

## **STUDENTS' INNOVATIVE SKILLS AS CATALYST FOR TRANSFORMATIVE LEARNING WITHIN DON BOSCO PEDAGOGY IN SECONDARY SCHOOLS IN TANZANIA**

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### **Abstract**

Students' innovative skills play a pivotal role in revolutionizing tradition methods fostering creativity and addressing contemporary challenges. The study sought to examine students' innovative skills as catalyst for transformative learning within Don Bosco pedagogy in secondary schools in Tanzania. One specific objective and one research question were formulated to guided the study. The research adopted a mixed method approach. 844 respondents formed the population of the study where 342 participants were drawn as sample of the study by using stratified sampling technique. Data were collected through a structured research instrument tagged Students Innovative Skills and Don Bosco Pedagogy Questionnaire (SIS) and (DBPQ) validated by experts in measurement and evaluation as well as educational foundations respectively. Reliability of the instrument was done through Cronbach alpha ranging from 0.70-0.83 which indicating acceptable reliability. Quantitative responses were analyzed using descriptive statistical techniques, mainly frequencies and percentages. The results were presented in tables and pie charts to show the distribution of responses and the interview responses were analyzed using thematic analysis, where similar ideas were grouped into themes and used to support and explain the quantitative findings. The results revealed that students critical thinking skills influence Don Bosco Pedagogy in secondary schools. It was recommended that government should encourage students by giving them necessary assistance through pedagogical procedure.

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**Keywords:** Students innovative skills, transformative learning, Don Bosco Pedagogy, critical thinking skills

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### **Introduction**

Education in the 21st century is increasingly influenced by the need for innovation, creativity, and transformative learning methods. Secondary schools play a crucial role in the development of adolescents and must focus on nurturing students' innovative skills to prepare them for the ever-changing social, economic, and technological landscape (Aliyeva, 2024). According to Ategwu (2023), innovation involves imagining possibilities beyond what currently exists and striving to improve or transform existing ideas, systems, and practices. Ategwu et al (2022) opined that creativity is critical in solving complex challenges that leads to organizational change. Skills such as problem-solving, creativity, adaptability, and critical thinking are not only vital for academic success but also for lifelong learning and global citizenship. Don Bosco's pedagogy, based on the preventive system, provides a unique framework that emphasizes holistic education, moral development, and active student participation (Pardillo, 2025). By integrating innovative skills with Don Bosco's educational philosophy, secondary schools can promote transformative learning that empowers students to be catalysts for change in their communities. Mkulu and Ategwu (2025) identified that transformative learning decision changes, formulation relevant to strategies and activities engaging students in the

transformative process ensuring that positive change is incorporated in pedagogical implications.

Don Bosco's pedagogy, developed in the 19<sup>th</sup> century, was revolutionary for its emphasis on trust, closeness to young people, and optimism in education (Thomas & Kakati, 2025). Unlike punitive models, his preventive system aimed to guide learners through reason, religion, and loving-kindness, creating an environment conducive to growth and innovation. This approach aligns well with contemporary transformative learning theories, which emphasize critical reflection, dialogue, and experiential engagement in reshaping learners' perspectives (Wepener, 2024). Incorporating innovative skills into Don Bosco's framework, secondary schools can go beyond rote learning to foster creativity and resilience among students. This integration ensures that learners are active participants in constructing meaning and envisioning new possibilities, rather than passive recipients of knowledge.

Transformative learning, as theorized by Mezirow and further developed by subsequent scholars, focuses on critically examining assumptions, engaging in reflective discourse, and adopting new perspectives (Mezirow, 2018). In secondary schools, this process necessitates pedagogical approaches that foster innovation and creativity. Don Bosco's pedagogy, rooted in the preventive system, supports these principles by promoting self-awareness, responsibility, and collaboration among students (Raj, 2019). Empowering students to innovate enables them to undergo transformative learning experiences that reshape their identities and equip them to tackle complex societal issues. Therefore, cultivating innovative skills acts as a bridge between Don Bosco's traditional values and contemporary educational demands.

Students' innovative skills are particularly crucial in secondary education as learners transition from childhood to adulthood. At this stage, they need opportunities to explore, experiment, and express themselves to promote cognitive and emotional growth (Piiro, 2021). Don Bosco's pedagogy emphasizes holistic development by integrating academic learning with moral and social values (VIA Don Bosco, 2022). By nurturing innovative skills, secondary schools can create environments where students develop critical thinking, creative problem-solving, and effective collaboration abilities. These skills not only improve academic performance but also prepare students to make meaningful contributions to society, aligning with Don Bosco's transformative educational mission.

