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Evaluation of the Rock Climbing Training Program for the Southwest Papua BAPOMI Team in Preparation for POMNAS

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Abstract

This study evaluated the rock climbing training program implemented by the Southwest Papua BAPOMI team in preparation for the 2025 National Student Sports Week (POMNAS). The main problem identified was the lack of comprehensive evaluation regarding the effectiveness of the training program, particularly in terms of resource adequacy and implementation quality. This research aimed to assess the program using the CIPP (Context, Input, Process, Product) evaluation model. The study employed a descriptive evaluation design involving 14 respondents consisting of athletes, coaches, team managers, and BAPOMI administrators. Data were collected through questionnaires, interviews, observations, and documentation. The findings revealed that the context component achieved 78% (Good category), indicating appropriate program planning and objectives. However, the input component scored only 46% (Poor category), highlighting significant limitations in funding, facilities, infrastructure, and organizational support. The process and product components both achieved 100% (Very Good category), demonstrating consistent program implementation and positive outcomes, including two silver medals and two bronze medals at POMNAS 2025. In conclusion, the training program was generally effective, but resource constraints remain the primary challenge requiring immediate attention. Improvements in financial support and infrastructure are essential to sustain and enhance the program's positive achievements. The CIPP model proved effective in identifying specific program strengths and weaknesses.

Keywords: Program evaluation; rock climbing; training program; CIPP model; student athletes

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Introduction

Athletic achievement is the product of a long and structured development process rather than an instant outcome (Bergeron et al., 2015; Brewer, 2017). In competitive sport, performance is influenced by multiple internal and external factors (Adewale et al., 2024; Brewer, 2017; Wall et al., 2004). Internal factors include the athlete's physical and psychological qualities, while external factors include coaching, organizational support, facilities, environment, and the training program itself (Abarghoueinejad et al., 2021; Abusleme-Allimant et al., 2023). Among these, the training program holds a central role because it provides the structure through which athletes improve their physical capacities, technical skills, tactical understanding, and psychological readiness (Birrer & Morgan, 2010; MacNamara et al., 2010).

Rock climbing is one of the sports that has gained increasing popularity, especially among young people (Baláš et al., 2012). It is physically demanding, technically complex, and mentally challenging. Athletes must combine strength, endurance, coordination, concentration, and courage in order to perform successfully (Bassett, 2000; Oh et al., 2011). The specific characteristics of rock climbing as a competitive sport distinguish it from other sports disciplines. (Draper et al., 2008) explain that rock climbing requires a unique combination of arm and finger strength, aerobic endurance, flexibility, balance, and problem-solving abilities in dynamic situations. (Baláš et al., 2012) add that hand-arm strength and endurance are significant predictors of climbing performance, confirming that training programs must be specifically designed to develop these components.

As a result, athlete development in climbing requires systematic planning, qualified coaching, adequate facilities, and a sustainable evaluation process (Babayev et al., 2025; Brazier et al., 2025). Program evaluation is an essential component of the sports development cycle because it enables stakeholders to identify program strengths and weaknesses objectively (Sugiyono, 2012). In the program evaluation literature, several models can be utilized, including the Kirkpatrick model, which focuses on four levels of evaluation (reaction, learning, behavior, and results); the UCLA model, which emphasizes needs, process, and outcome evaluation; and the Countenance model, which distinguishes between description and judgment in evaluation.

However, the CIPP (Context, Input, Process, Product) model, developed by (Stufflebeam, 2003), was selected for this study because it does not only assess final program outcomes but also comprehensively examines the background, resources, implementation, and results of a program. The CIPP model also provides both summative and formative evaluation frameworks, enabling evaluation results to be used for program accountability as well as for future program improvement. Research on training program evaluation in sports has been extensively conducted in disciplines such as soccer (Abarghoueinejad et al., 2021), athletics (Dingley et al., 2015), and swimming (Booth & Orr, 2016). (Festiawan et al., 2020) found that facility availability and funding are the main obstacles in training programs in remote areas.

