RESEARCH ARTICLE

Impact of Alternative Learning Activity Program on Student Leadership Development in a Science, Technology, Engineering, and Mathematics School

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ABSTRACT

This study explored the impact of the alternative learning activity (ALA) program offered in the Philippine Science High School-Ilocos Region Campus toward students' leadership abilities. A mixed-methods approach was used to conduct the study through a survey of 132 student leaders affiliated with ALA clubs in the years 2022 to 2024. The results indicated that the participants exhibited strong expertise in communication, critical thinking, character development, citizenship, diversity appreciation, global understanding, and skill development in the measured indicators, suggesting that the ALA program is effective in producing well-rounded leaders. The findings also showed that almost all dimensions of leadership qualities exhibited the strong positive relationships between indicators, indicating their significant relationship and hinting that effective leadership is multidimensional. In ALA clubs, it was found that excellent leadership practices include providing diverse learning opportunities (*kataguyod*), offering targeted skill training (*katuwang*), offering mentorship and peer support (*kaagapay*), provision of leadership support (*kalakbay*), and inclusivity enhancement (*kabahagi*). These are beneficial practices, not only instill skills among the members but they also promote personal development. These findings show the importance of specialized leadership training in preparation for varied leadership roles.

KEY WORDS: Alternative learning activity program; alumni; clubs; organizations; student-leaders

INTRODUCTION

It is essential to realize that the development of leadership competencies is not merely reflected in the acquisition of abilities but also in a deep understanding of the behaviors that constitute a successful leader, and the ability to actualize these behaviors in real-life situations. One perspective for students to prepare for adulthood is through executing decisions, taking charge, and collaborating. Clubs provide a perfect arena for such competencies to be demonstrated. Sumague (2023) highlights how clubs enable students to exercise leadership roles by creating environments conducive to learning and taking charge. Regardless of the position a student holds – whether as the president of a club, organizing events, or serving as a prefect – these roles contribute to the development of organizational skills and the decision-making process. Das (2020) contends that hands-on experience, due to its realistic features, is better memorized than theoretical knowledge acquired solely in a classroom, making clubs effective in preparing students for life. Clubs serve as learning spaces and mechanisms designed specifically to supplement traditional classrooms and help students build competencies through exposure to real-life situations (Maddox et al., 2018).

In addition, Nunev's (2019) study demonstrates how participation in clubs accelerates the acquisition of necessary interpersonal and communication competencies essential for successful leadership. Through interactions among club members and leaders, students engage in discussions, teamwork, and self-expression, enhancing their capacity for collaboration and conflict resolution (Ünlü and Çeviker, 2022).

Furthermore, club participation stimulates creativity by providing students with opportunities to pursue their interests, follow their passions, and devise unique solutions to complex problems. In club projects, students are compelled to employ critical thinking and problem-solving skills, fostering innovative perspectives, and leadership (Fauzi et al., 2022). Moreover, clubs offer accessible support networks for students, enabling them to connect with peers and seek assistance when needed (Cabrejas and Mendoza, 2023).

The alternative learning activity (ALA) is implemented as an co-curricular activity program in the Philippine Science High School System, providing an opportunity to bridge the gap between academic and social development. While mandatory for Grade 7–10 students, participation in Grade 11–12 is optional. The ALA comprises various clubs such as Pisay Peers, Mathematics Club, Chemistry Club, and Sports Club. Research has shown that extracurricular activities, particularly club membership or leadership, play a crucial role in influencing leadership development.

However, limited studies have explored the specific links between club participation and leadership skill development among ALA program alumni and students from the Philippine Science High School-Ilocos Region Campus. This research aims to provide an extensive understanding of these links and identify areas for further investigation. Extracurricular activities are considered essential components of the curriculum as they contribute to the holistic development of students. Club membership experiences, in particular, have the potential to nurture students' leadership skills and encourage their leadership potential.

Statement of the Problem

This research aimed to assess the impact of the ALA program on the students of the Philippine Science High School-Ilocos Region Campus in enhancing their leadership development skills. An explanatory sequential mixed-method design will be used, involving the collection of quantitative data first, followed by an in-depth qualitative explanation of the quantitative results.

In the first, quantitative phase of the study, the researcher used data from surveys collected from 132 student leaders at the Philippine Science High School-Ilocos Region Campus to test the impact of the ALA Program of a STEM school in the Philippines on its students' leadership skills. Their perceptions were gathered regarding communication, critical thinking, character development, citizenship, diversity, and global understanding as components, and the relationship between these leadership skills was examined to determine if there was any significant correlation.

The second, qualitative phase will be conducted as a follow-up to the quantitative results to help explain the quantitative findings. In this exploratory follow-up, the plan is to explore the lived experiences of the students regarding the impact of the ALA Program on their lives as student leaders, with 44 participants identified and willing to be interviewed at the Philippine Science High School-Ilocos Region Campus.

LITERATURE REVIEW

Importance of Clubs and Organizations

In the study of Foubert and Grainger (2006), it stated that the influence of clubs and organizations plays a significant role in the holistic development of students within educational institutions. Engagement in clubs and organizations has several benefits for students (González et al., 2020). Abdela (2019) mentioned that the ability to employ what they have studied theoretically from their ability in classes to real-world circumstances can also grow a further understanding and custody of their academic theory via clubs. Moreover, clubs and organizations provide a platform for students to develop essential life skills such as leadership, teamwork, communication, and time management (Foley et al., 2023). Bang (2023) further emphasized that students can acquire these abilities through club participation and apply them to their future studies or careers.

The study by Ilyenko et al. (2023) indicates that clubs and organizations serve multiple roles in educational institutions. They offer students the opportunity to belong to a larger community, fostering connections with others who share similar interests and viewpoints (Hidaya et al., 2022). Consequently, students experience greater satisfaction with the educational process, feeling supported, and comfortable in their environment (Anggraeni et al., 2023). Moreover, clubs and organizations contribute to personal growth and self-discovery. For instance, Chen et al. (2023) observed that school organizations foster the creation of new interests and encourage students to cultivate their creativity. In addition, clubs facilitate closer relationships within peer groups, as well as interactions between peers, faculty members, and specialists (Anggreni et al., 2022).

