

Information behavior of cum laude graduates at Universitas Riau in 2020

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Abstract

Every student has different information behavior, especially cum laude students at Riau University in 2020. Based on graduation percentage, students who hold cum laude predicate amounted to 6,22% of the total graduates in 2020. This research aimed to describe the information behavior of cum laude students at Riau University in 2020 through analysis initiation stage, selection stage, exploration stage, formulation stage, collection stage, and presentation stage. This research was qualitative through the selection of informants was based on the criteria of cum laude students with the highest scores from each faculty. The results showed that the initiation stage was based on motivation, interest, learning strategies, syllabus study, and discussion. In the selection stage, general topics were identified through mind mapping and preliminary information search. The exploration stage was carried out by searching for information in the libraries and others. In the formulation stage, the focus was on finding information with specific content, and there was a sense of optimism about collecting and using that information. The collection stage was carried out by gathering information, paying attention to information retrieval, and evaluating information. The presentation stage showed a sense of satisfaction and the process of sharing information. Every cum laude student experiences unique stages in the information-seeking process. The students at each stage the information behavior have taken advantage of all available sources of information and supported by the motivation within them.

Keywords: Information seeking; Information behavior; Cum laude student

Perilaku informasi mahasiswa lulus dengan cum laude di Universitas Riau tahun 2020

Abstrak

Setiap mahasiswa memiliki perilaku informasi yang berbeda, khususnya mahasiswa cum laude Universitas Riau tahun 2020. Berdasarkan persentase kelulusannya, mahasiswa Universitas Riau yang menyandang predikat cum laude berjumlah 6,22% dari total lulusan pada tahun 2020. Penelitian ini bertujuan untuk mendeskripsikan perilaku informasi mahasiswa cum laude Universitas Riau tahun 2020 melalui analisis tahap inisiasi, tahap seleksi, tahap eksplorasi, tahap formulasi, tahap koleksi, dan tahap presentasi. Penelitian ini merupakan penelitian kualitatif dengan pemilihan informan berdasarkan kriteria mahasiswa cum laude dengan nilai tertinggi dari setiap fakultas. Hasil penelitian menunjukkan pada tahap inisiasi didasari motivasi, minat, strategi belajar, menelaah silabus, dan diskusi. Tahap seleksi dilakukan identifikasi topik umum melalui mind mapping dan penelusuran awal informasi. Tahap eksplorasi dilakukan pencarian lanjutan informasi di perpustakaan dan lain-lain. Tahap formulasi didapatkan fokus pencarian informasi secara lebih spesifik terhadap informasi yang akan digunakan dan muncul rasa optimisme untuk mengumpulkan dan menggunakan informasi yang didapatkan. Tahap koleksi dilakukan dengan pengumpulan informasi yang memperhatikan temu kembali informasi dan penilaian terhadap informasi. Tahap presentasi menunjukkan rasa kepuasan dan proses berbagi informasi. Setiap tahapan yang dilalui mahasiswa cum laude Universitas Riau tahun 2020 memiliki ciri khas atau keunikannya sendiri dalam proses pencarian informasinya. Mahasiswa dalam setiap tahapan perilaku pencarian informasi telah memanfaatkan semua sumber informasi dan didukung motivasi dalam diri mereka.

Kata Kunci: Pencarian informasi; Perilaku informasi; Mahasiswa cum laude

INTRODUCTION

Indonesia has 4,504 units of higher education (Kementerian Riset Teknologi dan Perguruan Tinggi, 2017). Riau University (UNRI) is a public university in the Riau Province. In the 2020 higher education clustering conducted by the Indonesian Ministry of Education and Culture, UNRI occupies the 15th position in cluster II, following cluster I, which consists of 15 universities (Direktorat Jenderal Pendidikan Tinggi (Ditjen Dikti), 2020).

