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Role of Stakeholders' Knowledge in Designing Successful Interpretation Services in Conserving Natural Resources

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Abstract

The goals of interpretation activities can be achieved if interpretation service planning is carried out correctly. The planning process could succeed if the planner has adequate knowledge and understanding of interpretation services. Knowledge and understanding are crucial to determining what to do. This research aims to measure the knowledge and understanding of tourism managers and organizers, as well as their interpretations of important aspects of interpretation, including interpretation resources, visitors' characteristics, and interpretation techniques. The research method used is qualitative. Data were collected through structured interviews with 15 informants (managers and organizers of interpretation activities). The interviews reveal that the managers and implementers of tourism activities and/or interpretations already possess a good knowledge and understanding of the interpretation resources available in the area, particularly regarding their tangible and intangible values. However, they still need to understand the universal concept of these resources. Additionally, all informants still need to gain more knowledge and understanding of the characteristics and backgrounds of visitors, as well as interpretation techniques. Only 80% of informants were aware of interpretation pathways, and 60% were aware of interpretation programs. This limited knowledge and understanding are assumed to be one of the inhibiting factors in the formulation of a good interpretation service. Ultimately, it becomes an inhibiting factor in creating public awareness regarding preserving natural resources. This research highlights the need to enhance the knowledge and understanding of interpretation stakeholders regarding the key aspects required for planning interpretation services through training, workshops, or formal education.

Keywords: interpretation, programme, tourism resources, tourist, trail

1. Introduction

Environmental interpretation is a form of educational activity that examines and reveals the true meaning, attributes, and physical, biological, and cultural relationships of an area using real objects and first-hand experience to create satisfaction, responsible action, awareness, and commitment to interesting values and areas [1,2]. Interpretation has a vital role in protecting natural resources [3–5]. For example, in wildlife-based tourism, interpretation can help influence tourists' beliefs and actions or behavior towards wildlife because this interpretation can create a better tourism experience [3,6,7]. Interpretation services have a close relationship with tourism activities. Interpretation activities aim to inform visitors about the places they visit or the natural resources they see while in the area. Interpretation services also encourage visitors to appreciate and care for these places [8].

The results show that well-designed and delivered interpretation services during ecotourism activities can increase knowledge about protected areas and resources, increase support for resource management problems faced by protected areas, increase positive behavior towards the environment, and support conservation funds [9–11]. Designing an interpretation activity that encourages visitors to support the conservation of natural resources requires specific knowledge and skills. Good knowledge and skills can assist in planning and managing interpretative activities appropriate to the area's conditions and visitor preferences.

Planning and implementing interpretation activities require a broad knowledge base and a multidisciplinary approach. The knowledge is necessary so that these activities can provide services to diverse audiences. The knowledge and understanding needed to facilitate a valuable and enjoyable experience when designing and/or carrying out interpretation activities include knowledge of the resources to be interpreted, the target audience (i.e., the target participants), and interpretation techniques [12]. This knowledge and understanding are necessary so that interpreters, planners, and implementers can establish relevant connections between natural resources in the area and visitors who come [4,12]. Additionally, a planner or implementer of interpretation activities must possess a thorough understanding of resources, including their inherent characteristics, related concepts, contexts, relationships, systems, processes, human values, and other meanings associated with these resources. Planners and implementers of interpretation activities must also understand various perspectives on past and current resources, conditions, and areas, and possess the skills to effectively interpret them for all visitors [13].

Environmental interpretation is assumed to influence visitor behavior related to resource conservation efforts, both natural and cultural. To be able to provide quality interpretation services, it is necessary to understand the visitors [1]. Other knowledge and understanding that planners and implementers of interpretation activities need is knowledge and understanding related to the characteristics or background of the target (destination visitors) [1,14,15].

The interpretation technique is a crucial aspect of the interpretation service. In tourism development, area managers should improve the quality of their interpretation services, including techniques to increase reflective engagement [7]. Interpretation techniques that can be employed include the development of an interpretation trail and the design of an interpretation program.

