details of bibliographic records and verify the accuracy.

3. Vendors' Accuracy Control of e-book links

Most of the vendors did not have an automatic checking mechanism on whether the system connection is normal or whether every link of e-book record is accurate. Most of them rely on user's reporting errors or problems.

4. MARC systems adopted by the Consortium:

The MARC systems adopted by the libraries include MARC 21, USMARC and CMARC. Sixty-two libraries adopted single one MARC system; 33 libraries adopted different systems for Chinese books and western-language books.. When libraries adopt different MARC systems, the cost to the vendors of converting files and verifying records increases.

5. Satisfaction of bibliographic records

92% of member libraries considered that the bibliographic records meet the requirements, suggesting a high degree of satisfaction.

6. Handing of bibliographic records:

96% of member libraries loaded e-book records into their library catalogues, but 4% of the libraries did not include the bibliographic records into their library automation systems.

7. Library users' access to e-book searching

In addition to OPAC, 60% of libraries provided other accesses to e-book searching, such as Library E-resource Meta-search System, and Multi-user

Universal Search Environment (MUSE), which was developed by the Consortium. Some libraries even built up exclusive e-book webpages.

8. Libraries' suggestions for vendors:

Libraries suggested that vendors should enhance the accuracy of bibliographic records, apply call numbers and subject headings, check the numbers of bibliographic records against purchased items, verify copies, and provide RDA format and 801 bibliographic description.

Suggestions

Based on the research findings mentioned above, three suggestions were made:

1. Regarding the purchasing of e-books, it is a big challenge to ensure the accuracy of bibliographic records and maintain regular uses of e-books. To address the issue of accuracy and consistency, we need an integrated system for handling the selection, purchases, and verification of e-books, as well as managing bibliographic records and including full-text files.

2. Libraries need to import complete and accurate bibliographic records into their library automation systems, and make sure the accuracy of links of bibliographic records. Vendors and library automation systems should have mechanisms for auto-checking the links, and reporting ineffective bibliographic records to libraries and vendors.

3. E-book vendors are not cataloging experts, thus people in the library field should set standards or regulations for e-book cataloging, and make reasonable requirements for e-book vendors to follow. To enhance the quality of bibliographic records, vendors should also recruit cataloging experts trained by graduate schools and departments of library and information science.

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The Development of Teacher and Teacher-Librarian Collaboration Scale and Examining the Levels of Collaboration Models

Hai-Hon Chen

Abstract

The purpose of this study was twofold. The first purpose was to construct the Collaboration Scale for primary and secondary school teacher and teacher-librarian of Taiwan. Teachers and teacher-librarians were selected from five municipalities in the south of Taiwan. Fifty-nine teacher-librarians, 76 teachers and 2 principals from 60 primary and secondary schools participated in this study for the testing of scale quality. Results indicated as follows: 1. The Collaboration Scale consisted of 22 items, divided into three factors, which were integrated instruction, teacher-librarian and library as resource, and traditional role of teacher-librarian. 2. The Collaboration Scale had reasonable coefficient of internal consistency reliability and content validity. 3. Exploratory factor analysis showed that The Collaboration Scale had acceptable construct validity. Three factors explained variance 60.23% and had high correlations of the Collaboration Scale separately. The second purpose was to examine the facets of teacher and teacher-librarians collaboration. Results indicated that teacher and teacher-librarians had low-end collaboration, most of the cooperation existed in teacher-librarians provided materials or resources for the teachers; high-end collaboration, integrated instruction appear to be less prevalent among participants in this study.

Keywords: *Teacher; Teacher-librarian; Collaboration scale; Collaboration model*

SUMMARY

Introduction

In an era of ever-changing societies, ever-doubling information, rapidly-developing internet, and on-going revolutionizing technologies and educational philosophies, information plays a more and more important role in people's learning and life. Information itself does not nurture citizens with information literacy, unless people know how to effectively use information to solve problems. Information literacy is an essential skill for living in an information age (American Library Association, 1989; Craver, 1994). It is not possible to rely solely on subject teachers to teach students about all the skills required for an information society. Since teacher-librarians are equipped with skills and knowledge of

library information, if they collaborate with teachers who are familiar with subject contents and students' capabilities, it would enrich teachers' instructions and motivate students to learn.

