

THE EFFECT OF UPCYCLING WOOD TRAINING PROGRAMME ON CREATIVITY, SKILLS, AND PSYCHOLOGICAL EMPOWERMENT OF RURAL WOMEN



AUTHORS

DR. L. VASANTHI MEDONA, ICM

DR. S. JOSEPHINE

ASST. PROF. J. RAWOOFU NISHA

ASST. PROF. S. AROCKIA REENA



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AUTHORS

DR. L. VASANTHI MEDONA, ICM

M.Sc., M.Ed., NET., Ph.D., SDTB
Principal

DR. S.JOSEPHINE

M.A., M.P.Ed., M.Phil., Ph.D., SLET, CNIS
Director of Physical Education

ASST. PROF. J. RAWOOFU NISHA

M.Sc.(Math), M.Sc.(Psy), M.Ed., NET, MBA(HR), (PhD)
Assistant Professor of Mathematics

ASST. PROF. S. AROCKIA REENA

M. Sc(Math)., M.phil(Math)., M. Ed., NET(Edn)
Assistant Professor of Mathematics

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RAJPATHIPPAKAM,
No:3 E, North Street, Kurusady,
Nagercoil - 629 004

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CHAPTER - I

INTRODUCTION AND CONCEPTUAL FRAMEWORK

1.1 Introduction

“The responsible citizens, particularly women, are all the more important for the nation as their thoughts, the way of working, and value system will lead to the fast development of a good family, good society, and ultimately a good nation.”

— *Dr. A.P.J. Abdul Kalam*

In rural India’s evolving landscape, women’s advancement through skill development represents a beacon of significant transformation. The nascent domain of upcycling in India presents a unique opportunity to investigate the intersection of environmental sustainability and women’s empowerment. This development unfolds against the backdrop of a nation rapidly adopting policies for reskilling and upskilling, addressing the needs of an ever-changing global economy. Programs like the National Skill Development Mission, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), and the Skill India campaign highlight the government’s commitment to nurturing a culture of continuous learning and adaptability. In this milieu, upcycling-especially within woodworking programs-stands out as a key catalyst for sustainable growth and the empowerment of women in rural settings.

In numerous developing nations, rural women face constrained economic opportunities and societal hurdles that hinder their personal advancement and well-being (World Bank, 2021). Upcycling, the creative transformation of waste materials, provides a viable path for empowering these women by equipping them with skills that generate income and promote individual development (Dhamija et al., 2020). In India, a country steeped in a rich heritage of woodworking and artisanship, the practice of upcycling wood not only resonates with age-old customs but also advocates for environmental conservation (Bridgens et al., 2018).

The training initiatives scrutinized in this research aim to augment the artistic talents of rural women, empowering them to repurpose discarded wood into valuable, artistic commodities. Such endeavors encourage a spirit of innovation and self-sufficiency. A focal point of this study is the psychological empowerment of these women, which includes their sense of self-efficacy and access to resources (Pandey, 2016). Participation in wood upcycling workshops may bolster rural women's autonomy and mastery over their surroundings, elements vital to their empowerment and overall welfare. Strategies like the National Skill Development Mission, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), and Skill India have been instrumental in advancing skill development and lifelong education, mirroring the nation's pledge to improve employability and entrepreneurial skills, particularly among rural women

(Ministry of Skill Development and Entrepreneurship, 2023).

Worldwide, rural women face enduring disparities in accessing resources, knowledge, and services, stemming from deep-seated rights inequalities. Despite governmental pledges to gender parity, the actualization of even basic benchmarks remains elusive. Service inaccessibility disproportionately hinders women and girls, obstructing educational and other prospects. A significant portion of the illiterate population, especially in rural areas, comprises women (Anderson, 2012).

The universal division of labor by gender varies in the extent of women's involvement in subsistence tasks across different cultures. The notion of gender is pivotal in dialogues about empowering women and rectifying societal imbalances. Familial structures frequently maintain women's subordinate positions, imposing societal limitations on their life choices. Poverty intensifies these issues, highlighting the necessity of women's rights to gainful employment as a means to bolster autonomy and community engagement (Ramanathan, 2004).