However, research specifically evaluating rock climbing training programs using the CIPP model remains very limited. The unique characteristics of rock climbing as a sport

combining strength, technique, and psychology require an evaluation approach different from other sports disciplines. Thus, a research gap exists that needs to be addressed, particularly in the context of student-athlete development in Indonesia. The Southwest Papua BAPOMI rock climbing team showed improved performance in the lead-up to POMNAS 2025, including notable competitive outcomes. However, improvement in achievement alone is not sufficient to determine whether the training program is fully effective (Mardius et al., 2024; Dingley et al., 2015).

A structured evaluation is required to examine whether the program has been designed appropriately, supported adequately, implemented consistently, and able to produce the intended outcomes. Based on these considerations, this study proposes the following research questions (1) How is the quality of the *context* component of the rock climbing training program for the Southwest Papua BAPOMI team? (2) How is the quality of the *input* component of the program? (3) How is the quality of the *process* component of the program? (4) How is the quality of the *product* component of the program? The urgency of this research lies in several aspects. First, POMNAS 2025 is a prestigious event that serves as a benchmark for national-level student sports achievement, making training program evaluation essential to ensure athlete readiness.

Second, the results of this evaluation can serve as a basis for policymakers at BAPOMI and universities to improve future development programs. Third, theoretically, this research contributes to the development of sports science, particularly in the application of the CIPP model to rock climbing, which remains rarely studied. Fourth, the findings of this research can serve as a comparative reference for other regions facing similar challenges in sports development. Therefore, this study aimed to evaluate the rock climbing training program of the Southwest Papua BAPOMI team in preparation for POMNAS 2025 using the CIPP model. The findings are expected to provide valuable input for coaches, managers, and sports development institutions in improving future training programs (Baláš et al., 2012; Draper et al., 2008; España-Romero et al., 2009).

Methods

This study employed a descriptive program evaluation design (Sugiyono, 2012). The evaluation was based on the CIPP model, which includes four components: context, input, process, and product. The selection of this model was intended to provide a comprehensive analysis of the rock climbing training program in preparation for POMNAS 2025, as it enables the examination of program planning, resources, implementation, and outcomes within a single integrated framework. Respondents in this study consisted of 14 individuals who were directly involved in the rock climbing training program. The respondent composition was as follows: 10 athletes (71.4%), 2 coaches (14.3%), 1 team manager (7.1%), and 1 BAPOMI administrator (7.1%).

All respondents were selected using purposive sampling techniques based on their direct involvement and knowledge of the training program. The source document reports some inconsistency in the total sample description across sections, but the results tables clearly used data from 14 questionnaire respondents, and this article follows the reported

results dataset for consistency. Data were collected using four techniques: questionnaires, interviews, observations, and documentation. The primary instrument was a closed-ended questionnaire designed based on the four CIPP dimensions. The instrument grid is presented in table 1.

Table 1. Instrument grid for CIPP-based evaluation questionnaire

CIPP Component	Indicators	Number of Items	Reference Sources
Context	Program planning; program objectives; athlete preparation; coach preparation	10	Baechle & Earle (2008); Brewer (2017)
Input	Organizational structure; division of duties; facilities and infrastructure; funding; health and nutrition support	12	Booth & Orr (2016); Festiawan et al. (2020)
Process	Training implementation; training frequency; training intensity; coaching methods; athlete participation	8	Hughes et al. (2018); Albalad-Aiguabella et al. (2025)
Input/Process/Product	Athlete development outcomes; competition achievements; skill improvement	8	Birrer & Morgan (2010); Wall et al. (2004)
Total		38	

The questionnaire utilized a Likert scale with four response options: (4) Very Good, (3) Good, (2) Fair, and (1) Poor. The use of a four-point scale was intended to avoid neutral responses and encourage respondents to provide more definitive evaluations. Prior to data collection, the questionnaire was piloted with 10 respondents who had similar characteristics to the study sample but were not included in the main study. Content validity was established through expert judgment by two evaluators with expertise in sports program evaluation and rock climbing coaching. Construct validity was tested using Pearson Product-Moment correlation, and all items with correlation coefficients above 0.30 were retained. The reliability of the instrument was tested using Cronbach's Alpha, which yielded a coefficient of 0.85, indicating high reliability (threshold > 0.70).