According to Barylska (2018), clubs and organizations have extensive effects on students that extend beyond the boundaries of educational institutions. Numerous studies have demonstrated that extracurricular involvement, particularly in clubs and organizations, significantly impacts various indicators of success for students. Specifically, individual participation in clubs and organizations influences academic performance, retention and completion rates, and post-education attainment status (Saunders, 2017). Moreover, students engaged in clubs and organizations experience better psychological health and greater life satisfaction. Engaging in specific, meaningful activities leaves students feeling more fulfilled, purposeful, and accomplished, thereby supporting their overall happiness and satisfaction (Mikulec and McKinney, 2014).

Clubs and Organizations in Leadership Skills Development

According to Zhou et al. (2021), acquiring leadership skills is essential for individuals and organizations to remain effective and competitive in the current environment. Furthermore, clubs and organizations are regarded as venues where individuals can cultivate their leadership abilities (Nicoleta et al., 2019). Hilliard (2015) contends that globally, blended learning practices in teaching and learning, leadership, and professional development are crucial. Specifically, the author highlights the opportunities offered by clubs and organizations for individuals to identify and nurture their leadership styles. This suggests that clubs and organizations can aid in the development of people's leadership competencies through collaborative learning and skill development (Artamonova et al., 2019).

Moreover, a panel study conducted by Seidle et al. (2016) established that leadership training and development programs in the public sector have overall benefits for both leaders and organizational capabilities. This knowledge suggests that as platforms for leadership development initiatives, clubs, and organizations are instrumental in enhancing leadership capacity as well as organizational capabilities (Talat et al., 2017). Despite existing research on the impact of clubs and organizations in shaping an individual's leadership ability, there remain some gaps that need further consideration. It is essential to understand more about the sophisticated processes

occurring within clubs and organizations that account for practical differences in how leadership capability is enhanced (Nordin, 2021). In other words, more knowledge is needed about the specific types of clubs and organizations that may have a significant impact on the leadership capability of individuals (Seitenova, 2023). Further, demand for future research emphasizes clarifying the long-term effects of this knowledge. Conducting additional research on how clubs and organizations impact leadership behavior over time will help pediatricians expand their understanding of the topic. Wanjiru et al. (2020) conducted research and established that it remains crucial to understand the extent to which certain types of clubs or organizations may contribute negatively to long-term effects. For instance, Chesnut and Tran-Johnson (2013) confirm that more comparative research on the impact of different structures of clubs and organizations is fundamental in clarifying leadership abilities.

The existing research findings and literature discussed above provide insights into the potential clubs and organizations hold for the development of leadership skills. However, further research is warranted to delve deeper into how these developments function, their sustainability, and the factors that determine the effectiveness of such activities. This additional research is necessary to provide knowledge-based information for implementing an effective leadership development approach in clubs and organizations.

METHODOLOGY

Research Approach

The mixed-method research approach employed in this study has been embraced as a third methodology within the social science discipline. This approach combines quantitative and qualitative methodologies in data collection tools to comprehensively analyze a research problem and mitigate biases present in single-approach methodologies. The research utilized a sequential explanatory research design. In this design, the quantitative approach serves as the primary research method administered first, followed by the qualitative approach to explain the quantitative research results. The overall goal of the mixed-methods research design is to provide a more comprehensive and deeper understanding, offering a fuller perspective that can enhance the description and analysis of the phenomena (Creswell, 2013). This approach is well-suited for this topic as it better captures the impact of the ALA Program on the lives of student leaders at the Philippine Science High School. By gathering their quantitative insights on the topic, the norms that shaped them as student leaders were revealed. Through the quantitative data, their experiences with the activities provided by the ALA Program, which left a significant impact on their lives, especially in a STEM institution, were analyzed.

Population and Locale

The study was conducted among 132 alumni and current student leaders of accredited and mandated clubs and organizations established under the ALA Program of the Philippine Science High School-Ilocos Region Campus. For the quantitative component, 132 student leaders responded to surveys regarding the impact of the ALA Program on their leadership skills. For the qualitative component, 44 student leaders, selected from the original group of 132, participated by answering open-ended questions included in the survey questionnaire and through researcher-designed interview guides containing questions aligned with the research objectives. Purposive sampling was employed to identify participants for both the quantitative and qualitative phases. This sampling method is a form of non-probability sampling where units are selected based on specific characteristics required by the study (Nikolopoulou, 2023). The inclusion criteria were as follows: (1) Alumni and currently enrolled students of the Philippine Science High School-Ilocos Region Campus from 2022 to 2024, and (2) individuals who had served or were currently serving as leaders in accredited and mandated organizations recognized by the campus and who expressed a willingness to participate.

Instruments

A survey questionnaire was designed by the researcher to collect quantitative data from the participants. The questionnaire was developed based on relevant literature and theoretical reviews of various studies analyzing the impact of clubs and organizations on leadership development. The research-developed survey questionnaire underwent validation by three experts and was found to be highly valid. It scored a mean rating of 4.37 under the validity test, while 0.92 reliability was obtained through Cronbach's alpha. In addition, qualitative data were collected through the use of open-ended questions as part of the survey questionnaire and researcher-made interview guides containing questions associated with the research objectives. Below is the Likert scale (Table 1) used for interpreting the quantitative data:

Data Gathering Procedure and Analysis

From the perspective of ethical standards in research, the researcher wrote a letter to the authorities of the Philippine Science High School-Ilocos Region Campus requesting permission to conduct the study. In addition, the researcher drafted a consent form for the participants, which addressed concerns regarding data privacy and outlined their roles and responsibilities. On obtaining consent from the participants, the researcher distributed the survey questionnaire using Google Forms to facilitate data collection. Subsequently, the researcher conducted interviews with select respondents to gain further insights into their survey responses.

Quantitative data were analyzed using descriptive statistics, such as the mean, and Spearman's rank correlation coefficient was employed to examine the relationship between variables. Qualitative data underwent both cool and warm analyses (De Guzman & Tan, 2007). In the cool analysis, the researcher identified recurring statements or data points and categorized them to understand their significance within the data. These categorized statements were then reviewed and re-categorized

based on their commonalities, before being mapped back to the participants' perspectives. In the warm analysis, thematic analysis was conducted to identify patterns and themes within the data, which were then considered representative of the participants' perspectives. To ensure the validity and reliability of the findings, the identified themes underwent external validation using the critical friend technique.