1.2 Upcycling

Upcycling, the innovative process of repurposing discarded materials into new, valuable products, has seen a surge in popularity (Prendergast, 2018). This trend provides a sustainable method for reducing landfill waste and conserving resources (Baldini et al., 2021). Beyond environmental advantages, upcycling offers empowering

opportunities for individuals, especially those facing socioeconomic obstacles.

Globally, rural women often have limited access to education, employment, and income opportunities (Farid et al., 2020), which can impede their economic autonomy and overall well-being. Wood upcycling training programs present a viable solution to these challenges. These programs can empower rural women by:

- ***Enhancing Creativity:*** Upcycling requires creative problem-solving and ingenuity, promoting innovative thinking and artistic expression (Ursprung et al., 2020).
- ***Developing Valuable Skills:*** Participants gain practical woodworking skills, tool handling, and upcycling techniques, enhancing their employability and potential for income generation (Bilge et al., 2019).
- ***Boosting Psychological Empowerment:*** Learning new skills, crafting unique products, and possibly earning income can foster a sense of achievement, self-confidence, and agency (Sanchez-Hernandez et al., 2021).

Upcycling's creative reuse of waste materials into new, valuable products has become a key strategy in combating environmental degradation and unsustainable waste management practices (Prendergast & Singh, 2019). By diverting waste from landfills and prolonging material lifespans, upcycling supports a circular economy and reduces environmental impact (Baldini et al., 2021).

In rural development, upcycling offers a distinctive opportunity to empower women who face challenges like limited access to education, employment, and income generation (Farid et al., 2020). Wood upcycling training programs can provide rural women with essential skills in woodworking, carpentry, and design, promoting not only economic independence but also creative expression and a sense of achievement.

1.3 Background and Context

The practice of upcycling has become increasingly prominent as a sustainable method for waste reduction and resource preservation (Prendeville & Sanders, 2014). Upcycling transforms unwanted materials into new products with enhanced value, fostering environmental stewardship and alleviating landfill pressure (Baldini et al., 2018). This approach is especially promising in developing regions where resources are scarce and waste management systems are limited (Ghiat et al., 2021).

Upcycling aligns with the global shift towards sustainable practices. Research, such as that by Baldini et al. (2021), underscores upcycling's environmental benefits, including conserving resources, lowering greenhouse gas emissions, and reducing landfill waste. In an era of climate change and dwindling resources, upcycling presents a viable and inventive solution.

Moreover, rural women encounter substantial socio-economic barriers. The World Bank (2021) reports that they are disproportionately affected by poverty, limited

educational and skill development opportunities, and restricted workforce participation. Wood upcycling training programs can help mitigate these issues by equipping rural women with the skills and knowledge to earn income, gain economic independence, and enhance household welfare (Farid et al., 2020).

Existing studies affirm the positive impact of upcycling initiatives on women's empowerment. For example, research by Ratna Suhartini and Firdita Istighfari (2017) on an Indonesian upcycling training program showed significant improvements in participants' skills and product quality. This indicates that wood upcycling training programs can be an effective means of economically empowering rural women and enriching their sense of fulfillment and creative self-expression.

1.3.1 Theoretical Framework

This research is anchored in theoretical frameworks pertinent to creativity, skills development, and psychological empowerment to assess the potential impact of the upcycling wood training program on rural women.

- ***Creativity:*** Upcycling is recognized as a mode of creative expression and problem-solving. This study will investigate how the program cultivates creative thinking skills by applying Amabile's (1990) componential model of creativity, which underscores the importance of expertise, intrinsic motivation, and a conducive creative environment.

- ***Skills Development:*** The training program is designed to endow participants with woodworking and upcycling skills. Bandura's (1977) social cognitive theory offers a lens to comprehend skill acquisition through mechanisms of social learning, observation, and hands-on practice.
- ***Psychological Empowerment:*** The contribution of the program to the psychological empowerment of rural women will be examined through frameworks such as Sen's (1999) capability approach. This approach concentrates on broadening individuals' choices and enhancing their capabilities. The program's capacity to bolster self-efficacy, autonomy, and a sense of purpose is in harmony with this theoretical perspective.