The reliability coefficients for each component were: context ($\alpha = 0.82$), input ($\alpha = 0.79$), process ($\alpha = 0.88$), and product ($\alpha = 0.84$), confirming that all subscales demonstrated acceptable internal consistency. To enhance the credibility of the findings, data triangulation was employed by integrating information from the four data collection techniques. Questionnaire findings were cross-verified with interview responses, observation notes, and documentary evidence. For example, findings regarding training implementation (process component) from the questionnaire were triangulated with observations of actual training sessions and interviews with coaches about their training methods.

This multi-source approach allowed for the confirmation and enrichment of quantitative findings with qualitative insights. Data were analyzed using descriptive statistical techniques. The questionnaire data were processed using the following steps Scoring: Each respondent's answers were scored according to the Likert scale (4 = Very Good, 3 = Good, 2 = Fair, 1 = Poor). Percentage Calculation: The percentage score for each component was calculated using the formula $P = (\Sigma X / \Sigma X_{max}) \times 100\%$

Where:

- P = Percentage score

- ΣX = Total score obtained
- ΣXmax = Maximum possible score

Categorization: The calculated percentage scores were interpreted using the following assessment criteria, adapted from (Sugiyono, 2012)

- 80% - 100%: Very Good
- 66% - 79%: Good
- 56% - 65%: Fair
- 40% - 55%: Poor
- < 40%: Very Poor

For qualitative data from interviews and observations, thematic analysis was employed. Interview transcripts and observation notes were coded, categorized, and interpreted thematically to support and enrich the quantitative findings. Key themes were identified based on their relevance to the four CIPP components. This study has several methodological limitations that should be acknowledged. First, the descriptive design with a simple quantitative approach has limitations in exploring the deeper causal relationships and meanings underlying the evaluation findings. Second, the relatively small sample size (n = 14) limits the generalizability of the findings to other contexts or populations.

Third, the study relied primarily on self-report questionnaire data, which may be subject to social desirability bias, particularly given that respondents included athletes and coaches evaluating their own program. Fourth, the cross-sectional design captures perceptions at a single point in time and does not account for program changes or developments over time. Future research may address these limitations by employing mixed-method approaches with larger samples, more standardized instruments, and longitudinal designs to examine the causal factors affecting training program effectiveness more comprehensively.

Results

This study aimed to evaluate the rock climbing training program of the Southwest Papua BAPOMI team in preparation for POMNAS 2025 using the CIPP model. Based on data collected through questionnaires, interviews, observations, and documentation from 14 respondents, the evaluation results for each CIPP component are presented below. The *context* component evaluated program planning, program objectives, athlete preparation, and coach preparation. The analysis showed that the context component achieved a score of 78% with a Good category. The detailed results per indicator are presented in table 2.

Table 2. Detailed results of the *context* component evaluation

Indicator	Score (%)	Category
Program planning	78%	Good
Program objectives	80%	Very Good
Athlete preparation	75%	Good
Coach preparation	79%	Good
Context Average	78%	Good

"The training program planning was conducted through discussion and agreement between coaches and administrators. The objectives were clear, namely to prepare athletes to achieve success at POMNAS 2025." (Interview, Coach, April 14, 2026). Observational results showed that program planning documents were available and included training schedules, competition targets, and measurable achievement indicators. However, several aspects of planning still required refinement, particularly regarding long-term training periodization and recovery programs. The *input* component evaluated organizational structure, division of duties, facilities and infrastructure, funding, and health and nutrition support. The analysis showed that the input component achieved a score of 46% with a Poor category. The detailed results per indicator are presented in table 3.

