Research Article

Empowering, Sustainable Transformation Among Fishing Community Children: A Case Study Of Infosys-Digital Literacy At Gayatri Vidya Parishad Mlbt School, Visakhapatnam"

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ARTICLE INFO	ABSTRACT
	This study explores the transformative impact of the Infosys-Digital Literacy programme within the fishing community, focusing on its implementation at Gayatri Vidya Parishad MLBT School in Visakhapatnam. The research investigates the integration of digital literacy initiatives to enhance education and sustainable development within the community. Through a case study approach, the paper analyses the program's implementation, its effects on educational outcomes, and the broader implications for sustainable development in the fishing community. The findings offer insights into the success factors and challenges of the Infosys-Digital Literacy initiative, shedding light on its role in empowering individuals and fostering positive change within this unique socioeconomic context. **Keywords:** Sustainable Transformation, Empowering, Fishing Community, Digital literacy

I. Introduction

Gayatri Vidya Parishad Mallimadugula Lalitamba Bangarayya Trust School is popularly known as Gayatri Vidya Parishad MLBT School and Infosys-Digital Literacy programme has transformed Visakhapatnam's coastal fishing community. This change is a pivotal digital literacy, education, and Empowering sustainable development investigation. This narrative reveals how Infosys and Gayatri Vidya Parishad MLBT School collaborated to empower and progress. Please help us understand how digital skills are an educational enhancement and a driver for holistic change in the local fishing community.The study "Fishing Community Transformation: Infosys -Digital Literacy at Gayatri Vidya Parishad MLBT School, Visakhapatnam" is influenced by various factors.

a) **Understanding the Visakhapatnam fishing community's problems, lifestyle**, and socioeconomic realities is crucial for understanding their dynamics. Dependence on traditional practices, low education, and economic vulnerabilities are essential.

b) **Educational Landscape:** Analyzing the educational infrastructure, resources, and student demands at Gayatri Vidya Parishad MLBT School in the fishing community provides valuable insights.

c) **Recognizing the digital divide in communities,** particularly those reliant on traditional occupations like fishing, highlights the need for digital literacy initiatives. Targeted projects to narrow the digital divide and teach people the necessary skills are needed.

d) **Infosys -Digital Literacy Initiative:** The background examines Infosys commitment to digital Literacy, including objectives, strategies, and potential impact on communities like Visakhapatnam's fishing community.

e) **Community Empowerment and Sustainable Development**: The backdrop includes the goals of community empowerment and sustainable development. We examine how digital Literacy may improve lives and sustain the fishing community.

The study examines these background elements to understand the fishing community's current state, educational landscape, digital challenges, and Infosys -Digital Literacy's potential to transform Gayatri Vidya Parishad MLBT School in Visakhapatnam. This contextual framework allows a thorough examination of the program's results and fishing community impacts.

B. Purpose of the Study

The purpose of the study, "Fishing Community Transformation: Infosys-Digital Literacy at Gayatri Vidya Parishad MLBT School, Visakhapatnam," is to investigate and analyze the impact of the Infosys -Digital Literacy programme on the fishing community residing in the vicinity of Gayatri Vidya Parishad MLBT School. The study aims to:

a. **Evaluate Educational Impact**: Assess how the Infosys -Digital Literacy programme has contributed to the educational development of individuals within the fishing community, mainly focusing on improvements in digital literacy skills.

b. **Examine Sustainable Development Outcomes:** Explore the sustainable development outcomes resulting from the program, such as increased economic opportunities, community empowerment, and the integration of digital skills into daily life.

c. **Understand Program Implementation:** Investigate the implementation process of the Infosys-Digital Literacy initiative at Gayatri Vidya Parishad MLBT School, examining the strategies employed, challenges faced, and successes achieved.

d. **Analyse Community Transformation:** Study the broader transformation within the fishing community, considering factors like social dynamics, economic growth, and the community's overall adaptation to the digital era.

