

## **Investigating the Information-seeking Behavior of Undergraduate Students Who Utilize Kuwait Academic Library Database**

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### **Abstract**

Information seeking is a process that involves searching, need identification, presenting, extracting, filtering, and selecting information. Therefore, for information-seeking behavior to be effective, users need to follow this procedure of accessibility of materials, and sources of knowledge, accurately filter information, extract the required information, and present quality and appropriate information. Evaluating information-seeking behavior among undergraduate students is critical in supporting their use and access to information sources to attain their information needs. The research focuses on undergraduate students' methods when searching for information resources in the Kuwait academic library database. Therefore, this research aims to help undergraduate students at Kuwait University improve their information-seeking behavior and ensure they find the most appropriate information when accessing the library database.

**Keywords:** Information-seeking behavior, Kuwait library, academic database, undergraduate student.

### **1. Introduction**

People need information to attain and achieve their individual, educational, and professional goals. Information is an assembly of data in a comprehensive form capable of use. The need for information can be for exploring a topic, researching an issue, learning, and teaching because of insufficient knowledge about a given topic. To overcome a lack of knowledge, people use several channels, methods, behaviors, and sources to acquire information. Searching for information is referred to as “information-seeking behavior.” When individuals feel they lack information, they search for information about their needs (Basch et al., 2018). In this regard, people often want to accomplish the knowledge gap by seeking information in an accurate, easy, and quick manner to ensure that they are well-informed and utilize the acquired information appropriately. However, getting the correct information can be complex and problematic.

Information-seeking behavior involves complex action patterns and interactions that individuals engage in regarding information-seeking for different purposes and reasons (Okocha & Owolabi, 2020). Information-seeking behavior depends on one’s level of education and qualifications. Highly qualified people need scholarly information in scholarly formats, while those who are not qualified require information in the most basic form to understand it effortlessly. Information-seeking behavior of model professionals depends on the tasks assigned to them and their work roles. In the case of scientists, they seek information from other scholars through books, journals,

attending conferences, and abstracting services (Amrullah et al., 2019). Information seeking is a process that involves searching, need identification, presenting, extracting, filtering, and selecting information. Therefore, for information-seeking behavior to be effective, one has to follow this procedure of accessibility of materials, and sources of knowledge, accurately filter information, extract the required information, and present quality and appropriate information.

Evaluating information-seeking behavior among undergraduate students is critical in supporting their use and access to information sources to attain their information needs. Information plays a crucial part in humans' personal lives and their professions. As a result, they are challenged to take control of the information they need for work or daily decisions. The need for information is an innate desire that encourages people to search for information. Information is a natural desire that encourages people to search for information.

Undergraduate students search for information to meet their needs using various information sources. Baji et al. (2019) described information seeking as a conscious effort to acquire information in response to a knowledge gap or need. Information-seeking behavior plays a critical role in information science, the library profession, and the search for information in the library. Information-seeking behavior is how individuals' methods are used when searching for information (Alenezi&Brinthaupt, 2022). Studies have shown that information-seeking behavior entails a specific purpose because of accomplishing assignments, workshops, and seminars, preparing for class discussions and conducting research projects for the final year (Aldousari & Al-Muomen, 2022). Information-seeking behaviors are expressed in several ways, from experimentation to reading printed materials (McGowan, 2019). Information seeking is a significant area of research.

Academic librarians worldwide strive to comprehend the information needs of undergraduate learners and approaches that can be used to satisfy their needs. Even though it is believed that there exist numerous sources and reasons for information for students in colleges and universities, librarians occupy the most critical position in the process of seeking knowledge.

### *1.1 Problem Statement*

Information-seeking behavior is a significant challenge for undergraduate students at Kuwait University (Ashkanani et al., 2019). It has been found that many undergraduate students within the university find it difficult to pinpoint the right source of information required to fulfill their needs (Alenezi&Brinthaupt, 2022). This research aims to determine the information-seeking behavior of undergraduates to improve their academic performance.