Table 3. Detailed results of the *input* component evaluation

Indicator	Score (%)	Category
Organizational structure	55%	Fair
Division of duties	58%	Fair
Facilities and infrastructure	42%	Poor
Funding	38%	Very Poor
Health and nutrition support	45%	Poor
Input Average	46%	Poor

The data showed that funding was the lowest indicator with a score of 38% (Very Poor), followed by facilities and infrastructure (42%) and health and nutrition support (45%). These findings were reinforced by interview results with one of the coaches: *"We face difficulties with the available budget. Training is often not optimal due to a lack of adequate equipment. The climbing wall is old and needs maintenance, while funds for repairs are very limited."* (Interview, Coach, April 15, 2026) A BAPOMI administrator also acknowledged these limitations: *"We realize that funding and facilities remain the main obstacles. The budget allocated for rock climbing development has not been proportional to the existing needs."* (Interview, BAPOMI Administrator, April 16, 2026).

Observational results confirmed these findings. The available training facilities consisted of one artificial climbing wall with a height of 8 meters, but the safety mat condition was worn out and several holds were loose. Supporting equipment such as harnesses, carabiners, and dynamic ropes were also limited in number, requiring athletes to take turns using them during training. There was no dedicated training wall facility for technique practice outside main training hours. Budget documentation showed that the fund allocation for the rock climbing program in 2026 was only Rp 35,000,000, covering transportation, meals, equipment, and competition registration fees.

This amount was considered insufficient to meet the needs of an optimal training program, especially for facility maintenance and new equipment procurement. The *process* component evaluated training implementation, training frequency, training intensity, coaching methods, and athlete participation. The analysis showed that the process component achieved a score of 100% with a Very Good category. The detailed results per indicator are presented in table 4.

Table 4. Detailed results of the *process* component evaluation

Indicator	Score (%)	Category
Training implementation	100%	Very Good
Training frequency	100%	Very Good
Training intensity	100%	Very Good
Coaching methods	100%	Very Good
Athlete participation	100%	Very Good
Process Average	100%	Very Good

Although scores of 100% were achieved on all indicators, these results should be interpreted cautiously due to the possibility of social desirability bias in questionnaire completion, given that respondents were evaluating their own program. Nevertheless, these findings were supported by observation and interview data. Observational results showed that training frequency reached 5 times per week with a duration of 3 hours per session, in accordance with the established program plan. Training sessions began with 30 minutes of warm-up, continued with 2 hours of core training covering strength, technique, and tactics, and ended with 30 minutes of cool-down. Coaches arrived on time and led each training session with discipline.

Interview results with athletes confirmed the consistency of program implementation *"We train regularly every Monday through Friday. The coach always arrives on time and provides clear directions. Although facilities are limited, the coach always tries to make training varied and interesting."* (Interview, Athlete, April 17, 2026). The coach explained the coaching methods used: *"I implement a structured training program with balanced portions of strength, technique, and mental training. I also apply an individual approach because each athlete has different characteristics and weaknesses."* (Interview, Coach, April 14, 2026).

Documentation showed that the training program had been systematically periodized with clear macro, meso, and micro cycles, and there were athlete attendance records showing a participation rate of 95% during the preparation period. The *product* component evaluated athlete development outcomes and competition achievements. The analysis showed that the product component achieved a score of 100% with a Very Good category. The detailed results per indicator are presented in table 5.

Table 5. Detailed results of the *product* component evaluation

Indicator	Score (%)	Category
Athlete ability development	100%	Very Good
Technical skill improvement	100%	Very Good
Physical condition improvement	100%	Very Good
Competition achievement	100%	Very Good
Product Average	100%	Very Good