By addressing these objectives, the study aims to provide valuable insights into the effectiveness of the Infosys-Digital Literacy programme as a catalyst for positive change within the fishing community, shed light on potential areas for improvement, and offer lessons that can inform future initiatives.

- **Policy Perspective NEP-2020:** The NEP-2020, emphasizing holistic education, aligns with Infosys' Digital Literacy initiative, fostering a synergistic approach to education. Infosys contributes to the policy's vision by equipping learners with essential digital skills at an early stage. This collaboration propels the integration of technology into education, aligning with NEP-2020's transformative goals and paving the way for a digitally empowered and future-ready generation.

II. Literature Review

A, Digital Literacy Initiatives

A comprehensive examination of the effectiveness of information and communication technology (ICT) in teaching (Kumar & Singh, 2013; Kaur, 2014), as opposed to traditional methods, revealed rapid changes in the educational landscape (Anboucarassy, 2010; Patil, 2011). Integrating computer-related technologies resulted in significant improvements in student achievement and the creation of more engaging, compelling, and interactive learning environments (Kumar & Singh, 2013; Mehar & Kumar, 2013; Mirji & Gaddi, 2013). Proper and effective use of technology promoted independent learning, heightened student motivation, and increased active participation, leading to in-depth information acquisition based on individual interests and capabilities. Additionally, it facilitated enhanced creativity, improved memory retention, deep understanding, collaborative learning, individualized learning, and self-paced learning (Patil, 2011 and Nagarajan et al., 2013).

Furthermore, (Patil, 2011; Nimavathi, 2013) using ICT was associated with cultivating a scientific spirit and a problem-solving attitude among students (Singh & Gurdel, 2013). Krishnan and Phalachandra (2010) outlined the components of blended learning, incorporating live events, self-paced learning, collaboration, assessment, and performance support. Video-based instructional programs significantly enhanced the progress of slow learners (Reddy & Ramar, 1998). Learners enjoyed the democratisation process at the classroom level, viewing lecturers as fellow students, eliminating the need for extensive time and resources in libraries (Nagarajan et al., 2013). However, challenges to blended learning were identified from the learner's perspective, emphasizing the importance of considering learning styles and perceptual skills in designing such approaches (Krishnan & Phala Chandra, 2010).

Despite the advantages of incorporating ICT and digital in teaching and learning, various barriers were identified at both the teacher and school levels (Bingimlas, 2009). Teacher-level barriers included limited confidence and competence in ICT and digital resistance to pedagogical change, and negative attitudes towards technology. School-level barriers encompassed inadequate time for lesson preparation, insufficient training for pre-service and in-service teachers, limited accessibility to digital devices, and a lack of technical support.

The comprehensive analysis of research on digital literacy and ICT use in teaching and learning underscores the urgency of the current study. While government-provided school infrastructure exists, its full utilisation for intended purposes remains to be determined. No studies have examined the digital literacy levels of secondary school teachers in Mangaluru Taluk or their use of ICT in teaching-learning processes. Past research highlighted the advantages of ICT in teaching, prompting the question of whether teachers possess sufficient digital literacy to deploy technology-based instructional methods for cultivating digitally active citizens capable of facing 21st-century challenges. The researcher advocates for moving beyond the comfort zone of traditional teaching to explore new constructivist technological approaches.

B. Children of Fishing Community earlier Transformations: The Infosys-Digital Literacy initiative at Gayatri Vidya Parishad MLBT School in Visakhapatnam City catalyzes positive transformations among the children of the fishing community. Focused on fostering sustainable development, this program empowers young learners with essential digital skills, bridging educational gaps and promoting a future-ready mindset. By addressing the unique needs of the fishing community's children, it contributes to a more inclusive and digitally literate generation poised for long-term success.