1.4 Women's Empowerment and Skill Development

Empowerment of women is essential for enhancing their participation in society. According to Purushothaman (1998), true empowerment of women can only be achieved by dismantling existing power structures with inherent class, caste, and gender biases. The International Conference for Population and Development (1994) emphasized that women's empowerment and autonomy are crucial for sustainable development. Empowerment is not a commodity to be given; it must be acquired, exercised, and sustained (Pillai, 1995).

A well-designed education program that applies skills and knowledge immediately and adopts a problem-solving approach can raise women's awareness of oppressive

structures that maintain their powerlessness. The educational system must equip women with the tools to understand and analyze the social, political, and economic systems that govern and oppress their lives. Thus, education for rural women should extend beyond the basic 3 R's (reading, writing, and arithmetic) to encompass education for personal, social, and economic development (Ram, 1991).

Skill development is a key driver of economic and social empowerment, particularly for women. It enables better job opportunities, higher income, and financial control, which are crucial for societal and economic influence. Research indicates that skill development projects have positively impacted rural women in various ways. For instance, Roy et al. (2018) emphasizes the need for training women to address their financial challenges. Morrisson & Jütting (2004) and Belwal et al. (2011) highlight the significance of skill training for economic growth in developing countries, affecting women's financial independence, particularly in starting small businesses or engaging in financial activities.

Chompa (2022) suggested that skill acquisition leads to financial independence by improving the social status of rural women and enhancing community well-being. Bennett & Sung (2013) acknowledge the importance of financial independence for women, while Said (2019) discusses cultural barriers and lack of support systems that impede skill development. Furthermore, Hordofa & Badore (2023) demonstrated how skill development initiatives can benefit

family income and education. Sidani et al. (2015) reveal that new skills can alter perceptions of women's leadership capabilities, promoting gender equality.

Skill development programs not only aid individual women but also benefit entire communities. Kapoor (2019), Hidayati et al. (2018), and Olabisi (2015) found that skill development for women strengthens local economies, improves business, and contributes to community efforts, including corporate social responsibility initiatives through entrepreneurship, which also creates jobs.

1.4.1 Status of Women

Persistent inequality and vulnerability of women persist across social (health, education), economic, and political sectors (Sahay, 1998). A notable disparity is the sex ratio, which has declined in India from 972 women per 1000 men in 1901 to 933 women per 1000 men in 2001. Globally, the ratio is slightly skewed with 98.6 women for every 100 men (Rao & Krishna, 2001). Factors such as the infant mortality rate, which stood at 72 per 1000 live births in rural areas in 2001 (Registrar General, 2002), contribute to this decline.

Educational opportunities are also unequal. In 2002, gross school enrolment for female children in India was only 62% (UNO, 2002), and the adult literacy rate for women was 54.28%, compared to 75.96% for men in 2001 (Tamil Nadu State Resource Centre, 2003). These statistics underscore the systemic discrimination against women in all societal domains.

1.4.2 Theories of Empowerment

Theorists like Zimmerman (2001) and Hall (1990) have articulated various theories of empowerment, which help us comprehend the fundamentals and processes of empowerment. Zimmerman, as cited by Fetterman (2001), describes empowerment processes as those that involve gaining control, acquiring necessary resources, and critically understanding one's social environment. Empowerment is achieved when individuals develop skills that enable them to become independent problem-solvers and decision-makers.

Stromquist (1993) identifies four components of empowerment: cognitive, psychological, economic, and political. The cognitive component pertains to women's understanding of their subordination and its causes. The psychological component involves developing feelings that aid personal and societal improvement and the belief in the success of change efforts. Economic empowerment allows women to engage in productive activities for financial autonomy. Political empowerment involves the ability to analyze the environment in political and social terms.

1.4.3 Psychological Empowerment in the Workplace

Psychological empowerment is defined as intrinsic task motivation that reflects a sense of self-control and active involvement in one's work role (Seibert et al., 2011). It comprises four cognitions: meaning, self-determination, competence, and impact. Meaning aligns one's work role with personal beliefs and values. Self-determination is the

autonomy over one's actions. Competence is the belief in one's ability to perform work activities successfully. Impact is the belief in influencing outcomes in the work unit (Seibert et al., 2011).