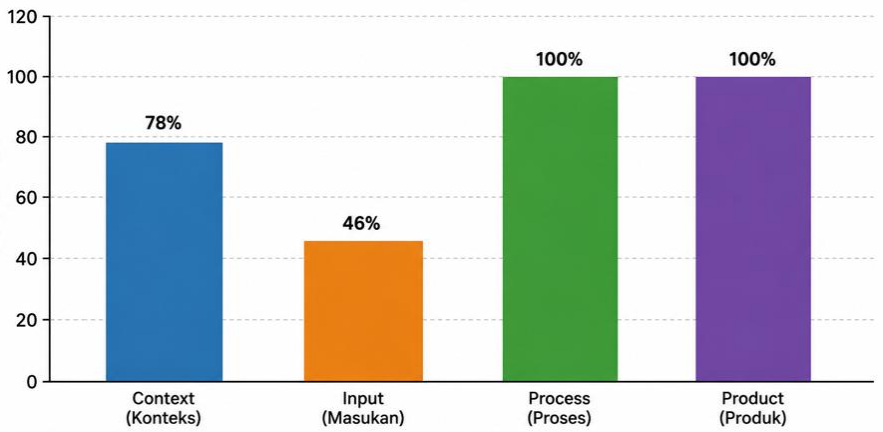
Similar to the process component, the 100% score on the product component should also be interpreted cautiously. However, the team's competitive achievements at POMNAS 2025 provided practical evidence supporting these findings. Interview results with the coach showed positive athlete development: *"I see significant progress in the athletes. Their finger*

and arm strength has increased, climbing technique has become more efficient, and most importantly, their confidence during competitions is much better than before." (Interview, Coach, April 14, 2026). An athlete also expressed perceptions of ability development: *"I feel my climbing ability has improved rapidly during this program. Now I am stronger, more confident, and able to complete routes that used to feel difficult."* (Interview, Athlete, April 17, 2026).

Documentation showed that the team successfully won two silver medals and two bronze medals at POMNAS 2025. This achievement reflects the effectiveness of the training program in producing measurable competitive results. Overall, the evaluation results of the rock climbing training program for the Southwest Papua BAPOMI team showed a clear pattern. The summary of evaluation results for the four CIPP components is presented in table 6.

Table 6. Summary of CIPP evaluation results

CIPP Component	Percentage	Category	Interpretation
Context	78%	Good	Program planning, objectives, and initial preparation were generally appropriate
Input	46%	Poor	Funding, facilities, infrastructure, and organizational support were still limited
Process	100%	Very Good	The training program was implemented consistently according to the established plan
Product	100%	Very Good	The program produced highly positive athlete development and competitive outcomes



A bar chart illustrating the percentage distribution of the four CIPP components. The chart clearly shows that processes and products are the strongest dimensions of the program, both at 100%, while inputs are the weakest component at 46%. This confirms that the program's main challenge lies not in its implementation or outcomes, but in the adequacy of the resources supporting it. To ensure the credibility of the findings, triangulation across data sources was conducted. table 7 presents the confirmation of findings from various data sources for each CIPP component.

Table 7. Triangulation of findings based on data sources

Component	Questionnaire	Interviews	Observations	Documentation
Context	78% (Good)	Supported: planning through discussion	Program documents available	Written program available
Input	46% (Poor)	Supported: limited budget, minimal facilities	Limited facilities, minimal equipment	Limited budget
Process	100% (Very Good)	Supported: regular and structured training	Training 5x/week, 3 hours/session	Schedule and attendance recorded
Product	100% (Very Good)	Supported: positive athlete development	Athlete performance improved	POMNAS medals recorded

Data triangulation showed strong consistency between questionnaire findings and interview, observation, and documentation data. Although the 100% scores on the process and product components should be interpreted cautiously, confirmation from various data sources strengthens the validity of these findings.

Discussion

This study aimed to evaluate the rock climbing training program of the Southwest Papua BAPOMI team in preparation for POMNAS 2025 using the CIPP model. The findings demonstrate that the program was generally effective, but not equally strong across all evaluation dimensions. The CIPP model made this imbalance visible, revealing that while context, process, and product showed positive results, the input component remained a clear area of concern. The context component achieved a score of 78% (Good), indicating that the program had a sufficiently strong conceptual and managerial foundation. In sports training, this is important because athlete preparation must begin with clear objectives, coherent planning, and agreement among responsible stakeholders (Baechle & Earle, 2008; Bell, 2025).