The interpretation trail can be used as a means of education, information, and promotion for a tourist area. In its design, interpretation routes can be tourist or sightseeing routes of varying lengths, having a focus on the content or material presented and the delivery techniques [16]. To be able to create tourism products that are socially, economically, and environmentally responsible, the interpretation line developer must pay attention to several things, including site selection, consultation, integration, and sensitive interpretation [15].

Interpretation programs have an essential role in increasing visitor awareness of the preservation of natural resources [6,7]. The success of an interpretive program can be determined by several aspects, including context, type of interpretation, message content, and/or delivery method, indicators, and measurable results of interpretation [17]. Until now, research on interpretation programs has been focused on the benefits of the interpretation program for changes in knowledge, visitor behavior [18–20], and the role or importance of tour guides and other stakeholders when implementing interpretation programs [4,14]. However, little research still studies the interpreter's (planner and/or implementer) capabilities or program. The process of creating, designing, and implementing an interpretation program is crucial for producing a successful program, ultimately achieving the expected impact.

Adequate skills, including knowledge and understanding of the interpretation trail and program, are needed to create and plan a good interpretation path and program. This study aimed to measure the knowledge and understanding of tourism managers and implementers in Cidahu Tourism Village regarding interpretation services. The results of this study can serve as initial information about the factors that may affect the success of interpretation services provided in an area, particularly from the perspective of tourism managers and implementers.

Cidahu Tourism Village is a tourist village located adjacent to the Gunung Halimun-Salak National Park area. The tourism activities, such as tracking, camping, and sightseeing, carried out by the tourism management group in the village are conducted in the National Park area and utilize the natural resources contained within as the primary focus. Therefore, the capacity of tourism managers and implementers related to interpretation services is vital so that managers and other relevant stakeholders can prepare strategies for planning and implementing better interpretation

services. In the context of tourism, as stated by [14], understanding related to interpretation services shared by all stakeholders responsible for planning, managing, or advocating for it can create sustainable tourism.

2. Materials and Methods

2.1. Data Collection

The data collection method employed in this study is a qualitative research approach, specifically a structured interview method. Qualitative methods were used because the researchers sought to gather broader and more in-depth data and information. In this study, the researcher aimed to evaluate the depth of informants' knowledge and understanding of interpretation planning. [21] points out that qualitative methods play a role in dissecting complex social phenomena and providing in-depth, human-centered insights. Structured interviews were used because they ensured that all informants would be asked the same questions in the same order. Furthermore, structured interviews enabled the analysis of informants' responses using a standardized scoring system. This interview method reduced bias and allowed for a more objective assessment of the various responses from informants. The questions in the interview guide are arranged based on the components needed to compile a planning interpretation in a tourist area, such as interpretation resources, techniques, and visitor characteristics [22].

The questions consist of questions related to (1) the types of resources found in the area, (2) the characteristics of visitors who come, (3) interpretation routes, and (4) program interpretation. Interpretation routes and programs are part of the interpretation technique. Questions related to interpretation trail/pathway include the definition, objectives, benefits, and aspects that must be considered when designing the routes. Meanwhile, questions related to program interpretation include objectives, benefits, and aspects that must be considered in designing the program. The guided interview aims to determine the interpretation manager's level of knowledge and understanding of the components necessary for developing an interpretation plan. The procedure for obtaining informant consent involves first explaining the purpose of the study, what is expected of them, and the duration of the interview. They are then asked if they are willing to participate in the study. If they are eager, the interview continues; if not, it is terminated.

The interviews lasted between 30 and 45 minutes and occurred at the informants' workplaces. During the interviews, the researcher recorded the conversations using a recorder after obtaining the informants' permission. If they agreed, the recording continued; otherwise, the researcher transcribed the informants' responses. At the beginning of the interview process, in addition to being informed of the purpose and process of the interview and seeking their consent, informants were also informed that they could withdraw their participation within a specific time limit (one month after the interview). The data and information they provided were confidential and would only be disseminated through reports and scientific publications. This study did not require approval from a human ethics committee, as the informants were not considered vulnerable groups and the questions were not sensitive. The interview results were then transcribed verbatim and analyzed using a thematic analysis approach.

