ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 8| August2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

THE ROLE OF TECHNOLOGY EDUCATION IN STUDENTS' SKILLS DEVELOPMENT AND PERSONAL GROWTH

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ABSTRACT

This study determined the role of technology education in the skills development and personal growth of grade 9 students and the significant relationship between the role of technology education on skills development and the personal growth of grade 9 students. The correlational research method is utilized in this study. It was conducted with selected Grade 9 students of Majada In Integrated School during the school year 2023-2024. The research instrument used was a researcher-made survey questionnaire.

Analysis revealed that the status of technology education in terms of application of knowledge, innovation, digital literacy, and adaptability was High. Likewise, the status of skills development in terms of goal setting, problem-solving, critical thinking, and teamwork was High. Personal growth in terms of decision-making, emotional intelligence, self-management, and resilience was high. The roles of technology education significantly affected the skills development and personal growth of grade 9 students; therefore, both null hypotheses were rejected. Therefore, technology education should be enhanced by providing a state-of-the-art classroom and implementing a technology-based curriculum. Technology and Livelihood Education competencies related to goal setting, problem-solving, critical thinking, and collaboration should be emphasized.

KEYWORDS: *technology education; skills development; personal growth*

1. INTRODUCTION

Nowadays, technology has embarked on its way in the development of the education system that we have here in the Philippines. This provides an opportunity for the students to be equipped with learning that can be used in everyday life.

DepEd Order 21, s. 2019 states that the K to 12 Program seeks to "provide the Filipino learners with the necessary skills and competence to prepare them to take on the challenges of the 21st century." As a result, implementing the K to 12 Program is expected to "make the basic education system in the Philippines at par with international standards by ensuring that it is appropriate, responsive and relevant to the learners." The DepEd Order stipulates the need for the learners to be competent and prepared to take on the challenges of the 21st century.

UNESCO Institute for Statistics, in DO 21 s 2019 Basic Education Monitoring and Conceptual Framework, mentioned that "Student learning outcome is the totality of information, knowledge, understanding, attitudes, value skills, competencies or behaviors an individual is expected to master upon successful completion of an educational program." This stresses the expectancy of results from the students after the completion of the program through various standardized tests and assessments. The result will then be the indicator of whether the educational system is effective.

D'Angelo, Chloe (2018) mentioned in her study entitled "The Impacts of Technology Integration." The social capital of educational institutions, interpersonal connections within society, and global communication are significantly impacted by information, communications, and technology (ICT) literacy. Technology in the classroom can support more adaptable and democratic teaching and learning methods, provide students with greater autonomy and control over their education, and promote the growth of cognitive abilities and comprehension (Buckingham, 2013). Digital technology integration in the classroom can result in significant gains in student engagement and learning, ensuring that pupils are prepared for the demands of a technologically advanced society. Instructors are essential to making sure that students are using technology successfully.

This implies the great value of using technology in performing various tasks with higher efficiency and effectiveness. The mandatory incorporation of technology in maximizing and developing the potential within everyone is waiting to be realized. In a classroom setting, technology will be utilized to get and sustain students' interest in learning as this generation is inclined to use various gadgets and technological matters. An interested and enthusiastic student focuses his or her attention on the analytical solving of problems, which will engage him or her in a meaningful learning process leaning towards mastery of the learning competencies. Students engage in manipulatives and hands-on learning through technology-based learning activities, which develops their critical thinking skills and helps them take tangible results to the world, as John Dewey's Experiential Learning implies.

Moreover, technology-based instruction will help the teacher prepare the students for a meaningful learning process. The teacher will become more resourceful and analytical in incorporating technology-based activities and tasks aligned with the mastery of learning competencies. This will provide more energy and motivation for the teacher to take part in developing students' skills and personal growth.

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It is promising to know the role of technology in the development of students' skills and how it affects their personal growth to make education fun and meaningful. From this perspective, the researcher wanted to explore further the role of technology education in students' skills development and personal growth.