Don Bosco's preventive system is inherently innovative as it prioritizes reasoning and dialogue over authoritarian discipline. This approach empowers students to take ownership of their learning, fostering autonomy and creativity (Karaoulas, 2024). In secondary schools, this method is crucial for promoting transformative learning, where students challenge existing paradigms and construct new knowledge. Skills like design thinking, digital literacy, and collaborative problem-solving are keys in this process. By integrating these skills into Don Bosco's pedagogy, educators can ensure that students are not just disciplined but also motivated to innovate and enhance their learning experiences (Vojtáš, 2022).

Don Bosco's pedagogy highlights the significance of relationships and community in education. Transformative learning flourishes in supportive, trusting, and appreciative environments (Pardillo, 2025). Cultivating innovative skills within these relational settings allows students to participate in collaborative projects, peer learning, and social innovation. In addition, Macdonald (2024) argued that by embracing Don Bosco's preventive system, secondary schools can establish inclusive environments where innovation is a collaborative effort rather than an individual pursuit. This communal

approach to innovation resonates with transformative learning, which aims to empower learners to become catalysts for change within their communities.

The integration of innovative skills into Don Bosco's pedagogy addresses contemporary challenges in education, such as disengagement, rote learning, and lack of creativity. By emphasizing experiential learning, project-based approaches, and reflective practices, secondary schools can transform traditional classrooms into hubs of innovation. Don Bosco's preventive system, with its emphasis on optimism and encouragement, provides the moral and emotional foundation for this transformation (Raj, 2019). Students who develop innovative skills in this context are better equipped to navigate uncertainties, embrace diversity, and contribute to sustainable development. Therefore, innovation serves as both a pedagogical strategy and a transformative outcome.

The development of innovative skills among students has become an important aspect of transformative learning in modern education systems. In the USA, Karaoulas (2024) showed that Don Bosco's approach enables students to assume responsibility for their own learning through innovative methods such as collaborative work, reflective dialogue, and experiential engagement, thus promoting the concept of transformative learning theory. Similarly, a study conducted by the Salesian Institute in San Francisco (2022) indicated that students' innovative skills, including problem-solving and flexibility, act as important agents in promoting transformative learning in students' lives. These skills prepare learners to become agents of change in society while adhering to Don Bosco's concept of integral education.

The promotion of innovative skills among students has also gained significant attention in the British educational context. In Britain, Raj (2019) emphasized that Don Bosco's pedagogy inspires young people to innovate through reflective dialogue, experiential engagement, and collaborative problem-solving, which are essential for achieving transformative learning outcomes. Furthermore, VIA Don Bosco (2022) pointed out that Don Bosco's preventive system remains highly relevant in contemporary British educational contexts because it combines trust, optimism, and respect for diversity in educational practices. These values contribute to a favorable learning environment where young people are encouraged to generate new ideas and develop innovative skills that transform their perceptions and attitudes in life. Therefore, in Britain, Don Bosco's pedagogy demonstrates that innovative skills act as a catalyst for achieving transformative learning outcomes.

The contribution of Don Bosco's pedagogy to the development of innovative skills has also been recognized in Asian educational contexts. In India, Gonsalves (2016) explored the legacy of Don Bosco's preventive system through 110 years of Salesian mission activities and revealed the importance of adapting Don Bosco's pedagogy in promoting innovative skills among students. Similarly, in Indonesia, Simarmata and Pinem (2025) examined Don Bosco's pedagogy as a strategy for overcoming challenges in Catholic education. Their study revealed that Don Bosco's pedagogy plays a significant role in fostering creativity and innovation in education, particularly through preventive education and character formation, which are considered key elements in nurturing students' creativity and innovative abilities.

The promotion of innovative skills has also become an important area of focus in the Nigerian educational context, particularly in relation to transformative learning. Students' innovative skills empower learners to assume responsibility for their own learning and encourage innovation in secondary schools, an idea that can be closely linked to Don Bosco's preventive system (Okwelle, 2021). Similarly, in another study conducted in

Nigeria, Okoye and Nwankwo (2020) explored innovative teaching methods in Catholic secondary schools and found that project-based learning and collaborative practices significantly enhance students' creativity and critical thinking skills. The study further revealed that the integration of innovative skills into teaching methods not only improves students' academic performance but also enables them to engage effectively with society in a transformative manner. Therefore, Don Bosco's preventive system can be associated with the Nigerian context through its emphasis on innovative skills as a catalyst for transformative learning in the classroom.

