MULTI-COLOUR GUIDE AND INSTRUCTIONAL GUIDE AS PREDICTORS OF STUDENTS' UTILIZATION OF INFORMATION SERVICES IN UNIVERSITY OF CALIFORNIA LIBRARY

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ABSTRACT

The main aim of this study was to examine multi-colour and instructional guides as predictors of students' utilisation of information services in University of California library. A survey research design was adopted for the study. The study was conducted in University of California library. The population of the study was registered undergraduate students in faculty of education, University of California library. Simple random sampling technique was used to select 260 females and 162 males from faculty of education, University of California library, giving a total of 422 registered undergraduate students that made up the sample size used for the study. The main instruments used in this study were questionnaires titled "Multi-Colour Guide and Instructional Guide Questionnaire" (MGIGQ) and "Information Services Utilization Questionnaire" (SUISQ). The instrument was given to three research experts for face validation to ensure its validity. Two assessors were from the Department of Education Foundations, Guidance, and Counseling and one from Library Science Unit of the Department of Educational Technology and Library Science, all in the University of California. Cronbach Alpha Technique was used to determine the level of reliability of the instrument. The reliability coefficient obtained was 0.86, and this was high enough to justify the use of the instrument. The researcher subjected the data generated for this study to appropriate statistical analysis, such as regression coefficient analysis to answer research questions (i.e., R and R2-value) of Simple Linear Regression Analysis. While the F-value of the Simple Linear Regression Analysis was used to test the null hypotheses at 0.05 alpha level. The study revealed and concluded that the extent to which multi-colour guide predicts students' utilization of information services in the University of California library is significant. Also, that the extent to which instructional guide predicts students' utilization of information services in the University of California library is significant. One of the recommendations made in the study was that librarians should ensure that signs contain clear and precise information and that instructional signs should conform to the arrangement of materials on the shelf units to avoid confusion and frustration in accessing information and other library services.

KEYWORDS: Library Signage, Information Services and University of California library.

Introduction

A good university library is characterized by well-designed, sufficient, and flexible space and is equipped with an appropriate collection to support curriculum goals. Such a library has a design that is based on consideration of the unique and diverse needs of the learners it serves and employs a good management system to ensure optimum utilization by the university community. Johnston and Bishop (2011) noted that the academic library should be a place where children can find things easily and learn to be independent library users. This requires that the university library be designed so that students are directed to the materials they need as well as navigate easily and independently, especially to find the information they need for learning and pleasure. Signage is seen as a comprehensive system of signs, arrows, and directional guides that assist visitors in self-navigating through an environment. It is a powerful communication medium that encompasses visual, auditory, and textual cues that help users navigate their way around a building or space. Ahn (2011) identified library signage as including multi-colour guides, directional guides, instructional guides, regulatory guides, informational guides, etc.

Multi-colour is a type of signage that makes access to resources easier with different colours, making it easy and fun to search for and retrieve information resources in the library. Colour is an important element to consider because it has a significant effect on students' way-finding and spatial orientation abilities in a university environment (Jansen-Osmann and Wiedenbauer, 2004). Library users need the library environment to be interesting, and they make associations with colors and shapes rather than form. Colour is seen as the easiest material to change the characteristics of the environment and is dominantly visible. Despite giving character to space, colour is also useful in influencing human behaviour, decision making, health and much more, with or without one's realization. Colour is a subtle stimulation with a salient impact and has highly affected human lives physically, psychologically, and sociologically every day. Therefore, using colors in signage can provide visual interest, supply information for efficient navigation, and improve wayfinding and spatial orientation abilities in the university library environment.

An instructional guide is another type of signage required or used in a university library. Reitz (2004) postulated that instructional guides, also referred to as bibliographic instruction (BI), user education, and library orientation, consist of instructional programs designed to teach library users how to locate the information that they need quickly and effectively. It usually covers the library's system of organizing materials, the structure of the literature in the field, research methodologies appropriate

to the academic discipline, and specific resources and finding tools. It prepares individuals to make immediate and lifelong use of information effectively by teaching the concepts and logic of information access and evaluation and by fostering independence and critical thinking. Becker (2013) opined that some university libraries offer specialized instructional signage. When incorporating instructional signage into information literacy instruction, instructional signs can teach students how to succeed through long, complex, and difficult tasks while still keeping the learning experience engaging. Library instructional signage is evolving to adapt to the changing concepts of information use and understanding.