At the tertiary level, being a cum laude graduate is an achievement target for students. The requirements for a cum laude predicate at UNRI are stated in the UNRI Chancellor's Decree number 3, 2015, concerning academic regulations. UNRI graduates can be granted the cum laude predicate or graduate with honors if: (a) have a GPA of no lower than 3.51, (b) there are no repeated courses and grades of no lower than B, and (c) the completion of the study program is no more than eight active semesters (Rektor Universitas Riau, 2015).

In 2020, 6.22% of UNRI students earned the cum laude predicate. Those are 36 out of 594 students from the Faculty of Economics and Business, 3 out of 120 students from the Faculty of Medicine, 10 out of 261 students from the Faculty of Law, 7 out of 274 students from the Faculty of Mathematics and Natural Sciences, 13 out of 543 from the Faculty of Engineering, 3 out of 353 from the Faculty of Agriculture, 1 out of 424 students from the Faculty of Fisheries and Marine Affairs, 99 out of 696 students from the Faculty of Teacher Training and Education, 4 out of 88 students from the Faculty of Nursing, and 55 out of 356 from the Faculty of Social and Political Sciences.

In Indonesia, research on information behavior has been carried out with a

descriptive study of information-seeking behavior (Syaifullah, 2018). This descriptive quantitative research collected the data using a survey through questionnaires, interviews, observations, and documentation. Data from 100 samples were analyzed using the SPSS application. This study uses Kuhlthau's Information Search Process (ISP) theory as the theoretical framework to describe the students' information discovery in determining their further studies. The results showed that the high school students had gone through the six stages of ISP (Jefferson, Stierholz, Fontichiaro, & Hoelter, 2020).

The confusion in making decisions related to further study experienced by students indicates the first stage, the initiation stage. This confusion prompted the students to search for information through discussion with the family. Next, at the selection stage, high school students selected the sources of information needed; most of the selected types of information were related to job prospects after graduating from their studies. After that, students experienced the exploration stage by conducting additional searches through printed and online media, school, and family. Then, during the formulation stage, students tried to understand the gathered information and decide by evaluating them. At the collection stage, students compiled the information both digitally and physically. Finally, at the presentation stage, students felt relieved and satisfied with their obtained information.

Additionally, Syahfitri (2020) has also conducted research on information behavior using the Kuhlthau Model. This research is descriptive qualitative research that involved 20 people as informants. The data was collected through interviews and

observations. Moreover, the obtained data were analyzed through three steps: (1) data reduction, (2) data display, and (3) conclusion drawing.

The observations and interviews revealed that not all informants applied Kuhlthau's model in searching for information. Next, they carried out the selection stage by searching for information on the Internet and in libraries. The exploration stage was carried out by 19 informants using OPAC, 14 using the bibliography, 17 using the table of contents, and all using search engines. At the formulation stage, only a few students wrote a paper from the obtained information. At the presentation stage, students stored the information in a folder with a unique name. At the presentation stage, all students were satisfied with the information obtained despite many obstacles, such as using foreign languages that were difficult to understand and poor internet network connections.

The two previous studies on information behavior were all conducted based on the ISP theory. Besides that, ongoing research reveals that the ISP model is a valid theoretical framework for studying information behavior regardless of the information environment, both printed and digital (Krubu, Zinn, & Hart, 2017). This theory articulates knowledge with varied cognitive and affective stages relevant to printed and electronic information environments.

Information behavior can be defined as the overall human behavior when interacting with information, starting from searching for information, using information, and sharing information. One of the theories of information behavior is the Information Search Process (ISP) proposed by Kuhlthau. ISP describes the

general pattern of feelings, thoughts, and actions during information search, which are divided into six stages: (1) initiation, (2) collection, (3) exploration, (4) formulation, (5) collection, and (6) presentation.