1.4.4 Psychological Empowerment and Development

Zimmerman (2000) views empowerment as a multilevel construct analyzed at individual, organizational, and community levels, encompassing intrapersonal, interactional, and behavioral components. The intrapersonal component includes self-perceptions of self-efficacy and competence. The interactional component relates to one's relationship with the environment and others. The behavioral component involves actions taken to empower oneself or others.

1.4.5 Women Entrepreneurship and Empowerment

Women entrepreneurship is a vital instrument for empowerment, providing access to resources, control over these resources, actual ownership, and the power to make and act upon decisions. In a populous nation like India, where unemployment is a significant issue, entrepreneurship can be an effective means for women to empower themselves. It leads to equal participation in social, economic, political, and cultural decision-making. By fostering changes in societal attitudes and reducing discrimination, women entrepreneurship is crucial for sustainable development. To this end, barriers to the growth of women entrepreneurs must be eliminated, allowing full participation in business ventures.

Today, women are entering and excelling in various professions, including trade, industry, and engineering. Rural women in India are increasingly engaging in small-scale entrepreneurship programs, using their skills and free time to establish and sustain businesses. These entrepreneurial activities not only generate income but also enhance decision-making capabilities, contributing to overall empowerment and family income while managing household responsibilities.

1.4.6 Challenges Faced by Rural Women

Rural women encounter numerous obstacles that impede empowerment and access to resources. Educational deficits and low literacy levels hinder personal development and job prospects (Fabiya & Akande, 2015). Challenges such as land ownership, financial constraints, and technological barriers compound the difficulties of rural living. Access to healthcare remains a significant issue due to factors like distance, transportation, and inadequate health insurance (Zimmermann et al., 2016).

Cultural norms and gender roles often restrict rural women's actions, affecting their reproductive health support. Financial and skill limitations, along with cultural barriers, make business ventures challenging (Ghouse et al., 2021). In agriculture, the lack of supplies, market access issues, and gender discrimination leads to reduced productivity and financial instability (Anning-Dorson, 2023). Additionally, inadequate public services, poor

infrastructure, and gender-biased social norms hinder rural women's empowerment (Ward et al., 2020).

Despite these challenges, rural women entrepreneurs remain key drivers of social and economic progress (Nso, 2022). Tailored financial services and products, such as microinsurance, can enhance their financial empowerment (Fletschner & Kenney, 2014). Leveraging technology and building strong networks may help rural women overcome these barriers (Osei & Zhuang, 2020).

1.5 Women's Empowerment and Creativity

Creativity, as defined by Franken (2006), is the ability to generate or recognize ideas, alternatives, or possibilities useful in problem-solving, communication, and entertainment. In the workplace, fostering a culture of creativity is essential for innovation and success. Strategies to empower women's creativity include:

- ***Cultivating an Inclusive Environment:*** Creating a workplace culture that values diversity and encourages open communication and collaboration.
- ***Providing Resources and Tools:*** Ensuring access to resources, tools, and technologies that enhance creative capabilities.
- ***Encouraging Risk-Taking and Experimentation:*** Promoting a culture that views mistakes as learning opportunities.
- ***Promoting Collaboration and Cross-Functional Teams:*** Encouraging collaboration across diverse teams to spark new ideas.

- ***Recognizing and Celebrating Creativity:*** Publicly acknowledging creative contributions and success stories.
- ***Mentoring and Sponsorship Programs:*** Pairing experienced professionals with aspiring women for guidance and career growth.
- ***Professional Development Opportunities:*** Offering workshops and training focused on creativity and innovation.

Empowering women's creativity in the workplace not only benefits the individuals but also the organization, unlocking innovative solutions and driving business success. By encouraging and celebrating unique perspectives and ideas, we foster an environment conducive to growth and innovation.