Statement of the Problem

As library collections expand, materials are moved and re-shelved to make room for new items, with little consideration to students' way of finding needs. Recent observations have shown that most librarians and libraries are not aware of students' frustration in terms of haphazard arrangement of materials and confusing library signage. Some librarians interviewed admitted to the inadequacy of signage in libraries, while others were of the opinion that these signs are usually put in place but not adhered to by users. It is therefore based on this contradiction that the researcher attempted to examine library signage and students' utilisation of information services in University of California library.

Purpose of the Study

The main objective of this study was to examine library signage and students' utilisation of information services in the university of California library. The specific objectives were as follows:

1. To determine the extent to which multi-colour guide predict students' utilisation of information services in university of California library.
2. To examine the extent to which instructional guide predict students' utilisation of information services in university of California library.

Research Questions

The following research questions were raised to be answered.

1. What is the extent to which multi-colour guide predict students' utilisation of information services in university of California library?

2. What is the extent to which instructional guide predict students' utilisation of information services in university of California library?

Research Hypotheses

The following hypotheses were formulated and tested at .05 level of significance.

HO_1: The extent to which multi-colour guide predict students' utilisation of information services in university of California library is not significant.

HO_2: The extent to which instructional guide predict students' utilisation of information services in university of California library is not significant.

Conceptual Review

Concept of Library Signage

Library signage is one of the many touch points that a library user needs to navigate through the library confidently and independently. Lack of signage, however, can trigger library anxiety, a term used to describe the feelings of fear, uncertainty, and worry when visiting the library. Dalton (2014) postulates that whether a university is being built or a street fair is springing up, wayfinding signage is one of the keys to a great visitor experience. The basic guiding principles behind the design and placement of those signs should be the same. Signs deliver information, and in terms of finding signage, only a handful of different types of signs are necessary to deliver information. Knowing what those types of signs are is an integral part of creating a useful system of wayfinding signage. Dwight (2008) makes the most sense when he lists these four: identification, directional, informational, and regulatory signage. Defining these four types of signs is as simple as knowing how to use them. When designing the system, librarians should remember that the simpler the wayfinding signage system is made, the better for all involved, from the designers of the wayfinding signage system to the visitors using it to get around. Dwight maintains that the idea behind designing signs is to convey as much information as necessary in as little space as possible. That is why it helps to think of signs in these four different categories.

According to Ahn (2011), signage is the methodology of arranging indicators to guide people to their destinations. Signs are tools that aid in way-finding. Architectural indicators such as light, color, materials, and pathways also play a large role in signage. A successful signage system is intuitive and self-navigable, and it protects the overall visual integrity of the site. Also, signage is specific to its place and visitors. Signs improve and are often essential components of a well-planned wayfinding program. The function of a sign is to identify, inform, direct, restrict, or

permit. Good signage recedes into the background while providing clear information when needed. In addition, sign codes, life safety issues, and disabled universal guidelines need to be included to meet the national and world-wide requirements. Mandel and Johnston (2016) posit that successfully designed signage helps visitors find their way, makes information accessible, and provides an enhanced experience. In addition, an inclusive assessment of the environment and issues that affect orientation for first-time visitors is imperative to a successful signage and wayfinding program. Successfully designed signage and posters in libraries can be key measures of library marketing to invite potential users.

Stempler and Polger (2013) opine that signage is an important way of finding aid strategy for all libraries, but is all the more important in the academic library, which needs to support students who are still learning about the organizational scheme of the library and developing spatial thinking skills (Read, 2010). In order to successfully navigate space while seeking information, students need to develop their spatial thinking and understand spatial signs, or the ability to visualize and interpret location, distance, direction, relationships, movement, and change through space. Finding one's way is a requirement of daily life, and purposeful navigation between places is perhaps the most prominent real-world application of spatial cognition. Wayfinding is not only getting to a location successfully, but also developing an awareness of the environment that contributes to more efficient planning and execution. Signage has the potential to improve a person's spatial skills or spatial literacy, and the design of signage systems and aids, when associated with completing a task or solving a problem, can create this spatial awareness.