The initiation is the initial stage in the concept of information behavior. It is the stage where individuals identify and analyze their information needs because of the gap in their knowledge, causing a sense of insecurity and uncertainty (Krubu, Zinn, & Hart, 2017). The initiation stage can be characterized by a condition where a person feels uncertain about the core of the problem. The feelings that arise include confusion, anxiety, fear, and others. As it progresses, they may discuss this gap in their knowledge with other parties as the initial action. This then will form the urge to search for information on their information needs.

The selection stage involves identifying information needs, classifying them into general topics, and sorting out topics as needed. At this stage, the individuals will try to find information related to the general topic of the problem. Here, they can identify the core problem and build a sense of optimism to solve it. However, in this stage, the sense of uncertainty is still there (Krubu et al., 2017). In other words, the search process has occurred, but the interactions are inefficient because the search is still carried out in general.

The exploration stage occurs when individuals search further for the topic of the problem or the information needed. This stage can occur when someone has received some information that has been processed and considered as knowledge. Confusion and uncertainty at this stage may increase if the obtained information does not match the search topic (Krubu et

al., 2017). At this stage, individuals will expand their knowledge by looking for additional relevant information to the problems.

The formulation stage is characterized by a condition where individuals have processed the general information into the focus of information. This stage is the critical point of the information search process (Krubu et al., 2017). The formulation is the stage of formulating information needs based on priority needs. This stage is followed by relating the information obtained to personal life or experience. Here, confidence will replace the feeling of uncertainty (Krubu et al., 2017).

The collection stage is gathering information based on needs through various documentation media. This stage ends with information seekers taking action or making decisions based on the obtained information. It can be an evaluation by combining information obtained with existing knowledge or relating it to the problems at hand. If the focus of the information is known, the interactions that occur become more efficient. Here, the information focus in the formulation stage transforms into more specific and relevant information.

The presentation stage is the peak of ISP theory. Here, two possibilities occur. The first is the satisfaction with the obtained information, and the second is the reverse. The relevance of the obtained information can be used as a guide to decide whether the action is essential or not. At this stage, individuals' self-confidence will increase (Krubu et al., 2017). Moreover, this stage also allows individuals to share the information obtained as new knowledge.

The scope of the previous studies, especially regarding the subject, is still

general. Thus, this research aimed to conduct the study with a more specific target: bachelor graduates with cum laude predicate. According to information obtained from the official Beneito and Vicente-Chirivella (2022), there are many advantages for someone who can graduate with a high GPA. Among other things, it will make it easier for them to compete in the job market as graduates with high scores will be more in demand by many companies. Of course, when achieving a high GPA, searching and using information are activities that cannot be separated from the learning process during the lecture period. On a broad scale, those activities are known as information behavior. It consists of the overall behavior carried out by each person related to the sources and the channels of information, intentionally or not.

Previous research on information behavior has been conducted on various objects, such as the study by Buchanan and Jardine (2023) on first-time mothers, Felicetti, Volpentesta, Linzalone, and Ammirato (2023) on food customers, and Ojaperv and Virkus (2023) on pregnant women in Estonia. Information behavior consists of the overall behavior carried out by each person towards sources and channels of information, intentionally or not. This study helps develop scientific concepts related to the field of library science, especially in the field of information behavior in a research object (cum laude graduates of UNRI in 2020). The novelty of this study lies in the object or research target, which is more specific on one scope of research among students who graduated with cum laude predicate.

Students who enrolled in the same university can follow the pattern in the information behavior of the cum laude graduates at the University of Riau and use

it as a guideline for completing their study program. The outcomes of this study can also be used as guidance in the teaching field and as a motivation for students to follow the patterns that occur in the information behavior of cum laude UNRI graduates. This research aimed to describe the information behavior of cum laude students at Riau University in 2020 through analysis initiation stage, selection stage, exploration stage, formulation stage, collection stage, and presentation stage.