The informant selection technique used was purposive sampling. The informant criteria were people involved in tourism activities and/or tourism management in the Cidahu Tourism Area, Sukabumi Regency, West Java Province, Indonesia. The informants in this study consisted of 15 individuals, including the head of the tourism awareness group, members of the tour group, and tour guides in Cidahu Village, Sukabumi Regency, West Java. These informants were chosen because it was assumed they had an essential role in designing interpretation services in the area.

2.2. Data Analysis

The data analysis method employed is a qualitative descriptive approach, utilizing open coding. The results of the interviews were analyzed descriptively to measure and analyze their knowledge and understanding of the resources contained in the area, the

characteristics of visitors who came and interpretation techniques, especially the path and interpretation program. Steps taken to analyze the results of structured interviews are transcribing, analyzing, verifying, and reporting. Analyzing involves re-reading the interview transcripts to identify themes emerging from the respondents' answers. To identify the themes and ideas, the data were coded manually by using open coding. Open coding involves the researcher breaking down the data into its constituent parts and identifying similarities and differences. These themes were organized to interpret the findings and to produce a comprehensive and critical summary.

Open coding was used to identify whether any additional themes, beyond the interpretation components, emerged in the interview results. The main themes used as a reference in this study were the components or aspects required for interpretation planning. This analysis was conducted manually, without the use of any specific software. All answers were reviewed and analyzed from the interview results until themes related to the interpretation planning components and themes other than the interpretation components were identified. One researcher conducted the analysis. To identify themes, the researcher created a question-and-answer matrix. Keywords or emerging meanings were identified from each answer and used as themes. These themes were then compiled and analyzed to determine which themes appeared most frequently and were most related to the interpretation planning components. A limitation of this research method is that the answers obtained were limited because the interviews were structured. Questions focused on the participants' existing knowledge and understanding, failing to explore the sources of that knowledge and why they lacked it. Furthermore, because the researchers conducted the research at the informants' work locations, their concentration was sometimes disrupted, resulting in incomplete answers.

3. Results and Discussion

3.1. Results

3.1.1. Knowledge and Understanding of Resources in the Area

Based on the results of interviews with managers and implementers of activities in the Cidahu Tourism Village Area regarding their knowledge and understanding of the natural resources found in their area, it appears that they know about most of the resources found in the area, both physical, biological (plants and animals), social, and cultural. Informants could name various types of plants and animals found around Cidahu and Mount Halimun-Salak National Park. They can also mention the various cultures, traditional cuisine, arts, and crafts, etc., that are part of the Cidahu community. In addition to the names or types of these various resources, the informants can mention the characteristics or descriptions of these resources. The interview results also show that the managers and implementers of tourism in the Cidahu area are aware of and understand the intangible value of the resources in the area. This can be seen from their knowledge and understanding of the meaning and benefits of these resources for human life. For example, informants can explain the benefits of plants in their daily lives, for health, food, and other purposes. However, most of the informants found it difficult when asked to explain the concept or universal value of these resources.

3.1.2. Knowledge and Understanding of Visitors as Candidates for Interpretation Activities

The interviews revealed that most managers and implementers have limited knowledge and understanding of the characteristics and backgrounds of visitors to the area. They can only state the range of the number of visitors who usually come, the pattern of visits (whether alone or in groups), and the times of highest and lowest visitation. They obtain this information through their observations while providing services to visitors, such as ticket sales, climbing, or camping. Based on the results of interviews and field observations, it is evident that the area manager still needs to identify the characteristics and behaviors of visitors. The only documentation they keep is a record of the number of visitors who come. There has never been a special visitor survey conducted to gather information about the characteristics and preferences of visitors participating in tourism activities in the area.