1.6 Socioeconomic Challenges Faced by Rural Women Globally

Rural women globally encounter numerous socioeconomic obstacles that impede their progress and well-being (Farrington et al., 2017). These challenges include:

Limited Access to Education and Skills Training:

In rural regions worldwide, access to quality education and technical training opportunities, particularly those relevant to upcycling and sustainable practices, is often limited. This educational deficiency poses significant challenges for rural women, hampering their capacity to engage in income-generating endeavors and participate fully in socio-economic development initiatives.

Rural communities are often characterized by long distances to educational institutions, making it difficult for rural women, especially those living in remote areas, to access formal education and skills training programs. Limited transportation infrastructure further exacerbates this challenge, particularly in areas with poor road connectivity and inadequate public transportation services.

Many rural households face economic constraints that prevent them from investing in education and training for their daughters. The costs associated with school fees, uniforms, textbooks, and transportation can be prohibitive for families struggling to meet their basic needs. As a result, girls' education is often deprioritized, leading to lower enrollment rates and higher dropout rates among rural girls compared to their urban counterparts.

Gender norms and cultural beliefs often perpetuate inequalities in access to education and skills training for rural women. Traditional gender roles may prioritize boys' education over girls', reinforcing stereotypes about women's roles as caregivers and homemakers rather than as active participants in the workforce. Moreover, social expectations regarding early marriage and childbearing may further limit girls' educational opportunities, particularly in communities where early marriage is prevalent.

Even when educational institutions are accessible, rural women may face a lack of technical training opportunities relevant to their interests and aspirations, including those related to upcycling and sustainable

practices. Vocational training programs and skill-building initiatives may be limited in scope or focus predominantly on traditional occupations, overlooking emerging opportunities in sectors such as renewable energy, waste management, and eco-friendly entrepreneurship.

In an increasingly digital world, access to information and communication technologies (ICTs) is essential for acquiring new skills and staying competitive in the job market. However, rural areas often lack reliable internet connectivity and access to ICT infrastructure, limiting rural women's ability to participate in online education and training programs and access digital resources for skill development.

Addressing these challenges requires a multi-faceted approach that addresses structural inequalities, invests in inclusive education and training programs, and promotes gender-sensitive policies and initiatives. This includes expanding access to affordable and quality education, providing scholarships and financial assistance to rural girls, promoting community-based training initiatives tailored to local needs, challenging gender stereotypes and cultural barriers, and leveraging ICTs to expand access to educational resources and opportunities. By prioritizing education and skills training for rural women, policymakers, educators, and development practitioners can empower women to unlock their full potential, contribute to sustainable development, and build resilient communities for future generations. This deficiency hampers their

capacity to engage in income-generating endeavors (Farrington et al., 2017).

Restricted Employment Opportunities:

Sociocultural norms and entrenched gender roles often restrict the employment opportunities available to rural women, limiting their ability to participate fully in the labour market and generate income outside the household. These norms perpetuate traditional expectations that prioritize women's roles as caregivers and homemakers, relegating them to unpaid domestic labour and limiting their engagement in economic activities.

Sociocultural norms dictate distinct gender roles within households and communities, assigning primary responsibility for caregiving, household chores, and family management to women. As a result, rural women may be expected to prioritize domestic responsibilities over pursuing paid employment or entrepreneurial ventures, constraining their ability to engage in economic activities outside the home.

Rural women often face barriers to accessing markets for their goods and services due to factors such as geographic isolation, limited transportation infrastructure, and discriminatory market practices. In many rural areas, markets may be dominated by male traders or controlled by middlemen who exploit women's lack of bargaining power, further marginalizing rural women in the informal economy.

Rural women may lack access to financial resources and productive assets such as land, capital, and equipment,

which are essential for starting and expanding businesses. Discriminatory inheritance laws, patriarchal land tenure systems, and limited access to credit and financial services may prevent rural women from acquiring and leveraging assets for economic empowerment, perpetuating their economic dependency on male family members.

Rural women may face social stigma and discrimination in the workplace and marketplace, including harassment, exploitation, and unequal treatment based on their gender. Discriminatory practices and attitudes reinforce traditional gender roles and discourage women from pursuing non-traditional occupations or challenging gender norms, further constraining their economic opportunities and agency.