RESEARCH METHODS

This research was qualitative research. This study analyzed problems or social issues related to individual information behavior. The researchers tried to reveal the uniqueness of individuals in their context when dealing with information, starting from recognizing their information needs to fulfill the need for that information. Moreover, as this was a qualitative study, the purpose of this study was to systematically, factually, and accurately the information behavior of cum laude graduates from UNRI in 2020, using Kuhlthau's Information Search Process (ISP) theory as the theoretical framework for students' information.

This research was conducted at the University of Riau, precisely at the Bina Widya Campus, Jl. HR Soebrantas KM. 12.5 Simpang Baru Village, postal code 28293. The subjects of this study were UNRI bachelor graduates who graduated cum laude or with outstanding honors in 2020. In this study, the researcher acted as the instrument and data collector. The researcher had direct contact with the research object. The researcher was also a key instrument in uncovering the meaning of the research process. The collected data was in the form of information related to

information behavior of UNRI graduates who graduated with honors or cum laude predicate. The data of this research were obtained from primary and secondary data sources. Primary data sources were obtained from the research subjects. In qualitative research, the term for the research subject is an informant. This study utilized the purposive sampling technique to select the informants. Informants were selected based on the criteria of cum laude graduates with the highest scores from each faculty. The informants consisted of five cum laude bachelor graduates at the University of Riau in 2020, one person from the Faculty of Economics and Business, one person from the Faculty of Teacher Training and Education, one person from the Faculty of Social and Political Sciences, one person from the Faculty of Fisheries and Marine Sciences, and another person from the Faculty of Law. Moreover, secondary data was obtained from several documents in the form of a list of UNRI bachelor graduates with cum laude predicate and photos also videos documenting supporting activities. This study was conducted intensively through interviews with informants. Besides that, researchers also carried out a literature review or documentation study using the ISP as the theoretical framework.

Interview with each informant was conducted at different times. The research used interviews and documentation studies as the data collection techniques. The interviews were conducted online through the Google Meet application from February 2021 to March 2021. Documentation studies in this research were in the form of further review of the informants' CVs and transcripts of grades.

This study used the Miles, Huberman, and Saldana (2018) data analysis method

and the Atlas.ti software. Miles et al. (2018) in data analysis method consists of 3 activity flows simultaneously. Those are data reduction, data display, and conclusion drawing. The data obtained is reduced by summarizing, selecting, and focusing the data according to the research objectives. Data reduction can also be done by sorting, categorizing, and making abstractions from field notes, interviews, and documentation. Data display is conducted by making narrative texts like field notes, matrices, graphs, networks, and charts that combine the information coherently. Conclusions must be in accordance with the research focus.

RESULTS AND DISCUSSION

The presentation of data in this study was based on the development of the information behavior theory proposed by Kuhlthau: Information Search Process (ISP) (Jefferson et al., 2020). The ISP theory consists of 6 stages: initiation, selection, exploration, formulation, collection, and presentation. The findings at the initiation stage are presented in table 1.

The research findings on the information behavior of UNRI cum laude graduates in 2020 showed that, first, they had a clear motivation to graduate with a cum laude predicate. Second, not only did they have a clear motivation, but they also had and organized their learning strategies

to achieve what they targeted. Third, in carrying out their obligations during their study (such as coursework in the form of papers or essays and final assignments or theses), they were based on the interest of facilitating the fulfillment of obligations. Fourth, they used the syllabus to formulate their basic information needs. Fifth, when they could not formulate their information needs, they discussed with those closest to them to identify their information needs.

Motivation can be an encouragement or an obstacle that urges someone to act or behave in various ways. Informant said, "We need to know our target to start our study" (R. Kafi, Interviewed, February 27, 2021). There are two points of view regarding the types of motivation. First, intrinsic motivation or motivation that comes from within the individual; second, motivation that comes from the outside or is known as extrinsic (Emda, 2017). Based on Shin and Bolkan (2021), cum laude graduates on motivation, intrinsic motivation came from the individual's desire to graduate with honor and to make their parents proud. While extrinsic motivation came from the encouragement of their parents to see their child graduate with cum laude predicate. Based on Kuhlthau's ISP theory (Jefferson et al., 2020), individuals will feel confused and uncertain about the information they receive at this initiation stage.