The importance of innovative teaching strategies, such as project-based learning and collaborative problem-solving, in equipping students with creativity and adaptability, thereby promoting transformative learning outcomes (Selvam & Githinji, 2023). Likewise, Njoroge (2020) examined the role of Salesian institutions in Kenya and emphasized that Don Bosco's preventive system supports holistic development through the integration of moral values and innovative skills, which prepares learners for active participation in society. Furthermore, Mwangi (2021) noted that Don Bosco-inspired approaches encourage students to innovate through reflective dialogue, teamwork, and practical engagement. Collectively, these studies demonstrate that Don Bosco's pedagogy in Kenya provides a strong foundation for integrating innovative skills into transformative learning and empowering students to become creative agents of change.

Experiential learning and project-based approaches in Don Bosco institutions encourage students to innovate and engage in critical reflection, which are essential elements of transformative learning (Mushi, 2020). Similarly, Komba and Nkumbi (2018) examined innovative teaching practices in Tanzanian secondary schools and noted that learner-centered strategies significantly improve students' problem-solving abilities and prepare them to address societal challenges. Their study further emphasized that innovation in pedagogy closely aligns with Don Bosco's principles of trust, dialogue, and responsibility. In addition, the Don Bosco Youth Centre Dodoma (2021) reported that programs integrating sports, vocational training, and reflective dialogue help to foster creativity and resilience among students, thereby promoting transformative learning. These studies collectively demonstrate that Don Bosco's pedagogy in Tanzania provides an important framework for integrating innovative skills into transformative learning and empowering students to become creative agents of change.

Therefore, students' innovative skills play a crucial role in transformative learning within Don Bosco's pedagogy in secondary schools (Thomas & Kakati, 2025). Through integrating creativity, problem-solving, and adaptability with the preventive system, educators can nurture holistic development that goes beyond academic success. Don Bosco's educational vision, emphasizing morality, relationships, and innovation, remains highly relevant in today's world. Schools that embrace this approach can develop students who are not only disciplined and knowledgeable but also innovative and transformative (Wepener, 2024). This introduction lays the foundation for a deeper exploration of how innovative skills bring Don Bosco's pedagogy to life to address the challenges of modern education and societal change.

### **Purpose of the Study**

1. To examine the students' innovative skills (critical thinking) as catalyst for transformative learning within Don Bosco pedagogy in secondary schools

### **Research Questions**

The following research questions guided the study;

1. Do students' innovative skills (such as critical thinking) act as catalyst for transformative learning within Don Bosco Pedagogy in secondary schools
2. The students' innovative skills (critical thinking) as catalyst for transformative learning within Don Bosco Pedagogy in secondary schools