1.1 Statement of the Problem

Specifically, it sought to answer the following questions:

1. What is the status of Technology Education for the grade 9 students in terms of:
   - 1.1 application of knowledge
   - 1.2 innovation
   - 1.3 digital literacy, and
   - 1.4 adaptability?
2. What is the status of skills development of grade 9 students in terms of:
   - 2.1 goal setting
   - 2.2 problem solving
   - 2.3 critical thinking and
   - 2.4 teamwork?
3. What is the status of personal growth of the grade 9 students in terms of:
   - 3.1 decision making
   - 3.2 emotional Intelligence
   - 3.3 self-management; and
   - 3.4 resilience?
4. Is there a significant relationship between the role of technology education and skill development of grade 9 students?
5. Is there a significant relationship between the role of technology education and personal growth of grade 9 students?

2. METHODOLOGY

The correlational research method was utilized in this study. According to Griga (2017), correlational research aims to quantify the strength of a link between two or more variables. Relationships between and among various facts are considered in this form of design. Through this method, the researcher gathered data on the participants' responses to the survey, assessing the extent to which technology education affects the development of skills and the growth of individuals.

The major objective was to identify the significant relationship between the role of technology education and skill development as well as the personal growth of the students; it focuses on the role of technology education, such as the application of knowledge and skills, innovation, digital literacy and adaptability.

3. RESULTS AND DISCUSSION

This chapter deals with the presentation, analysis, and interpretation of the data. To simplify the discussions, the researcher provided tables that summarized the collective reactions of the respondents.

Status of Role of Technology Education

The status of role of technology education in terms of application of knowledge, innovation, digital literacy and adaptability, was treated statistically using mean and standard deviation.

Status of Technology Education in Terms of Application of Knowledge

Table 1 shows the status of role of technology education in terms of the application of knowledge. It also shows the statements, mean, standard deviation and remarks.

The result shows that the students agreed to use principles to plan and carry out effective activities (M = 2.96 and SD = 0.72). Likewise, they also agreed to apply theoretical knowledge to explain occurrences in the real world with the (M = 2.96 and SD = 0.77). On the other hand, fewer of the students demonstrate proficiency in various laboratory works although it has a (M = 2.75 and SD = 0.74), it still indicates a high role of technology education in terms of the application of knowledge.

The status of role of technology education in terms of the application of knowledge attained a weighted mean of 2.96 and standard deviation of 0.76, verbally interpreted as *high* among the respondents. It can be inferred that the students have a positive response to the improvements and changes in the curriculum and resource availability. This also implied that technology education is needed in the application of knowledge to facilitate learning effectively.

Table 1 ***Status of Technology Education in Terms of Application of Knowledge***

STATEMENTS	MEAN	SD	REMARKS
1. Use principles to plan and carry out effective activities.	2.96	0.72	Agree
2. Demonstrate proficiency in various laboratory works.	2.70	0.80	Agree
3. Apply theoretical knowledge to explain occurrences in the real world.	2.96	0.77	Agree
4. Share knowledge and extend technical assistance related to TLE.	2.94	0.78	Agree
5. Find substitute if the materials are not available.	2.75	0.74	Agree
Weighted Mean	*2.96*		
SD	*0.76*		
Verbal Interpretation	*High*		

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Status of Role of Technology Education in Terms of Innovation

Table 2 describes the status of technology education in terms of innovation. It shows that the students agreed that the overall learning environment has improved, giving more dynamic and interesting education in the technology field gained the (M = 3.13 and SD = 0.77). Likewise, some of the students personally experienced the integration of 3D printing and virtual reality in their TLE lesson as gained (M = 2.60 and SD = 0.89).

The weighted Mean of 2.88 and Standard Deviation of 0.83 indicates the high level of technology education's role in innovation. This means that the role of technology education in innovation is important in students' learning that can be applied to real-life situations, skill improvement, and engagement with technology-related educational practices, implying that teachers adapt innovative strategies in delivering the lessons.