The evidence that the planning process involved deliberation between administrators and coaches suggests that the program was not implemented arbitrarily, but rather had an organized basis. This finding aligns with (Brewer, 2017), who emphasized that structured planning is a prerequisite for effective athletic development. However, the context score did not reach the highest category, indicating that several aspects of planning still require refinement. Specifically, the indicators of athlete preparation (75%) and program planning (78%) were lower than program objectives (80%). This suggests that while the program had clear goals, the strategies for achieving those goals could be strengthened. This finding is consistent with (Albalad-Aiguabella et al., 2025), who found that many training programs in developing regions have strong objectives but weaker implementation planning.

The input component achieved the lowest score at 46% (Poor), representing the most important evaluative finding in this study. A training program may have good planning and strong implementation, yet still be limited by weaknesses in funding, infrastructure, and organizational resources (Booth & Orr, 2016; Festiawan et al., 2020). In this case, the findings explicitly identified inadequate funding (38%, Very Poor) and limited facilities (42%, Poor) as major barriers. The funding constraint is particularly concerning. According to (Babayev et al., 2025), adequate financial resources are essential for sustainable sports

development because they enable facility maintenance, equipment procurement, and athlete welfare support.

The budget allocation of Rp 35,000,000 for the 2026 program was clearly insufficient to meet the needs of an optimal training program. This situation reflects broader challenges faced by sports programs in remote or developing regions, as documented by (Festiawan et al., 2020), who found that funding is the primary obstacle in training programs in remote areas of Indonesia. The limited facilities and infrastructure also represent a significant weakness. Observational data showed that the single climbing wall was in poor condition, with worn safety mats and loose holds. Supporting equipment was insufficient, requiring athletes to share during training. According to (Draper et al., 2008), adequate climbing facilities are essential for developing technical skills and ensuring athlete safety.

The process component achieved a perfect score of 100% (Very Good), indicating that training implementation was perceived as highly consistent with the established plan. This suggests that coaches were able to maintain discipline in training delivery despite the input limitations. Such a result highlights the importance of coaching commitment and program consistency in athlete development (Huang et al., 2005; Hughes et al., 2018). Observational data confirmed that training sessions were conducted 5 times per week with 3 hours per session, following a structured format of warm-up, core training, and cool-down. This frequency and duration align with the recommendations of (Baechle & Earle, 2008), who suggested that optimal training for strength and skill development requires regular, consistent sessions with adequate recovery periods.

However, the 100% score should be interpreted cautiously. As noted in the methods section, the reliance on self-report data raises the possibility of social desirability bias. Respondents may have overestimated the quality of training implementation because they were evaluating their own program. The perfect score may also reflect that questionnaire items measured simple adherence to the training schedule rather than the quality of training delivery (Hughes et al., 2018). The product component also achieved a perfect score of 100% (Very Good), demonstrating that the training program generated highly positive outcomes. Athlete development and competition achievement were viewed as highly satisfactory, and the reported medal results at POMNAS 2025 (two silver, two bronze) provide additional practical support for this conclusion.

These findings align with (Dingley et al., 2015), who argued that training program effectiveness should be measured not only by competitive outcomes but also by the quality of athlete development. Similar to the process component, the perfect product score should be interpreted with caution. While competition results provide objective evidence of success, the self-report data on athlete development may be subject to overestimation. Additionally, the product evaluation focused on short-term outcomes rather than long-term athlete development (Bell, 2025). One of the strengths of the CIPP model is its ability to reveal interrelationships between program components. In this study, the pattern of findings suggests an interesting dynamic high process and product scores despite low input scores.

This raises the question how can a program with poor inputs produce excellent implementation and outcomes? Several theoretical explanations can be considered. First, the strong context foundation (78%) provided sufficient structure and direction for

implementation, even with limited resources. Second, the high coaching commitment and athlete motivation appear to have acted as compensatory factors. This is consistent with the findings of (Williams & MacNamara, 2021), who emphasized the role of psychological characteristics in facilitating performance despite adverse conditions. Nevertheless, the low input score remains a concern.