Table 1
Findings at the initiation stage

Codification result	Elaboration
Interest	As the source of motivation
Motivation	It consists of intrinsic motivation (a driving factor from within the individual) and extrinsic motivation (a driving factor arising from outside the individual).
Strategy	So that the implementation matches the target
Syllabus	As a medium for formulating information needs
Discussion	As a medium for formulating information needs

Source: Codification of research data, 2020

Similarly, this study found that the informants also felt and experienced confusion and uncertainty. Uniquely they did not see it as an obstacle but as their motivation to search for information. The confusion experienced by the informant was an intrinsic motivation that came from the informant. Motivation includes curiosity and ideas to make decisions and solve problems (Shobirin & Safii, 2021). The environment is one of the external factors that can foster motivation from within a person to learn (Emda, 2017). Here, the initiation stage is also based on individual interests. Interest is a source of motivation or encouragement so that someone can do something they want when faced with a choice. That way, motivation, and interest are interconnected; in other words, interest can affect a person's motivation to carry out an activity, including learning activities during lectures. Interest is an individual's desire for something influenced by physical and psychological conditions and the social environment (Anindyaputri, Rusmana, & Komariah, 2020). According to interview, "We have interest in formulating information needs" (N. Budi, Interviewed, March 8, 2021). When informants faced situations where they had to choose, their interest could be a consideration and motivator for them. Individuals would find it easier to do their work if it aligned with their interests, which was also applied when formulating their information needs.

Strategy plays a vital role in every learning process. Informant said,

"I have an excellent strategy to study. I use a notebook and colorful pen to write and review our material in class" (N. Diah, Interviewed, March 5, 2021).

Strategy can be analogous to the art of designing operations, setting positions, or

tactics in war (Fatimah, & Kartikasari, 2018). Strategies should approach the target to be achieved. Thus, individuals must understand more about providing encouragement or motivation to support learning activities. Based on research findings, informants were motivated to conduct their studies, followed by good time management and an understanding of suitable learning styles. Here, we could see that their motivations, interests, and strategies were related. Interest is a source of motivation, and motivation is one of the elements in the individual's learning strategy. Motivation consists of curiosity and ideas that produce strategies to obtain the necessary information (Shobirin & Safii, 2021b).

The syllabus was used to formulate the information needs of students during lectures. Informant said, "To search for the information, I use the syllabus from our lecturer" (N. Budi, Interviewed, March 9, 2021). The syllabus is a developed product from a curriculum containing an in-depth description of the competency standards, fundamental skills, and the subject matter/learning content to be achieved in one subject (Wahyuhono, 2016). The syllabus provides basic learning materials, materials, and learning tools that can be used as sources/references for information for students. UNRI's cum laude graduates were meticulous when interacting with information from the syllabus. This was seen in the way they utilized the syllabus.

A discussion was a tool used by UNRI cum laude graduates in formulating information needs. They conducted a discussion process to formulate their information needs. Discussions contain responsive conversations that provide opportunities to ask problematic questions to help solve individual problems in their

learning activities (Ahmad & Tambak, 2018). Informants carried out discussions with fellow students, seniors, and lecturers. Discussion can be held with all three or with only one. Besides that, UNRI's cum laude students in 2020 had good relationships with each other. They also had a good relationship with the course lecturers. This relationship could help the process until the accomplishment of the desired goal. The findings on the selection stage are presented in table 2.

There were several findings found. First, at this stage, the informants identified a topic to facilitate the process of finding information. Informants used a mind map to assist them in identifying general topics in the information search process. Secondly, informants searched for information about topics by browsing the Internet, books, libraries, and discussions. The discussion included the initial search for information by asking friends, seniors, and course lecturers.