Concept of Utilization of Information Services

Clark (2012) posits that academic libraries are libraries established and maintained by tertiary institutions. They are meant to provide the informational, educational, and recreational needs of the students. Libraries are considered agents of social, political, and cultural change in any society and provide a wider range of readers than any other type of library. Students are expected to make effective and efficient use of academic libraries to satisfy their informational and research needs. Users' satisfaction with the services rendered by academic libraries relates to their effective use of the services and resources provided by the library. The satisfaction derived by students greatly influences the utilization of the services rendered by the library. Therefore, to justify the existence of any academic library, the provision of effective services and resources necessary to attract potential users cannot be possible without library signage.

The primary role of an academic library is to provide information services to support the educational, recreational, cultural, economic, and technological needs of users. They are used as a medium for disseminating information and enhancing literature searches, as well as a tool for the development of intellectual compatibilities and the promotion of cultural and social integration. Read (2010) sees the library as a store of knowledge, indispensable to the success of any functional education. Read further stresses that education without the services of a library is a half-baked education that can only produce narrow-minded individuals who will not be productive in their community. The most important aspect of the library is the extent to which students utilize the library's information services. As a result, what could aid in the utilization of library information services, such as signage systems, must not be treated lightly.

Ikenwe and Adegbilero-Iwari (2014) opine that utilization and user satisfaction of academic library services have become an imperative concern in recent times. There is no doubt that satisfaction with library services influences the degree to which the services are used, and it has been found to be an important factor that affects the use or non-use of library services. The library is both a repository of knowledge and a dynamic social institution, an indispensable resource centre for reliable information and meant to preserve the recorded knowledge of man for use. Aina (2004) emphasizes that a library is concerned with the collection, processing, storage, and dissemination of recorded information for the purpose of reading, study, and consultation. Aina stresses that for any library to attain this goal, many activities must be performed by the library that translate to library and information services. Jail, (2012) lists the following library services according to the international standard: online public access catalogue and user services; reference service; bibliographic service; current awareness service; document delivery; inter-library loans and union catalogues; audiovisual services; customer relations and user education; internet access; and access to web-based resources.

Given the increased use of information resources and services in academic libraries, Parvathamma and Reddy (2009) argue that academic libraries should be proactive in motivating users to use their resource collections, provide internet access, and provide community-based services such as literacy programs. Perhaps this is possible if academic libraries apply appropriate signage or adopt a signage system to provide the necessary guidance and information required to aid the utilization of library information by students and other library users. Perceived ease of use through signage may be the influencing factor in whether or not a particular information resource of the academic library is used (Ossai, 2009). The librarian has to know whether the students are utilizing the

right materials at the right time. This can be achieved through systematic evaluation of the library's services; the need to provide proper library orientation to users because, without knowledge of the use of the library's signage, catalogue, and entire library, one cannot retrieve materials easily from the library. Aguolu and Aguolu (2002) believe that instructional signage in libraries aims at developing the bibliographic skills of library users, especially students, so that they can make the most effective use of the library and information resources.

Multi-Colour Guide and Students' Utilization of Information Services

Color is an important element to consider because it has a significant effect on students' wayfinding and spatial orientation abilities in academic environments. Library users need the library environment to be interesting, and they make associations with color and shapes rather than form. Therefore, using color in signage can provide visual interest, supply information for efficient navigation, and improve students' wayfinding and spatial orientation abilities in an academic environment, but color must be considered carefully to ensure there is sufficient contrast between the text and background to allow a sign to be legible (Arthur and Passini, 2012).

Multi-colour is a useful design element for spatial orientation and space definition for creating environmental information that supports children's wayfinding abilities, including helping students orient themselves in a new environment (Jansen-Osmann and Wiedenbauer, 2004), especially for younger children who may have limited reading skills. In the academic library, the librarian had the four segments of the library strictly color-coded with all subject headings and Dewey Decimal signage in each section appearing in the designated color. This was a good use of color to create a system. The use of color in signage is an important aspect of wayfinding. The use of color can create a system to assist users in developing their own wayfinding scheme (Jansen-Osmann and Wiedenbauer, 2004; Read, 2010).

