

Students' Perspectives on Library Instruction in a Composite Class: a Case Study in TVES of Taiwan

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Abstract. The aim of this study is to explore whether it is a possible conducive way for college students to understand what they need, and to have successful programs in having information search skill (namely information literacy) through library instruction course in the Technical and Vocational Education System (TVES) of Taiwan. Students who take the course are supposed to use library recourses, to take a quiz, download handouts and PowerPoint, and answer a questionnaire from the e-campus 3 systems which offers many different kinds of learning and teaching support besides attending the weekly two-hour periods in class. This course is offered in the Center for General Education at National Formosa University, Taiwan as an elective course for college students. The result is demonstrated for the positive influence on the enhancement in the library use for students and the conclusion should give valuable information for library to revisit their priorities in terms of the relative efforts in library instruction program.

Keywords: Library instruction, Library service, University, e-Learning

1 Introduction

A library is created to serve users. It plays the role of an information center which provides all kinds of learning resources. Excellent learning resources are critical to society for the economic, social, cultural and intellectual benefits they bring. Every stage of the learning process depends on the efficient and effective flow of information. Libraries are usually located around the center of a university campus, and are always available for use whether for studying or learning materials or for a quiet place to study. In the Standards for Libraries in Higher Education by Association of College & Research Library (ACRL) (2004) it is stated that the library should establish, promote, maintain and evaluate a range of quality services that support the institution's mission and goals [1]. College students at every stage need access to library resources either for assigned work or for research. The modern

library has a lot to offer in terms of library service features with the help of a digital and networked environment. Nowadays, online library instructions are used extensively to meet students' needs and enhance the rate of use of resources. Online instructions offer vivid, lovable, and fascinating WebPages to users, but lack the interaction one can have at a real library and also requires information to be updated regularly.

Sinn [2] surveyed library instructions for Biology students and found that libraries need to stress search strategies and encourage students to look at research as a process rather than a set of instructions to follow. Olson [3] used critical and creative-thinking skill to make the classroom more interactive in a library instruction session and appeal library to students with the opportunity to become creatively and critically active information-seekers and lifelong learners. Leach and Sugarman [4] were successful in using games in library instructions and found enhancement in student learning outcomes. It seems that in spite of the technological changes, the need for library instructions remains an existing state of affairs.

Both face-to-face and online instructions were compared by researchers which indicated that there were no significant differences in the learning outcomes between these two methods [5, 6]. The sample selection of the former was limited on psychology students and the latter on the experienced users in academic libraries. Many studies suggested that the collaboration of teachers and libraries are the most popular instruction method for college students and lead to academic success [7, 8, 9, 10, 11]. This study is to explore whether it is a possible conducive way for college students to understand what they need, and to have successful programs in having information search skill (namely information literacy) through library instruction course in the Technical and Vocational Education System (TVES) of Taiwan.

2 Background and Related Studies

2.1 Reader perspective

National Formosa University (NFU) library is a public TVES University located in the centre of Taiwan. TVES university library is defined here as academic libraries and college libraries. The NFU library has five full-time professional librarians, three part-time paraprofessionals, a full-time information system engineer, and a collection of over 200,000 printed volumes and 72 English/Chinese electronic databases. The reference desk consists of one librarian and is responsible for library instructions, research assistance, and interlibrary loan. It offers face-to-face library instructions to new students (only freshmen) and a virtual tour guide which is linked to its library web site (Libweb). The teacher (the 2nd author) who taught the library instruction course majored in library science and has experience of working at NFU library for more than 10 years; she is now a lecturer in the Department of Information Management which helped her deeply in the library instruction development.

2.2 Library Services in University Campus

University students go to library to borrow/return books, for reference directory, inter-library loan, documentation delivery, and query for relevant information for their

needs either in the quest of an assignment or reading. They ask for library service either for their assignment or for reading while in campus and are considered as customers [12]. The new customer is fickle, demanding, informed, and in the driver's seat [13]; their basic purpose is information concerning needs, goals, abilities, and points of view, as these affect the library service. Students expect more choice now and more personalized services from universities, and we should not be surprised when this new behavior spills over into students' expectation of their library service [14].