Table 2
Findings at the Selection Stage

Codification Result	Elaboration
Needs identification	Mind mapping was carried out to formulate the thinking framework to make searching for information more straightforward.
Preliminary information search	It was conducted with the help of the Internet, books, libraries, and discussions.

Source: Codification of research findings, 2022

Generally, identification is recognizing and placing objects in an appropriate class based on specific characteristics. This process includes marking certain groups of objects to make a difference so that their existence in a group can be identified easily. The process of identifying the topic of information to be searched was carried out by informants based on their information needs on a particular subject. To facilitate the identification and classification process, informants utilized the mind mapping method, in which the information was mainly derived from the discussion and syllabus analysis results.

The process of identifying information was also carried out using mind mapping. Informant said, "I like using mind mapping to make the framework" (R. Kafi, Interviewed, February 27, 2021). Mind mapping was

done by mapping the thinking framework in a way that naturally involves brain operations, making it easier to remember information than conventional note-taking techniques (Aprinawati, 2018). This method can provide a comprehensive view of a problem. This activity provides an opportunity to plan, make, and make choices. It can solve problems through creative breakthroughs, solutions that are beautiful to look at, easy to read, digest, and remember. Mind mapping can also be regarded as a framework of thought that can facilitate identifying information so that the information to be sought focuses on the central topic. Mind mapping showed the meticulousness and creativity that the informants did when interacting with information. From the information identification process results, the initial search for information was also carried out at this stage. The search for information

took place through the internet, books, or visiting the library. Additionally, it was also done through discussions with other people. Informants utilized all these media to conduct an initial search for information.

The internet combines computer networks that connect people through various academic sites, government, and commercial organizations. Informant said, "An initial search was made via the internet to see what idea already existed" (D. Endah, Interviewed, February 19, 2021). The internet's access, from telecommunications services to other information resources, is spread worldwide and used by millions of people. Thus, nowadays, it is common to use the internet to search for information, apart from

visiting the library and reading books. A library is a room in a building or stands alone as a building, which is used as a storage medium for collections in the form of books and various other publications. Libraries have a specific arrangement for use only and not for sale. The initial search can be used as the standpoint to carry out further searches and ensure that the information received is reliable and can be used. The affective side at this stage was shown in the decrease in confusion and uncertainty since the informant had started to conduct an initial search for information. The information obtained from the initial stage would clear up the confusion and uncertainty experienced. Findings at the exploration stage are presented in table 3.

Table 3
Findings at exploration stage

Codification result	Elaboration
Further search	To verify the obtained information
Consideration in using the information	Using accurate, precise, relevant, and complete information
Library	Public Library (Soeman HS Library in Pekanbaru) and University Library (Central and Faculties' Libraries)
Sources of information	Printed (books and newspaper), digital (e-journal, e-book, official website, and social media)

Source: Codification of research findings, 2020

The findings in the study showed that, first, informants conducted further searches on the initial information they obtained to verify the information they received. Second, the informants made considerations when choosing the source of information to use. Third, the library was one of the places that informants visited to meet their information needs. Fourth, there were two forms of information sources that informants dominantly used.

The truth of the information obtained by informants could be ascertained by verifying the information they received. Informant said, "I am looking for information on the internet that is truly

credible and can be trusted" (A. Diah, Interviewed, February 19, 2021). The uniqueness at this stage was shown in the information verification process carried out by informants. Verification is checking and ensuring that something (a statement or report) contains the truth and is accurate and valid (Drajad, 2015). The information verification process also considers choosing which information can be used. The verification process for the information obtained is carried out in order to ensure the truth so that hoaxes or fake news are minimized. Information verification is described as a part of their information-gathering activities, and some verification

hinges on acquired knowledge from previously obtained information (Martin, 2016). The website was one of the dominant sources of information used by informants. Indicators to see the quality of information from the website include the information's accuracy, precision, and relevance (Aghnia, Komariah, & Rizal, 2019). Informants in their exploration stage showed consideration in choosing the information they would use. Informants paid attention to the accuracy of the information received so that the information was not biased. It included the year of publication, timely information seeking, conducting searches when the information was needed, and the relevance of the sought information with the information needed at that time. Besides that, the information's completeness was also considered, so there would be a clear understanding.