Limited access to education and skills training programs hinders rural women's ability to access higher-paying jobs, entrepreneurial opportunities, and non-traditional occupations. Without adequate training and technical skills, rural women may be relegated to low-skilled, informal, and precarious employment in sectors such as agriculture, domestic work, and small-scale trading, limiting their earning potential and economic mobility.

Sociocultural norms, such as entrenched gender roles, frequently curtail the employment prospects for rural women, who may be expected to prioritize domestic responsibilities over economic activities (Farrington et al., 2017).

Constrained Access to Resources and Capital:

The scarcity of financial resources and limited access to credit facilities present formidable barriers for rural women aspiring to start or expand their enterprises (Singh et al., 2017). This constraint is particularly pronounced in rural areas where traditional financial institutions are often absent or inaccessible, leaving women entrepreneurs with few options for securing capital.

One of the primary challenges faced by rural women is the lack of collateral to obtain loans from formal financial institutions. In many cases, women do not have land titles or other assets to pledge as security, making them ineligible for loans or credit lines. This limits their ability to invest in their businesses, purchase necessary equipment, or diversify their product offerings.

The absence of financial literacy and business management skills among rural women further exacerbates the problem. Many women lack the knowledge and confidence to navigate the complexities of formal banking systems or to develop comprehensive business plans that meet the requirements of lending institutions.

Women often turn to informal sources of credit, such as moneylenders or informal savings groups, which may charge exorbitant interest rates or impose onerous repayment terms. This perpetuates a cycle of debt and financial insecurity, hindering women's ability to achieve economic independence and prosperity.

The unequal distribution of resources and opportunities exacerbates existing gender disparities in rural communities. Women typically have less access to productive assets, such as land, livestock, or agricultural inputs, limiting their capacity to engage in income-generating activities or entrepreneurial ventures.

These challenges of constrained access to resources and capital requires a multi-faceted approach that combines policy interventions, institutional reforms, and targeted capacity-building initiatives. Efforts to promote financial inclusion, such as the establishment of women-friendly banking services, microfinance programs, and community-based savings and credit schemes, can help bridge the gap and empower rural women to access the resources they need to thrive.

Limited Childcare Options:

Rural women face unique challenges when balancing household responsibilities, childcare duties, and economic pursuits. The absence of adequate childcare services in rural areas can pose a significant hurdle for women aspiring to partake in training programs or pursue income-generating tasks.

Childcare responsibilities often fall disproportionately on women in rural households, limiting their ability to participate in education, training, or employment opportunities outside the home. Without access to reliable childcare services, women may be forced to forego valuable

opportunities for personal and professional development, perpetuating cycles of poverty and gender inequality.

The lack of childcare options can also impact women's ability to engage in agricultural or entrepreneurial activities that require time and concentration. Women may struggle to juggle childcare duties with farm work, artisanal production, or small business management, thereby limiting their productivity and economic potential.

Moreover, the absence of safe and affordable childcare facilities can hinder women's mobility and restrict their access to markets, training centers, or community resources. Women may be reluctant to travel long distances or leave their children unattended, further isolating them from economic opportunities and social networks.

The burden of childcare often limits women's participation in decision-making processes within their households and communities, reinforcing traditional gender roles and power dynamics. This perpetuates a cycle of dependency and disempowerment, hindering women's agency and autonomy in shaping their lives and livelihoods.

These challenge of inadequate childcare services requires comprehensive strategies that recognize the intersectionality of gender, childcare, and economic development. Investments in early childhood education and care infrastructure, including daycare centers, preschools, and community-based childcare initiatives, can provide women with the support they need to pursue education, training, or employment opportunities.

Policies that promote flexible working arrangements, such as telecommuting or job-sharing options, can enable women to balance their caregiving responsibilities with income-generating activities. Empowering women through access to affordable and quality childcare services is not only a matter of social justice but also a critical driver of economic growth, poverty reduction, and sustainable development in rural areas.