Table 2 ***Status of Role of Technology Education in Terms of Innovation***

STATEMENTS	MEAN	SD	REMARKS
1. The courses offer real-world-relevant knowledge and abilities that are applicable in real situations.	3.04	0.69	Agree
2. The overall learning environment has improved, giving me a more dynamic and interesting education in the field of technology.	3.13	0.77	Agree
3. Personally experienced the integration of 3D printing and virtual reality has been used in teaching-learning process of TLE lesson.	2.60	0.89	Agree
4. Actively stay informed about the newest developments and tools in technology education to ensure that my skills and knowledge aligns with the evolving landscape of the field.	2.85	0.88	Agree
5. Convinced that my involvement in technology education contributes significantly address global challenges particularly those related to climate and sustainability	2.80	0.92	Agree
Weighted Mean	*2.88*		
SD	*0.83*		
Verbal Interpretation	*High*		

Table 3 ***Status of Role of Technology Education in Terms of Digital Literacy***

STATEMENTS	MEAN	SD	REMARKS
1. Use a computer, laptop, smartphone, or tablet in my studies.	3.23	0.94	Agree
2. Use the internet to accomplish my assignments and other schoolwork.	2.97	0.97	Agree
3. Confident and knowledgeable in using email and sending attachments.	2.80	0.92	Agree
4. Aware of netiquette (correct or acceptable ways of communicating on the internet principles).	3.00	0.88	Agree
5. Perform basic troubleshooting on any digital device.	2.67	0.92	Agree
Weighted Mean	*2.93*		
SD	*0.93*		
Verbal Interpretation	*High*		

Table 3 presents the role played by technology education in digital literacy.

The results show that the respondents agreed that they could use a computer, laptop, smartphone, or tablet to study and do their tasks with the highest (M = 3.23 and SD = 0.94). On the other hand, fewer students can perform basic troubleshooting on digital devices. It has a (M = 2.67 and SD = 0.92).

Overall, the weighted mean calculated is 2.93 with a standard deviation of 0.93. The data gathered has High verbal interpretation. This proves that completing assignments and other coursework was greatly aided by the use of digital literacy

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in technology education. Most pupils understand the significance of digital literacy.

With the given findings, students have basic knowledge in using gadgets because the generation today are highly dependent on technology. Thus, simple knowledge in using technology could help students keep up with ever changing world. Unfortunately, some students have little or no knowledge about troubleshooting of digital devices. Thus, troubleshooting can be emphasized more in teaching technology education.

Status of Role of Technology Education in Terms of Adaptability

Table 4 presents the role played by technology education in adaptability.

It can be denoted from the result that the students agreed and recognized that the lessons in TLE are the response to the needs and demands of industries nearby with the highest (M = 3.06 and SD = 0.74). On the other hand, the students are gradually taking action when remote learning takes place in the event of unforeseen disruptions, although it has the (M = 2.52 and SD = 0.74). Overall, the weighted mean calculated is 2.83 with a standard deviation of 0.78. The data gathered has High verbal interpretation.

Table 4 ***Status of Role of Technology Education in Terms of Adaptability***

STATEMENTS	MEAN	SD	REMARKS
1. Adapt at the emerging technological trends and advancements in timely manner.	2.99	0.70	Agree
2. Know that technology lessons are responsive to the needs and demands of students and industries it serves.	3.06	0.74	Agree
3. Stay up to date with emerging technologies.	2.73	0.86	Agree
4. Ensure that the use of technology remains adaptable to new technological trends.	2.83	0.87	Agree
5. Allow immediate transition to remote learning in the event of unforeseen disruptions.	2.52	0.74	Agree
Weighted Mean	*2.83*		
SD	*0.78*		
Verbal Interpretation	*High*		

Furthermore, as indicated in the data, the students are aware of the latest technology and need to be swift-handed to meet the demands of the industry. In the event of unforeseen disruptions students are slightly slow in transitioning to remote learning. This implies that every student should be adaptable and equipped on online learning platforms. Adaptability, a component of technology education, contributes to technological trends and advancements in response to the needs of students. Universities tend to adapt and stay updated with the emerging technological trends in society and modernize existing programs, facilities and infrastructure.

Status of Skills Development

Students' skills development status in terms of goal setting, problem-solving, critical thinking and teamwork was treated statistically using mean and standard deviation.