Students are the key subjects in a college campus and their requirement for a library supporting teaching and research is different from a public library. Mellon [15] found that at least 75% of undergraduate students become anxious during their initial library research experiences and it showed that they need library instructions with their class program [16, 17]. The library has a very strong role to play in the interactive environment which students inhabit, and the library service will continue to be a vital part of the student experience [18]. Most of university libraries have their own library tour guide or library education to welcome new students and post roadmaps on their library web sites (Libweb). Library professionals agreed that there were difficulties in providing training for their students because of the large numbers of students, the lack of suitable training rooms and equipment and the shortage of suitable trainers [19].

Students are usually confused by coexistence of the printed/electronic format material in the library especially when they search for information according to a favorite subject. "Library Instruction" is offered as an elective course for General Education in NFU, Taiwan for college students but not for graduate and doctoral students. The course tries to complement the students' information search needs in fulfilling their assignment and research goals.

2.3 Library Instruction Needs of TVES Students

One way to demonstrate that the library adds value to the educational program is to encourage students to use the library for completing course assignments [20]. Our students no longer learn the way we did in the (good?) old days of print and are radically changed [21]. They are born in the "net generation [22]," or "Google generation [23]," who speaks the digital language of computers, video games, and the Internet as their native language [24]. The question facing us today is whether the mission libraries have performed in the past is still relevant in today's world. It appears that the change is increasing and has been technological, in the sense that the format in which information is recorded has changed over past. Although the whole-class instructional methods are the most commonly used models in public school teaching in the U.S.A. [25] as well as in Taiwan, it may not work as well for the TVES students.

To encourage such students' use of library and enhance their information search skill, Center for General Education (CGE) offered a "Library Instruction" course to college students except freshmen as most of them are occupied with required courses. A study by Wu [26] showed that overwhelming majority of the students knows a little about electronic resources and college students (49.6% of all students) prefer printed

periodicals. Researchers suggested developing alternative ways to help users [27, 28, 29]. Literature synthesized that libraries establish instruction programs in collaboration with faculty and provide interactive instructions for improvement in information search which are summarized in Table 1.

Table 1. Literature synthesized of library instruction program

References	Main Findings	Conclusions
[30]	Introduce students to the resources that will help them complete their assignment.	Libraries establish programs at collaboration with teaching faculty in the class.
[31]	The use of databases and the World Wide Web are differences between magazines and journals.	
[32]	The term papers produced were improved by the guided research process.	
[33]	Library instruction is time and labor intensive, especially for new courses.	
[34]	Library instruction is improved with learning outcomes when combined with faculty.	
[35]	Promote students' self-confidence and encourage them to freely assess and evaluate the sources of information they find.	Make classroom more interactive, one-on-one instruction and information search is increasing after the instruction training. The impact of library instruction will lead to user satisfaction.
[36]	The increase was related to attitudes, emotional experiences, and search performance.	
[37]	The electronic resources and online bibliographic instruction for future medical professionals is important.	
[38]	Evaluation has been conducted successfully by libraries in the form of focus groups, pilot-testing, tracking usage of web pages, and surveys.	Enhance Web-based instruction is a student interacting with library.
[39]	Student response to incorporating this type of Web page into library instruction.	
[40]	Libraries are being held increasingly accountable for learning outcomes, addressing research design issues.	Design valid assessment programs and accurate documentation of student learning.
[41]	Reflects positively on the library instruction	

As Table 1 illustrates, library established program in collaboration with faculty is identified and analyzed based on the survey approach [42, 43, 44, 45]. Also discussed are enhanced web-based instruction [46, 47] that make students use library resources and which can be used to evaluate outcomes in the class follow up [48, 49, 50]. Improving the technological equipment for speedy access of information resources to meet with the technological change is also mentioned [51, 52]. It is obvious that the library instruction course is needed by college students not only for their assignments but also for their information search needs.

3 Method

A survey of enrolled National Formosa University college students was conducted in December 2007 to collect data from students' perspective about the use of the NFU library's resources. A Total of 10 questions were asked. They related to awareness of services and resources provided, use of services and resources offered, and their perspective on the library instruction course. These questions were formulated to ascertain the perspectives, expectations, and general information needs of students.