RESULTS AND DISCUSSION

This section presents the research findings concerning the perspectives of student leaders on how the ALA program contributes and the best practices of clubs in their leadership development.

Impact of ALA program to Students' Leadership Skills
On communication skills

Table 2 provides results of how the ALA program impacts students' leadership abilities, with a specific emphasis on communication skills.

Among student-leaders, the capacity to articulate opinions effectively received a high rating of 5.65, indicating a proficiency in logical and convincing expression of thoughts. Similarly, attentive listening skills demonstrated exceptional proficiency, with an average score of 5.66, recognized as a crucial aspect of effective communication by Dalton et al. (2020). This suggests that student-leaders actively engaged in conversations by capturing main points proficiently. Furthermore, the ability to adjust oral presentations garnered a mean score of 5.73, showcasing a high level of adaptability essential for effective leadership. Student-leaders also exhibited strong proficiency in written communication, with an average score of 5.75, enabling comprehensive and persuasive expression of ideas. In group discussions, they contributed actively and constructively, as reflected in the rating of 5.74. During problem-solving endeavors, student-leaders demonstrated collaborative skills, scoring an average of 5.76, indicating their ability to share ideas and work toward common solutions. Their capacity for positive followership, rated at 5.73, underscores their constructive support for others – a vital aspect of successful teamwork. Their proficiency in using body language, with an average score of 5.75, shows the importance of non-verbal cues in effective communication and rapport-building (Lozano et al., 2013). Overall, the grand mean proficiency across all communication skill categories was 5.88, indicating that student-leaders participating in the ALA program excelled in this domain. The ALA program has evidently contributed to the development of well-rounded communicators among student-leaders, yielding highly satisfactory results.

On critical thinking capabilities

The data from the table provides a comprehensive insight into the impact of the ALA Program on students, particularly in the realm of critical thinking. The first indicator illustrates students' proficiency in recognizing new problems, evidenced

Table 1: Likert Scale

Scale	Mean range	Interpretation
7	6.13–7.00	Extremely high
6	5.28–6.12	Very high
5	4.42–5.27	High
4	3.56–4.41	Middle
3	2.71–3.55	Low
2	1.86–2.70	Very low
1	1.00–1.85	Extremely low

Table 2: Views of student-leaders on their communication skills

Category	Mean	Interpretation
My ability to effectively articulate my opinions to others	5.65	Very high
My skill in attentive listening to identify and record key points during conversations	5.66	Very high
My ability to adjust oral presentations based on subject, occasion, audience, and purpose	5.73	Very high
My effectiveness in writing essays with thoughtfulness, clarity, coherence, and persuasiveness	5.75	Very high
My ability to effectively communicate in group discussions	5.74	Very high
My ability to apply effective communication skills during problem-solving	5.76	Very high
My ability to demonstrate positive followership when necessary	5.73	Very high
My effectiveness in using body language to facilitate positive interactions with others	5.75	Very high
Grand mean	5.88	Very high

Table 3: Views of student-leaders on their critical thinking capabilities

Category	Mean	Interpretation
Recognition of new problems	5.76	Very high
Receiving and accepting constructive criticism from other learners	5.81	Very high
Planning a problem-solving approach based in similar experiences or knowledge	5.80	Very high
Assessing the adequacy of a response	5.83	Very high
Decision-making skills	5.83	Very high
Reflecting on study methods and self-assessment techniques	5.93	Very high
Approaching problem-solving creatively and innovatively	5.76	Very high
Critically analyzing related knowledge and information	5.67	Very high
Grand mean	5.81	Very high

by a mean score of 5.76. This proficiency suggests their capability to identify and acknowledge emerging challenges effectively. Moving on, the second indicator pertains to the reception of constructive criticism, where student-leaders demonstrate a commendable mean score of 5.81. This indicates

their receptiveness to improvement, showcasing a willingness to learn and grow by earnestly considering feedback from others. The third indicator revolves around the formulation of problem-solving plans, with an average mean of 5.80. This signifies students' competence in devising strategies to address problems, drawing on their accumulated knowledge and strategic thinking abilities, as noted by Sumague (2023).

The area where student-leaders excelled was in evaluating solutions, boasting an impressive average score of 5.83. This approach to decision-making and problem-solving emphasizes recognition, allowing them to assess the validity and appropriateness of potential solutions. Lucia and Swanberg (2018) found that student-athletes possess a similar ability to evaluate solutions within their respective clubs and organizations. Student-leaders demonstrated proficiency in making wise decisions, also scoring an average of 5.83. Employing a recognizing approach enables them to carefully weigh alternatives and select the most suitable course of action. Furthermore, their exceptional mean score of 5.93 in reflecting and self-evaluating underscores a high level of internal introspection and self-assessment – a crucial aspect of learning and growth for managers, as noted by Switzer and Barclay (2012). The emphasis on innovation and creativity, with an average score of 5.76, further exemplifies their proficiency in employing a recognizing approach to evaluate relevant factors and generate novel ideas. Moreover, their strong ability in critical thinking on integrated knowledge, averaging 5.67, highlights their capacity to synthesize information effectively.

With an overall mean score of 5.81 across all critical thinking capabilities, the ALA program has evidently succeeded in enhancing student-leaders' ability to identify problems, receive constructive feedback, establish problem-solving plans, evaluate solutions, make wise decisions, engage in reflective self-assessment, foster innovation and creativity, and integrate critical thinking across various domains. This comprehensive skill set equips them to make informed decisions and learn from past experiences, ultimately positioning them for success beyond the program.

On character development
Table 4 provides a detailed understanding of how the ALA Program influences students' character development, an integral facet of their leadership abilities.

The indicator related to approaching problems with awareness of ethical dimensions received an impressive average score of 5.81 from student-leaders, indicating a very high level of proficiency in problem-solving while considering ethical implications. This aligns with the findings of Linder et al. (2022), emphasizing the importance of ethical awareness in facing challenges. Student-leaders demonstrated a strong commitment to personal physical health, with an average score of 5.79, underscoring their prioritization of physical well-being. Similarly, their average score of 5.69 for cultivating personal psychological health highlights their recognition of the importance of mental wellness. In terms of responsibility

for behavior, student-leaders scored remarkably high with an average score of 6.02, reflecting their genuine maturity and integrity in assuming accountability. Their professionalism was also evident, as indicated by the high score of 6.07 for acting in a professional manner. Student-leaders displayed confidence in their professional performance, earning an average score of 5.86. Their commitment to ethical practice was reaffirmed with an average score of 5.81 for making ethical decisions in professional settings, as noted by Cho et al. (2022).

