

The role of the university library in the development of scientific research

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Abstract:

The university library is the main artery for institutions of higher education and scientific research as it provides university students with references and resources for scientific research at various levels. Since university students are subject to scientific research and need to use the library to obtain the scientific material for their research more efficiently than electronic libraries. Therefore, this study is part of this approach to clarify the role that the university library can play in the development of scientific research. The applied study will be a questionnaire with the research sample, which is a group of randomly selected master's students at the University of Batna 1, to find out their opinions about the extent to which they benefited from the university library in their scientific research, the shortcomings they discovered, and the problems they suffered, in order to access a university library perfect.

Keywords:

University library;
Scientific research;
Master's students;

JEL Classification Codes: D83, I23, O31

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1. INTRODUCTION

The university library is one of the most essential locations where all students can access a variety of knowledge services and educational materials. It provides a wealth of knowledge and supports all curriculum, offers a diverse range of research activities and information, aids in the development of reading skills, and develops all skills and abilities that assist students to speed their education and broaden their perspectives. Because of its critical function in giving information, knowledge, and key educational processes to all pupils, it is also considered one of the most essential venues for the growth of education and scientific study.

Statement of the problem:

The University Library is the backbone of the Higher Education and Scientific Research Foundation. It is a cultural and scientific institution that serves university researchers by providing them with the information they need in their studies and preparing their scientific research by providing the necessary information to meet their needs, as well as audiovisual materials, facilitating and using them as a public university to serve the community to which they belong. To promote it through scientific research that discusses its issues and proposes ways to develop scientifically, economically and culturally.

Therefore, it is imperative to highlight the role of the university library in developing scientific research and clarify its importance to researchers and the extent to which they use its resources and rely on them in preparing their scientific research.

Hypothesis:

There is a positive effect of the university library on the development of scientific research if it exploited effectively by researchers.

Aim of the study:

The university library has recently been exposed to a real problem and a serious slope due to the opinion that electronic libraries have abolished the university library, and therefore this study aims to draw attention to the fact that the university library cannot be replaced in scientific research and to respond to those who say that the university library is not important after the emergence of other alternatives Such as electronic libraries, because there is not everything on the Internet, and the Internet is a weak alternative to meet all the services provided by the university library, and therefore the university library must be given its importance and overcome all the difficulties that students face to benefit from its services.

Significance of studying:

In light of the electronic environment that surrounds students from all sides, which made students refrain from exploiting the university library and withdrawing from

benefiting from its contents, the importance of this study lies in proving the urgent need for the university library to develop scientific research through the use of the huge amount of books, magazines, and audio-visual references. In addition to the importance of clarifying that electronic libraries are impossible to replace the university library, especially when solving the problems and obstacles facing students when they join the university library, which must keep pace with the era of technology and development.

The study population:

Students of Batna1 University; More than 591 master's students, based on the statistics of graduates in 2019 from Faculty of Economics Commerce and Management Sciences. (vice rectorat chargé de la pédagogie, 2020)

The study sample:

Random selection of 40 students (greater than 5% of the population).

Research Methodology:

Since the study is related to the statement, description and analysis of the positive role of the university library in the development of scientific research for university students, the research approach suitable for this study is the descriptive approach.

Subject of study:

The subject of the study is an attempt to explain the role that the university library can play in developing scientific research when university students rely on it in their scientific research, especially in light of the widespread use of electronic libraries, and knowledge of students' needs from the university library and the difficulties they face when resorting to it, all in order to guide Officials towards the development of the university library to keep pace with the era of globalization and technology.

Data collection tools:

The study is based on the questionnaire and the interview.

The questionnaires are distributed to the Master's students (the research sample). They contain objective questions, which include determining the attitudes of the students and their opinions on the role of the university library in developing their scientific research. The questionnaire is distributed to students to be filled in manually, and then the questionnaires are collected and analyzed to obtain the questionnaire results.