Colour is only a small part of the vast electromagnetic spectrum that can be perceived by the human eye from about 400 nanometers to 700 nanometers in measurement. Visible light is measured in nanometers, and a nanometer is equal to 1 millionth of a millimeter. Interestingly, the energy of colour waves can also be sensed through skin (Jin, Yu, Kim, Kim, and Chung, 2005), probably used by people with visual impairment to recognize colour. Colour is divided into cool and warm colors, where it is differentiated by the characteristics of its wavelengths. Blue, green, and purple are regarded as cool colour ranges that have a shorter wavelength compared to red, orange, and yellow. Red, orange, and yellow are

categorized as warm colors, with red as the longest wavelength perceived by our eyes.

From the above analysis, many previous studies used red for a warm colour, followed by blue for a cool colour in their context. Therefore, the color effects of red and blue are abundantly supplied compared to other hues (Fehrman and Fehrman, 2004; Chebat and Morrin, 2007). Besides that, it is discovered that only one research has included a subject's colour preference together with the determined colour in the experimentation. With consideration of the subject's colour preference, it may reveal a significant pattern as people respond to colours differently based on culture. Moreover, it is found that color has a positive effect if the luminosity level fits the individual preference, which should be further researched. Looking at other research findings, it is discovered that research studies highlighted the salient effects of white color on human well-being and performance. Every individual has a different level of sensitivity towards the environment. The ability to screen irrelevant stimuli makes the high-screener less arousing or less affected by the environment than the low-screener.

This white effect is found to be worsening among low screeners, who have more errors in their performance as well as dysphasia or depression than moderate or high screeners. Aside from that, it is said that most public buildings are white, which is also known as "natural color." In regards to this, many people thought white had professional quality and was widely accepted but were unaware of its distinct effects on people (Kwallek, Lewis, Lin-Hsiao, and Woodson, 2006; Stone, 2001). The research also suggested that more research on white should be done because many people are still unaware of its impact. This review also suggests that stimulus screening ability is a useful tool in future research for comprehensive findings of color effects. Other studies also show inconsistent and unclear colour effects. For example, Kwallek and Lewis (2000) found that red has the most arousal effects, which has caused fewer errors made in certain tasks, although it is highly rated as distracting. In contrast, Kamaruzzaman and Zawawi (2010) concluded that blue has the most arousal effects and has the highest rating for performing environment.

Instructional Signage and Students' Utilization of Information Services

According to Ahn (2011), signage serves two functions: first, as a visual delivery of necessary information; and second, as a composition of exterior and interior designs to provide instruction to library users. The instructional role maximizes the harmony of spaces by displaying signs on walls, stairs, hallways, and floors of libraries. The library signs, therefore,

not only provide instruction for easier ways of access for visitors but also visually express the nature of organizations and the function of areas and work as an image marketing strategy for the library. Johnston and Mandel (2014) opine that instructional signage may include signs like "Checkout Your Books Here."

Reitz (2004) postulates that library instruction, also called bibliographic instruction (BI), user education, and library orientation, consists of "instructional programs designed to teach library users how to locate the information they need quickly and effectively." It usually covers the library's system of organizing materials, the structure of the literature in the field, research methodologies appropriate to the academic discipline, and specific resources and finding tools (library catalogue, indexes and abstracting services, bibliographic databases, etc.)" (Reitz, 2004). It prepares individuals to make immediate and lifelong use of information effectively by teaching the concepts and logic of information access and evaluation and by fostering information independence and critical thinking.