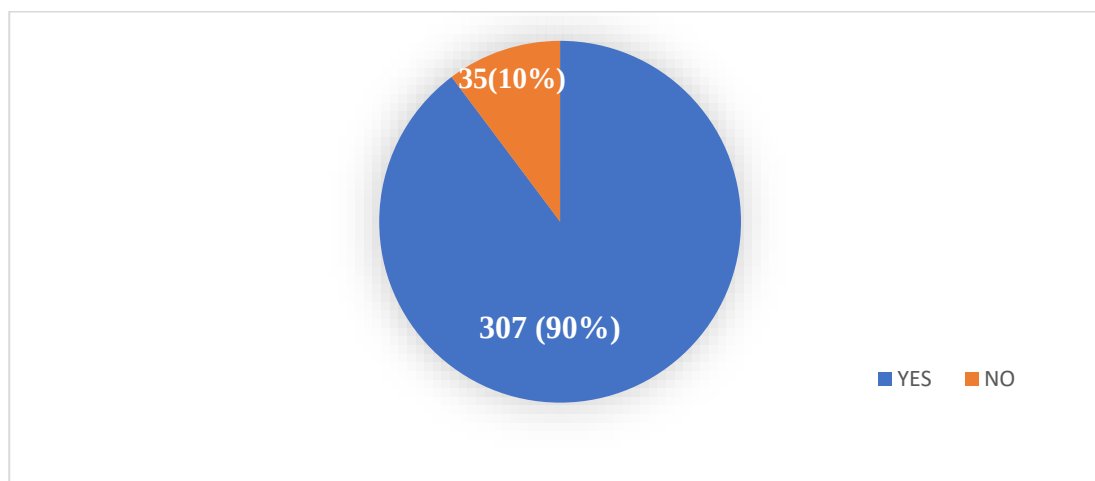
### **Methods**

The study utilized a mixed-method approach, combining quantitative and qualitative research techniques to gain a thorough understanding of the phenomenon being studied. The quantitative component allowed for the collection of measurable data on students' innovative skills and the implementation of Don Bosco pedagogy, while the qualitative aspect provided deeper insights into participants' experiences, perceptions, and contextual realities. This combination of approaches enhanced the validity of the findings through triangulation and enriched the overall depth of the data. The study included a total of 844 respondents who met the research criteria. A sample of 342 participants was selected using a stratified random sampling technique to ensure representativeness and generalizability of the findings. The stratification process enabled the researcher to divide respondents into relevant groups and randomly select participants from each category, thereby minimizing sampling bias and enhancing the reliability of the study findings. Data were collected using the Students Innovative Skills Questionnaire (SIS) and the Don Bosco Pedagogy Questionnaire (DBPQ). The SIS measured dimensions of students' innovative skills such as creativity, problem-solving, critical thinking, collaboration, and adaptability. The DBPQ assessed the implementation of Don Bosco pedagogy principles, including preventive education, moral guidance, mentorship, and holistic student development within the educational context.

The instruments were validated by some experts, measurement and evaluation specialists assessed the instruments for clarity, relevance, consistency, and item appropriateness, while educational foundations experts evaluated content alignment with theoretical and pedagogical constructs. Their feedback refined the questionnaires, ensuring content and construct validity. Reliability testing utilized Cronbach's alpha coefficient to assess internal consistency, yielding indices ranging from 0.70 to 0.83, indicating acceptable to good reliability. A Cronbach's alpha value above 0.70 suggests consistent measurement of the same construct. Thus, the instruments were deemed statistically reliable and suitable for data collection in the study.

### **Discussion**

Research question 1: Do students' innovative skills (such as critical thinking) act as catalyst for transformative learning within Don Bosco Pedagogy in secondary schools This was the first question asked to the respondents. Here the respondents were required to answer yes if they see that students' innovative skills influence the transformational learning within Don Bosco Pedagogy, and their responses were as follows in figure 1  
Figure 1



**Source,** researcher (2026)

The pie chart above shows the results from the 342 respondents concerning whether the innovative skills of students act as a catalyst for transformational learning within Don Bosco Pedagogy in secondary schools. From the results, it is evident that 307 (90%) out of the respondents said YES, which confirms that innovative skills act as a catalyst for transformational learning within Don Bosco Pedagogy in secondary schools. This is because, according to Mushi (2020), in the eyes of the school community, innovative skills act as a catalyst for transformational learning, thus bridging the gap between traditional moral education and modern transformative learning." On the other hand, 35 (10%) out of the respondents said NO. This shows a consensus among the respondents concerning the arguments presented in this study. The majority response, "YES," confirms and validates the main argument presented in this study, which is that "skills, such as problem-solving, creativity, and collaboration, are not seen as separate from Don Bosco's Preventive System but as integral to it.

**Research Question 2:** The students' innovative skills (critical thinking) as catalyst for transformative learning within Don Bosco Pedagogy in secondary schools

This was the second question which asked to the respondents, here the respondents required to express their attitude on how the students innovative skills act as catalyst for transformative learning. Data were collected through structured questionnaires and structured interview and their responses are as follows:

**Table 1**

*Respondents' Responses on Students' Innovative Skills (critical thinking) as a Catalyst for Transformative Learning within Don Bosco Pedagogy in Secondary Schools (N = 342)*

| Respondents' Responses on Innovative Skills                                                                       | SD          | D           | N           | A             | SA            |
|-------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|---------------|---------------|
|                                                                                                                   | F (%)       | F (%)       | F (%)       | F (%)         | F (%)         |
| 1. Innovative skills help students think critically and solve real-life problems in line with Don Bosco pedagogy. | 10<br>(2.9) | 18<br>(5.3) | 34<br>(9.9) | 170<br>(49.7) | 110<br>(32.2) |
| 2. Creativity and collaboration among students enhance transformative learning experiences in our school.         | 12<br>(3.5) | 20<br>(5.8) | 30<br>(8.8) | 165<br>(48.2) | 115<br>(33.6) |
| 3. The application of innovative skills encourages moral responsibility and active participation as               | 15<br>(4.4) | 22<br>(6.4) | 28<br>(8.2) | 160<br>(46.8) | 117<br>(34.2) |