The study data is also collected by conducting a direct interview with the students (the research sample) by asking some questions about the subject, and then collecting and analyzing these answers.

2. Scientific research:

Scientific research is a type of study that should be meticulously planned before being carried out. The classification and overview of scientific experiments, as well as planning stage randomization and bias, are discussed in this study.

Scientific research is research that is done with the aim of contributing to science through the systematic collection, analysis, and assessment of data in a planned manner.

A researcher is a person who performs this research. The findings of experimental research conducted on a small sample are disseminated, and new knowledge about diagnosis, treatment, and implementation reliability is published. The aim of this review is to provide information on scientific research definitions, classifications, and methodologies.

Before starting a scientific study, the researcher should choose a subject, plan ahead, and define the methodology. The primary goal of scientific research on volunteers, according to the Declaration of Helsinki, is to better understand the causes, progression, and consequences of diseases in order to improve preventive, diagnostic, and therapeutic approaches (method, operation, and therapies). Even the most well-proven approaches should be investigated on a regular basis for efficacy, effectiveness, performance, accessibility, and consistency. (Klinikaraştırmalar & Helsinki, 2016)

In science study, the questions, methods of answering questions, and difficulties may differ, but the design and structure are generally the same. (Bekiroğlu & Biyoistatistik, n.d.)

3. Classification of scientific research:

There are many classifications for scientific study. Data collection strategies focused on causality, relationship with time, and the medium in which they are applied may all be classified.

1- The following are the data collection techniques:

- It's all about observation.
- This is an experiment.

2- The following are the causality relationships:

- Descriptive.
- Analytical.

3- In terms of temporal relationships:

- A look back.
- In the future.
- A cross-sectional view..

4- Depending on the medium in which they are used:

- Scientific.
- The laboratory
- Descriptive social studies. (Epidemiyoloji, n.d.)

Another approach is to categorize the study based on its descriptive or analytical characteristics. This analysis was published using this system of classification.

Descriptive research

In descriptive research, the participant looks at how diseases are distributed through society based on their location and time. Case reports, case series, and surveillance studies are all included.

a. The most popular form of descriptive analysis is the case report. It is the investigation of a particular case with different social quality, such as performing general anesthesia on a pregnant patient with mucopolysaccharidosis.

b. The term "case series" refers to a group of cases that have similar characteristics. Case studies involving interscapular pain and neuraxial labor analgesia, for example. Cases of malignant hyperthermia, on the other hand, are not recognized as case series because they are uncommon during historical development.

c. Surveillance Studies; these are the findings of databases that follow and document a health condition over time, such as the surveillance of cross-infections in the intensive care unit during anesthesia.

d. The inclusion of a reference group is the most significant difference between analytical scientific study and descriptive research. Observational and interventional studies are the two types.

e. Participants are grouped and assessed according to a study plan or procedure in observational research. Observational studies are more appealing than other types of studies because they need less time and money to complete because all of the requisite scientific evidence is already available. (Sessler D, 2015, p. 121)

The causes and events studied by the researcher in observational studies are not under the researcher's influence. When requested, they cannot be updated. But for the examined element or case, none of the variables can be held constant. In certain cases, randomization should be used with caution. It may not always be possible to identify an obvious and full cause-and-effect relationship. Since the circumstances are analyzed as they are and no special factors are produced, the outcomes are very similar to real-life scenarios. Since it is almost impossible to replicate the observed cases in most cases, it is likely that the same circumstances will not be recreated.

Furthermore, some research can be experimental. After intervening, the researcher waits for the outcome, observes, and collects data. Scientific trials or laboratory animal trials are the most common types of experimental research. (Klinikaraştırmalar & Helsinki, 2016)

Cohort, case-control, and cross-sectional studies are examples of analytical observational studies.

- Prospective, retrospective, and am bidirectional cohort studies: A cohort is a group of patients that share similar characteristics. A cohort study is one in which a group of patients is tracked over time, such as comparing academic success in the adolescence of children who experienced anesthesia during their neonatal phase.