Grassian and Kaplowitz (2010) state that library instruction "began in the nineteenth century, with instruction in library use offered by a number of libraries in the United States between 1876 and 1910, and then ramped up in the early twentieth century." In a 1912 American Library Association survey, 57% of respondents offered required or elective library instruction courses. Academic library instruction was, for the most part, dormant in the library profession from the late 1930s until the early 1960s. Some librarians were still participating in classroom instruction, but the literature shows little activity on the topic. Academic library instruction mushroomed during the 1960s and early 1970s. This resulted in the founding of the Library Orientation Exchange (LOEX), a non-profit, self-supporting educational clearinghouse, in the early 1970s. The first conference was held at Eastern Michigan in 1973 and has been held annually around the United States ever since. The LOEX borrowing collection consists of print materials such as one-page hand-outs, bibliographies, and subject guides; instructional videos and audio tapes; and CD-ROMS. By 1999, LOEX had over 650 members in the United States, Canada, the Caribbean, Europe, Australia, Israel, Lebanon, and South Africa." (Lorenzen, 2001).

Luca and Narayan (2016) averred that instructional signage helps users better utilize the library. However, Luca and Narayan maintain that instructional signage is also one of the most common types of poor signage; when a user encounters an issue, helpful staff members are quick to prepare a handmade sign explaining the correct procedure. These accumulate, become outdated, and cause clutter. Schmidt and Etches (2014) argue that paper signs are often put up because something isn't

working very well. Instead, librarians should address the core issue, which will improve the visual environment and make the library more pleasant to use. This idea is supported by Mollerup (2005), who argues that user instructions can sometimes be seen as "repair design for poorly designed products that cannot themselves explain how they should be used". Creating a professional-looking version of the same sign does little to address the underlying issue. Brown (2002) suggests that "most library policies and instructions for complicated procedures should be presented to users by word of mouth or in a handout or flyer, rather than a sign."

Luca and Narayan (2016) posit that printing is a common but often complicated procedure at academic libraries, and the library's print and copy room proved to be a problematic user environment. Staff members at the library's reference desk receive many inquiries about printing and copying services. The room appeared to be thoroughly signposted, with many different signs explaining how to add money to one's account. Yet, there was little consistency to these instructions, with many signs created at different points in time and using different terminology and language. A key piece of information that users can print from their laptop or mobile device, not just the library computers, was nowhere to be found on any of the signage. The library's website did not provide information about this either, instead listing printing costs, how to add money to your account, and where to get help. Clearly, there was a wealth of information available about printing, but not necessarily the information users actually needed to print and copy.

Empirical Review

Beecher (2004) conducted a study on an experiment with art library users, signs, and wayfinding in Sloane Art Library. The purpose of the study was to determine the effects of stack end signage on user success in searches in academic libraries. An action research design was used for the study. A total of nineteen subjects participated in this study. A three-week study was conducted to survey the effects of three different iterations of signage on the success of subjects performing test searches in the Sloane Art Library. The data collected was evaluated qualitatively. The result revealed that the Library of Congress call numbers were the most critical items included on the signage for a known-item search, while the subject headings and material listings were especially useful for browsing in the stacks. The study also revealed that there were no stack signs for the shelves at the beginning and end of the range of call numbers, that books were housed on shelves that were flush with the walls, and that signs were placed very high above the shelves. It was recommended that the signage should be designed to address the arrangement of materials on the shelf units and make this left-to-right configuration of materials obvious to patrons.

Similarly, Beecher (2004) conducted a study on way finding tools in public library buildings: a multiple case study. The purpose of the study was to determine the way finding tools in public library buildings in three large cities in the United States. The research was exploratory in nature. The population of the study was 60 participants, made up of 20 volunteers from each of the three libraries. The data for the study was gained from the self-reported comments of volunteers. The data collected were evaluated qualitatively. The result revealed that the wayfinding tools include; maps, signs, and directories, and the degree to which each of the tools was used depended, in part, on the availability of the tools at the individual library. The result also revealed that many of the wayfinding tools currently available in libraries do not facilitate item retrieval. Inconsistencies, ambiguities, disparities, obstructions, and operational deficiencies all contributed to end-user frustration and retrieval failure. The study suggests that failing to address these issues may prompt library patrons' end users, who are increasingly interested in finding information with minimal expenditures of time and effort, to turn to other information-retrieval strategies and abandon a system that they find confusing and frustrating. The wayfinding literature stresses the usage of directional signs (Arthur and Passini, 2012), but only 2.3% of all signs in the academic libraries studied were directional, while 14.7% were regulatory and 83.0% were informational. This ratio of directional to other signs is even starker than the ratios found by Stempler and Polger (2013) and Mandel (2012), who found 12% directional, 44% regulatory, and 44% informational and 12.7% directional, 11.7% regulatory, and 75.6% informational, respectively. It seems that even though students require additional help to get information or library services, academic libraries are utilizing even fewer directional signs than public libraries, and directional signs had more issues of clarity than other signs. Li and Klippel (2012) postulate that improving access to learning resources through provision of directional text-based and graphics-based signage is valuable because directional signs assist in orientation and navigation, contributing additional information to the mental image of the environment and therefore contributing to the cognitive map. When students are not given adequate directional cues, including both having sufficient directional signs and ensuring those signs are clear, their disorientation will hinder both wayfinding performance and spatial knowledge acquisition.