| Respondents' Responses on Innovative Skills                                                                                         | SD          | D           | N           | A             | SA            |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|---------------|---------------|
| emphasized in Don Bosco pedagogy.                                                                                                   |             |             |             |               |               |
| 4. Problem-solving and independent learning skills contribute to personal growth and self-reliance among students.                  | 8<br>(2.3)  | 16<br>(4.7) | 26<br>(7.6) | 172<br>(50.3) | 120<br>(35.1) |
| 5. The integration of innovative skills in teaching promotes holistic development consistent with Don Bosco educational principles. | 11<br>(3.2) | 19<br>(5.6) | 32<br>(9.4) | 168<br>(49.1) | 112<br>(32.7) |

**Source:** Field Data, (2026)

Table 1 presented respondents' responses regarding the role of innovative skills as a catalyst for transformative learning within Don Bosco pedagogy in secondary schools. The findings indicate strong agreement among respondents that innovative skills significantly contribute to transformative learning processes.

### **Innovative skills help students think critically and solve real-life problems in line with Don Bosco pedagogy**

The majority of students agreed (49.7%) and strongly agreed (32.2%) that innovative skills help them think critically and solve real-life problems in line with Don Bosco pedagogy. Only a small percentage disagreed or remained neutral. This suggests that over four-fifths of the respondents recognize innovative skills as essential for practical and transformative engagement in learning. As one respondent argued that:

When the students are involved in experiential learning and teamwork, they start taking ownership of their learning. We see them developing problem-solving skills and flexibility. This is what Don Bosco pedagogy emphasizes, integral education that helps transform society. (Respondent, 2026)

This implies that the majority of students recognize innovative skills as essential tools for critical thinking and practical problem-solving. The narratives reveal that collaborative learning, experiential engagement, and reflective dialogue are significantly impacting the development of responsible and transformative students, in keeping with Don Bosco's educational ideals. These findings are consistent with Karaoulas (2024) who found that Don Bosco's approach enables students to take responsibility for their learning through collaborative work and experiential engagement, thereby fostering transformative learning. Similarly, the Salesian Institute in San Francisco (2022) emphasized that problem-solving and flexibility prepare students to become agents of change while adhering to Don Bosco's concept of integral education. The current findings therefore confirm that innovative skills serve as a bridge between classroom learning and societal transformation.

### **Creativity and collaboration as drivers of transformative learning**

Regarding creativity and collaboration, 48.2% agreed and 33.6% strongly agreed that these skills enhance transformative learning experiences in their schools. This shows that students perceive teamwork and innovation as central to meaningful learning transformation. As one respondent emphasized that:

Don Bosco's system is based on dialogue, trust, and encouragement. If students are treated with respect and dignity, they are encouraged to share their ideas and collaborate with each other. This collaborative attitude helps them grow

intellectually and personally, and this is the real meaning of transformative learning. (Respondent, 2026)

This confirms that creativity and collaboration are actively practiced in the school environment. The importance of reflective dialogue, teamwork, and mutual respect creates a positive environment where creativity thrives. Consequently, students experience learning not only as knowledge acquisition but as a transformative process that reshapes their thinking, attitudes, and participation in society. In addition, this aligns with Raj (2019) who emphasized that Don Bosco's pedagogy inspires young people to innovate through reflective dialogue and collaborative problem-solving key elements of transformative learning. Additionally, VIA Don Bosco (2022) highlighted that trust, optimism, and respect for diversity create an environment where innovation flourishes. The present findings suggest that such an environment is also reflected in the studied secondary schools.

### **Moral responsibility and active participation**

A significant proportion of students (46.8% agree; 34.2% strongly agree) acknowledged that innovative skills encourage moral responsibility and active participation, consistent with Don Bosco's preventive system. This reflects the integration of character formation with skill development. Another respondent argued that:

Don Bosco's preventive system focuses on guiding students before problems arise. When we engage students in creative and collaborative tasks, we also teach them values like honesty, respect, and responsibility. Innovative skills are connected with character building, not only academic performance." (Teacher I, July 2026)

This indicates that innovative skills within Don Bosco pedagogy go beyond technical competence. They nurture moral awareness, responsibility, and active engagement among students. The integration of creativity with character formation supports holistic development, confirming that transformative learning in this context encompasses intellectual, social, and ethical growth. Gonsalves (2016), in exploring the Salesian mission in India, emphasized that Don Bosco's preventive system fosters both creativity and character formation. Similarly, Simarmata and Pinem (2025) in Indonesia observed that preventive education strengthens creativity and innovation through moral guidance. The current findings reinforce the idea that innovative skills within Don Bosco pedagogy are not merely technical competencies but are deeply connected to moral and holistic development.