To begin, the participants are monitored in terms of the disease being studied. Patients aren't allowed to participate in the research. Healthy people are assessed in terms of their sensitivity to the impact. The group (cohort) is then observed for a suitable period of time in order to determine the frequency of disease and the progression of the disease. The possibility of the healthy participants becoming ill is regarded as an

occurrence. In cohort studies, the risk of disease is measured and rated between groups exposed and not exposed to the effect. This is referred to as relative danger. The strength of sensitivity to the disease's impact is indicated by relative risk.

Observational and experimental cohort studies are both possible. Prospective cohort research is a study in which patients are followed upon in the future. After the testing has begun, the findings are collected. A retrospective cohort analysis is when a researcher follows up on cohort subjects from a certain point in the past. Since the researcher tracks and documents the data in prospective cohort studies, they are more useful than retrospective cohort studies. Before beginning the analysis, the researcher decides what data will be used. In retrospective studies, on the other hand, the study is based on previously collected data; no new data can be added.

Retrospective and prospective research, on the other hand, are not empirical. They establish a connection between the date the researcher began the study and the time it took for the disease to manifest. The most serious drawback of this form of study is that if the follow-up duration is too long, participants can drop out on their own volition or due to physical ailments. Am bidirectional studies being cohort studies that begin after exposure but before disease onset. Studies on the growth of lung cancer in smokers, for example, fall into this category.

- Case-Control Studies are cohort studies that are conducted retrospectively. From the result to the source, they investigate the cause-and-effect relationship. The identification or determination of data is dependent on the previously collected information. The data is beyond the researcher's influence.

- Cross-Sectional Studies: Patients or incidents are investigated at a specific point in time in cross-sectional studies. Prevalence studies (the percentage of a population with a disease at a given time) are those in which the diagnosis and disease process is discovered at the same time as the cause and effect relationship is investigated.

Cross-sectional studies are beneficial because they can be completed easily. For rare diseases, it may be difficult to achieve a reliable result from such trials. (Klinikaraştırmalar & Helsinki, 2016)

Timing is a distinguishing feature in cross-sectional research. In such experiments, both the sensitivity and the outcome are assessed at the same time. Though cross-sectional studies are not appropriate for studies requiring anesthesia (due to the limited exposure process), they are appropriate for studies in intensive care units.

- Interventional Testing (Experimental Studies): In this type of study, a control group is used to evaluate the hypothesis. In this analysis, the researcher chooses which affect the participant will be subjected to. Following the intervention, the researcher waits for the outcome, observes, and collects data. There are two types of interventional studies: quasi-experimental and scientific study.

- A quasi-Experimental Study is used when a fast result is required and the participants or research areas cannot be randomly assigned, such as when providing hand-washing

instruction and comparing the incidence of nosocomial infections before and after hand washing.

- Scientific research is a type of study that is conducted with a control group with the aim of evaluating the effect and value of a treatment in a scientific situation. The terms "scientific study" and "study" are interchangeable. Diets, physical therapy, and testing techniques are all applicable in this sense, as are drugs, invasive procedures, scientific equipment, and operations.

scientific trials are overseen by a qualified researcher, usually a physician. Other healthcare professionals, in addition to doctors, maybe part of the study team. Healthcare institutes, drug companies, academic scientific centers, volunteer organizations, doctors, healthcare service providers, and other individuals can fund scientific studies. They can be carried out in a variety of settings, including hospitals, colleges, doctors' offices, and neighborhood clinics, depending on the needs of the researcher. Before they are enrolled, the participants are informed about the study's duration. scientific trials may include evaluating guidelines (drug, system, and surgical) for the treatment of a disease, syndrome, or a comparison of one or more applications; finding different ways for recognizing a disease or case and preventing their recurrence; and finding different ways for recognizing a disease or case and preventing their recurrence. (studies, n.d.)