Methods

A survey research design was adopted for the study. The study was conducted in University of California library. The population of the study was registered undergraduate students in faculty of education, University of California library. Simple random sampling technique was used to select 260 females and 162 males from faculty of education, University of California library giving the total of 422 registered undergraduate

students that made up the sample size used for the study. The main instruments used in this study were questionnaires titled "Multi-Colour Guide and Instructional Guide Questionnaire" (MGIGQ) and "Information Services Utilization Questionnaire" (SUISQ). The instrument was given to three research experts for face validation to ensure the validity of the instrument. Two assessors were from the Department of Education Foundations, Guidance and Counseling and one from Library Science Unit of the Department of Educational Technology and Library Science, all in the University of California. Cronbach Alpha Technique was used to determine the level of reliability of the instrument. The reliability coefficient obtained was 0.86 and this was high enough to justify the use of the instrument. The researcher subjected the data generated for this study to appropriate statistical analysis, such as regression coefficient analysis to answer research questions (i.e., R and R2-value) of Simple Linear Regression Analysis. While the F-value of the Simple Linear Regression Analysis was used to test the null hypotheses. The test for significance was done at 0.05 alpha levels.

Results

Research Questions

Research Question One: What is the extent to which multi-colour guide predict students' utilization of information services in the university of California library?

Table 1: Simple linear regression analysis for the extent to which multi-colour guide predicts students' utilisation of information services in the university of California library.

Variable	R	R Square	Extent of prediction	Remark
Multi-colour Guide				
	.325	.106	10.6%	Low Extent
Students Utilization of Information services				

Result in Table 1 shows the R for the strength of the relationship and R2 for the determination of the extent to which multi-colour guide predict or determine student's utilization of information service in the university of California. The R- Value of .325 indicates a low extent of relationship between the two variables. The calculated R2 of .106 which is the coefficient of determinant indicates that only 10.6% of student's utilization of information service is predicted by multi-colour guide. This implies that multi-colour guide to a low extent predicts students' utilization and information service in the university of California library.

Research Question Two: What is the extent to which instructional guide predict students' utilization of information services in the university of California library?

Table 2: Simple linear regression analysis for the extent to which instructional guide predicts students' utilization of information services in the university of California library.

Variable	R	R Square	Extent of prediction	Remark
Instructional Guide	.107	.011	1.1%	Low Extent
Students Utilization of Information services				

The outcome in Table 2 indicates the R for the strength of the relationship and R2 for the determination of the extent to which instructional guide predict or determine students' utilization of information service in the university of California. The R- Value of .107 indicates a low extent of relationship between the two variables. The calculated R2 of .011 which is the coefficient of determinant indicates that only 1.1% of students' utilization and information service is predicted by instructional guide. This reveal that instructional guide to a low extent predicts students' utilization of information service in the university of California library.

Test of Null hypotheses

Hypothesis one: The extent to which multi-colour guide predict students' utilization of information service in the University of California librariy?

Table 3: Simple linear regression analysis for the prediction between multi-colour guide and students' utilization of information service in University of California library.