### **Problem-solving, independence, and personal growth**

On the contribution of problem-solving and independent learning to personal growth, 50.3% agreed and 35.1% strongly agreed. This indicates that transformative learning is perceived as a process that enhances self-reliance and adaptability among students.

The aim is to help students in such a manner that they can take responsibility for their learning by themselves. When they are involved in problem-solving activities, they learn critical thinking and self-discipline. These help in shaping their personal development." (Teacher L, July 2026)

This implies that innovative skills within Don Bosco pedagogy promote independence, resilience, and adaptability. Students are not passive recipients of knowledge; rather, they actively construct understanding through problem-solving and reflective engagement. This approach strengthens personal development and equips



learners with competencies necessary for transformative participation in society. These findings correspond with Okwelle (2021), who stressed that innovative skills empower learners to assume responsibility for their own learning. Similarly, Okoye and Nwankwo (2020) in Nigeria found that project-based learning and collaborative practices significantly boost creativity and critical thinking while promoting transformative societal engagement. Thus, innovative skills within Don Bosco pedagogy appear to nurture independence and lifelong learning competencies.

### **Holistic development and integral education**

Finally, 49.1% agreed and 32.7% strongly agreed that integrating innovative skills in teaching promotes holistic development consistent with Don Bosco educational principles. This reflects students' recognition that innovative learning contributes to intellectual, moral, social, and emotional growth.

Don Bosco emphasized the education of the whole person: mind, heart, and hands. We are shaping students intellectually, morally, socially, and emotionally with the integration of innovative skills like project-based learning and reflective dialogue. We are not just preparing students for exams; we are preparing students for life.” (Respondent, 2026)

This demonstrates that innovative teaching approaches foster comprehensive student development. Learners experience growth beyond academic knowledge, developing character, resilience, creativity, and social responsibility. The findings suggest that Don Bosco pedagogy effectively integrates innovative skills with moral values, creating a balanced educational experience that prepares students for active and responsible participation in society. In addition, Selvam and Githinji (2023) highlighted the importance of project-based learning and collaborative strategies in achieving transformative outcomes. Njoroge (2020) further emphasized that Don Bosco's preventive system integrates moral values with innovative skills, preparing learners for active societal participation. Similarly, in Tanzania, Mushi (2020) and Komba and Nkumbi (2018) confirmed that experiential and learner-centered approaches enhance students' problem-solving abilities and societal readiness. The Don Bosco Youth Centre Dodoma (2021) also reported that reflective dialogue and vocational engagement foster resilience and creativity.

### **Conclusion**

The students' innovative skills can be considered an effective catalyst in the transformative learning process in Don Bosco methodology in secondary schools. The majority of the respondents agreed that skills like critical thinking, creativity, collaboration, problem-solving, and independent learning play an important role in the intellectual, moral, social, and emotional development of students. The inclusion of these skills in Don Bosco methodology can be considered an application of Don Bosco's concept of integral education, in which students are encouraged to participate in society in an active manner. The research study was conducted in line with this concept using both quantitative and qualitative research methods, confirming that innovative teaching methods in Don Bosco methodology not only play an effective role in academic development but also in the development of responsibility, hardiness, and lifelong learning skills in students. Therefore, innovative teaching methods in Don Bosco methodology are considered effective in preparing students to become creative, moral, and transformative agents in society.

### **Recommendations**

Based on the findings from the field, the study recommends the following

1. In the implementation of the Don Bosco educational methodology in secondary schools, innovative strategies in learning should always be included in the curriculum to ensure the achievement of enhanced results in transformative learning.
2. School administrations should always ensure training and workshops for their teachers to acquire appropriate skills and competencies in the implementation of innovative strategies in learning.
3. Schools should always strive to create a learning environment for their students that is conducive for learning and will encourage the students to take ownership of their own learning, express their ideas freely, and participate in activities.
4. Educational programs should always aim to connect innovative skills with moral values and character development in accordance with the preventive system of Don Bosco.
5. School administration and educational stakeholders should always ensure the provision of appropriate resources for experiential learning and vocational activities in schools to ensure the development of the whole student in a transformative manner.