Scientific research is discussed in greater depth since it is the most important study in the field.

Forming a hypothesis is the first step in scientific science. A hypothesis is an argument made about the significance of a population parameter based on sampling. In statistics, there are two types of theories.

- A control or null hypothesis is the H_0 hypothesis. It is a research hypothesis that states that there are no differences between the classes under consideration. If this hypothesis is shown to be false at the conclusion of the analysis, it means that there is a discrepancy between the two treatments under consideration.

- An alternative explanation is the H_1 hypothesis. It is tested against the null hypothesis, which states that there is no difference between the two classes. Take, for example, the following hypothesis: Drug A has analgesic properties. The null hypothesis (H_0) states that there is no difference in analgesic effect between drug A and placebo. If there is a discrepancy in the analgesic effect between drug A and placebo, the alternative hypothesis (H_1) applies.

After deciding on a theory, the preparation process begins. A procedure is a scientific study plan. The reasons for the study, the number and characteristics of participants, the measures to be used, the study length, and the information to be obtained from the participants should all be found in a protocol, as well as compliance requirements.

Inclusion criteria should be defined as demographic characteristics (age, gender, etc.) of the participant group, and exclusion criteria should be defined as situations that

2.PARTS REQUIRED:

To enroll, go to the "Student Services" section of the central library and carry the following papers:

- **lending library** : The registration form (also available on site) and identification (new graduate registration and re-registration for alumni) are both valid.
- **Specialized library** : the registration form (also available on site), valid identification (Ph.D. registration), and a photo of identity ed.
- **For the loss map** Simply fill out this form with a valid photo ID (registration).

3.Borrowing:

Is there anything I can borrow? How long do you think it would take? What if I'm running late? Learn about the rules for lending books to libraries!

You can borrow from any university library using your lending library card reader.

You can borrow **two documents**, in any format, for **two weeks**.

Creating his documents

Borrowed items must be returned to the library from which they were borrowed.

Remember to finish your documents on time, since there are other customers waiting!

Having your loan extended

The documents that are loaned for one week are **renewable two times** if they are not late or reserved.

Document extensions are possible before the loan's due date, with the exception of the following circumstances:

- The document has been reserved
- Your credit card has been suspended (other documents late ...)

If the document you want to borrow is not accessible, you can make a reservation at the library, where you can reserve two documents for any help you need.

To know :

- The paper must be reserved in the library that houses the specimen until it can be withdrawn.
- You will be informed by email when the document is open, and you will have three days to come and delete the library. During this time, the document is either sent to the next user who reserved it, or it is made available to the next user who reserved it.

In case of loss or damage of a document

If a record is lost or destroyed, the cost of the purchase from the data library is reimbursed, or 5 copies of the same family are reimbursed.

DISCOVER ALSO

What can I borrow? How long do you think it would take? What if I'm running late? Learn about the rules for lending books to libraries!!

You can borrow from any network library using your library card lending libraries.

You can borrow **three objects per library** and around the network for **three weeks**, regardless of the medium.

Creating his documents

Borrowed items must be returned to the library from which they were borrowed.

Remember to finish your documents on time, since there are other customers waiting!

Having your loan extended

The documents loaned for three weeks can be **renewed two times** if they are not late or reserved. Document extensions are possible before the loan's due date, with the exception of the following circumstances:

- The document is held in reserve.
- Your card has been revoked (other documents late ...)

Introduce yourself with the appropriate documents in the library to expand your loans.

A few days later, an email is sent to you for details.

Documents from books

If the document you want to borrow isn't online, you can reserve it directly from the library by calling the front desk. You can use book 2 to log any help you need.

To know :

- The document must be reserved in the library that houses the specimen until it can be withdrawn.
- You will be informed by email when the document is available, and you will have three days to come and delete the library. During this time, the document is either sent to the next user who reserved it, or it is made available to the next user who reserved it.