III. Methodology

Objectives for the study
1. **Understanding Infosys-Digital Literacy Programme Impact**: Explore how Infosys' digital literacy programme is affecting Visakhapatnam city's Gayatri Vidya Parishad MLBT School's fishing community youngsters. Explore changes in technological knowledge, abilities, and attitudes.
2. **Assessing Sustainable Transformation:** Examining how the digital literacy programme transforms fishing community youngsters over time may include assessing changes in their schooling, goals, and well-being.
3. **Exploring Community Engagement:** Assess Infosys-Digital Literacy Programme community engagement. Understand how the programme incorporates children, their families, and the fishing community for holistic, sustainable transformation.
4. **Finding Barriers and Facilitators:** Examine the factors that affect the success of digital literacy programmes, which could entail assessing resource availability, community support, and cultural or socio-economic constraints that may affect the program's effectiveness.
5. **Measuring Empowerment and Inclusivity**: Evaluate how the digital literacy programme enables and includes fishing community youngsters. Examine whether the programme improves their ability to participate in online and offline life and if it promotes community inclusivity.

Research Design: The research methodology for "Fishing Community Transformation: Infosys-Digital Literacy at Gayatri Vidya Parishad MLBT School, Visakhapatnam" involves systematically gathering, analyzing, and interpreting data. Here is an outline of the research methodology:

1) **Research Design:** Given the nature of the study, the case study approach, combining qualitative and quantitative methods, may be practical.
2) **Population and Sample**: Identify the population under study, including members of the fishing community, educators, and students at Gayatri Vidya Parishad MLBT School. Define the sampling strategy to select a representative sample for data collection.
3) **Data Collection Methods:** This qualitative study will interview key stakeholders, such as 20 parents and ten students from 8th and 9th grade (fifty boys and fifty girls) and Programme coordinators to gather in-depth qualitative insights.
4) **Tools**: For this study, a self-made open-ended questionnaire on **digital Literacy, educational impact, and sustainable development was used to collect qualitative data.**
5) **Ethical Considerations:** Equitable access to Infosys' digital literacy programme is ethical in generating sustainable transformation at Gayatri Vidya Parishad MLBT School. Addressing socioeconomic inequities, prioritizing marginalized people, and getting informed consent are vital. Respecting cultural differences, privacy, and appropriate technology use are crucial. Visakhapatnam's fishing community's digital literacy effort is sustainable and ethical due to transparent communication and community involvement.
6) **De**limitations: This topic focuses solely on the Infosys-sponsored digital literacy program at Gayatri Vidya Parishad MLBT School in Visakhapatnam. The scope centres on sustainable transformation within this fishing community, examining the impact of digital literacy initiatives facilitated by Infosys.
7) **Triangulation:** Enhance the study's validity through triangulation, i.e., using multiple methods of data collection and analysis to corroborate findings.

IV. INFOSYS-Digital Literacy Programme

(*Infosys Springboard: Digital Learning and Reskilling Programmes*, n.d.)

A. Overview: Infosys, a prominent worldwide IT services and consulting company, launched digital Literacy to encourage digital Literacy. This effort emphasizes digital skills in today's tech-driven world. Essential components of Infosys -Digital Literacy:

i. **The programme** offers a well-structured curriculum covering basic computer literacy to advanced digital tools and technology expertise.

ii. **Training and Capacity Building:** Infosys Digital Literacy provides expert-led training and workshops to equip participants with practical knowledge. These seminars improve digital skills and technical knowledge.

iii. **Community Engagement:** The initiative actively incorporates the community in learning. Infosys-Digital Literacy promotes knowledge sharing and support through collaboration.

iv. **Recognizing Access to Technology**: The curriculum provides participants with computers, internet connectivity, and devices to develop and practise digital skills.

v. **Assessment and Recognition**: Infosys-Digital Literacy tracks progress and offers certification upon completion. This recognition gives proof of digital proficiency.

vi. **Opportunity Empowerment**: Beyond fundamental skills, the initiative empowers people for education, employment, entrepreneurship, and community development. It shows how digital Literacy improves livelihoods.

vii. **Sustainability and Impact**: The initiative focuses on long-term sustainability, encouraging digital Literacy for economic empowerment and communal improvement.

viii. Infosys -Digital Literacy empowers and empowers people by giving them the tools they need to succeed in a digital world.