3.1.3. Knowledge and Understanding of Interpretation Techniques (Interpretation Trail and Programs)

1.   Knowledge and understanding of the interpretation trail

The results of the interviews showed that the informants needed to fully understand what is meant by the interpretation path, the benefits, and the aspects that must be considered in designing the interpretation path. Three informants, who are tourism managers who focus on administrative matters, do not know at all about the three aspects related to the interpretation trail (Table 1). Table 1 shows that approximately 80% of informants knew interpretation pathways. 73.3% of informants were able to define and function interpretation pathways. 66.67% of informants were able to provide examples of aspects needed to plan interpretation pathways.

Table 1. Knowledge and understanding of informants regarding the interpretation trail definition, function, and consideration aspect in planning.

Informant	Trail Definition	Trail Function	Aspect needs to be considered
1.	Collection/story from an activity	Make it easier for visitors/tourists to get information	Attractions, tracking paths, information boards
2.	Trails for tourists who want to know the potential around the trail	Can find out useful things and can tell you what benefits are on that path	Do not know
3.	Tracking tourism paths by presenting spots by prioritizing the landscape	Part of attracting tourist visitors	Made a master plan, rest post for information facilities
4.	Do not know	Do not know	The boundaries of the territory or area that will be the place of implementation
5.	Must have fully identified the potential interpretation resources contained in the pathway	Make it easier for visitors	Equipped with facilities that visitors need in exploring the path
6.	Must have fully identified the potential interpretation resources contained in the pathway	Make it easier for visitors to get information	Equipped with facilities that visitors need when exploring the path
7.	The paths that will be followed in the interpretation program must have complete potential	One of the ingredients to be a tourist can know about nature	There is a signpost
8.	A technique of explaining environmental conditions such as flora, fauna, etc. By area managers to visitors in the environment	Become a visitor attraction	Do not know
9.	Planning paths or tracks in preserving tourist villages	Very helpful for the development of tourist villages	Potential related to the location of the line, the information conveyed, and confirm the need for the line
10.	Paths or tracks in planning to preserve tourist villages and cultural history in the form of ecotourism	The benefits aim to help develop tourist village trails or tracks, providing direct social, economic, and ecological benefits to the community.	Data related to the location area, information delivered, views of the tourist area served

Informant	Trail Definition	Trail Function	Aspect needs to be considered
11.	Roads or tracks for tourist visitors who are deliberately served for the satisfaction of the end by presenting the potential of nature, culture, and facilities for a comfortable journey from start to finish	For the convenience and satisfaction of visitors	Data related to the location area, the information conveyed, facility requirements for lanes, determination of themes, determination of lane stops
12.	The paths that the interpretation program will follow	Really helps the development to go to a tourist village	Data related to the location area, information submitted, and views of the tourist area served

The results of the informants' answers regarding the definition of the interpretation path showed that the tourism managers and implementers in Cidahu Village understood the meaning of the interpretation path. The answers from these informants emphasized that the route was created to convey and display the resources found in the area (especially those along the route) in order to conserve them.

Respondents' answers regarding the benefits of making interpretation routes include (1) helping develop towards becoming a tourist village; (2) providing comfort and satisfaction for visitors, (3) providing direct social and economic ecological benefits to the community, (4) becoming one of the attractions for visitors, as a tool to introduce the natural potential to visitors, and (5) facilitating the delivery of information to visitors. This response follows what [15,23] conveyed. This indicates that the managers and implementers of tourism activities and/or interpretation have recognized that the interpretation path is beneficial for achieving sustainable tourism development. Several aspects related to the design of the interpretation path mentioned by the informants include the tourist objects that are on the route, the condition of the route, the availability of facilities, including information boards available along the route, the master plan for planning paths and area boundaries, the availability of guides, and the themes presented in the path.

2. Knowledge and understanding of interpretation programs

The interview results showed that all informants had heard of the term interpretation program. However, only 60% of the informants felt they knew and understood the interpretation program. This percentage is smaller than the percentage of respondents who think they know and understand the interpretation path (60%: 80%). Of the 60%, not all gave a response or answer to the four questions given (Table 2).

Table 2. Informants' answers (verbatim) regarding the definition, objectives, benefits, and components of the interpretation program.