In the event that a document is lost or damaged

If a document is lost or destroyed, the cost of the purchase from the data library is reimbursed, or 5 copies of the same family are reimbursed.

4. THE BENEFITS OF YOUR CARD

Your library card entitles you to several advantages in addition to the loan book. Find out more about them here.

On the spot

- Access to the Internet is free.
- Take advantage of the digital library's discount.

WI-FI

You can connect to the Internet for free in the central library using the biblio02 Wi-Fi service, even if you don't have access to a broadband connection. An incentive for all users, including teachers, researchers, and students...

- **Wi-Fi is available at biblio02 during business hours..**

5. WORK SPACES

You're looking for a job as a student or just want a quiet place to work? You are cordially invited to visit the Batna1 central library and use its facilities.

Each university library Batna1 provides a number of seats, each with a work plan and free access. You would be able to use the free wi-fi by plugging in your laptop.

If you need a quiet place to focus, several libraries give **quiet workspaces** away from the bustle of the library..

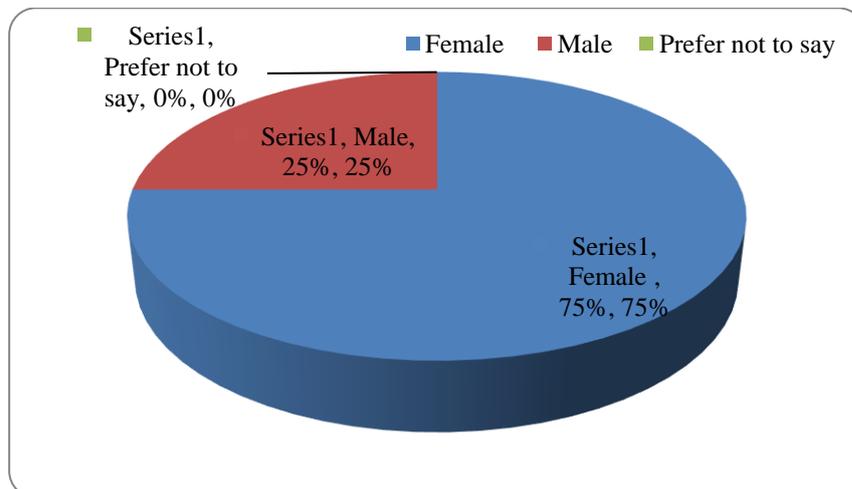
These workplaces can be found in the Central Library:

- "1st stage" of the Living Internet
- "2nd-floor" room devoted to researchers

Case study and analysis of answers:

This study was conducted on students of the University of Batna 1, and master's students were selected as a sample for study (40 students: random selection) from the Faculty of Economics Commerce and Management Sciences.

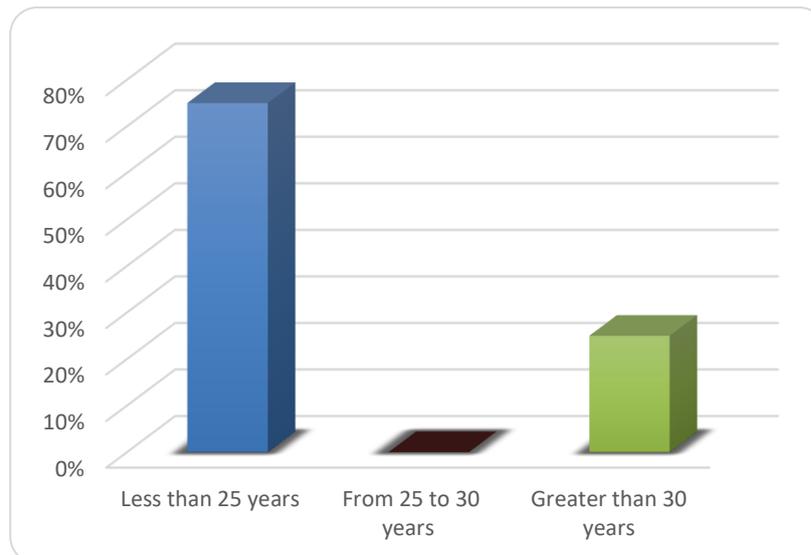
First axis 1: General data



We see through the answers that females are more than males, and this indicates that the female sex tends to exploit the university library in scientific research more than the male sex which tends mostly to exploit the means of the Internet.