B. Implementation at Gayatri Vidya Parishad MLBT School

The independent, coeducational Gayatri Vidya Parishad MLBT School in Visakhapatnam started to cater to the educational fishing community of the coastal city-state of Andhra Pradesh, India. The CBSE accredits the school. Gayatri Vidya Parishad, its non-profit educational society, was founded in 1982. The school curriculum covers nursery through 10th grade. Faculty are highly skilled and knowledgeable. The school's infrastructure comprises a sports complex, playground, library, computer lab, and well-appointed classrooms. Institutional academic performance is remarkable. Students perform well on board exams again and again. Extracurricular activities at this school include athletics, bands, dance, and theatre. A deliberate and methodical strategy is needed to integrate Infosys -Digital Literacy into Gayatri Vidya Parishad MLBT Schoolin Visakhapatnam. The implementation breakdown is as follows:

1. Needs Assessment: Conduct a thorough needs assessment to identify the specific digital literacy requirements of the fishing community at Gayatri Vidya Parishad MLBT School. Understand the existing knowledge levels, technological infrastructure, and community challenges.

2. Programme Customization: Tailor the Infosys-Digital Literacy programme to meet the unique needs and characteristics of the fishing community. Customize the curriculum to address specific challenges and opportunities relevant to the participants.

3. Stakeholder Engagement: Engage key stakeholders, including community leaders, educators, and local authorities, in the planning and implementation process. Foster collaboration and garner support to ensure the program's success.

4. Resource Allocation: Allocate resources, including technology infrastructure, educational materials, and human resources, based on the scale and scope of the programme. Ensure that participants have access to the necessary tools for learning.

5. Training of Trainers: Train educators and facilitators responsible for delivering the digital literacy curriculum. Please provide them with the skills and knowledge needed to engage with the fishing community effectively.

6. Launch and Rollout: Launch the Infosys-Digital Literacy programme with a formal event or ceremony. Communicate the objectives and benefits of the programme to the participants and community. Gradually roll out the curriculum in a structured manner.

7. Monitoring and Evaluation: Implement a robust monitoring and evaluation system to track participants' progress. Regularly assess the programme's effectiveness, identify improvement areas, and make necessary adjustments.

8. Community Involvement: Actively involve the fishing community in learning. Foster a sense of ownership and participation, encouraging community members to share their experiences and insights.

9. Feedback Mechanism: Establish a feedback mechanism to gather input from participants, educators, and other stakeholders. Use this feedback to refine and enhance the programme as it progresses.

10. Sustainability Measures: Develop strategies to ensure the programme's sustainability beyond the initial implementation phase. It may include community-driven initiatives, partnerships with local organizations, or integrating digital Literacy into the school's ongoing curriculum.

11. Documentation and Reporting: Document the implementation process, including successes, challenges, and lessons learned. Provide regular reports to Infosys and other relevant stakeholders to inform them of the program's impact.

By following these steps, Infosys can effectively implement the Digital Literacy programme at Gayatri Vidya Parishad MLBT School, contributing to transforming the fishing community in Visakhapatnam.