Collaboration between teachers and teacher-librarians for enriching students' learning activities and motivating students has been implemented in developed western countries for several decades. This collaboration is based upon both parts' advantages and expertise. However, in Taiwan, the position of "teacher-librarians" for promoting reading and library instruction was just newly placed at primary schools in 2009, and at junior high schools in 2012. By 2013, teacher-librarians appeared at 264 primary schools and 78 junior high schools around Taiwan. Professors in Library and Information Science field at five universities in the north, central, south and east parts of Taiwan, have been appointed as conveners for assisting in visiting and supervising teacher-librarians in their areas. Teacher-librarians are learning to enrich knowledge and skills, as well as to fulfill their roles and responsibilities. The urgent challenge is to promote teachers' understanding toward the role and responsibilities of teacher-librarians.

Few academic papers and experimental studies in Taiwan have focused on collaboration between teachers and teacher-librarians (Chou, 2003; Chen & Lee, 2009; Chen, 2002, 2003, 2004a, 2004b); thus there is a lack of a comprehensive system of theories and experimental studies in this field. It is urgent for university scholars and experts to work with in-practice teachers and teacher-librarians, for setting an ideal paradigm of collaboration between teachers and teacher-librarians. We need an appropriate tool of measuring collaboration, for understanding teacher-librarians' roles and responsibilities at primary or secondary schools, and for further analyzing how teachers and teacher-librarian collaborate, what the nature of collaboration is, and what the collaboration model is. Therefore, the researcher of this study aimed to develop an evaluation instrument for measuring collaboration between teachers and teacher-librarians, for understanding the practices of collaboration, and constructing theories on the nature and models of collaboration between teachers and teacher-librarians.

Research Design and Implementation

Research participants

Sixty teacher-librarians at junior high and primary schools of five counties in southern Taiwan, under the supervision of National Tainan University in 2012, were targeted for general investigation. In addition, among schools with teacher-librarians, six teachers were sampled from 12 randomly-chosen primary schools, and three teachers were sampled from two randomly-chosen junior high schools. Since principals are important figures of influencing the atmosphere of

collaboration between teacher and teacher-librarians, one principal at each of the primary and junior high levels was randomly chosen for filling out the survey. The total number of participants was 140.

Research Instruments

1. Theoretical foundation and structure of “Teacher and Teacher-Librarian Collaboration Scale”

This scale is based on the two taxonomies of the school library media program (one is teacher’s taxonomy of resource-based teaching; the other is the library media specialist’s taxonomy for the library media program)(Loertscher, 1988, 2000) and Teacher & Librarian Collaboration Model (Montiel-Overall, 2005a, 2005b, 2008). Teacher-librarians were interviewed for clarifying their jobs and responsibilities. A survey on teachers and teacher-librarians collaboration was developed, with its items adopting the 4-point Likert-type Scale ranging from 4(always) to 1(never) to reveal the degree of collaboration.

2. Format, development and content of the Scale

For the items of the Scale to reflect faithfully what the researcher intended to measure about teaching collaboration, after the survey was developed, scholars, experts, teacher-librarians and teachers were asked to help review the content and descriptions of survey items. The revised survey was consisted of 29 items. Participants were then asked to fill out the survey. After disregarding ineffective surveys, 137 effective surveys were then analyzed with Item Analysis and Exploratory Factor Analysis (EFA).

Results and Discussion

1. Statistics outcomes of Teacher and Teacher-Librarian Collaboration Scale

After Item Analysis, 22 items were kept for the formal pre-test scale. With several rounds of Exploratory Factor Analysis, three common factors were extracted, explaining 60.23% of the total variance. The scale reliability was .93. The Cronbach’s α reliability of “integrated instruction” was .95, .84 for “teacher-librarian and library as resource” and .81 for “traditional role of teacher-librarian”, suggesting high internal consistency reliability. As to the construct validity, the outcome of item analysis matched the theoretical constructs, with all factor loadings greater than .37, suggesting a steady construction of the scale. The subscale-total correlations were .84, .89, and .73, respectively, suggesting a strong positive correlation. The outcomes of this study were similar to Montiel-Overall’s study (2007).