### *1.2 Research Purpose*

The research focuses on undergraduate students' methods when searching for information resources in the Kuwait academic library database. That means the study investigates the information-seeking behavior of undergraduate students at Kuwait University and confirms that they follow the research model to find information needs.

1.3 Objectives of the Study

The study targets to enable academic librarians and libraries to deliver high-quality services that will enhance undergraduate students' information search. Improved information search will significantly improve undergraduate students' academic performance. This study sought to establish ways to improve the information-seeking of undergraduate students at Kuwait Universities.

Therefore, the study has several objectives as below:

- To find out how undergraduate students search for their information needs.
- To explore the barriers and difficulties experienced by undergraduate students when searching for information sources.
- Identify the levels of knowledge that undergraduate students at Kuwait University have about academic library databases.

1.4 Research Questions

1. How do undergraduate students search for the information they need?
2. What barriers and difficulties do undergraduate students face when searching for information resources?
3. What levels of knowledge do undergraduate students have about academic library databases?

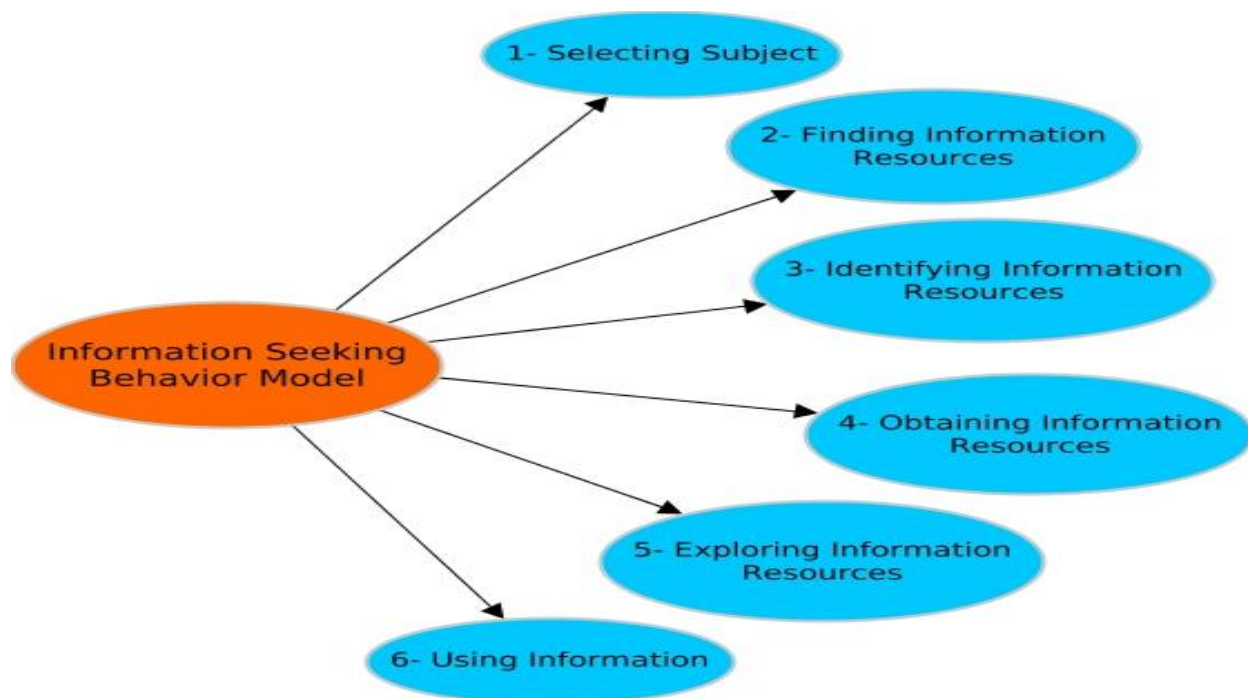


Figure1: Research model

A research model is a plan for conducting research. Regarding this model, the study is based on the selected subjects, which investigates the information-seeking behavior of undergraduate students who utilize the Kuwait academic library database. Therefore, the figure above displays the research model used for this study. The first step is selecting a subject. Students choose a topic they need to research to find more information or resources related to their topic in the Kuwait academic library database. The second step is finding appropriate sources, which means a general search for information related to the selected subject. The third step involves identifying information resources appropriate for the research topic, including journals, books, ebooks, magazines, websites, and databases containing the correct information.