In addition, student-leaders exhibited a high level of self-awareness, scoring an average of 6.07 for identifying strengths and weaknesses. The cumulative average score for all character development indicators was 5.89, highlighting the ALA program's effectiveness in nurturing well-rounded individuals with strong character traits conducive to success in leadership roles. These results identify the significant impact of the ALA program on students' character development, emphasizing ethics awareness, personal health, responsibility, professionalism, confidence, ethical decision-making, and self-awareness.

On citizenship
Table 5 carefully examines the impact of the ALA program on students' citizenship skills, a pivotal component of their leadership development.

For example, in the demonstration of respect for others, student-leaders achieved a mean score of 5.88, indicating a

Table 4: Views of student-leaders on their character development

Category	Mean	Interpretation
Greater awareness of moral dimensions and consequences of all problems	5.81	Very high
Cultivation of personal physical health	5.79	Very high
Cultivation of personal psychological health	5.69	Very high
Responsibility for own behavior	6.02	Very high
Professional conduct	6.07	Very high
Confidence	5.86	Very high
Ethical thinking and decision–making	5.81	Very high
Identification of the strengths and weaknesses	6.07	Very high
Grand mean	5.89	Very high

Table 5: Views of student-leaders toward citizenship

Category	Mean	Interpretation
My ability to demonstrate responsibility toward others	5.88	Very high
My understanding of my own actions within the broader community	5.95	Very high
My ability to defend my rights and fulfill my responsibilities	6.00	Very high
My understanding of the rights of others	6.14	Extremely high
My ability to actively participate in my broader community	6.05	Very high
Grand mean	6.00	Very high

very high level of proficiency. This scale evaluates their ability to consider and honor the needs and rights of others. Similarly, in understanding their own role within the community, student-leaders attained a mean score of 5.95, also demonstrating a very high level of proficiency. This measure assesses their capacity to appreciate the impact of their actions on the community, a finding supported by Meshram and O'Cass's (2013) study highlighting student proficiency in this area.

Furthermore, in defending the rights and responsibilities of citizenship, student-leaders performed exceptionally well, scoring a perfect 6.00 on average. This underscores their willingness to advocate for their own rights and responsibilities as well as those of others. Moreover, in understanding the rights of others, student-leaders achieved a mean score of 6.14, indicating a deep understanding of the diverse rights and freedoms of all citizens. This reflects their high level of knowledge regarding the rights possessed by individuals within society.

In addition, in actively participating within the community, student-leaders demonstrated a very high level of proficiency, scoring an average of 6.05. The overall average across all scales of citizenship proficiency was 6.00. These results highlight the remarkable proficiency of student-leaders who participated in the ALA program across all aspects of citizenship. They signify the substantial impact of the ALA program on students' ability to develop into effective leaders. A leader's ability to consider the needs of others, understand their own responsibilities, advocate for rights, comprehend the rights of others, and actively engage in the community are all crucial indicators of effective leadership.

On diversity

Table 6 presents the effect of the ALA program on students' diversity-related skills, which play a pivotal role in their leadership development.

Regarding the ability to communicate with diverse backgrounds, student-leaders rated this indicator at a mean score of 6.07, which is highly proficient. This shows their high level of ability to communicate with different people, based on age,

race, sexual orientation, religion, nationality, and ethnicity. When grouped with indicators about an understanding of the importance of positive engagement with diverse groups, student-leaders scored a very high understanding ability of 6.05. This shows that student-leaders understand that integration and incorporating diversity are crucial in promoting the unity needed to promote innovation and collaboration in any given community, as argued by Yu (2020). In addition, concerning building constructive relationships with diverse populations, student-leaders averaged 6.05, which is also remarkable. This shows that student-leaders are well able to create an enabling environment and relationships across and between demographic groups. Regarding the ability to serve the needs of a diverse demographic population, student-leaders showed a very high ability of 5.98. This shows their high proficiency in understanding and addressing different communities' specific challenges and needs.

In addition, of the ability to work effectively with other people in diverse groups, student-leaders were highly proficient at 5.79. This shows their ability to work together and use their diversity to second the group's overall success. Regarding cultural competency, student-leaders showed a high level of proficiency of 5.98. This shows that they can handle cultural issues in delicate ways, promoting inclusion and inclusive and culturally accommodating leadership. The overall mean value of all the diversity skill categories is 5.98, which shows a consistent high proficiency level of student-leaders who participated in the ALA program. Specifically, the results also show that the ALA program was considerably effective in impacting diversity-related skills, which are essential in leadership. Student-leaders showed high proficiency across the board in fields of communications across diverse backgrounds, an understanding of the importance of positive engagement with diverse groups, building relationships, serving diverse needs, working with diverse productive groups, and cultural competency.

On global understanding

Table 7 shows the analysis of student-leaders' perspectives on global understanding, an indispensable facet of leadership skills development.

Table 6: Views of student-leaders toward diversity

Category	Mean	Interpretation
My ability to talk to individuals from different cultures such as age, race, religion, sexual orientation, nationality, and ethnicity	6.07	Very high
My appreciation for the significance of making good relations with diverse communities	6.05	Very high
My capacity to make positive ties with citizens of varying ages	6.05	Very high
My ability to serve the needs of a diverse population	5.98	Very high
My ability to work productively with others as members of diverse groups	5.79	Very high
My ability to illustrate cultural competence	5.98	Very high
Grand mean	5.98	Very high

Table 7: Views of student-leaders toward global understanding

Category	Mean	Interpretation
Effectively argue about the value of opportunities and experiences of cross-cultural importance	5.98	Very high
Cultural self-awareness	6.12	Very high
Perform an opportunity analysis in the global market	5.86	Very high
Gain insights into the development of intercultural competences through different lenses	5.86	Very high
Analysis of global issues and events	5.93	Very high
Feelings of global citizenship	5.93	Very high
Grand mean	5.94	Very high