No.	Program definition	Program purpose	Program benefits	Program components
1.	Program implementation of activities that are arranged based on a certain time	Make it easier for visitors to get information about the environment	Improve understanding of various aspects	Guides, information boards, objects, and activities
2.	Program to create a complete tourist track/trail	Make it easier for visitors to understand the destination and attract visitors	Do not know	Do not know
3.	The program of implementing the so-called pre-emptive activity of time	Make it easier for program participants to get information about the environment	Do not know	Do not know

No.	Program definition	Program purpose	Program benefits	Program components
4.	The program of implementing the so-called pre-emptive activity of time	Make it easier for program participants to get information about the environment	Do not know	Do not know
5.	Do not know	Do not know	Visitors will become more familiar with the tourist area	Do not know
6.	Programs to develop human resources to develop tourist villages	Make it easier for visitors to travel to get to know the tourist environment	Do not know	Do not know
7.	Interpretation programs are story scenarios or implementation patterns that are arranged according to a certain time	To make it easier for tourist visitors to get to know tourist routes and sights in tourist villages	Provide objects or resources to be interpreted, provide materials and media that are conveyed	Do not know
8.	The potential offered, the objects that are excavated that are useful, the information on the tourism program is as detailed as possible, which is conveyed in an exploratory manner	To make it easier for the end of the tour, so that they can get to know the environment or landscape on the tour	Visitors are more familiar with what resources are presented in detail	Village landscape, resources, information/ communication facilities, targets, and objectives
9.	A program that directs human resources to be tourism aware	An interpretation program is a story or implementation scenario that is arranged according to a certain time	Do not know	Do not know

Table 2 shows that only 53.3% of informants could define and articulate the purpose of an interpretation program. Only 27% could cite the benefits of implementing an interpretation program, and 13.3% could identify its components. These results indicate that managers' knowledge and understanding of interpretation programs is relatively low. According to the informants, the benefit of the interpretation program is that visitors can become familiar with the resources in the tourist area in detail. This answer indicates that the managers and implementers of tourism and/or interpretation activities in the Cidahu Area have a limited understanding of the benefits and roles of interpretation services. The informants also mentioned several components in the interpretation program, including village landscapes, resources, information facilities/communication facilities, targets (visitors), objectives, guides, information boards, objects, and activities (which are carried out).

3.2. Discussion

A good interpretation service can be implemented if the planners and implementers of the interpretation activities know and understand several aspects, namely the resources found in the area, the characteristics and behavior of visitors, and interpretation techniques [13,24,25]. A literature review by [26] indicates that interpretation planning should convey the history and nature of the site to visitors and be tailored to their needs, combining education and entertainment to ensure a diverse and satisfying experience. Such planning requires knowledge and understanding of the area's conditions, visitor characteristics, and various interpretation techniques that can provide a satisfying experience for visitors. If the area manager lacks knowledge regarding these aspects, the interpretation plan that is created will not be able to achieve the desired goals.

3.2.1. Knowledge and Understanding of Resources in the Area

Interpretive materials used to provide interpretation services can affect their effectiveness in improving environmental attitudes and ecotourism behavior [27]. In preparing the interpretation material, the interpretation planner is expected to have knowledge and understanding related to resources, both natural and cultural resources [25]. This knowledge and understanding consist of knowledge and understanding related to tangible and intangible values and universal concepts of these resources [22]. The study indicates that the managers and implementers of interpretation activities in the Cidahu Tourism Area already have sufficient knowledge regarding the tangible value of these resources.

In addition to knowledge and understanding related to the tangible value of the resources contained in the area, the managers and implementers of interpretation services must also have knowledge and understanding regarding the intangible value of the resources contained in the area [22,25]. This is because they need to fully understand what is meant by universal values, and they also need to know and understand the societal conditions in other places. A lack of understanding of the universal concept of resources can be one of the factors inhibiting optimal interpretation services. This is because conveying universal concepts to visitors is very important, as it can resonate with visitors' emotional side. [28] Stated that emotional messages can contribute to the success of interpretation in promoting conservation among tourists. The managers and implementers of interpretation and tourism activities in the Cidahu area already possess sufficient knowledge regarding the tangible and intangible values of the natural and cultural resources within the area. However, they still need to acquire a comprehensive understanding of universal concepts and how to apply them to regional resources.