2. The low-level mode of teacher and teacher-librarian collaboration in southern Taiwan

The analysis of teacher and teacher-librarian collaboration in southern Taiwan showed the averages of three sub-scales; among which the “teacher-

librarian and library as resource” factor got the highest average, with “traditional role of teacher-librarian” the second, and “integrated instruction” the lowest. The findings were similar to the ones of Webb and Doll (1999), Bainbridge, Carbonaro and Wolodko (2002), Schultz-Jones (2009), and Hockersmith (2010), meaning that the teacher and teacher-librarian collaboration was still at level of cooperation— teacher-librarians’ role was mainly providing teachers with resources. The high level collaboration of “integrated instruction” was still rare.

Conclusion and Educational Implications

The purpose of this article was to explain the process of developing Teacher and Teacher-Librarian Collaboration Scale in Taiwan. In addition to integrating relevant theories on teacher and teacher-librarian collaboration around the world, the researcher also developed scale items based on literature review and interviews with teacher-librarians. After several rounds of modifying and revising, as well as testing of reliability and validity, it is safe to say that this Scale has high reliability and validity. Verifying with previous theoretical structures on teacher and teacher-librarian collaboration, it suggests that this Teacher and Teacher-Librarian Collaboration Scale is an effective tool for evaluating teacher and teacher-librarian collaboration.

The development of this valid and reliable instrument would contribute to the understanding of teacher-librarians’ role for the teachers, teacher-librarians and principals, and facilitate school library management. Teachers could further realize the role of teacher-librarians as teachers and teaching partners. Teachers and teacher-librarians could work together to design lesson plans, develop learning objectives, evaluate students’ learning outcomes, and integrate information literacy into subject teaching and learning.

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A Study on the Competence Map for Digital Publishing Editors

Ming-Ju Hsu

Abstract

The aims of the study were to understand the required competences for editors working in today's technology-driven publishing industry. The study used the Qualitative Research Method, which included Document Analysis, Functional Analysis, In-Depth Interviews with Experts, Experts Meeting, Triangulation and combined with the qualitative analysis software, ATLAS.ti, to analyze a wide range of competence parameters; a relationship-network diagram was then compiled. The results of this study were 4 main functions and 14 sub-functions and their job function concepts of competence to establish Competence Map for Digital Publishing Editors. The study results will be provided as a useful guidance and criteria for publishing industry to recruit, colleges and universities to teach and train and government to select talents. It also should help to assist editors' transformation and improve their working efficiencies as well as enhancing the development of Digital Publishing industries in Taiwan.

Keywords: Digital publishing; Editors; Competence

SUMMARY

Introduction

Tools of Change are shaking up the model of publishing, and forcing publishing industry to jump on the bandwagon or be left behind (Carreiro, 2010). The publishing industry is “undergoing a rapid reconfiguration and transformation”. New digital publishing formats encapsulate a range of characteristics including multiple-option infrastructures, various content formats and viewing modes designed to meet readers' requirements (Tian, Martin, 2010). The format of publishing needs to be redefined. It is no longer a finite bound in a physical container (Mrva-Montoya, 2013). Bookish materials tend to dissolve into undifferentiated tangle of words. Without containment, the reader's attention tends to flow outward, wandering away from the central narrative or argument (Kelly, 2011).

Editors find themselves in a technology-driven publishing industry and are facing the changes of technological advancements in all the workflow of publishing: from content creation and editorial, to publishing, promotion and

distribution. Driven by the growing number of e-Readers, tablets, smart phones and other mobile devices, the editors are required to reshape and expand new competencies going beyond traditional print paradigm as well as to upgrade professional status from ongoing technological changes.

Digital publishing industry has been promoted by the Taiwan government as one of the emerging key industries. However, according to reports released by the Industrial Development Bureau, the related talents and the knowledge level of the digital publishing industry appeared to be inadequate to meet such strong demands, as indicated by the surveys from 2011-2013 and 2012-2014 (Ministry of Economic Affairs, 2011; Ministry of Economic Affairs, 2012).

While publishing and editing industries in a number of countries (e.g., United Kingdom, Canada, and Australia) have developed detailed competency standards as guidelines in upgrading their professional talents and status, in Taiwan, there is a lack of a comprehensive set of competency standards tailor-made for its context which define the job functions of editing and digital publishing related industries.

