

Enhancing The White-Water Rafting Experience In Citarik River, Sukabumi: A Service Blueprint and Frame Experience Design Approach

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Abstract

Rafting has become a popular adventure activity globally, offering an exhilarating experience for thrill-seekers. Indonesia, with its diverse geography and rich cultural heritage, offers numerous rafting opportunities. The current trends in adventure tourism in Sukabumi, Indonesia, are focused on developing river-based special interest tourism (SIT) products, particularly rafting, river tubing, and body rafting, targeting productive age groups in Sukabumi, Jabodetabek, and Bandung Raya areas. Service blueprinting and framed experience design are two distinct approaches used in service design to enhance customer experiences. By integrating these two approaches, service providers can create a more comprehensive and effective service design strategy. Service blueprinting can help identify areas for improvement in the service delivery process, while framed experience design can help create a cohesive and engaging experience by framing the context, atmosphere, and activities that make up the experience (Pandey & Kulshrestha, (2021); Li & Lu, (2021)). Therefore, this study aims to investigate how service blueprints and frame experience design can be applied to enhance the rafting experience, ultimately contributing to the growth and sustainability of the industry. This research will adopt a quantitative technique and data collected will be analyzed using descriptive statistics and Importance-Performance Analysis (IPA) quadrant matrix. The result suggests that while most aspects of the white-water rafting experience are performing well in areas of high importance, there are a few areas where improvement efforts could be focused to increase satisfaction levels, particularly in managing river current conditions, enhancing storytelling and entertainment aspects, and providing more opportunities for self-development.

Keywords: Rafting, Service Blueprint, Frame Experience Design

A. PENDAHULUAN/INTRODUCTION

Adventure tourism is defined as a type of tourism that involves engaging in outdoor activities that are characterized by a high level of risk, excitement, and thrill (Fe, (2014); Cheng et al., (2018); Rantala, (2018)). These activities often involve exploring natural environments, such as mountains, forests, and waterways, and may include activities such as hiking, climbing, rafting, and skiing. Adventure tourism is often associated with the concept of "adventure" and is characterized by its focus on providing unique and memorable experiences for participants (Fe, 2014); Cheng et al., (2018); Rantala, (2018)). Rafting is a popular adventure tourism activity that involves navigating a raft through rapids and calm waters. It is a physically demanding activity that requires a high level of physical fitness and mental toughness. Rafting is often associated with whitewater rafting, which involves navigating a raft through fast-moving water and rapids. Whitewater rafting is a popular activity in many parts of the world, including the United States, Canada, and Europe (Fe, 2014); Cheng et al., (2018); Deb et al., (2023)).

Rafting has become a popular adventure activity globally, offering an exhilarating experience for thrill-seekers. Indonesia, with its diverse geography and rich cultural heritage, offers numerous rafting opportunities. The current trends in adventure tourism in Sukabumi, Indonesia, are focused on developing river-based special interest tourism (SIT) products, particularly rafting, river tubing, and body rafting, targeting productive age groups in Sukabumi, Jabodetabek, and Bandung Raya areas. This trend is driven

by the shift in tourist preferences towards natural tourism activities following the COVID-19 pandemic. However, the industry faces challenges in providing participants a consistent and memorable experience.

The current white-water rafting experience may not fully meet the expectations and preferences of tourists. To ensure that the white-water rafting experience meets the expectations and preferences of tourists, it is important to gather customer feedback and make any necessary adjustments to the experience (Kim et al., 2017). This may involve modifying the route, adding additional safety measures, or providing more comprehensive training for guides (Kim et al., 2017). By taking a proactive approach to customer feedback, tour operators can improve the overall quality of their white-water rafting experience and increase customer satisfaction. While it is true that taking a proactive approach to customer feedback can lead to improved service and increased customer satisfaction, there is a risk that operators may become overly reliant on feedback and neglect to innovate and improve their offerings in other ways. By focusing solely on customer feedback, operators may miss out on opportunities to create new and exciting experiences that would appeal to a wider range of customers. Additionally, customer feedback can be subjective and may not always reflect the needs and desires of all customers (Kim et al., 2017). Therefore, while customer feedback is important, it should not be the only factor considered when making decisions about how to improve the white-water rafting experience.