3.2.2. Knowledge and Understanding of Visitors as Candidates for Interpretation Activities

Interpretive planning must take into account the background and conditions of visitors to be able to provide the best experience for them [29]. The interviews revealed that most managers and implementers have limited knowledge and understanding of the characteristics and backgrounds of visitors to the area. They can only state the range of the number of visitors who usually come, the pattern of visits (whether alone or in groups), and the times of highest and lowest visitation. They obtain this information through their observations while providing services to visitors, whether it is for tickets, climbing, or camping. There needs to be more than just this data and information to design an effective interpretation service. If planners and managers want optimal interpretation services, they need to understand the characteristics, backgrounds, and behaviors of their visitors. To provide optimal interpretation services, data and information that the stakeholders should know from visitors are visitor demographic characteristics (e.g. age, education, ethnicity/race, gender, religion, occupation), motivation, preferences or things they like, nationality, country of origin, residence, health condition, status, spare time, money, cultural values etc. [25,29,30]. This knowledge is needed so that they can provide services that match the background of each group of visitors who come [22].

Based on the results of interviews and field observations, it is evident that the area manager still needs to identify the characteristics and behaviors of visitors. The only documentation they keep is a record of the number of visitors who come. There has never been a special visitor survey conducted to gather information about the characteristics and preferences of visitors participating in tourism activities in the area. This is as stated by [25], who states that tourism stakeholders or interpretations ignore the psychological aspects of visitors. This knowledge is necessary so that interpretation service providers can present programs and services tailored to visitors' motivations and learning styles. Recording and surveys of visitors are crucial for managers and implementers of tourism activities and interpretations to understand the visitors who come to their area. Thus, they can provide services following the conditions and backgrounds of the visitors and enhance their satisfaction [22,31].

3.2.3. Knowledge and Understanding of Interpretation Techniques (Interpretation Trail and Programs)

1. Knowledge and understanding of the interpretation trail

In addition to knowledge related to resources and visitors, managers and interpreters must also understand the concept of interpretation in tourist areas and the various interpretation techniques. In this study, the interpretation technique identified by knowledge and understanding is the path of interpretation. These two techniques were chosen because they are the most common techniques provided by tourism area managers in Indonesia. The interpretation trail is one of the most extensively developed tourist facilities in the area and has recently become an integral part of the landscape [16]. While the interpretation program is a center of activities offered in tourist areas to improve the experience of visitors while in tourist areas [32]. The interpretation trail has various definitions [15,23]. One commonality between these various definitions is that the interpretation pathway is a tool or service that facilitates the delivery of information related to resources in an area.

The interpretation path is one of the interpretation media that facilitates an increase in knowledge and understanding among visitors about the resources found in the area, thereby increasing their support for efforts to conserve these resources. The interviews showed that the informants did not understand the goal of designing an interpretation path. Most of the informants' understanding remains focused on providing information related to resources, rather than changing the visitors' mindset or behavior. This aligns with their knowledge and understanding of resources (see the previous subchapter), which focuses more on both tangible and intangible values. To become an interpretive material, the information must also relate to a universal concept, so that it can reach the visitors who come.

Regarding the relationship between information and interpretation, [2] Stated that the information is not an interpretation. *Interpretation* is a "revelation" based on information. Information submitted to visitors is only in the form of facts, figures, and direct dates. Interpretation is not just what is conveyed to visitors but how to say it to them [22]. The study indicates that the managers and implementers of tourism and/or interpretation in Cidahu already possess knowledge and understanding of aspects that need to be considered in designing interpretation paths. One aspect they should have mentioned was the visitor aspect. This potential participant will undergo and enjoy the route even though the literature states that important factors that can increase the success of the interpretation trail include the suitability of the trail design with the characteristics or background of visitors, interpretation objects or resources on the trail, and supporting infrastructure on the trail [14]. Regarding the definition of the interpretation program, the informants' answers indicated that not all of the informants knew and understood the meaning or definition of the interpretation program. According to the informant, the interpretation program is a community empowerment program, a collection of tourist objects or a tourism activity (details can be seen in Table 2).