Arguably, student-leaders began their evaluation with the ability to articulate the value of cross-cultural opportunities. Indeed, their mean score of 5.98 is at an exceptionally high level of proficiency. It means that student-leaders can confidently talk about the importance of cross-cultural experiences and describe their benefits. It can also be assumed, based on the study of Awuh and Spijkers (2019), that student-leaders are well-aware of cultural differences, given their mean score of 6.12. As such, the student-leaders exhibit a very high level of understanding and proficiency in the recognition of cultural perspectives worldwide. When it comes to analyzing global market opportunities, the mean score also indicates commendable ability, which equals 5.86. Evidently, student-leaders can discern and take advantage of global business trends and prospects proactively. In terms of developing intercultural competencies, the mean score of 5.86 is also a direct reflection of student-leaders' proficiency. They can competently navigate various cultural contexts and assume multiple viewpoints derived from different backgrounds. When it comes to global issues and happenings, the student-leaders' ability is also very high at 5.93. It means that they can well assess big-picture issues and events sourced from the global world. For feelings of global citizenship, students demonstrate a score of 5.93 on average. While this aspect is critical in developing sentiments for the whole globe, students exhibit a high degree of confidence in belonging to the global realm.

The grand mean across all indicators of global understanding is 5.94, confirming the high level of overall proficiency among student-leaders evaluated. Collectively, these results suggest a powerful influence of global understanding on the development of leadership skills. Student-leaders demonstrate a high level of proficiency in articulating cross-cultural values, recognizing cultural differences, analyzing global market opportunities, developing intercultural competencies, addressing global issues, and developing global citizenship. Therefore, the findings highlight the importance of integrating the global perspective in leadership development and the effectiveness of programs in fostering globally competent leaders.

Correlation on Views of Student-Leaders on Leadership Development

Table 8 reveals significant positive connections among various dimensions of leadership development as perceived by student leaders.

Overall, the results presented in Table 3 indicate very strong correlations of communication skills with critical thinking and character development, citizenship, diversity, and global understanding. The high degree of interrelatedness of these dimensions of leadership development can be explained through the perspective that emerges from these results. It is expected that leaders who are able to communicate effectively will also demonstrate excellent critical thinking skills, character traits, citizenship, appreciation for diversity, and global perspectives. Similarly, the very strong correlation of critical thinking with the other dimensions highlights that this aspect of the leader can contribute significantly to their ethical character, engagement with the community, appreciation of diversity, and global awareness.

Character development is also a very important dimension, which has strong correlations with citizenship, diversity, and global understanding. This finding emphasizes the importance of developing strong moral traits, resilience, and empathy in leaders who have ethical standards, appreciation for diversity, and global vision. These results demonstrated the importance of developing leadership in a holistic way, which would encompass all of these dimensions. These characteristics are important for preparing the leaders of the future to succeed in a complex and challenging world and society.

Best Practices of Clubs on Leadership Development

From the gathered responses and data from open-ended questions and interviews, five predominant themes emerged: Offering diverse learning opportunities; focusing on skill development; fostering mentorship and peer support; encouraging leadership opportunities; and promoting inclusivity and diversity.

Table 8: Relationship between the views of student leaders on leadership development

Indicators	CS	Dec.	CT	Dec.	CD	Dec.	CP	Dec.	DV	Dec.	GU	Dec
	p		p		p		p		p		p	
Communication Skills (CS)			920**	Reject	0.897**	Reject	0.869**	Reject	0.882**	Reject	0.866**	Reject
Critical Thinking (CT)	0.920**	Reject			0.920**	Reject	0.855**	Reject	0.880**	Reject	0.906**	Reject
Character Development (CD)	0.897**	Reject	0.920**	Reject			0.948**	Reject	0.884**	Reject	0.922**	Reject
Citizenship (CP)	0.869**	Reject	0.855**	Reject	0.948**	Reject			0.874**	Reject	0.895**	Reject
Diversity (DV	0.882**	Reject	0.880**	Reject	0.884**	Reject	0.874**	Reject			0.923**	Reject
Global Understanding (GU)	0.866**	Reject	0.906**	Reject	0.922**	Reject	0.895**	Reject	0.923**	Reject		

**Correlation is significant at the 0.01 level (2-tailed)

Theme 1: ALA offers diverse learning opportunities (Kataguyod)

According to the study by Hansen (2008), offering diverse learning opportunities implies providing many and varied experiences, activities, and resources to cultivate future leaders. Thus, Hansen emphasizes the significance of such experiences, as exposure to a variety of learning situations helps individuals become knowledgeable and more flexible leaders. In addition, Drab-Kurowska and Kuźbik (2018) argue that clubs and organizations provide diverse learning opportunities through workshops, seminars, training groups, and experiential activities. These opportunities encompass various themes, such as effective communication, teamwork, problem-solving, critical thinking, decision-making ability, emotional intelligence skills, and cultural competence, among others. This is supported by the responses of study participants:

> "We learned a lot from the activities assigned to us."(Participant 7)
> "It serves as an addendum to our learnings inside the classroom." (Participant 4)
> "There are a lot of opportunities in our club but we lack a budget." (Participant 9)
> "Through different games, I learned a lot and understood other concepts in science more easily." (Participant 12)

Clubs and organizations meet their members' various needs, interests, and learning styles using a variety of learning opportunities. This well-rounded approach allows people to experience leadership from different angles and develop skills that they can apply in various situations (Pittaway et al., 2011). Furthermore, learning through various opportunities usually involves resource speakers, industry experts, alumni talks, and outside networking resources, all providing valuable exposure, insight, expanded understanding, and networking opportunities beyond the club's scope. This exposure to external sources enhances the learning experience and exposes members to the practice of leadership in the real world.