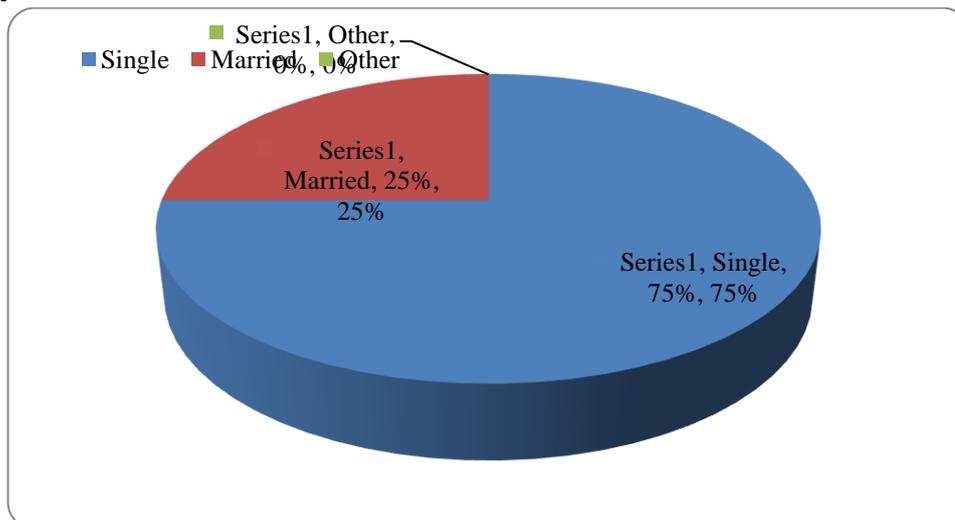
Age

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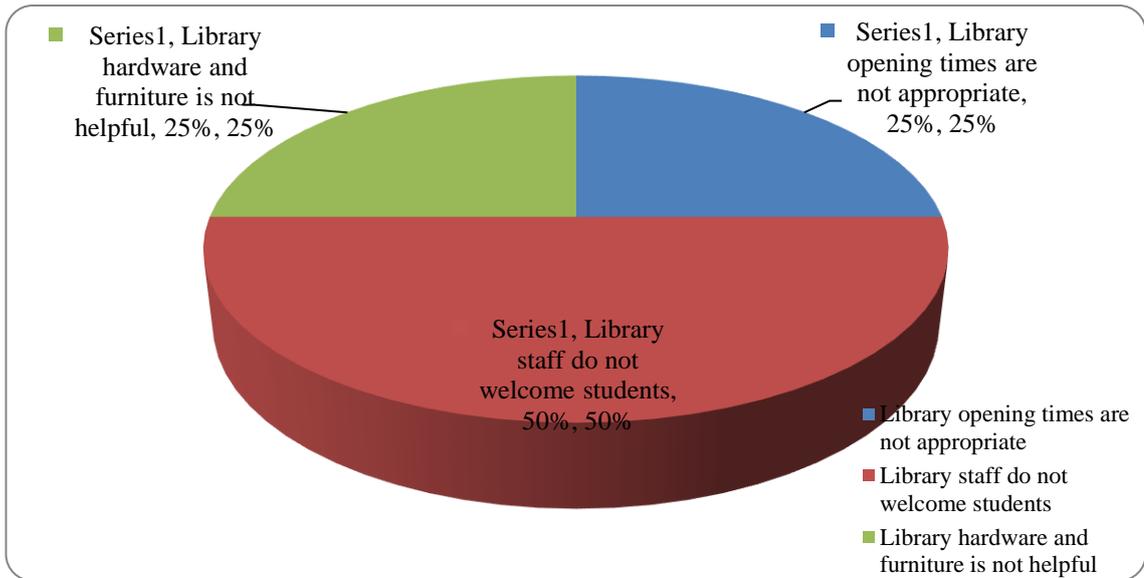
We note that the percentage of students under the age of 25 years 75%, and the percentage of students over 30 years 25%, this indicates that there are a number of students doing their studies although they are elderly, and are often staff who are studying for a second diploma.