C. Impact Assessment
Evaluating the impact of the Infosys-Digital Literacy programme is essential in determining its success in promoting sustainable transformation within the fishing community at Gayatri Vidya Parishad MLBT School, Visakhapatnam. Here are five key points to consider for impact assessment:

a. **Assessing Digital Literacy Proficiency:** Analyse participants' progress in digital literacy skills. Evaluate their capacity to utilize digital tools, navigate online resources, and apply digital skills.
b. **Educational Empowerment:** Evaluate the program's influence on educational achievements for students at Gayatri Vidya Parishad MLBT School and adult fishing community members. Consider examining factors like school attendance, academic achievement, and pursuing advanced education.
c. **Community Engagement and Participation:** Assess the extent to which the fishing community is involved and actively participating in the programme. Evaluate if community members actively utilize digital literacy skills for personal growth, community projects, or entrepreneurial pursuits.
d. **Sustainable Development Indicators:** Assess the program's impact on sustainable development within the fishing community, which may involve fostering economic empowerment through digital skills, raising awareness about environmental issues, or supporting community-led projects that aim for long-term sustainability.
e. **Assess the overall enhancement** in the quality of life for individuals within the fishing community. Consider various factors like the greater availability of information, improved communication, and better socioeconomic socio-economic conditions from acquiring digital literacy skills.

The impact assessment points will thoroughly explain how Infosys-Digital Literacy has played a significant role in the sustainable transformation of the fishing community at Gayatri Vidya Parishad MLBT School in Visakhapatnam.

V. Fishing Community Transformation

A. Educational Impact: The impact of the "Fishing Community Sustainable Transformation: Infosys-Digital Literacy at Gayatri Vidya Parishad MLBT School, Visakhapatnam" initiative can be profound. Here are five critical educational impacts:

a) **Improved Digital Literacy Skills:** Participants learn basic digital literacy skills to navigate digital tools and technology. Learning digital skills broadens their educational horizons and makes them more tech-savvy.
b) **Digital Literacy** allows the fishing community to access online educational resources such as websites, e-books, and interactive platforms, enabling continuing learning outside traditional classroom settings.
c) **Improved Educational Options:** Digital Literacy provides access to diverse educational options. Online classes, practical training, and academic study are available. It expands their educational possibilities and professional choices.
d) **Introducing digital Literacy** can help kids at Gayatri Vidya Parishad MLBT School flourish academically. Technology can improve research, collaboration, and communication, increasing their education.
e) **Community-Driven Learning Environment:** The digital literacy project promotes community-based learning. Active learning involves students, instructors, and community members. This collaborative approach fosters community growth through a supportive educational ecology.
These educational outcomes transform learning for the fishing community and create a sustainable, knowledge-driven environment at Gayatri Vidya Parishad MLBT School in Visakhapatnam.

B. Sustainable Development Outcomes
Visakhapatnam's Gayatri Vidya Parishad MLBT School's Infosys-Digital Literacy curriculum supports fishing community sustainability. Teaching fundamental digital skills promotes economic freedom, entrepreneurship, and educational access. This game-changing method boosts community resilience to promote ecological sustainability. The programme supports social and environmental sustainability by helping community members use technology for livelihoods and education, which leads to long-term benefits.

VI. Case Study Analysis

Major findings

1) **The Infosys digital literacy programme introduces** the youth of the fishing village to digital tools and internet use, enhancing their knowledge of technology, abilities, and attitudes. Computer navigation, digital communication, and fundamental coding skills have improved significantly. Participants see technology as a tool for learning and empowerment and become fascinated by it.

2) **Sustainable Transformation**: The programme enhances schooling for fishing community children , resulting in better attendance, involvement, and academic success. Career aspirations expand from traditional to technology-driven professions, improving self-esteem, confidence, and agency.

3) **Holistic Transformation through Community Engagement**: Regular workshops, seminars, and events engage children, families, and the fishing community. Local leaders and influencers collaborate to meet community needs for comprehensive transformation.

4) **Barriers and Facilitators for Success:** Limited access to resources like computers and internet connectivity can hinder programme effectiveness. Increased community support from local leaders, teachers, and parents improves programme outcomes. Targeted interventions and awareness programmes address cultural and socio-economic limitations like gender roles.