Table 5 ***Status of Skills Development in Terms of Goal Setting***

STATEMENTS	MEAN	SD	REMARKS
1. Set specific, measurable, attainable, result-oriented and time-bound (SMART) goals to chart a clear path towards improvement.	3.01	0.74	Agree
2. Uphold in the essence of adjusting to the current trends and technologies in TLE.	2.86	0.78	Agree
3. Prioritize setting goals that challenge me to acquire new skills and deepen existing knowledge in TLE.	2.98	0.79	Agree
4. Regularly assess my progress towards goals to adjust as needed to stay on track.	3.01	0.78	Agree
5. Firmly believe in the power of lifelong learning.	3.28	0.84	Strongly Agree
Weighted Mean	*3.03*		
SD	*0.78*		
Verbal Interpretation	*High*		

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Table 5 presents the status of skills development in terms of goal setting. It shows that the students strongly agree on the power of lifelong learning with the (M = 3.28 and SD = 0.84). On the other hand, the students agreed that they could slightly uphold the essence of adjusting the current trends and technologies in TLE with the (M = 2.86 and SD = 0.78).

In general, the weighted mean calculated is 3.03 with the standard deviation of 0.78. The data gathered has High verbal interpretation. This means that skills development through goal setting can support students in choosing the correct path, acquiring new skills, and becoming lifelong learners. This implies that lessons in TLE should be practical, result oriented and in accordance with the current trends and technologies.

Table 6 ***Status of Skills Development in Terms of Problem Solving***

STATEMENTS	MEAN	SD	REMARKS
1. Excel in creatively navigating through obstacles using my ability to think outside of conventional boundaries to find innovative solutions.	2.83	0.76	Agree
2. Accept challenges with a systematic and analytical mindset, allowing me to identify and address issues at their root.	2.82	0.79	Agree
3. Successfully tackled complex problems by leveraging combination of analytical thinking, collaboration, and adaptability.	2.89	0.82	Agree
4. Expert at making informed decisions under pressure and have a keen eye for identifying opportunities for improvement.	2.85	0.83	Agree
5. Always strive to ensure that the solutions I proposed is aligned with ethical standards and principles.	2.81	0.84	Agree
Weighted Mean	*2.84*		
SD	*0.81*		
Verbal Interpretation	*High*		

Table 6 presents the status of skills development in terms of problem solving. From the data gathered from the answers of the respondents, they can successfully tackle complex problems by leveraging the combination of analytical thinking, collaboration, and adaptability got the highest (M = 2.89 and SD = 0.82). On the other hand, the students make an extra effort to propose solutions aligned with ethical standards and principles (M = 2.81 and SD = 0.84).

Overall, the weighted mean calculated is 2.84 with a standard deviation of 0.81. The data gathered has High verbal interpretation.

In the findings, students can successfully overcome and provide solutions to the problem encountered using their analytical thinking, working harmoniously with others and being adaptable in the current situation. Also being reminded that the solutions are aligned with ethical standards and principles. This implies the development of skills requires problem-solving. The ability to tackle complex problems, propose solutions to problems encountered, and identify opportunities for improvement can be advantageous for students.

Table 7 ***Status of Skills Development in Terms of Critical Thinking***

STATEMENTS	MEAN	SD	REMARKS
1. Learned more about how to justify why certain procedures are undertaken in my subject.	3.03	0.75	Agree
2. Developed more focused and systematic way of thinking.	3.03	0.82	Agree
3. Learned more about how to approve complex issues in a variety of ways.	2.91	0.80	Agree
4. Improved my ability to judge the value of information or evidence presented to me.	3.05	0.81	Agree
5. Developed a more open-minded approach in analyzing, interpreting, and judging alternative points of view.	3.05	0.79	Agree
Weighted Mean	*3.01*		
SD	*0.80*		
Verbal Interpretation	*High*		

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Table 7 presents the status of skills development in terms of critical thinking. From the data gathered from the answers of the respondents, the respondents agreed that they improved their ability to judge when there is a value of information or evidence presented to them got the (M = 3.05 and SD = 0.81), likewise that they can developed a more open-minded approach in analyzing, interpreting and judging alternative points of view with the (M = 3.05 and SD = 0.79). On the other hand, respondents who agreed that they can still learn more about how to approve complex issues in various ways got the lowest (M = 2.91 and SD = 0.80).