Libraries include national, public, school, *madrassa*, university, and special libraries. Libraries that were usually used by cum laude students at the University of Riau in 2020 were public libraries and university libraries. Public libraries are easily accessible to the general public. The public library usually visited by cum laude students at the University of Riau was the Soeman HS library of Riau Province in Pekanbaru. The location, facilities, and supportive atmosphere for learning are the main attraction of this library. Soeman HS is a public library established in 2008 and located right in the center of Pekanbaru. This library has complete facilities in the form of a room for learning and is supported by technology such as Wi-Fi to browse more diverse information. Libraries within the scope of universities become a supporting facility to support universities in carrying out activities of the academic community. Libraries within the scope of universities are

the supporting facilities to support universities in academic community activities. They are divided into several primary functions: educational media, information sources, research support, entertainment or recreation, publications, deposits, and information interpretation. University libraries have an essential role in producing good quality information literacy for the academic community and motivating students to be productive and have many achievements (Shobirin & Safii, 2021b). The Riau University Library has subsidiary libraries scattered in each faculty with a fairly complete collection. Students can use the library optimally, both in the faculty and the central library of UNRI.

Based on the form, information sources are divided into printed and digital/electronic sources. All forms of publications on intellectual and artistic works printed in books, magazines, newspapers, maps, and brochures can generally be used as the printed source of information. Printed sources of information commonly used by cum laude UNRI graduates were books and newspapers. Digital information sources, known as electronics, are packaged and stored electronically or digitally. It can be in the form of reproduction/re-digitalization, original form (digital born), or published electronics (e-publishing). Electronic publishing includes e-books, e-periodicals, e-databases, CD-ROMs, POD (Print On Demand), digital content, and e-ink (Andayani, 2014). These sources can be accessed online via the internet, such as electronic journals, electronic books, full-text databases, indexes and abstracts, and others. Informants dominantly used e-journals, e-books, official websites belonging to institutions, social media, and

electronic newspapers to meet their information needs.

At this stage, the individual's confusion and insecurity increased compared to the previous stage (selection) due to the variety of the obtained information. Based on the data gathered from the research, the feeling of confusion and uncertainty about the information decreased since they had already been

equipped with initial information that could be compared with the newly obtained information. If there was a difference from the information obtained, the informants already had the material for consideration before accepting and selecting the newly obtained information. The following table presents the findings on the formulation stage.

Table 4
Findings at the formulation stage

Codification result	Elaboration
Search focus	Based on the search and consideration of the use of information
Optimization	Search is more efficient, and search focus has been established

Source: Codification of research findings, 2020

The results showed that, firstly, when using information, informants correlated it to their experience in choosing information sources that could be used. Informant said, "My lecturer suggested using indexed journals" (R. Kafi, Interviewed, February 27, 2021). The process of associating the information with personal experience was unique at this stage. The process of linking information with personal experience was carried out to ensure the relevance of the information obtained with the information needed by the informant. Thus, this would later refer to the informants' final information-seeking process. The informant had determined the focus of the search in the previous stage (exploration). Therefore, the informant already considered the information to be used. The library became one of the locations chosen by the informants to obtain printed sources of information (books). The informants also chose to use digital sources of information in the form of online journals, Google Books, and the official government website. Second, because the focus of the search could be determined, this condition created a sense of optimism in

the informants regarding the information they had obtained. The following are the findings on the collection stage in table 5.

The results showed that in the information collection process, the informants used a questionnaire to collect research data, a notebook to collect information from the Internet and books, and then the informants' personal computers to store the information. Second, informants also paid attention to information retrieval systems when storing information. Third, informants collected reliable information that helped them complete their studies.