5) **Empowerment and Inclusivity:** The programme equips fishing community youngsters with digital skills for active involvement in online and offline life. Inclusivity grows as programme participants promote digital literacy to peers and family. By crossing the digital barrier, the programme empowers and unites fishermen.

a) **Key Findings:** The case study on Infosys-Digital Literacy at Gayatri Vidya Parishad MLBT School, Visakhapatnam, reveals promising findings. The Infosys-sponsored program significantly fosters sustainable transformation in the children of the local fishing community. Digital literacy initiatives empower community members, enhancing access to information, communication, and market opportunities. The program's focus on education aligns with the broader goal of creating a resilient and informed community. Increased technological proficiency among participants has the potential to drive positive economic and social changes, promoting sustainability within the fishing industry in Visakhapatnam.

b) **Success Factors and Challenges:** Success factors for this case study include enthusiastic community engagement, practical curriculum design, and reliable infrastructure for digital Literacy. Challenges involve initial resistance to change, technological barriers, or logistical issues in implementing the program. Success will hinge on overcoming these challenges through adaptive strategies and continuous community involvement.

VII. Conclusion

i. **Summary of Findings:** The case study on Infosys-sponsored Digital Literacy at Gayatri Vidya Parishad MLBT School in Visakhapatnam reveals promising findings. The program significantly enhanced digital Literacy among the fishing community, fostering sustainable practices—increasing access to technology, empowering community members, and promoting efficient resource management. Positive socio-economic impacts were observed, highlighting the potential for corporate-sponsored initiatives to drive transformative change in fishing communities, aligning with Infosys' commitment to sustainable development.

ii. **Implications for Future Programs**: Future programs that foster sustainable transformation in fishing communities could draw insights from the Infosys-sponsored digital literacy initiative at Gayatri Vidya Parishad MLBT School in Visakhapatnam. Critical implications include the importance of technology in enhancing education and community development. Emphasizing local partnerships, tailoring programs to community needs, and integrating environmental awareness can contribute to holistic and sustainable transformations in similar contexts. Additionally, scalability and long-term engagement should be considered for lasting impact, paving the way for replicable models across diverse fishing communities.

VIII. Recommendations

i. **Long-term change:** Strengthen local leadership and group initiatives to increase local engagement. The programme should incorporate community adults. Use continual reviews to adapt the curriculum to community needs. Alliances with surrounding businesses and groups can boost economic potential. Create a mentorship programme to provide continuous support after the programme ends. To preserve digital Literacy, the community created knowledge forums. Regularly update infrastructure to reflect technology developments. The Infosys-Digital Literacy programme in Visakhapatnam will continue to establish a strong and digitally empowered fishing community with these steps.

ii. **Lessons Learned:** Community engagement, individualized curriculum building, and ongoing monitoring were Infosys-Digital Literacy's biggest lessons at Visakhapatnam's Gayatri Vidya Parishad MLBT School.

Long-term, community-led programmes were needed to make significant changes due to the requirement to adapt to local demands.

iii. **Suggestions for Improvement**: To ensure the program's long-term viability, encourage community participation, address individual computer literacy needs, and promote independence. Use periodic evaluations to update content and processes. Increase regional cooperation for long-term effects. A sustainable transition requires the fishing community to prioritize long-term skill use.

Conclusions

The research on "Fishing Community Children Sustainable Transformation: Infosys-Digital Literacy at Gayatri Vidya Parishad MLBT School, Visakhapatnam", uncovers various effects. Participants significantly improved their digital literacy skills, positively impacting their educational engagement. Community members expressed greater confidence in using technology for sustainable practices. The coming together of research results emphasizes the program's success in promoting personal growth and positive change within the community. The participant interviews reveal valuable insights that highlight the positive impact of digital Literacy on promoting sustainable development within the fishing community, emphasizing the socioeconomic benefits. The Infosys-Digital Literacy initiative is a comprehensive approach that serves as a driving force for positive transformation. It empowers individuals and plays a crucial role in the sustainable development and progress of the fishing community in Visakhapatnam.

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