The fourth step involves obtaining information resources. Have students received the appropriate information or help they need? The fifth step is exploring information resources. At this point, the researcher evaluates and reviews the past results to identify appropriate resources students need to use for their topic. Exploring information aims to ensure that the resources are related to the students' topic research. The sixth step involves using information which means students use the sources found in the Kuwait academic library database, which means the students' information-seeking behavior follows the research model. Therefore, students found information and resources related to their topic. Moreover, the Kuwait academic library database is organized and contains the information students need. After identifying the flaws and gaps, the researcher comes up with solutions to make the present research better by providing recommendations to the intended audience: Kuwait undergraduates and university librarians in Kuwait.

## **2. Related Literature**

Studying information-seeking behavior is relevant because of the massive transformations within the education systems, psychological impact, and technological novelty (Le et al., 2019). Similarly, library information providers can offer better services to their users when they are aware of their users' information-gathering approaches and information requirements. Information behaviors differ across different disciplines. It is thus vital to understand library users' patterns of resources for librarians to understand the students' information-seeking behaviors, particularly undergraduates searching skills. Indeed, this will aid in understanding the aspects that affect users' attitudes toward different resources. The following part reviews various studies related to information-seeking behaviors among students.

Information-seeking behavior refers to the psychological behavior of the seeker that entails locating, searching, using, and retrieving information (Nguyen et al., 2021). Basnyat et al. (2018) claimed that "information-seeking behavior is a purposive search for information to satisfy a specific goal." In this regard, Liu (2020) described information-seeking behavior as a personal approach to sourcing and collecting information for knowledge updates, individual use, and development. For information-seeking behavior, the model Okocha and Owolabi (2020) identified six factors associated with information sourcing: differentiating, browsing, chaining, starting, extracting, and monitoring. The initial process of information search begins with material identification. Determining is a search strategy that involves differentiating between known sources based on their characteristic differences in terms of information value. Browsing

is described as the casual search for information in areas of interest. The theorists explain “chaining” as the next step of information search that makes a referential connection to other sources that contribute novel sources of information.

On the other hand, ‘extracting’ is an approach to analyzing sources to identify the interest of the materials. Monitoring involves updating a given topic by consistently following sources and utilizing a small set such as publications and critical individual contacts. Information-seeking behavior involves studying information needs, use, and demand for a given group of persons or interests. The behavior of individuals exhibited while searching for information differs based on their culture, background, needs, conditions, and requirements.

Numerous studies have been undertaken regarding information-seeking behavior related to undergraduate students. Research by Amrullah et al. (2019) at Calicut University in India indicated that students utilized the Internet as the primary source of information for their academic progress. On the same note, another study by McGowan (2019) observed that most students focus on using specific recommended materials by their colleagues or lecturers who have used them before instead of searching to find other documents most appropriate for their needs. Soroya et al. (2021) argued that how learners organize their search for information and learning is essential to their general academic performance success. It is asserted that while most undergraduate students taking humanities turn up in large numbers at libraries, they do it with some form of reluctance (Rafal et al., 2018). Recent studies show that nearly 90% of participants in library science research reported utilizing Wikipedia as their primary source of information (Gyesi, 2020). Similarly, it was established that more than 50% said that Facebook is a crucial source of information for them. These theorists agreed that even though social media is a source of information for undergraduate students, most of their information might not be valid and appropriate because it is majorly comprised of individuals’ opinions (Alenezi&Brinthaupt, 2022).