Theme 2: ALA focuses on skill development (Katuwang)

This theme involves prioritizing the enhancement of specific competencies and abilities that are essential for effective leadership (Mikulec and McKinney, 2014). Clubs and organizations that focus on skill development often design structured programs, workshops, training sessions, and activities tailored to hone a wide range of leadership skills. These skills may include communication, teamwork, problem-solving, decision-making, conflict resolution, time management, adaptability, and strategic thinking, among others. The emphasis on skill development within clubs and organizations serves several purposes. It equips members with practical abilities that are directly applicable to leadership roles in various contexts, such as academic, professional, and community settings. It also fosters personal growth and self-improvement, empowering individuals to become more effective leaders by continuously refining their skills and abilities (Casey, 2012). This is supported by the responses of study participants:

> "My photography skills are being honed because of the SSS club." (Participant 1)
> "I am so happy because finally, I have a little knowledge on programming because of CompGuild." (Participant 9)
> "I now know how to set the ball in a volleyball game." (Participant 13)
> "Implementation of the Journalism Club is okay. It helped me a lot in my writing skills; but it should be improved, we want to join the DSPC." (Participant 7)

Furthermore, focusing on skill development encourages a growth mindset among members, promoting the belief that leadership skills can be developed and improved over time through deliberate practice and effort. This mindset shift is crucial for fostering resilience, perseverance, and a commitment to ongoing learning and development among aspiring leaders (Hinkle and Koretsky, 2018). Moreover, skill development initiatives within clubs and organizations often provide opportunities for members to receive constructive feedback, guidance, and mentorship from experienced leaders or mentors. This feedback loop facilitates continuous improvement and supports members in their journey toward leadership excellence.

Theme 3: ALA fosters mentorship and peer support (Kaagapay)

According to MacMillan et al. (2016), mentorship involves creating an environment where members can receive guidance, advice, and support from both experienced mentors and their peers as they develop their leadership skills. In clubs and organizations that prioritize mentorship and peer support, experienced leaders or advisors often serve as mentors who offer personalized guidance and insights to less experienced members. Mentors may share their knowledge, expertise, and experiences, providing valuable perspective and advice on navigating challenges, making decisions, and honing leadership abilities (Coniglio et al., 2010). They may also offer career guidance, networking opportunities, and personal development support tailored to the individual needs and goals of mentees. This is supported by the responses of study participants:

> "My adviser helped me a lot in preparing chemicals and other interactive games in Chemistry." (Participant 3)
> "We have a buddy system. We help lower grade levels, especially Grade 7, to cope with the environment." (Participant 5)
> "I was taught to lead and resolve conflicts within the club." (Participant 8)
> "The support of our adviser is a big help, especially when we have problems in the club." (Participant 11)

Peer support, on the other hand, involves fostering a culture of collaboration, cooperation, and mutual assistance among members within the club or organization. Peers may offer

encouragement, feedback, and assistance to one another, creating a supportive community where members can learn from each other's experiences, share resources, and grow together. Peer support networks provide a sense of camaraderie and belonging, helping members feel supported and motivated as they strive to develop their leadership skills (McGarrie et al., 2022). The combination of mentorship and peer support within clubs and organizations offers several benefits for leadership development. It provides members with access to diverse perspectives and expertise, enriching their learning experience and expanding their understanding of leadership. Second, it fosters personal growth and development by offering individuals opportunities for self-reflection, feedback, and continuous improvement. In addition, mentorship and peer support networks promote collaboration, teamwork, and relationship-building skills, which are essential for effective leadership in various contexts.

Theme 4: ALA encourages leadership opportunities (Kalakbay)

The study of Sumague (2023) states that leadership involves actively encouraging and creating opportunities for members to assume leadership roles and responsibilities within the organization. Clubs and organizations that prioritize this aspect recognize the importance of hands-on leadership experience in skill development. They cultivate environments where members are motivated to step forward, demonstrate initiative, and lead various activities, projects, or initiatives. These leadership opportunities can take various forms, such as holding officer positions in the club, leading committees or teams, organizing events or workshops, representing the club in external engagements, or initiating community service projects (Shaikh and Forneris, 2016). By providing these opportunities, clubs, and organizations empower their members to apply and refine their leadership skills in practical situations. This sentiment is echoed by the responses of study participants:

> "I developed leadership skills by guiding my peers in various club-sponsored activities." (Participant 3)
> "What's great about the ALA program is that it offers leadership opportunities to everyone." (Participant 6)
> "Being the club president, I learned how to manage people and handle correspondence." (Participant 10)

Furthermore, encouraging leadership opportunities fosters a culture of leadership development and succession planning within the organization. It ensures a continuous supply of capable leaders who can effectively guide and advance the group's objectives. In addition, it enables members to explore and strengthen their leadership abilities, fostering confidence and proficiency in their leadership potential.

Theme 5: ALA promotes inclusivity and diversity (Kabahagi)

Yu's study (2020) revolves around the concerns of actively fostering an environment within clubs and organizations that embrace diversity and champions inclusivity among members. Organizations that prioritize this aspect understand

the significance of diversity in leadership and acknowledge that inclusivity enhances the overall effectiveness of the group. Promoting inclusivity and diversity entails creating spaces where individuals from all backgrounds feel welcomed, respected, and valued. This sentiment is reflected in the responses of study participants:

> "Even if you are in 7th grade, you have the opportunity to lead the club." (Participant 1) "Everyone is welcome in the club and there is no discrimination at all." (Participant 4)
> "We practice unity in diversity in our club." (Participant 7)
> "We treat each other as brothers and sisters no matter what grade level we are in." (Participant 9)
> "It is enjoyable having gay leaders in our club because they are very creative." (Participant 12)

Achieving this involves implementing policies, practices, and initiatives that celebrate diversity, address biases, and promote equity. Clubs and organizations may host events, workshops, and discussions focused on diversity, equity, and inclusion topics (Awuh and Spijkers, 2019). They may also establish diversity committees or task forces to ensure that the organization's activities and decisions reflect diverse perspectives. Furthermore, promoting inclusivity and diversity entails actively recruiting and retaining members from diverse backgrounds (Lamprecht and Nagel, 2023). Clubs and organizations may employ outreach strategies to attract individuals from underrepresented groups and provide opportunities for them to participate and contribute meaningfully. By promoting inclusiveness and diversity, clubs and organizations not only foster more enriching and supportive environments for their members but also cultivate leaders who excel at leading diverse teams and engaging with a variety of stakeholders (Surtees and Balyasnikova, 2016). This facilitates the development of leadership skills such as empathy, cultural competency, and the ability to work effectively across differences, all of which are essential for success in leadership roles in today's diverse and interconnected world.