There is a lack of systematic understanding of the key components that contribute to an exceptional rafting experience (Patrício et al., 2008). While some studies have explored the factors that contribute to a positive rafting experience, there is a need for a more comprehensive and systematic understanding of the key components that make a rafting trip truly exceptional (Patrício et al., 2008). This knowledge will allow for the development of better guidelines and recommendations for rafting operators and tourism businesses, ultimately enhancing the overall quality of the rafting industry. However, it is important to note that improved guidelines and recommendations alone may not be sufficient to address all of the challenges facing the rafting industry. In order to truly enhance the overall quality of the industry, it may be necessary to address underlying issues such as inadequate training and equipment, lack of regulatory oversight, and insufficient safety standards. By addressing these underlying issues, we can ensure that the rafting industry remains safe, sustainable, and enjoyable for all participants (Patrício et al., 2008).

Service blueprint is a service design approach that involves creating a visual representation of the service delivery process to identify areas for improvement and optimize the service experience. The principles of service blueprinting include understanding the customer's perspective, identifying the key touchpoints and interactions, and mapping the service delivery process to identify areas for improvement (Cheng et al., 2018); Pandey & Kulshrestha, (2021)). Moreover, Cheng et al., (2018) and Pandey & Kulshrestha, (2021) explain that a service blueprint typically consists of four main components; customer actions, frontstage, backstage, and support processes.

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Rossmann & Schaller (2015) explained that Frame Experienced Design (FED) is a method for creating memorable, interesting, and useful program experiences for users by focusing on various factors that can affect their experience. FED helps program designers identify and minimize risks that can occur

during the program (Ritchie & Faulkner, 2011). By understanding and applying these elements, the activity providers can minimize potential risks associated with program implementation and reach the desired target audience. This approach ensures a flexible and adaptable program experience. This involves identifying the Six Key Elements in order to understand user needs and behavior, prototyping, and testing designs to ensure smooth and enjoyable interactions with the product. Moreover, Six Keys Elements consist of interacting people, physical setting, leisure objects, structure, relationship, and animation.

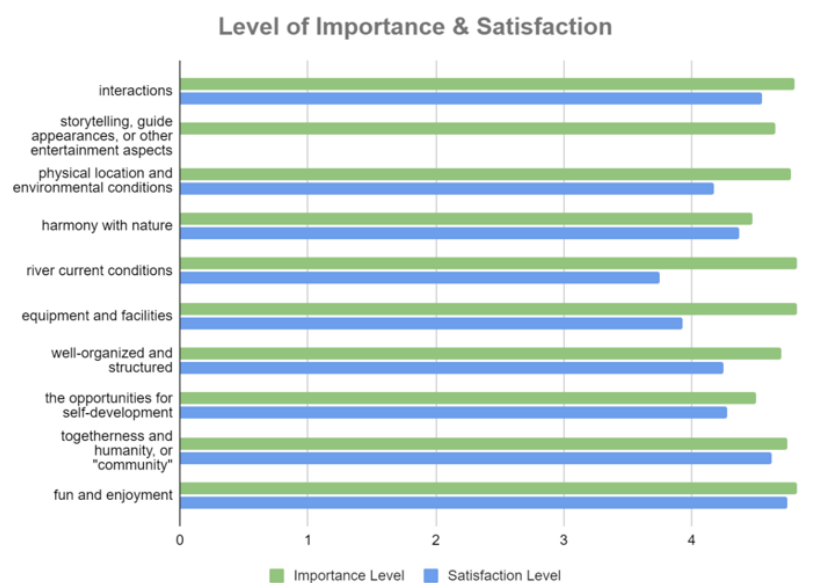
Limited research has been conducted on applying service blueprint and frame experience design approaches specifically to enhance the rafting experience in Indonesia (Peng & Lin, 2016). Despite the limited research on applying service blueprint and frame experience design approaches to enhance the rafting experience in Indonesia, there is potential for further exploration of these methods to improve the overall quality and customer satisfaction of rafting tourism in the country (Peng & Lin, 2016). Therefore, this study aims to investigate how service blueprints and frame experience design can be applied to enhance the rafting experience, ultimately contributing to the growth and sustainability of the industry.