Family status:



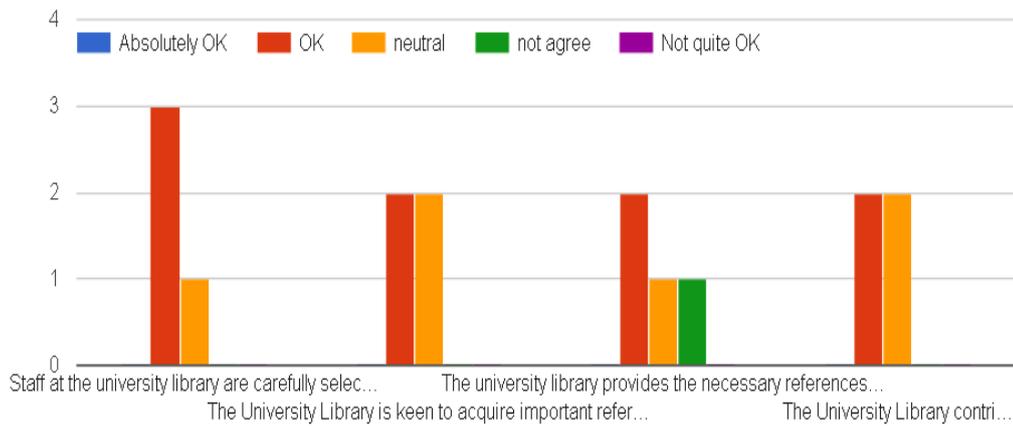
We note that the percentage of single students is 75% while the percentage of married students is 25%. This confirms the previous explanation that there are a number of students who are employees at the same time.

Identify problems with your university library



By identifying students' problems in the university library, we note that a small group does not fit them at the time of the opening of the library, which is 25% and it seems that they are employees who follow their studies and cannot reconcile the study time with the work time. They also criticize the contents of the library and its furniture because of the lack of modern and convenient means for students in the library, in addition to the large percentage of 50% criticized the way they are treated by library staff and this indicates lack of interest or lack of specialists in library science among these staff.

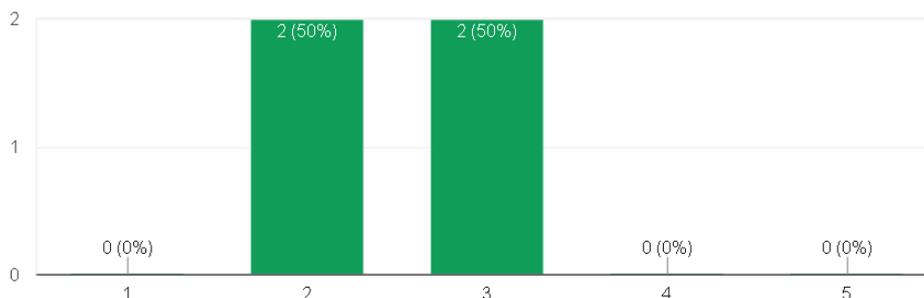
Second axis: the university library



We note that there is a moderate and sometimes weak ratio of students in terms of their views to staff selection to the university library, and if the Library keen to obtain useful references for students in their research and if its contribution exists in the scientific research development.