Variables	Source Variation	Sum of Squares	df	Mean Square	F-Cal	F-Crit	Decision @ p< .05
Multi-colour Guide	Regression	98.202	1	98.202	46.743	3.89	*
	Residual	56.632	396	21.355			
Students utilization Information Service	Total	54.834	397				

***Significant at P<.05**

The result in Table 3 shows that the calculated F-value of 46.743 is greater than the Critical-F value of 3.89 at .05 level of significant with 1 and 397- degrees of freedom. With this result therefore, the null hypothesis which states that the extent to which multi-colour guide predict student's utilization of information service in the University of

California library is not significant is rejected. The result means that multi-colour guide significantly predict student utilization of information services in University of California library.

Hypothesis Two: The extent to which instructional guide predict students' utilization of information service in the University of California library?

Table 4: Simple linear regression analysis for the prediction between instructional guide and students' utilization of information service in University of California library.

Variables	Source Variation	Sum of Squares	df	Mean Square	F-Cal	F-Crit	Decision @ p< .05
Instructional Guide	Regression	07.551	1	07.551	4.556	3.89	*
	Residual	47.283	396	23.604			
Students utilization Information Service	Total	54.834	397				

***Significant at p< .05**

The entries in Table 4 show that the calculated F-value of 4.556 is greater than the Critical-F value of 3.89 at .05 level of significant with 1 and 397 degrees of freedom. The result is significant; therefore, the null hypothesis which states that the extent to which instructional guide predicts student's utilization of information service in the University of California library is not significant is rejected. The result implies that instructional guide significantly predicts students' utilization of information services in University of California library.

Discussion of Findings

The result of the data presented in Tables 1 and 3 showed that the extent to which multi-colour guide predicts students' utilization of information services in the university of California library is significant. This is simply because business multi-colour guide is useful in predicting behaviour, decision making and health of both female and male students. In other words, multi-colour guide is a subtle stimulation with salient impact on effective utilization of library resources by female and male students in academic libraries. This result is supported by Read, (2010) who maintained that the use of color in signage is an important aspect of wayfinding. The use of color can create a system to assist users in developing their wayfinding scheme. Jalil, Yunus and Said (2012) buttressed by saying that colour is seen as the easiest material to change the characteristic of the environment and make it dominantly visible. Colour is useful in influencing human behavior and decision making and it is a subtle stimulation with salient impact on human lives physically, psychologically, physiologically and sociologically.

Similarly, the result of the data presented in Tables 2 and 4 showed the extent to which instructional guide predict students' utilization of information services in the university of California library is significant. The reason being that instructional signage teaches students how to locate the information they need quickly and effectively. The result is in agreement with Luca and Narayan (2016) who observed that instructional signage helps users to better utilize the library. However, Luca and Narayan maintain that instructional signage is also one of the most common types of poor signage; when a user encounters an issue, helpful staff members are quick to prepare a handmade sign explaining the correct procedure. These accumulate and become outdated and cause clutter. Schmidt and Etches (2014) agreed that paper signs are often put up because something isn't working very well. Instead, librarians should address the core issue, which will improve the visual environment and make the library more pleasant to use. This idea is supported by who argues that user instructions can sometimes be seen as "repair design for poorly designed products that cannot themselves explain how they should be used". Creating a professional-looking version of the same sign does little to address the underlying issue.

Conclusion

Colour is a subtle stimulation with a salient impact that highly affects human lives physically, psychologically, physiologically, and sociologically every day. Interestingly, colours are found to have negative effects. It is also found that colour has positive effect if the luminosity level fits the individual preference. Instructional signs help library users achieve specific research goals. Instructional signage in academic libraries can also benefit from the utilization of video games and gaming designed for information literacy. When incorporating instructional signage from gaming into information literacy instruction, instructional signs can teach students how to succeed through long, complex, and difficult tasks while still keeping the learning experience engaging. The study concludes that the extent to which multi-colour guide predicts students' utilization of information services in the university of California library is significant. Also, that the extent to which instructional guide predicts students' utilization of information services in the university of California library is significant.

Recommendations

1. Librarians should ensure that signs contain clear and precise information, and instructional signs should conform to the arrangement of materials on the shelf units to avoid confusion and frustration in accessing information and other library services.

2. Colour is an important element of focal information that will determine human behaviour towards its surroundings, therefore color must be considered carefully to ensure there is sufficient contrast between the text and background to allow a sign to be legible.

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