3.1 Participants

Students who took the course "Library Instruction" in the fall 2007 Academic Year were supposed to use library recourses, to take a quiz, download handouts and PowerPoints, and answer a questionnaire from the e-campus 3 system besides attending the weekly two-hour periods in class. Students were asked to go to the library in person to understand the way information is created, borrow/return books from stacks, define a topic to search for information to evaluate and cite available resources, and link to the Libweb to access information (remote access across multiple databases simultaneously, link seamlessly to database resources, and set up email alerts). Also, the library resources are helpful in developing an appreciation of the different media and formats through which information is made available. Therefore, students were instructed in the types of materials found in the catalogue, and how to construct effective searches. All of the instructions were developed taking into account the needs of students.

e-Campus 3 system

e-Campus 3 system in NFU offers many different kinds of learning support through which the teacher's syllabi and announcements can be listed in the Introductory Section as well as weekly records of coursework progress. Students were asked to download PowerPoints, materials, and handouts; upload questions, quizzes, assignments, and to answer a questionnaire through this system. e-Campus system helps students learn the weekly records of progress as a memorandum of what was already done in class.

4 Data analysis

Students were asked to rank the effect of the current library instruction course on the basis of importance. The questionnaire consisted of 10 items. Each item was scored using a five-point Likert scale, ranging from (5) = strongly agree to (1) = strongly disagree. The 10 items measured the students' perspectives of the course within various aspects of the course program. All the students (56) were asked to answer this questionnaire on the e-campus 3 system at the end of semester. Two questionnaires

were eliminated due to missing data, and the response rate reached ninety-six point forty three (96.43%), leaving a final sample of 54 used in the data analysis. Demographic information is shown in Table 2.

Table 2. Student's background information (n=54)

Gender			Percentage
	Male	50	93
	Female	4	7
			100%
College			
	Management	0	0
	Applied Arts and Sciences	8	15
	Engineering	42	78
	Electric and Computer Engineering	4	7
			100%
Age			
	Below 20	31	57
	21~40	23	43
			100%
Frequency of Libweb searching			
	Sometimes	33	61
	Usually	8	15
	Never	13	24
			100%
Frequency of library visit			
	0-3 times a week	45	83
	4-6 times a week	7	13
	6-9 times a week	1	.2
	>10 times a week	1	.2
			100%
Purpose of library visit			Rank
	Reading	34	1
	Borrow books	30	2
	Searching	29	3
	Air conditioning	27	4
	Magazine	14	5
	Read newspaper	11	6
	Watch movie	9	7
	Copy	4	8
	Chatting	3	9

93% (50) of the students were identified as male, 7% (4) as females. Among them 78% (42) were engineering college students, 15% (8) applied arts and sciences, and 7% (4) electric and computer engineering. 57% (31) were aged 20 and below, and age group 21 to 49 accounted for 43% (23). 61% (33) of them were sometimes searching for the Libweb, 15% (8) usually search on the Web, and 24% (13) never. 83% (45) of

students spent 0-3 times per week visiting the library, 13% (7) four to six times, 0.2% (1) six to nine, and only one 0.2% (1) spent more than ten times per week.

The following services for students' library visit were ranked highest: reading (34), borrow books was second (30), access and search for materials was third (29); and others were to have air conditioning (27), read magazines (14), read newspapers, watch video/movies, copy and chatting. The survey revealed that reading, borrow/return books, and information search for related materials to a topic were ranked high.

Of the questions "It is necessary for knowing information search abilities and helpful to my study career and lifelong learning" (Mean = 4.1111; S.D. = 0.86147) was received by the students as being the most predominant, followed by the question "It is important for teacher and library to assist students in learning and research in a way of cooperation and continuity" (Mean = 4.0556; S.D. = 0.78708) and "I understand better of the information search abilities when I practice in class personally" (Mean= 4.0185; S.D. = 0.76456). The result was not surprising and conforms to the review of literature which stated the importance of library established programs in collaboration with teaching faculty in the course program.