The interview results related to the purpose of the interpretation program indicate that the understanding of tourism managers and implementers in the Cidahu area regarding the basic concepts of this interpretation program is still limited. Interpretation not only attempts to provide information to visitors about an area or resources contained in an area, but interpretation also aims to increase their knowledge, change their attitudes and behaviour that is most appropriate to the environment, or in this case, following conservation efforts on natural resources [33].

2. Knowledge and understanding of interpretation programs

The interview results indicated that the knowledge and understanding related to interpretation roles and the benefits of the managers and implementers of tourism and/or interpretation activities in the Cidahu Area are still limited. They still need to be aware of the benefits and roles of interpretation services to help increase visitor knowledge, awareness, and participation in efforts to conserve area resources. This follows the results of research. [34], which states that nature-based tourism businesses have yet to fully realize the educational opportunities they offer their clients through interpretation activities. Many companies need to be made aware of the positive academic impact of the services they can

provide to tourists, so that they want to participate in conserving resources in their area. This is mainly due to the very limited knowledge and understanding of the stakeholders involved in the management and implementation of tourism related to interpretation concepts and techniques [24].

The informant's knowledge and understanding of the related components in the interpretation program are pretty good. The components they understand follow what was conveyed by [35] and [25]; in an interpretation program, it is necessary to have aspects of interpretation resources, storylines, audiences (tourists), and interpretation media. One aspect that has yet to be mentioned by the managers and executors of the interpretation is a crucial aspect in the interpretation program, namely, the theme, even though the theme is a key factor in achieving optimal interpretation services [35]. The existence of a theme makes the participants in the interpretation activity more focused on a particular issue. This factor can increase the success of interpretation activities [36]. Without a theme, interpretation participants will struggle to grasp the key message that the area management is trying to convey. This will hinder the achievement of the interpretation's objectives.

The survey results indicate that tourism managers' and implementers' knowledge and understanding of interpretation, paths, and interpretation programs require further improvement. This is assumed to be one of the causes of the underdeveloped interpretation service in the Cidahu Tourism Area. The results of this study are in line with the results of research presented by [24] that one of the causes of not optimal interpretation services in the Amazon is the insufficient knowledge and skills of tour guides related to the concept of sustainability, which is the ultimate goal of interpretation.

4. Conclusions

The design and planning of successful interpretation services for a tourist area require knowledge and understanding of the stakeholders involved, including area managers and implementers of tourism and/or interpretation activities. The knowledge and understanding that managers and implementers should possess include those related to the resources in the area, the characteristics, background, motivations, and preferences of visitors, as well as the interpretation techniques presented. The research results indicate that knowledge and understanding of the components of interpretation planning remain minimal. This results in their inability to develop sound interpretation activity plans. Limited knowledge and understanding of visitor characteristics hinder the development of interpretation programs that are appropriate for the target audience or visitor segment visiting the area. Stakeholders involved in Cidahu tourism or interpretation activity generally focus their interpretation services based on the resources available in the area. These stakeholders often overlook the background aspects of their visitors, including their characteristics and motivational preferences. The managerial implication of this result is the need to increase knowledge and understanding of visitors and interpretation techniques that can be provided to visitors in the area. Stakeholders' efforts to improve this knowledge can be done through formal and non-formal educational activities. Area managers can continue their education or participate in various training programs, workshops, and seminars related to interpretation planning. Managers and implementers of interpretation are expected to obtain education related to adult non-formal education (adults as learners), consumer behavior, marketing, advertising, and the psychology of the target audience.

Conflicts of interest

There are no conflicts to declare.

Acknowledgement

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