Information collection media used by informants were varied. It included questionnaires and interviews to collect research data, notebooks to store the information conventionally, and technological advancements to store the information digitally in a folder on a personal computer owned by each informant. Data collection was done by distributing forms containing questions to a person or group of people to get the answers that researchers need or also known as questionnaires.

Table 5

Findings at the formulation stage

Codification Result	Elaboration
Information gathering media	Questionnaires (open and closed), interviews, notebooks, and personal computer folders
Information retrieval	To make it easier to retrieve information
Assessments	The information obtained helps the learning process

Source: Codification of research findings, 2020

Interviews were also another way to collect data. Interviews are conducted directly with the respondents to obtain information and data expected with maximum efficiency and minimum bias (Thalib, 2022). Information was also collected using a notebook as a medium for initial information collection. It was then transferred to a soft file to be stored in a folder on a personal computer. The storage process's uniqueness at this stage was shown based on the ease of information retrieval. The information storage process was also based on the ease of information

retrieval, also known as an information retrieval system. Informant said, "First, I save the information in a folder and then group the same theme to find it easily" (N. Diah, Interviewed, March 5, 2021). This system is expected to help informants to retrieve information needed in the future. In general, the approach to information retrieval studies conducted by informants used a user approach by matching the document's relevance at the user's request based on the topic. The following are the research findings in the presentation stage.

Table 6

Findings at presentation stage

Codification Result	Elaboration
Satisfaction	Satisfaction and dissatisfaction relating to the information used
Information sharing	Done through social media and organizations

Source: Codification of research findings, 2020

The findings showed that informants were first satisfied with the use of information and their achievements to graduate with cum laude predicate. However, 3 out of 5 informants were not satisfied with their achievement as graduates with cum laude predicate even though they were satisfied with using the information. The researcher found that the feelings of satisfaction and dissatisfaction experienced by the informants were based on the initial targets that the informants had previously formed.

Based on the information used, the informant was satisfied because by using

the information, the informant was able to graduate with the cum laude predicate. Another finding, informants were willing to share information with others. This activity was unique because the informants did not hesitate to share their information and experiences with others. These sharing activities were accommodated by organizational activities where the informant acted as the source person. Social media also played an active role in sharing information held by informants with those closest to them.

The activity of sharing or sharing one's experiences and information is also

known as knowledge sharing. Knowledge sharing is a series of sending, distributing, and disseminating knowledge that, in its context, has many dimensions. It comes from one person or organization and is then given to others with various methods and media that occur systematically (Widuri, 2018). Informant said,

“I do not have a separate container to share, but if someone asks, I will explain based on my experienced” (R. Kafi, Interviewed, February 27, 2021).

The media used by informants to share information was through student organizations outside the campus and social media. It follows the statements by Andreas Kaplan and Michael, who have revealed that an internet-based application group built on the ideological and technological basis of Web 2.0 provides the possibility to create and exchange user-generated content is the definition of social media (Hager & Wellein, 2010). Informant said, “Personally if anyone asks via WhatsApp or Instagram, I will definitely answer” (D. Endah, Interviewed, February 19, 2021). The dominant social media used by informants were Instagram and WhatsApp.

CONCLUSION

The information behavior possessed by each student has already been in line with the six stages of ISP. The informants have shown some uniqueness in each stage that they experienced. Students should have a clear motivation and set a strategy to carry out the information behavior to be right on target in its implementation. They should pay attention to details and have creativity when interacting with information. The verification process to link the information obtained with experience must be carried out to ensure the

correctness of the information obtained. Being happy and willing to share information and experiences with others should be an example, especially for students. Sharing knowledge will not make us lose, but it can make us sharpen the knowledge we have. We can feel many benefits when we want to share with others. Further research should be conducted that focuses on the uniqueness of each stage of information behavior.

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