According to the theory of change approach (Booth & Orr, 2016), program outcomes depend on the interaction of all CIPP components. The fact that process and product were already high suggests that the program could achieve even better outcomes if input limitations were addressed. Without improving funding and facilities, the positive outcomes may not be sustainable over the long term (Babayev et al., 2025). The findings of this study are consistent with several previous studies. (Festiawan et al., 2020) found that facilities and funding are the main obstacles in training programs in remote areas of Indonesia, which directly parallels the current findings. Similarly, (Booth & Orr, 2016) documented that resource constraints are common in regional sports programs.

The pattern of strong process and product despite weak input is also consistent with (Williams & MacNamara, 2021), who found that coaching quality and athlete commitment can partially compensate for resource limitations. However, the current study extends previous research by applying the CIPP model specifically to rock climbing, a sport that has received limited attention in program evaluation research. The findings have several practical implications. First, BAPOMI Southwest Papua should allocate a special budget for the maintenance and procurement of climbing facilities, including regular maintenance of the climbing wall, replacement of worn safety mats, and purchase of additional equipment.

Second, health and nutrition support should be strengthened through partnerships with local health services. Third, coaches should continue maintaining training consistency and develop periodization-based training programs. The positive outcomes observed suggest that the program's operational model is effective and could serve as a model for other climbing programs in similar contexts. Theoretically, this study demonstrates that the CIPP model is effective for evaluating rock climbing training programs, identifying specific strengths and weaknesses that would not be apparent from outcome evaluation alone. The study also provides empirical evidence that input deficits can be partially compensated by strong context, process, and human factors, challenging simplistic input-output models of program effectiveness.

This study has several strengths, including the use of multiple data collection methods enabling triangulation and the application of a comprehensive evaluation framework. However, limitations include the reliance on self-report data, the small sample size (n=14), the cross-sectional design, and the descriptive nature of the analysis. Future research should use larger samples, more objective measures, and longitudinal designs to further validate these findings.

Conclusion

This study evaluated the rock climbing training program of the Southwest Papua BAPOMI team in preparation for POMNAS 2025 using the CIPP model. The findings reveal

that the program can be categorized as generally effective, with three components showing positive results: context (78%, Good), process (100%, Very Good), and product (100%, Very Good). However, the input component scored only 46% (Poor), indicating that funding, facilities, infrastructure, and organizational support remain the main constraints. The team's achievement of two silver medals and two bronze medals at POMNAS 2025 provides practical validation of the program's effectiveness, demonstrating that the training program successfully translated into measurable competitive outcomes despite resource limitations.

These findings answer the research questions by confirming that while the program had appropriate planning, consistent implementation, and positive outcomes, the adequacy of supporting resources requires significant improvement. The theoretical contribution of this study lies in demonstrating that the CIPP model is an effective framework for evaluating rock climbing training programs, identifying specific strengths and weaknesses that would not be apparent from outcome evaluation alone. The findings also provide empirical evidence that input deficits can be partially compensated by strong context, process, and human factors such as coaching commitment and athlete motivation, challenging simplistic input-output models of program effectiveness.

However, this research has limitations, including the small sample size (n=14), reliance on self-report data with potential social desirability bias, and the cross-sectional design that captures perceptions at a single point in time. Future research should employ larger samples, more objective measures of training quality, and longitudinal designs to further validate and extend these findings. Based on the findings, several practical recommendations are proposed. For BAPOMI Southwest Papua, it is recommended to allocate a special budget for the maintenance and procurement of climbing facilities, including regular maintenance of the climbing wall, replacement of worn safety mats, and purchase of additional equipment such as harnesses and ropes.

Partnerships with local businesses and sponsors should be explored to supplement funding. For coaches, it is recommended to continue maintaining training consistency and to develop periodization-based training programs, while also seeking professional development opportunities in periodization and injury prevention. For future researchers, a mixed-method approach with larger samples, more standardized instruments, and longitudinal designs is advised to examine the causal factors affecting training program effectiveness more comprehensively. By addressing the input weaknesses identified in this evaluation, the positive outcomes of the program can be sustained and enhanced for future competitions.

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