B. RESEARCH METHOD

This research will adopt a quantitative technique to achieve the research objectives. The study will involve the following stages, data collection and data analysis. Regarding data collection, a survey will be conducted among rafting participants to identify the key elements of a memorable rafting experience. Additionally, semi-structured interviews will be conducted with rafting operators to gather information on their current practices and challenges. Moreover, data collected will be analyzed using descriptive statistics and Importance-Performance Analysis (IPA) quadrant matrix in order to understand areas that performing well and areas where improvement efforts could be focused to increase satisfaction levels.

C. RESULTS AND ANALYSIS

The presented data illustrates the multifaceted nature of the white-water rafting experience, as perceived by participants. This analysis reveals a complex interplay between various factors that contribute to both the importance and satisfaction levels of rafting enthusiasts.



Primarily, the results indicate a high correlation between the importance placed on "fun and enjoyment" and the corresponding satisfaction levels. This suggests that the core experiential aspect of white-water rafting aligns well with participants' expectations. Similarly, the "togetherness and humanity, or 'community'" factor demonstrates a strong positive association between importance and satisfaction, underscoring the significant role of social dynamics in adventure tourism experiences.

Interestingly, several factors exhibit notable discrepancies between their perceived importance and reported satisfaction levels. The most pronounced of these is "river current conditions," which participants rate as highly important but report lower satisfaction levels. This disparity could be attributed to the inherent variability of natural conditions and their impact on the rafting experience, highlighting a potential area for managing participant expectations.

The data also reveals a strong emphasis on environmental factors. Both "harmony with nature" and "physical location and environmental conditions" are rated highly in terms of importance, with satisfaction levels closely matching. This aligns with existing literature on nature-based tourism, which often emphasizes the significance of the natural environment in shaping visitor experiences.

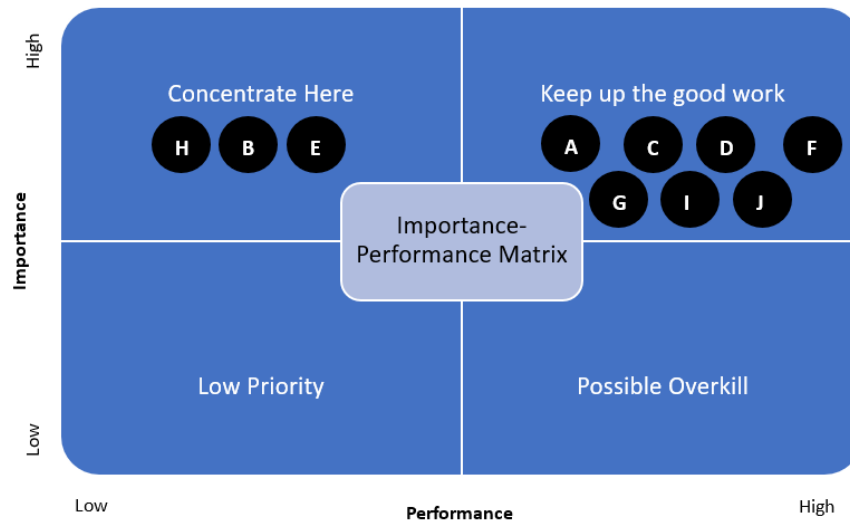
An intriguing finding is the high importance placed on "storytelling, guide appearances, or other entertainment aspects," coupled with a noticeably lower satisfaction level. This suggests an unmet demand for narrative and interpretive elements within the rafting experience, potentially indicating an area for service improvement and enhanced guide training.

The "opportunities for self-development" factor presents another area where satisfaction lags behind importance. This finding resonates with adventure tourism research that often highlights personal growth and skill development as motivating factors for participation in high-risk activities.

Operational aspects such as "equipment and facilities" and being "well-organized and structured" are rated highly in both importance and satisfaction, albeit with slightly lower satisfaction scores. This indicates that while these logistical elements are generally meeting expectations, there may be room for incremental improvements.

In conclusion, this survey provides valuable insights into the complex array of factors influencing participant satisfaction in white-water rafting experiences. The findings suggest that while the core experiential and social aspects of rafting are meeting or exceeding expectations, there are opportunities for enhancing the interpretive, personal development, and certain environmental aspects of the experience. These results could inform management strategies in adventure tourism, particularly in balancing the unpredictable nature of outdoor activities with participant expectations and satisfaction.