Overall, the weighted mean calculated is 3.01 with a standard deviation of 0.80. The data gathered has High verbal interpretation.
As a result, students actively used their critical thinking when they engaged in a particular situation and had a handful of information to process. Hence, critical thinking is a component of skills development that involves analyzing information, evaluating arguments, and making informed decisions based on logic and reasoning. This skill is essential for problem-solving, decision-making, and personal growth, as it helps individuals to think more deeply, be more open-minded, and make better choices in various aspects of life.

Status of Skills Development in Terms of Teamwork
Table 8 reveals the status of skills development in terms of teamwork. The results show that the respondents strongly agreed that everyone is encouraged to share ideas, which got the highest (M = 3.43 and SD = 0.85). They agreed that each team member should contribute equally to the groups' task, which got the lowest (M = 2.91 and SD = 1.0).

In general, the weighted mean calculated is 3.23 with the standard deviation of 0.83. The data gathered has Very High verbal interpretation.

As per the realization of the students, everyone has a positive characteristic of being a team player. Valuing each other's opinions and sharing ideas are very important in a team. Teamwork contributes to decision-making. This implies that teamwork can aid individuals in appreciating diverse perspectives, sharing knowledge, and leveraging each other's strengths to achieve greater success.

Table 8 ***Status of Skills Development in Terms of Teamwork***

STATEMENTS	MEAN	SD	REMARKS
1. Actively contribute to discussions and decision-making within the team.	3.30	0.78	Strongly Agree
2. I valued others' opinion in the team.	3.42	0.76	Strongly Agree
3. Encourage everyone to share ideas.	3.43	0.85	Strongly Agree
4. Find team projects enhance my understanding of the subject matter.	3.11	0.78	Agree
5. Feel that each team member contributes equally to groups' task.	2.91	1.00	Agree
Weighted Mean	*3.23*		
SD	*0.83*		
Verbal Interpretation	*Very High*		

Status of Personal Growth
The status of the grade 9 students' personal growth in decision making, emotional intelligence, self-management, and resilience was treated statistically using mean and standard deviation.

Status of Status of Personal Growth in Terms of Decision Making
Table 9 reveals the status of personal growth in terms of decision making. From the data gathered from the respondents' answers, they strongly agreed to understand and respect other people's views with a (M = 3.57 and SD = 0.73). On the other hand, respondents found that to a certain extent, they find it easy to think clearly when deciding in a hurry, getting the lowest (M = 2.88 and SD = 0.90).

The weighted mean calculated is 3.18 with a standard deviation of 0.78. The data gathered has High verbal interpretation.
As indicated in the data, students tend to make their decisions with respect and consideration of well-being and interest of other people, since the students are considerate, they find difficulties when they are needed to decide in a hurry. Decision-making is a crucial part of personal growth for students, as it assists them in developing essential life skills and preparing for future challenges.

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Table 9 ***Status of Status of Personal Growth in Terms of Decision-Making***

STATEMENTS	MEAN	SD	REMARKS
1. Allow examination of the whole situation before drawing conclusions.	3.05	0.71	Agree
2. Participate in work activities with commitment and dedication.	3.32	0.75	Strongly Agree
3. Understand and respect other people's views.	3.57	0.73	Strongly Agree
4. Work out all the pros and cons before making the decision.	3.10	0.81	Agree
5. Find it easy to think clearly when I have to decide something in a hurry.	2.88	0.90	Agree
Weighted Mean	*3.18*		
SD	*0.78*		
Verbal Interpretation	*High*		

Table 10 ***Status of Personal Growth in Terms of Emotional Intelligence***

STATEMENTS	MEAN	SD	REMARKS
1. Highly motivated individual.	2.89	0.89	Agree
2. View problem situations as "challenges" not as an obstacle.	3.17	0.88	Agree
3. Forced to select between options, I stop and reflect before acting.	2.93	0.89	Agree
4. Accept strengths and weaknesses as part of who I am.	3.45	0.82	Strongly Agree
5. Aware of, understand and appreciate the feelings of others.	3.48	0.85	Strongly Agree
Weighted Mean	*3.18*		
SD	*0.87*		
Verbal Interpretation	*High*		

Table 12 reveals the status of personal growth in terms of emotional intelligence. From the data gathered from the respondents' answers, they strongly agreed that they are aware of, understand and appreciate the feelings of others the highest (M = 3.48 and SD = 0.85). Even though being a highly motivated individual got the lowest (M = 2.89 and SD = 0.89).