The aims of the study were to understand the required competences for editors working in today's technology-driven publishing industry. The established Competence Map in the study will provide a useful guidance and criteria for publishing industry to recruit, colleges and universities to teach and train and government to select talents.

Research Methods

The study first selected a Structure of Functional Analysis based on the literature review and document analysis of competences required for the editors of the digital publishing industry. The Structure of Functional Analysis was then used as the basis combined with experts' opinions to establish the final Competence Map for Digital Publishing Editors. The research methods were as the follows:

Document Analysis: The study collected various documents related to digital publishing editors' competences published by institutions and associations from several countries such as the Creativeskillset of UK, Editors' Association of Canada, Council of Australian Societies of Editors of Australia, etc.

Functional Analysis: The structure of functional analysis was composed of three sections: main functions, sub-functions and job function concepts. The three sections were combined to form a structured tree map. This structured analysis method established a functional map through the top-down decomposition and bottom-up repetitive inspection to form the tree level.

In-Depth Interviews with Experts and Experts Meeting: In-Depth Interviews with Experts were carried out in August 2012 with 14 digital

publishing experts. The experts meeting were held in May 2013 with 10 digital publishing experts. All of experts were top executives of their respective companies, and their companies were generally recognized as the top-notch benchmark type of companies in the digital publishing industry in Taiwan.

Triangulation: The study used Data triangulation, Investigator triangulation, Theory triangulation, and Methodological triangulation to crosscheck information. The multiple methods included Document Analysis, Functional Analysis, In-Depth Interviews with Experts, Experts Meeting, and a Qualitative Analysis Software to establish the Competence Map for Digital Editors from more than one standpoint.

Research Tool: ATLAS.ti is suitable for analyzing unstructured data — data that cannot be meaningfully studied by formal, statistical approaches but could be managed, extracted, compared, explored and reassembled to meaningful segments of information from large amounts of data.

Results

The competences of digital publishing editors from functional analysis viewpoint were categorized to 4 main functions, 14 sub-functions, and the job function concepts. The competences for digital publishing editors were as follows:

1. Fundamentals

(1) Fundamental knowledge: Understand basic words, grammars, meanings and use of words and phrases, as well as various types and structure of words and phrases. Understand usage norms, such as expression of numbers, dates, use of symbols, shortened forms as well as the importance of legal and ethical requirements pertaining to publishing.

(2) Fundamental technology: Understand software and electronic tools features relevant to editing, various audio and video software and processing tools which are conducive to typesetting and the production of digital content. Understand internet searching, file formats and associated conversions.

2. Creating and Editing of Contents

(1) Commissioning and acquisitions: Identify publishable topics and subjects by collecting and studying marketing data and materials. Generate story ideas and integrate technical and artistic components. Be capable of developing and maintaining detail publishing plans, finding and signing up right authors.

(2) Developing digital contents: Arrange and organize graphics, audio and video input. Check and clarify copyright or license agreement for all materials. Initiate and develop ideas, assemble visions and sound. Assess digital images, select and compose various raw materials in support of manuscripts.

(3) Copy editing: Review and ensure the content is consistent with the main title and the subject; evaluate and determine the legality of the copyrights of materials involved. Review the arrangement and organization of graphics, audios and videos effectively, ensure the correctness, appropriateness, legitimacy and value of the manuscripts and present them in harmony.

(4) Substantive editing: Review and correct errors found in materials and adjust structures in accordance with internal logics. Clarify meanings, eliminate jargons, polish the tone of language, condense materials and reflect main topics concisely. Respect the spirit of the original materials; re-write as necessary to improve clarity and the flow of ideas.

(5) Design digital content: Analyze readers' need of readability, design content and platforms based on user-interface principles. Be capable of conducting film editing and organizing mixed media materials, ensure that the product design meets the appropriate criteria for interactivity, the accessibility and usability requirements of all potential users.

(6) Proofreading: Proofread presentations, questions, errors of digital content. Use software tools to improve the accuracy and consistency for on-screen proofreading. Check the accuracy of the information and copyright-related issues thru internet research; proofread the clarity and configurations of audio and video tones and graphics.