CONCLUSION

Based on the aforementioned dimensions from the data that have been collected, including communication skills, critical thinking, character, citizenship, diversity, and global understanding. The findings are as follows: ALA Program contributes a significant extent to the development of students' leadership across the dimensions. It includes high proficiency in communication skills, accompanied by critical thinking, developed character, citizenship, appreciation of diversity, and global understanding. These findings demonstrate that the program is effective in developing students' holistically and enabling them to thrive as leaders in diversified fields. Moreover, the study discovered that there was a strong positive correlation between different leadership development dimensions, showing that communication, critical thought, character, citizenship, diversity, and global awareness are interconnected. The study also identified the best practices

that clubs use to develop the students: Diverse exposure opportunities or *kataguyod*, enabling skill development or *katuwang*, providing mentorship and peer support or *kaagapay*, promoting leadership opportunities or *kalakbay*, and promoting inclusivity and diversity or *karamay* in a club setting. These findings indicate that leadership programs must incorporate all these dimensions to help students cope with the future's challenges and assist in offering solutions to society. These findings are critical to educational institutions and organizations in guiding them to develop students and members with leadership skills.

RECOMMENDATIONS

Based on the results and conclusions, the following recommendations were drawn:

- Integrate more practical activities, such as extension projects or simulations, that will allow students to practice leadership in real life.
- Organize formal mentorship programs, encourage and train advisers, and ensure their regular interaction with mentees for personalized guidance.
- Offering a range of developing activities and clubs for new leadership skills, including digital literacy, innovation, and resilience workshops and seminars.
- Possible offering of gender and development club, as a monitoring club, to promote inclusive leadership where all student groups get a fair share, including cultural understanding and inclusive communication training.
- Implementation of mandated organizations such as the student alliance, journalism clubs, and other significant clubs that promote leadership and skill development among scholars.
- Provide a reasonable budget allocation for the implementation of club activities to communicate the needs of scholars.
- Introduce experiences focusing on different cultures and encourage students to participate in global projects related to global issues and have better views on them.

REFERENCES

Abdela, U., & Walabu, M. (2019). Review on school based environmental education club on student and general environment. *Journal of Education and Practice*, 13(10), 21-30.

Anggraeni, N., Eni, Y., Ahmad, M.R.S., Syukur, M., & Arifin, I. (2023). The influence of organization on the learning focus of UNM Sociology Education Students. *COMSERVA Jurnal Penelitian dan Pengabdian Masyarakat, 2*(12), 2960-2968.

Anggreni, Y., Sudana, I.K., Jen, A., Candra, N.N.M., & Suwitra, I.W. (2022). The influence of student activeness in school organizations and facilities on the economic learning outcomes of PGRI 2 Denpasar High School students in the 2020/2021. *Jurnal Pendidikan Ekonomi Undiksha*, 14(1), 126–128.

Artamonova, A., Tarasova, A., & Blaginin, V. (2019). Development of leadership skills of university students in the educational process. In: *Springer Proceedings in Business and Economics*. Berlin: Springer, pp. 299-305.

Awuh, H.E., & Spijkers, F. (2019). 'We are not as bad as you think we are': Dealing with diversity and self-exclusion in a youth football club.

International Journal of the Sociology of Leisure, 3(2), 97-114.

Bang, H. (2023). The effects of career club activities on university students' career decision-making self-efficacy, career preparation behavior and career competency. *Korea Open Education Society*, 31(3), 47-70.

Barylska, K. (2018). Student organization as a space for development of future professional career. *World Scientific News*, 108, 144-157.

Cabrejas, M.M., & Mendoza, R.O. (2023). Assessing the role of clubs and organizations in the holistic development and well-being of the college students in the flexible learning modality. *British Journal of Multidisciplinary and Advanced Studies*, 4(2), 52-65.

Casey, H. (2012). Multimodal learning clubs. *Middle School Journal*, 44(2), 39-48.

Chen, M., Chien, H., & Liu, R. (2023). An empirical study on the learning experiences and outcomes of college student club committee members using a linear hierarchical regression model. *Applied System Innovation*, 6(1), 23.

Chesnut, R.J., & Tran-Johnson, J.L. (2013). Impact of a student leadership development program. *American Journal of Pharmaceutical Education*, 77(10), 225.

Cho, N., Shin, M., & Ahn, H. (2022). Psychosocial characters and their behavioural indexes for evaluation in secondary school physical education classes and sports club activities. *International Journal of Environmental Research and Public Health*, 19(11), 6730.

Coniglio, F., Hancock, N., & Ellis, L.A. (2010). Peer support within Clubhouse: A grounded theory study. *Community Mental Health Journal*, 48(2), 153-160.

Creswell, J.J. (2013). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* 4th ed. United States: Sage Publications.

Dalton, L., Rapa, E., & Stein, A. (2020). Protecting the psychological health of children through effective communication about COVID-19. *The Lancet Child and Adolescent Health*, 4(5), 346-347.

Das, S. (2020). Experiences of Teaching Hands-on Classes in Places Where they are Rare. In: *Proceedings of the ASME 2020 International Mechanical Engineering Congress and Exposition*.

De Guzman, A.B., & Tan, E.B. (2007). Understanding the essence of scholarship from the lived experiences of a select group of outstanding Filipino researchers. *Educational Research Journal*, 22(1), 49-68.

Drab-Kurowska, A., & Kuźbik, P. (2018). Sports clubs as learning organizations - Polish model. *European Journal of Service Management*, 25, 73-80.

Fauzi, N.F., Don, Y., & Yusof, M.R. (2022). Instilling student leadership practices towards teamwork through co-curricular activities in secondary students. *Xinan Jiaotong Daxue Xuebao*, 57(3), 277-291.

Foley, C., Darcy, S., Hergesell, A., Almond, B., McDonald, M., Nguyen, L.T., & Morgan-Brett, E. (2023). Extracurricular activities, graduate attributes and serious leisure: Competitive sport versus social-cultural clubs in campus life. *Leisure Studies*, 42(6), 971-988.

Foubert, J.D., & Grainger, L. (2006). Effects of involvement in clubs and organizations on the psychosocial development of First-Year and senior college students. *NASPA Journal*, 43(1), 166-182.

González, C., Varela, J.J., Sánchez, P.A., Venegas, F.C., & De Tezanos-Pinto, P. (2020). Students' participation in school and its relationship with antisocial behavior, academic performance and adolescent well-being. *Child Indicators Research*, 14(1), 269-282.

Hansen, S. (2008). Wie lernt man im sportverein? Ergebnisse einer empirischen Studie zu lernprozessen in vereinen/How do you learn in sport clubs? results of an empirical study on the learning process in voluntary associations. *Sport Und Gesellschaft*, 5(2), 178-205.