A study by Howlader and Islam (2019) outlined several ways students can seek information, such as accessing libraries, the internet, colleagues, recognized institutions, government and private organizations, and family members. Naghib et al. (2020) argued that most researchers, even those using computers, only find a small portion of sources within their surroundings. The theorists state that undergraduates tend to work with a mental framework that restricts their basic perception of the knowledge universe surrounding them. In his argument, undergraduate students apply a subject-disciplinary approach that drives them to a specific list of sources on a particular topic. Although this approach allows learners and researchers to find more specific sources for their topic, it is restrictive in such a way that it is impossible to realize that their interest work can exist even in other disciplines and literature. Also, the theorists note that many students want “good enough” sources, not the best sources. Evaluating sources that are considered good enough has to be based on several aspects, the most significant being ease of availability and access to full-text sources. The process used by most undergraduate students follows the Least Effort principle, where they tend to select sources they perceive to have ease of access over the quality of content when searching for information.

Recent research at Bangalore University intends to show the information by looking at the behavior of undergraduate students (Manjunath & Babu, 2018). This research aims to identify the information need, sources, and barriers students encounter when seeking information about their academic activities, along with the factors that instigate the use of library databases and the quality of the research (Liu, 2020). According to a study with more than 300 students conducting research at a university. The results show that most undergraduate students need the information to identify the research problem, know the current information, and write research proposals, among other essential factors. In addition, using the internet and databases is also important in acquiring knowledge. Library databases also contribute significantly to the success of a research project. Moreover, information sources and library databases enable one to get motivated while conducting research.

The study by Abbas et al. (2019) also focused on the information-seeking behavior of undergraduate students. A questionnaire comprising about 450 participants revealed that most of the students at the undergraduate level need information regarding their academics to do their research. They use all sorts of social media as their source of information. Subsequently, they are assisted by other students, but they do not use library sources because they are aware of their existence. As a result, they are dissatisfied with the services offered by the library.

Furthermore, the scholars identified that most undergraduates have poor knowledge of ICT and skills in searching. A lack of enough computers is also a barrier to information-seeking behavior. McMullan et al. (2019), in their study concerning figures looking at students' performance based on automated incomes at Dubai University, discovered that students rely on electronic sources while seeking information about their academic activities. The author stresses academics to educate students on improving their seeking information behavior from the internet. Additionally, there is improvement in technology and resources in an electronic way based on the information literacy barricade. Furthermore, it was realized that most undergraduate students prefer using their own time while searching on the internet rather than using the databases in the library.

Jones-Jang et al. (2021) researched the aspects that impact the learner while looking for information and their behavior for successful students. In the study, 500 participants found that most students sought their knowledge with the help of Google browser and articles with full text. They also prefer the electronic format while searching for information. Perhaps they also revealed that students regularly research through library visits on their campuses. They are mainly hesitant to be helped by some of the assistants in the library in doing their analysis. The author's results suggested that library staff may influence how students seek information from the internet.

Chaura (2015) explored students' behavior when seeking information during the final year of their education. Responses to the research confirmed that most students at the University of Mzuzu seek their information through the internet. Consequently, they also prefer various search engines and OPAC as their retrieval tool, where they apply key-phrase words to make their

search easier. On the same note, the author developed an ISP model tool for learning, which outlines the students' feelings and emotions during their search process. The results mentioned that the student's feelings and emotions did not conform to the nature of the model. The research study by Nguyen et al. (2021) aimed to understand students' behavior at the undergraduate level through the application of the questionnaire, interview, and observation method. He justified those students, most especially undergraduates, need information about their academic activities; as a matter of fact, they consider the library their primary source. According to other researchers in the study, information-seeking behavior is based on the David Ellis Model of the six different strategies that integrate the demonstration of lectures, collection of library materials, and monitoring (Howlader & Islam, 2019). Therefore, it is recommended that the literacy program of integration be implemented into the curriculum. Nonetheless, marketing tools should be used in the description of the library collection and facilitate the provision of ICT-related facilities. Emphasis based on fund allocation in purchasing journals and books should be implemented.