The questions "It is convenient to us the library after the library instruction course" (Mean = 3.7037; S.D. = 0.76798), "It is helpful in developing information search abilities from the library instruction course" (Mean = 3.6852; S.D. = 0.66798), and "It is easier to use e-resources after the library instruction course" (Mean = 3.6852; S.D. = 0.63911) were rank fourth to sixth. The library instruction course from students' perspective was helpful for using library resources and enhancing information search abilities. The course program should be offered abidingly according to students' needs and wants.

"It is helpful to search needed information from the Internet after the library instruction course" (Mean = 3.6667; S.D. = 0.67293); "It is helpful in understanding information content in regards to the assignment with the help of the library instruction course" (Mean = 3.5741; S.D. = 0.76730), and "I will recommend my classmates and friends to take the library instruction course" (Mean = 3.5185; S.D. = 0.77071) were less agreeable with students' opinion. "It is not necessary to have any library instruction program offered and one can just browse the Libweb to get needed information" (Mean = 2.6111; S.D. = 0.76273) was listed at the lowest of the rank. It can be seen that the library instruction course is needed and is helpful to college students, and will be better if the program is cooperative between library and faculty. Table 3 provides mean and standard deviations regarding the students' perspective as regards to the library instruction course.

Table 3. Indicators of students' library instruction course perspective

Description	Mean	S.D.	Rank
It is necessary for knowing information search abilities and helpful to my study career and lifelong learning.	4.1111	.86147	1
It is important of teacher and library to assistant students for learning and research in a way of cooperation and continuously.	4.0556	.78708	2
I understand better of the information search abilities when I practice in class personally.	4.0185	.76456	3
It is helpful to library use after the library instruction course.	3.7037	.76798	4

It is helpful to the use of e-resources after the library instruction course.	3.6852	.63911	5
It is helpful to the information search abilities from the library instruction course.	3.6852	.66798	6
It is helpful to search needed information through Web site after the library instruction course.	3.6667	.67293	7
It is helpful to understand information content by the assignment of library instruction course.	3.5741	.76730	8
I will recommend my classmates and friends to take the library instruction course.	3.5185	.77071	9
It is not necessary of the library instruction course and one can just browse the Web site online instruction to get needed information.	2.6111	.76273	10

5 Conclusion

The proliferation of Internet and new technologies are transforming the ways in which information is created, disseminated, stored, and accessed. Libraries have to harness the technological change and use it to fulfill their mission to provide access to information when students need it. Students are customers and libraries have to interact with them to know their needs and obstacles in using library resources. "Library Instruction" should not be ignored of the digital environment and the IT emergence, on the contrary, researches on the instruction issue is increasing in an active and interactive way. Olson [53] addressed one-on-one instruction to promote the students' self-confidence and encourage them to freely assess and evaluate the resources of information they find. Keating and Hafner [54] invited individual customers to think actively about the applicability of business concepts to academic library service and then raised a model for one-to-one library service. College students include freshmen, sophomores, juniors, and seniors. There is a certainly a barrier to be overcome to manipulate one-to-one relationship model for each of them. Sinn [55] and Silver and Nickel [56] offered library instructions to psychology and biology students respectively. We are focusing on a composite class in which students come from different colleges and are encouraged to discuss in class after using library resources, and then enhance their information literacy from this course.

Academic libraries are currently facing their greatest challenge since the explosion in tertiary education and academic publishing due to the digital revolution [57]. Academic and other libraries are confronted with "poor quality, fewer customers, budget cuts, fewer mega-bookstores, document delivery services, and online information services [58, 59]. For more than a decade, academic libraries have been under pressure to change its way of operation and management due to the tight budgets and the appearance of online resources. This study is demonstrated for the enhancement in using library from the collected data and the necessity for the library instruction course from students' perspective.

Researchers found that there existed library anxiety during library use and these affect users' satisfaction. Mellon [60] pioneered the term "library anxiety" and found that undergraduate students become anxious during their initial library research experiences. Anxiety is an unpleasant feeling or emotional state with physiological and behavioral concomitants, which comes to the fore in a library setting [61]. They will get satisfied when their needs are reached and fear of unfamiliarity with using

technology and anxiety were eliminated. This provides library professionals for user care and anxiety diminishing as future research topics.

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