Importance-Performance Analysis (IPA) quadrant matrix based on the data provided. The x-axis represents Satisfaction (Performance) levels, while the y-axis represents Importance levels. Moreover, each point on the chart represents a factor from the survey, with its position determined by its importance and satisfaction scores. At the end, the red lines represent the average importance and satisfaction scores across all factors, dividing the chart into four quadrants: 1). Top-right (Keep up the good work): High importance, high satisfaction; 2). Top-left (Concentrate here): High importance, lower satisfaction; 3). Bottom-right (Possible overkill): Lower importance, high satisfaction; 4). Bottom-left (Low priority): Lower importance, lower satisfaction.



Based on this IPA quadrant matrix, we can interpret the results as follows:

Keep up the good work (top-right): Fun and enjoyment (J), Togetherness and humanity, or "community" (I), Well-organized and structured (G), Equipment and facilities (F), Harmony with nature (D), Interactions (A), Physical location and environmental conditions (C); **Concentrate here (top-left):** River current conditions (E), Storytelling, guide appearances, or other entertainment aspects (B), Opportunities for self-development (H); **Possible overkill (bottom-right):** None of the factors fall into this category; **Low priority (bottom-left):** None of the factors fall into this category

This analysis suggests that while most aspects of the white-water rafting experience are performing well in areas of high importance, there are a few areas where improvement efforts could be focused to increase satisfaction levels, particularly in managing river current conditions, enhancing storytelling and entertainment aspects, and providing more opportunities for self-development.

Table 1. Service Blueprint of Rafting Activity in Citarik River

Service Layer	Research & Booking	Arrival	Check-in	Safety Briefing	Equipment	Travel to River	Rafting	Post-Rafting	Facilities	Lunch Session
Physical Evidence	Website, brochures	Parking lot, signage	Reception desk, forms	Safety gear displays	Rafts, paddles, helmets, life jackets	Transport vehicles	River, rapids, scenery	Equipment return area	Changing rooms, showers	Dining area, food, utensils
Customer Actions	Research and book trip	Arrive at rafting center	Check-in and sign waiver	Receive safety briefing	Get equipped	Travel to river	Raft down river	Return equipment	Showers and change	Enjoy meal, socialize
Frontstage Actions	Provide booking information	Greet customers	Process check-in	Conduct safety briefing	Distribute equipment	Guide to river	Guide through rapids	Collect equipment	Direct to facilities	Serve food, interact with customers
Backstage Actions	Manage reservations	Prepare check-in	Prepare waiver	Prepare safety	Maintain and	Prepare transport vehicles	Monitor river	Clean and inspect	Maintain	Prepare meals,

Service Layer	Research & Booking	Arrival	Check-in	Safety Briefing	Equipment	Travel to River	Rafting	Post-Rafting	Facilities	Lunch Session
		materials	forms	equipment	organize gear		conditions	equipment	facilities	set up dining area Food inventory, meal planning
Support Processes	Website and booking system	Staff scheduling	Legal and insurance	Safety training programs	Equipment inventory system	Vehicle maintenance	Weather and river monitoring	Equipment maintenance	Cleaning services	

This blueprint can be used to analyze the service process, identify potential pain points or areas for improvement, and ensure that all necessary support systems are in place for a smooth customer experience. It can also be helpful for training new staff and standardizing procedures across different locations or branches of a white-water rafting business.

The examination offers an extensive overview of possible pain points and areas for enhancement within the white-water rafting service, based on the previously created service blueprint. The subsequent are some crucial points to consider: **Optimizing Customer Journey:** Numerous enhancements are centered around smoothing the customer journey, ranging from simplified booking procedures to more efficient post-rafting processes. These improvements have the potential to significantly elevate the overall customer experience. **Emphasis on Safety and Comfort:** Considering the inherent risks of white-water rafting, prioritizing safety is essential. Enhancements in safety instructions and equipment provisions are imperative. Moreover, ensuring comfort in transportation and amenities can profoundly influence customer satisfaction. **Personalization and Inclusivity:** Recommendations such as tailoring services to diverse skill levels, accommodating dietary preferences, and offering multilingual assistance can render the service more inclusive and attractive to a broader clientele. **Boosting Efficiency:** Various enhancements target reducing waiting periods and optimizing procedures, which can aid in effectively managing large groups and enhancing overall operational efficiency. **Improving Communication:** Consistent themes include clear signage, enhanced briefings, and better information dissemination, underscoring the value of transparent communication throughout the service delivery. **Engagement Post-Experience:** Proposals for post-activity emails containing photos can prolong the positive experience beyond the rafting day and stimulate repeat patronage. **Sustainability Initiatives:** Introducing environmentally friendly practices can resonate with eco-conscious clientele and potentially curtail operational expenses in the long term.