Rasheed et al. (2020) conducted research based on the habits of undergraduate learners. The research interviewed students from different learning departments, such as History, English, and Humanities. It was further noted that undergraduate and graduate students used various information sources like the internet and journals on online platforms, hence the website and the internet as electronic information tools. Databases, browsing on some of the shelves in the library, and bookstores are also the primary sources of information that the students use. The pattern those students use in retrieving information was found to be constantly reading and the citation and initiation their research projects in a messy way.

Apuke & Omar (2021), in their study "A visit to the info Mall: The Web examining the behavior of undergraduate students," applied several approaches through interviewing, observation, and discussion with the students. They determined that most students rely on using the internet as their quicker and easier way of information seeking. This is because they base themselves upon their own past experiences and that of other people while seeking information, even though they do it swiftly and flexibly. Their way of searching for information on the internet always frustrates them due to slow speed and internet accessibility. Conversely, they enjoy web searching because it has various formats and the availability of visual information. Therefore, this research suggested that different search engines on the internet should be improved, and the speed should be increased. On the other hand, it was found that most students face difficulty determining proper search strategies and should be trained on the best search techniques.

### **3. Finding from Previous Studies**

Students can use campus libraries to gain online entree catalogs, subscribed resources, electronic journals, subscribed resources, and other electronic or physical literature, which helps them with their research. Electronic journals have the advantage of allowing several students to have access to one journal concurrently. Like all internet content, it is possible to access from different locations that fit the student and are being used by university libraries (Vaaler et al., 2021). To suit their learning demands, undergraduate learners employ limited electronic information materials. According to research by Jalali et al. (2020), undergraduate learners rely on the

internet, with a majority accounting for more than 70% claiming to utilize search engines as their chief search technique. In contrast, they less frequently use electronic journals and databases, which was reported by about 10% of students. Rosário et al. (2020) studied to identify if a Web search can substitute the “Google” search engine as a substitute database search for undergraduate students’ typical research queries. As a result, the scholars compared the quality of information obtained from Google and the database searches considering topic coverage and the quality. Their research found that just one of the search systems could index a high number of search results, implying that both database and Web searching are necessary to address all topic areas. Additionally, it was discovered that database searches produced a more significant percentage of high-quality documents accounting for about 85% compared to about 50% for Google searches.

According to Zakar et al. (2021), Libraries face rivalry from search engines such as Alta Vista and Google. For instance, the improvements by Google to academic content and mass digitization have blurred the blurry lines between commercial and library services even more. Zhang (2021) created an intervention to change undergraduate students' information-seeking and evaluating behavior in the health industry and discovered that after the exercise, a higher proportion of students explored more databases than the intervention. The frequency of database searches rose, and students utilized more measures to evaluate material acquired from the internet.

For decades, researchers have been interested in how undergraduate students access knowledge. Previous studies investigated resource selection and preference, perceptions, search tactics, citation behavior, and more in undergraduates' information-seeking behavior. When researching college students in information science, researchers have focused more on user attitudes and search activities than resource choices. Howlader and Islam (2019) investigated how domain knowledge influenced user search behavior and efficacy. According to their findings, domain knowledge impacted search behavior but not search effectiveness. Superio et al. (2021) investigated undergraduate students' perceptions and preferences for various resources. According to the researchers, undergraduates favored information sources such as search engines, websites, books, online databases, and journals.

Furthermore, students considered books, encyclopedias, OPACs, and librarians’ reliable sources, whereas search engines, websites, and friends/family were simple. Based on a survey of 1,222 students, Basch et al. (2018) focused on undergraduate Web information use behavior for academic work. The study investigated various Internet resource selection patterns, considering factors such as students' overall internet usage, access and competence, year of study, gender, age, ethnicity, and educational background.