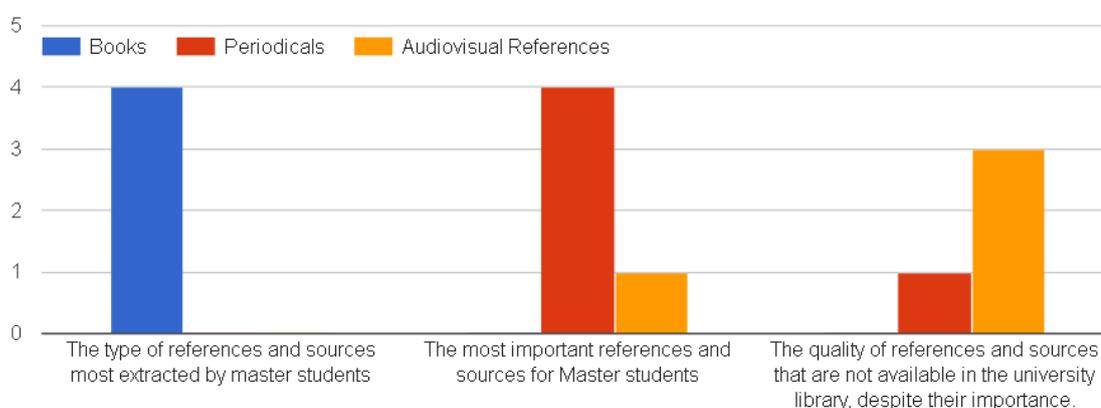
Third axis: Evaluation of Master students' satisfaction with university library services

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We note that the satisfaction of the master's students with the services of the university library is weak, as half of them were neutral and this reflects their previous view of the contents of the library and its staff.

Fourth axis: Evaluation of references and sources available within the university library



we note through the students' assessment of the resources available within the university library that books are the only type they choose because the university library does not contain other references such as periodicals and audiovisual devices because they are not available, despite their importance for students.

Discussion and hypothesis testing:

By identifying the difficulties that students face in the university library, there is a small group (25%) who do not fit in the opening time of the library, and they appear to be employees and cannot balance study time with work time. They also criticize the contents and furniture of the library for the lack of current and acceptable means for students in the library, and a large number (50%) also criticized the way they are treated by library staff; which indicates that there are no library science professionals with competence among these staff.

We note that students have a moderate and sometimes a weak percentage of opinions about the selection of relevant references for students in their studies and whether these references contribute to the advancement of their scientific researches.

We note that master's students' satisfaction with the university library's services is low, as half of them were neutral, which reflects their past perceptions of the library's contents and employees.

We can see from the students' assessments of the resources available at the university library that books are the only type of resource they chose because other resources, such as periodicals and audiovisual devices, are not available, despite their value to students.

Through the students' answers, it becomes clear that they need the university library in their scientific research, through their contact with it and their accurate knowledge of the shortcomings in the library and the problems and obstacles they encounter when dealing with the staff there, and this negatively affects their benefit from the university library. This proves the validity of the hypothesis that there is a positive impact of the university library on the development of scientific research if it is effectively exploited by researchers.

5. Conclusion:

At the conclusion of this research, we reached a number of results, the most important of which are:

First: Scientific research needs references and sources of different types and types.

Second: The university libraries are of great importance to the research students, which makes them bear a great responsibility in the success or failure of scientific research.

Third: there is a great interest by the students of the master, in the contents of the university library and their keenness to promote them to the level of their aspirations.

Fourth: the central library of the University of Batna lacks modern references, periodicals, and audiovisual aids.

Fifth: The staff of the university library needs training in how to deal with students and meet their knowledge needs from the library.

Sixth: There is a good proportion of married staff who are pursuing their studies to obtain a second diploma. This indicates the awareness reached by society in terms of seeking knowledge.

Based on previous findings, some recommendations could be made:

First: to give importance to the university library in terms of providing them with various references and modern sources that keep pace with the age and scientific development.

Second: employ efficient frameworks in library science while at the same time giving importance to the training and training of human resources within the university library.

Third: Review each time to update the time to open and close the university library.

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