By focusing on these aspects, a white-water rafting service can substantially elevate customer contentment, operational effectiveness, and potentially boost repeat business and favorable word-of-mouth endorsements.

The analysis of white-water rafting experiences on the Citarik River reveals several pivotal factors that shape participant satisfaction. The Importance-Performance Analysis (IPA) highlights both strengths and improvement areas, which can guide service providers in enhancing the overall rafting experience. The analysis integrates service blueprinting and framed experience design principles, emphasizing critical experience aspects and touchpoints that influence satisfaction. Firstly, the alignment between "fun and enjoyment" as a central experience and participants' satisfaction underscores the successful delivery of a thrilling and engaging activity. Fun is integral to adventure tourism, with excitement and enjoyment rated as high priorities by participants. This aligns with previous studies that highlight fun as the cornerstone of adventure tourism experiences, making it essential to maintain and further enhance this aspect. Keeping the adventure unpredictable yet safe ensures that the primary motivator of excitement is continuously met. Additionally, the importance placed on "togetherness and community" reflects the strong social dimensions associated with adventure activities like rafting. This aspect has shown a positive correlation with satisfaction, indicating that rafting operators have fostered a sense of camaraderie

among participants. Participants often perceive rafting as a bonding experience, especially when friends or family join. This "community" factor can be further enriched through structured group interactions, team-building activities, and opportunities to engage socially before or after the main rafting session. These initiatives can enhance social satisfaction, making the experience more fulfilling for individuals and groups alike.

However, some gaps are evident between the importance of certain factors and their satisfaction scores, which may indicate unmet expectations or areas where operators could intervene. The most prominent of these gaps pertains to "river current conditions." As an uncontrollable environmental element, river currents present a unique challenge for both participants and operators. Although participants value this aspect highly, satisfaction lags, likely due to variability in water levels and speed, which affect the excitement and safety of the experience. Addressing this through customer education, guide-led discussions on river conditions, or adaptive rafting routes can help manage expectations and reduce dissatisfaction related to natural conditions. Furthermore, participants place high importance on "storytelling and entertainment elements" but report lower satisfaction in this area. This gap highlights an opportunity to improve guide training and enrich the rafting narrative. Guides play a critical role in delivering not only instructions but also in crafting the adventure experience through engaging storytelling and interpretation of the river's history, local culture, and environmental significance. Training guides to incorporate storytelling could elevate the adventure into a more culturally immersive experience, enhancing customer engagement and potentially increasing customer loyalty.

The "opportunities for self-development" factor similarly presents a discrepancy, indicating that participants value personal growth but feel underserved in this area. Adventure tourism literature often highlights personal challenge and skill acquisition as significant motivators, suggesting that customers are looking for more than just a thrilling experience—they are seeking personal transformation. Integrating skill-building opportunities, such as basic paddling or survival skills and post-trip debriefs focused on personal accomplishments, can satisfy this desire for self-development, making the rafting experience both physically and mentally enriching. Operational elements such as "equipment and facilities" and "organizational structure" rank highly in both importance and satisfaction, though with slight room for improvement. Since these aspects underpin the foundational safety and convenience of the rafting experience, continued attention to the quality and maintenance of equipment is crucial. Regular equipment inspections and upgrades, along with streamlining logistical elements, can maintain high satisfaction in these areas. Clear, organized processes from check-in to the conclusion of the activity also create a seamless experience, reducing participant stress and contributing to overall satisfaction.

The analysis using the IPA quadrant matrix further suggests strategies for focused improvement. For instance, in the "Concentrate here" quadrant, which includes factors like river current conditions, storytelling, and self-development opportunities, rafting operators can prioritize targeted enhancements. Such efforts may involve implementing real-time monitoring of river conditions with informative signage to update participants on what to expect. Similarly, incorporating storytelling workshops and self-development opportunities as part of the guide's role can create a more well-rounded experience that meets the high expectations participants place on these factors.