Wang et al. (2021) examined citations in intermediate and advanced undergraduate research articles. According to the researcher, journals were cited more frequently than books, and students preferred electronic journals to paper journals. Daei et al. (2020), conducted in an online database search environment, found that students had difficulty discriminating between academic



and non-scholarly sources of information. Furthermore, he stated pupils had problems developing and implementing efficient search tactics. Zhou and Lam (2019) surveyed college students' attitudes toward new Internet media and information. Many students thought Web-based resources positively influenced college students' academic experiences because the Internet provided easily accessible material for their search tasks. Dadaczynski et al. (2021) looked at college students' perceptions of Web information's reliability. Although college students rely primarily on the Internet for academic knowledge, they are unlikely to verify the accuracy of the information they find there. College students' perceptions of reliability when consuming digital media and Web sources were also investigated (Weber et al., 2019). In interviews with 24 college students, it was discovered that they were aware of the possible issues of dependability in Web content and attempted to address them using a variety of search tactics.

Undergraduate students' information resource selection and utilization have also piqued the interest of researchers. Naveed et al. (2020) investigated how undergraduate students used print sources. According to their findings, print resources were still viewed as necessary because of their fullness, correctness, and in-depth information, even though undergraduates tended to rely more on internet sources. According to Guay et al. (2018), many students start their research projects on the Internet, typically using a commercial search engine. More importantly, the study emphasized the value of information literacy abilities in locating reliable information. Zhou and Lam (2019) studied student Internet usage and discovered that students' primary sources for writing research papers were Web documents, albeit they still used library resources often. Basch et al. (2018) analyzed research on student opinions and applications of the World Wide Web for academic purposes, concluding that students had a good attitude toward the Internet. Zhang et al. (2021) conducted exploratory research on engineering and science students to evaluate the use of e-books among undergraduate students. They discovered that e-books are utilized less than e-journals.

When consumers are looking for specific information, internet search engines are a fantastic option because they work by continuously scanning the Web and including an enormous database, constantly developing a new category of information and increasing. Research by Baji et al. (2019) established that college students and adults have difficulty searching for information over the Internet. Another issue is evaluating search results and evaluating and selecting sources and information (Gyesi, 2020). The expansion and the range of information held and how it is organized make it challenging to find specific information on the Internet. Even though several search engines are used to search for information on the Web is a bit easier, students still face navigation challenges because it requires intelligent search techniques to enable them to have access to appropriate resources and information (Howlader & Islam, 2019). Today, web browsers and search engines only perform routine search actions, leaving the user to do the brainwork (Jalali et al., 2020). Vaaler et al. (2021) highlighted several internet skills, including using search engines to identify Web publications, tracing information using a variety of tactics, and assessing the utility of the material.

According to Al-Muomen (2019), Kuwait undergraduate students face barriers and difficulties when searching for information related to their assignments, such as getting started, defining a topic, narrowing down a topic, coming up with search terms, finding articles in databases, determining whether a website is credible, figuring out where to find sources in different parts, and evaluating sources. Moreover, Marouf and Anwar mentioned that in their study result, Kuwait's academic library utilization is very low, with complaints about the quality of staff, resources, especially in Arabic, and access to global resources (2010). The article's results by Al-Muomen et al. (2012) referred that the graduate students at Kuwait university's information-seeking behavior have been impacted by several factors such as information literacy, organizational and environmental issues, library awareness, and source characteristics. The challenge is that undergraduate students have a specific perception that often has in mind restricts their search for information (Alaslawi & Al-Ma'seb, 2021).

### **Conclusion**

This research aims to help undergraduate students at Kuwait University improve their information-seeking behavior and to ensure they find the most appropriate information when accessing the library database. Moreover, the librarian should strive to ensure that they help students to obtain the necessary information. Kuwait Universities should also consider conducting information literacy training for undergraduate students to teach them how to improve their information search behaviors and skills.

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