In general, the weighted mean calculated is 3.18 with the standard deviation of 0.87. The data gathered has High verbal interpretation.

The result showed that the students take into consideration the feelings of others and accept strengths and weaknesses. Thus, preventing conflicts and miscommunication in the learning environment. Emotional intelligence should involve self-reflection, active listening, seeking feedback from others, and participating in activities that promote empathy and social awareness.

Table 11 ***Status of Personal Growth in Terms of Self-management***

STATEMENTS	MEAN	SD	REMARKS
1. Maintain focus and manage time to meet deadlines.	3.33	0.79	Strongly Agree
2. Handle pressure and stress specifically hand-on activity	3.03	0.85	Agree
3. Effective in adapting my plans and strategies when faced with unexpected changes or challenges.	3.06	0.74	Agree
4. Proactive in seeking additional resources or guidance to enhance my understanding TLE lessons.	3.03	0.74	Agree
5. Reflect on my own performance and adjust to improve my self-management skills.	3.23	0.83	Agree
Weighted Mean	*3.10*		
SD	*0.87*		
Verbal Interpretation	*High*		

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Table 11 presents the status of personal growth in terms of self-management. From the data gathered from the answers of the respondents, they strongly agreed that they can maintain focus and manage time to meet deadlines with the highest (M = 3.33 and SD = 0.79). On the contrary, they can still handle pressure and stress on their hands-on activity with the (M = 3.03 and SD = 0.85) additionally they are proactive in seeking additional resources or guidance that enhance their understanding of TLE lessons with the (M= 3.03 and SD = 0.74)
The weighted mean calculated is 3.10 with a standard deviation of 0.79. The data gathered has High verbal interpretation.

Results from table presented students self-management is when students tend to cultivate focus, determination, and creates plans and strategies when faced with challenges and adversity to improve their performance and abilities.

Table 12 ***Status of Personal Growth in Terms of Resilience***

STATEMENTS	MEAN	SD	REMARKS
1. Perceive setbacks or challenges as opportunities for personal growth.	3.16	0.72	Agree
2. Adjust to changes.	3.25	0.79	Strongly Agree
3. Take control of the situation.	2.93	0.83	Agree
4. Cope up with external pressure such as expectations from family or peers in my technology education life.	3.01	0.73	Agree
5. Approach new situations with an open mind.	3.13	0.84	Agree
Weighted Mean	*3.09*		
SD	*0.78*		
Verbal Interpretation	*High*		

Table 12 presents the status of personal growth in terms of resilience. From the data gathered from the answers of the respondents, they strongly agreed that they could certainly adjust to changes with the highest (M = 3.25 and SD = 0.79). On the other hand, they are slightly struggling to control the situation (M = 2.93 and SD = 0.83).

In general, the weighted mean calculated is 3.09 with a standard deviation of 0.78. The data gathered has High verbal interpretation.
Findings showed that students can easily adjust to change because they take challenges as opportunities to learn new strategies. External pressures affect how students take control of the situation. Resilience is an essential aspect of personal growth for students, enabling them to overcome challenges, adapt to changes, and bounce back from setbacks.

Test of Significant Relationship between the Role of Technology Education and Skill Development

To test the significant relationship between the role of technology education and skill development of students in terms of goal setting, problem solving, critical thinking and teamwork was treated statistically using Real Statistics Data Analysis Tools using the Pearson correlation coefficient.

The correlation coefficients measure the strength and direction of the relationship between the role of technology education and skill development. A positive correlation indicates that as the role of technology education increases, skill development also tends to increase.

Correlations were computed among four roles of technology education on data for 159 students. A correlation coefficient of 1 indicates a perfect positive correlation, while a coefficient of -1 indicates a perfect negative correlation.