3. Marketing

(1) Devices: Use different platforms and formats that need to be targeted, consider the size of carriers based on the demands of readers. Consider publishing to multiple channels and the proliferation of devices. Analyze specific features of the content and select most optimal carriers. Edit non-linear contents for various devices. Develop interactive content. Create composite models for multiple media carriers.

(2) Promotions: Write marketing materials and profiles; analyze marketing situations trends and consumer psychology. Develop ideas and evaluate marketing activity and strategy, compose various introductions for digital publishing materials. Assemble promotional package, show abilities in writing summaries and abstracts for online reading.

(3) Readers: Use interactive platforms to understand readers, analyze readers' requirements on digital publications and their purchasing behavior through the analysis of the customer data. Develop digital products using user-friendly design and identify the way in which the target audience wishes to receive your information. Target the contents for multi-platforms, read and evaluate submissions by writing reader's reports.

(4) Feedbacks: Apply various channels, interactive platforms to understand,

analyze and evaluate market trends. Use interactive platforms to understand readers and communicate with them through the feedbacks area. Summarize views and critiques from readers and respond to their suggestions and requests. Evaluate and assess market reactions and product performance; design the feedback areas to communicate with the readers and respond quickly to readers' feedbacks and suggestions.

4. Management

(1) Data management: Establish proper concepts of metadata, tagging standards, optimization and aggregation of key words; ensure that indexing, metadata, coding, tagging and hyperlinks are correctly and consistently applied. Transfer structured data into and out of files and layouts. Use XML in early-stage workflow content to produce content for multiple channels. Allow the content to be reusable and to be repurposed dynamically across media for publishing.

(2) Project management: Implement publication project management plan; track and record the project's progress regarding budget, schedule, scope of work and required quality, scheduling, progressing projects. Maintain high quality execution. Master and control the progress milestones and publishing timelines, propose and initiate new publishing projects.

The study used ATLAS.ti to establish the Competence Map: integrating the concepts above into a network, a relationship-network diagram was then compiled. See Figure 1.

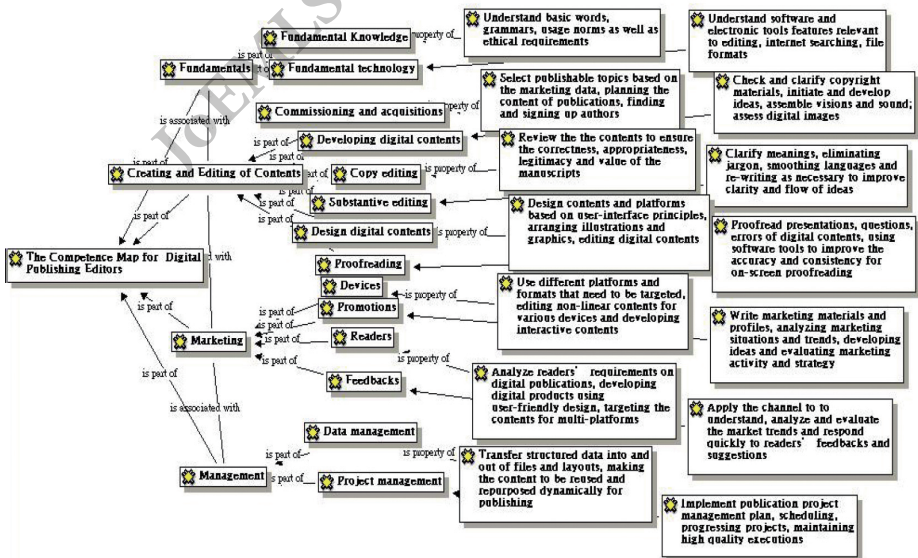


Figure 1 The Competence Map for Digital Publishing Editors

(ATLAS.ti Visual Representation)

Conclusion

The Competence Map for Digital Publishing editors was shown in Figure 1. The conclusion of this study was 4 main functions, 14 sub-functions and their job function concepts of competence to establish the Competence Map for Digital Publishing Editors. The results from the study will provide a useful guidance and criteria for publishing industry to recruit, for colleges and universities to teach and train, and for the government to select talented prospects. It also should help to assist editors' transformation and to improve their working efficiencies as well as enhancing the development of the digital publishing industry in Taiwan. These efforts will be beneficial for contributing and defining a detailed set of competency standards so as for raising professional status and quality for editors working in Digital Publishing era.

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