Hidaya, Y., Suryaningsih, A., Mazid, S., & Cheong, S.F. (2022). Promoting student participation skills through student organizations. *Jurnal Civics: Media Kajian Kewarganegaraan*, 19(2), 213-223.

Hilliard, A.T. (2015). Global blended learning practices for teaching and learning, leadership, and professional development. *Journal of International Education Research*, 11(3), 179-188.

Hinkle, C.M., & Koretsky, M. (2018). Toward professional practice: Student learning opportunities through participation in engineering clubs. *European Journal of Engineering Education*, 44(6), 906-922.

Ilyenko, L.I., Fedulaev, Y.N., Orlova, N.V., Pinchuk, T.V., & Spiryakina, Y.G. (2023). Student science club - An important link in the structure of

higher medical education. *Cardiovascular Therapy and Prevention*, 22(1S), 3412.

Lamprecht, M., & Nagel, S. (2023). Inequality and diversity in sport - Developments and perspectives. *Current Issues in Sport Science*, 8(2), 045.

Linder, S., Jörg, R., & Ziemainz, H. (2022). "Character is the most important thing in soccer" -A pilot study on the development and effectiveness of a character building program in high-performance youth soccer. *Advances in Physical Education*, 12(3), 217-235.

Lozano, R., Lukman, R.K., Lozano, F.J., Huisingh, D., & Lambrechts, W. (2013). Declarations for sustainability in higher education: Becoming better leaders, through addressing the university system. *Journal of Cleaner Production*, 48, 10-19.

Lucia, V.C., & Swanberg, S. (2018). Utilizing journal club to facilitate critical thinking in pre-clinical medical students. *International Journal of Medical Education*, 9, 7-8.

MacMillan, T.E., Rawal, S., Cram, P., & Liu, J. (2016). A journal club for peer mentorship: Helping to navigate the transition to independent practice. *Perspectives on Medical Education*, 5(5), 312-315.

Maddox, L.M., Patino, A., Kaltcheva, V.D., & Pitta, D.A. (2018). Integration of an online Curriculum with a real-world exercise: A step beyond traditional classroom teaching. *Journal of Advertising Education*, 22(1), 23.

Meshram, K., & O'Cass, A. (2013). Exploring civic engagement through seniors' good citizenship behavior within clubs. *Journal of Nonprofit and Public Sector Marketing*, 25(3), 256-283.

McGarrie, L., Napierala, E., Oliver, C., Heberlein, E., Taylor, B., & Snyder, A. (2022). An enhanced mentoring model's impact on youth in boys and girls clubs. *Journal of Youth Development*, 17(3), 105-117.

Mikulec, E., & McKinney, K. (2014). Perceived learning outcomes from participation in one type of registered student organization: Equestrian sport clubs. *Journal of the Scholarship of Teaching and Learning*, 14, 94-109.

Nicoleta, G.D., Iuliana, F.A., & Ioana, T.M. (2019). The importance of leadership training skills. *Annals-Economy Series*, 6(6), 313-318.

Nikolopoulou, K. (2023). *What is Purposive Sampling? Definition and Examples*. Scribbr. Available from: https://www.scribbr.com/methodology/purposive-sampling [Last accessed on 2024 Feb 23].

Nordin, N.B. (2021). Leadership competencies development among academic staffs: A preliminary observation. *Malaysian Journal of Social Sciences and Humanities*, 6(7), 370-375.

Nunev, S.T. (2019). Club forms of activities and creation of educational environment promoting the development of social work students. *Social Work Education*, 39(3), 362-377.

Pittaway, L., Rodriguez-Falcon, E., Aiyegbayo, O., & King, A.S. (2011). The role of entrepreneurship clubs and societies in entrepreneurial learning. *International Small Business Journal*, 29(1), 37-57.

Saunders, T. (2017). *The Impact of Leadership Involvement on College Students' Experience and Wellbeing*. Available from: https://pillars.taylor.edu/cgi/viewcontent.cgi?article=1088&context=mahe [Last accessed on 2024 Feb 22].

Seidle, B., Fernández, S., & Perry, J.L. (2016). Do leadership training and development make a difference in the public sector? A panel study. *Public Administration Review*, 76(4), 603-613.

Seitenova, S. (2023). Developing leadership behavior skills in future specialists. *Halyķaralyķ Ķazaķ-tùrìk Universitetìnìṇ Habaršysy*, 127(1), 303-313.

Shaikh, M., & Forneris, T. (2016). Youth leadership in a physical activity-based positive youth development program for at-risk youth. *Journal of Exercise, Movement, and Sport*, 48(1), 133.

Sumague, R.P. (2023). Influence of involvement in clubs and organizations on the leadership development of students. *World Journal of Advanced Research and Reviews*, 17(2), 404-407.

Surtees, V., & Balyasnikova, N. (2016). Culture clubs in Canadian higher education: Examining membership diversity. *Canadian Journal for New Scholars in Education/Revue Canadienne Des Jeunes Chercheures Et Chercheurs En Éducation*, 7(1), 66-73.

Switzer, A.T., & Barclay, L.A. (2012). Book clubs: Best practices in promoting critical thinking in business classes. *Journal of Business and Finance Librarianship*, 17(4), 328-345.

Talat, M., Haider, K., Shahzadi, S., & Afzal, F. (2017). Leadership skills' development programs at school and college level: An evaluated study. *IJAEDU-International E-Journal of Advances in Education*, 3, 549-555.

Ünlü, Ç., & Çeviker, A. (2022). Examination of the social skills levels of students participating in recreative activities. *International Journal on Social and Education Sciences*, 4(4), 529-540.

Wanjiru, N.B., Kyalo, D.N., Mulwa, A.S., & Mbugua, J. (2020). Influence of leadership skills on performance of youth environmental projects; A case of solid waste management projects in Nairobi County, Kenya. *International Journal of Scientific and Research Publications*, 10(2), 9840.

Yu, M. (2020). *Women's International Art Club: Inclusivity, Diversity and Femininity, 1900-1914*. Berlin: Springer. pp. 165-198.

Zhou, Y., Anishchenko, V.O., Vasylenko, O.V., Iaremenko, N.V., & Fomin, M.V. (2021). Leadership development in students as part of attitude development. *International Journal of Education and Information Technologies*, 15, 202-214.