Table 13 ***Significant Relationship between the Role of Technology Education and Skill Development***

Role of Technology Education (IV)	Skills Development (DV)			
	Goal Setting	Problem Solving	Critical Thinking	Teamwork
Application of knowledge:				
Pearson Correlation	0.65**	0.59**	0.43**	0.65**
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	159	159	159	159
Innovation: Pearson Correlation	0.61**	0.56**	0.44**	0.66**
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	159	159	159	159
Digital literacy:				
Pearson Correlation	0.55**	0.57**	0.42**	0.62**
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	159	159	159	159

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Adaptability: Pearson Correlation	0.46**	0.37**	0.29**	0.43**
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	159	159	159	159

Pearson Correlation Significance(2-Tailed) is at 0.05

The correlation coefficients range from 0.29 to 0.66, indicating a weak to moderate positive relationship. The P-value is less than the alpha value of 0.05 level of significance. This implies that as technology education's role increases, students' skill development is greater. Technology education equips students with essential competencies necessary for academic success and future career readiness by applying knowledge, innovation, digital literacy, adaptability, goal setting, problem-solving, critical thinking, and teamwork. As technology continues to evolve, integrating technology education into the curriculum remains essential in preparing students to thrive in an increasingly digital and interconnected world.

Test of Significant Relationship between the Role of Technology Education and Personal Growth

To test the significant relationship between the role of technology education and students' personal growth in decision making, emotional intelligence, self-management and resilience were treated statistically using Real Statistics Data Analysis Tools using the Pearson correlation coefficient.

The correlation coefficients measure the strength and direction of the relationship between the role of technology education and personal growth. A positive correlation indicates that as role of technology education increases, personal growth also tends to increase.

Correlations were computed among four role of technology education on data for 159 students. A correlation coefficient of 1 indicates a perfect positive correlation, while a coefficient of -1 indicates a perfect negative correlation.

The correlation coefficients range from 0.29 to 0.57, indicating a weak to moderate positive relationship. The P-value is less than the alpha value of 0.05 level of significance. This implies that as technology education's role increases, students' personal growth is greater. Technology education's significant role is in fostering personal growth among students. Technology education nurtures essential skills and qualities such as decision-making, emotional intelligence, self-management, and resilience through the application of knowledge, innovation, digital literacy, and adaptability. By providing students with practical opportunities to learn, explore, and innovate, technology education prepares them to navigate the complexities of the modern world and thrive in diverse personal and professional contexts.

Table 14 ***Significant Relationship between the Role of Technology Education and Personal Growth***

Role of Technology Education (IV)	**Personal Growth (DV)**			
	Decision making	**Emotional Intelligence**	**Self-management**	**Resilience**
Application of knowledge:				
Pearson Correlation	0.48**	0.50**	0.39**	0.48**
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	159	159	159	159
Innovation: Pearson Correlation	0.56**	0.43**	0.41**	0.57**
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	159	159	159	159
Digital literacy:				
Pearson Correlation	0.51**	0.54**	0.29**	0.54**
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	159	159	159	159
Adaptability: Pearson Correlation	0.46**	0.56**	0.30**	0.50**
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	159	159	159	159

Pearson Correlation Significance(2-Tailed) is at 0.05

As educators continue to integrate technology education into the curriculum, it is essential to recognize its transformative potential in shaping students' personal growth and development.

4. CONCLUSION AND RECOMMENDATIONS

The following were the conclusions drawn from the findings:

Technology education has significant relationship in students' skills development. Therefore, the null hypothesis was rejected. Technology education is highly valued and motivates students to learn more effectively.

Technology education has a significant relationship with students' personal growth. Therefore, the null hypothesis was rejected. This means that proper management of technology related components in schooling will promote personal growth.

In light of the conclusion drawn from the study of the role of technology education in students' skill development and personal growth among grade 9 students of Majada In

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 10| Issue: 8| August2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

Integrated School, the following recommendations have been provided:

1. Technology education should be enhanced by providing a state-of-the-art classroom.
2. Implementation of curriculum in all learning areas should be technology-based.
3. It is recommended that the curriculum's technology and livelihood education competencies be integrated with skills related to goal setting, problem-solving, critical thinking, and collaboration.

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