In summary, while the Citarik River white-water rafting experience already performs well in fostering fun, social bonding, and operational efficiency, there are clear opportunities to deepen satisfaction through storytelling, better management of environmental factors, and providing avenues for personal growth. The combination of service blueprinting and frame experience design is instrumental in identifying these improvement areas, offering a structured approach to refining the rafting experience. By continuously evolving these elements, service providers can better meet the diverse motivations of adventure tourists, contributing to higher satisfaction rates, positive word-of-mouth, and sustainable growth in the adventure tourism sector.

D. CONCLUSION

Citarik Rafting Providers has provided an excellent rafting experience, with interesting variations of routes and rapids levels and complete equipment. However, to further enhance the visitor experience, it is recommended to suggest that there are a few areas where improvement efforts could be focused to increase satisfaction levels, particularly in managing river current conditions, enhancing storytelling and entertainment aspects, and providing more opportunities for self-development. Moreover, the rafting providers should consider to focus on some crucial points, such as optimizing customer journey, emphasis on safety and comfort, personalization and inclusivity, boosting efficiency, improving communication, engagement post-experience, and sustainability initiatives. The following are recommendations for creating experiences for rafting activities on the Citarik River based on Framed Experience Design.

FRAME EXPERIENCE DESIGN WHITE-WATER RAFTING

FRAME 1 PICK-UP			FRAME 2 REFRESHMENT & ORIENTATION			FRAME 3 PREPARATION & BRIEFING		
X ₁	PEOPLE		X ₁	PEOPLE	Y ₁	X ₁	PEOPLE	Y ₁
X ₂	PHYSICAL SETTING		X ₂	PHYSICAL SETTING		X ₂	PHYSICAL SETTING	
X ₃	LEISURE OBJECT		X ₃	LEISURE OBJECT	Y ₂	X ₂	LEISURE OBJECT	Y ₂
	STRUCTURE		X ₄	STRUCTURE			STRUCTURE	
	RELATIONSHIP	Y ₁		RELATIONSHIP			RELATIONSHIP	
	ANIMATION			ANIMATION			ANIMATION	
X1 Pick up of participants by rafting provider X2 Participants were picked up using an open-back truck X3 explanation of the pick-up scheme, including vehicle capacity Y1 the occurrence of interaction between participants in each vehicle			X1 welcoming rafting participants at the base camp and activity briefing X2 The briefing was conducted in the pendopo area (semi-outdoor) with a calm atmosphere around it. X3 Traditional food as refreshment for participants X4 Participants are invited to take refreshments provided as a buffet Y1 conducive atmosphere and participants' belongings are neatly arranged Y2 Participants understand the rafting activity briefing material			X1 Rafting equipment such as paddles, helmets and life jackets are provided X2 Participants queue to get rafting equipment and form groups according to boat allocation Y1 Participants help each other in installing rafting equipment Y2 Participants have lined up neatly using the appropriate equipment		
FRAME 4 RAFTING			FRAME 5 BREAK & CONTINUE TO FINISH LINE			FRAME 6 TAKE A BATH & LUNCH		
X ₁	PEOPLE	Y ₁	X ₁	PEOPLE	Y ₁	X ₁	PEOPLE	Y ₁
X ₂	PHYSICAL SETTING		X ₂	PHYSICAL SETTING		X ₂	PHYSICAL SETTING	
X ₃	LEISURE OBJECT		X ₃	LEISURE OBJECT		X ₃	LEISURE OBJECT	
	STRUCTURE		X ₂	STRUCTURE			STRUCTURE	Y ₂
	RELATIONSHIP			RELATIONSHIP			RELATIONSHIP	Y ₂
	ANIMATION	Y ₂		ANIMATION			ANIMATION	Y ₃
X1 a wide river with a fairly strong current with a background of trees X2 Rubber boats for rafting are available on the river bank X3 The participants who were already in each boat were given instructions regarding hand signs Y1 Participants interact regarding sitting positions on the boat Y2 the participants started to raft down the river			X1 Participants are invited to rest in an area with beautiful views and safe river conditions X2 provide rest time and free time with group activities X3 continue the journey from the rest area Y1 Participants enjoy free time together and increase solidarity between participants			X1 providing lunch with a traditional menu in the basecamp area X2 After reaching the finish line, participants are arranged to return to base camp with briefings regarding bathrooms and lunch Y1 Participants get an exciting and memorable rafting experience Y2 the relationship between participants becomes more solid Y3 the participants returned to the pick-up location safely		

X: Intervention
 Y: Outcome Statement

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