1.7 Entrepreneurship

Entrepreneurship is linked to enhanced rural livelihoods, particularly when new businesses enable individuals and families to augment their income and accumulate assets. The correlation between average self-employment income and self-employment rates varies. Stable self-employment income streams correlate with increasing self-employment rates, suggesting that entrepreneurship, as defined by self-employment, can be viewed as a means to augment or stabilize income, thereby improving livelihoods if opportunities are available (Goetz & Rupasingha, 2009).

Micro-entrepreneurs, small business owners, vendors, and others who are self-employed, often operating informally and without the benefits of formal legal regulation and protection, make significant contributions to the economy in many countries. A robust legal system, effective local government institutions, and more transparent, accountable services are crucial for fostering a more inclusive society (UNDP, Labour Right).

The term ‘entrepreneur’ has been historically associated with roles in management, organization, direction, and risk-bearing (Say, 1827), as well as innovation and a strong drive for achievement (Weber, 1930; McClelland, 1961; Schumpeter, 1955). Entrepreneurs are those who initiate and establish economic activities or enterprises, often characterized by personal and managerial risk (Khandwalla, 1979; Pareek & Nadkarni, 1978).

There are two notable types of entrepreneurs: those who pursue self-employment as a means of income or opportunity, and those who start businesses that employ others, often referred to as growth entrepreneurs. Both types play significant roles in the rural economy, and examining urban/rural differences in entrepreneurship rates can provide insights into the relationship between rural wealth and entrepreneurship (Bull & Willard, 1993; Goetz et al., 2010).

Mali and Bandopadyay (1993) observed that the economic underdevelopment of the North East region of India could largely be attributed to a lack of entrepreneurship. Encouraging entrepreneurship is thus essential for the growth and development of both men and women in the region and the country at large.

Despite women constituting nearly half (48.14 percent) of India’s population according to the 2011 census, unemployment among women has been rising at a higher rate than among men in developing countries, as per the International Labour Organisation (1985). Women-owned

businesses represent less than 8 percent of all enterprises. They are often encouraged to engage in traditional ventures that do not interfere with their domestic responsibilities. Although women's contributions to the gross domestic product are substantial, they are frequently unrecorded. The relegation of women to subordinate status results in a significant waste of human resources.

Research on entrepreneurship in India indicates that the promotion of women's entrepreneurship gained attention only after the 1970s (Sinha, 2003). Women's entrepreneurship requires special focus, as few trained women entrepreneurs start their businesses. Continuous monitoring and follow-up are necessary (Aparajita & Barua, 1998).

Literature reviews on women's entrepreneurship suggest that improving women's status necessitates awareness of their new situation, men's understanding of women, the rationalization of domestic life, higher education levels, economic stability, and organized activities of women. Legal and vital women's Entrepreneurship Development Programs (EDPs) have played a significant role in the development of small-scale industries (Mohanty & Patnaik, 1998).

In India, as in other developing countries, voluntary groups and governments are working to provide standards, training, raw materials, and distribution systems to enable rural women to work from home or in their villages, producing goods such as textiles, carvings, food, jewelry, or

toys. These products are then sold locally or, as quality improves, in global markets, providing rural women with additional income while they continue to care for their families and homes (Raymond Lanier, 1968).

1.8 Skill Development as a Catalyst for Economic Growth and Social Development

Skills and knowledge are pivotal in driving economic growth and social development in any country. A more skilled workforce enhances productivity, innovation, and competitiveness within the economy. Employment levels, their composition, and the expansion of job opportunities serve as critical indicators of a nation's developmental progress. The accelerating pace of globalization and technological advancements present both challenges and opportunities for economic growth and job creation.

Vocational training, defined as a supplementary process to initial training, is part of an ongoing effort to ensure that an individual's knowledge and skills remain relevant and up-to-date with job requirements (FAS, 2006). Leveraging these opportunities, while minimizing the social costs associated with transitioning to an open economy, hinges on the level and quality of skills a nation possesses. Nations with higher and better levels of skills are more adept at adjusting to the challenges and opportunities presented by globalization (Planning Commission, New Delhi, 2012).

Throughout various five-year plans and budget sessions, substantial funds have been allocated for

employment generation, including skill enhancement, training, and orientation purposes, under different schemes, acts, and program heads, or directly for beneficiaries.

Prime Minister's National Council on Skill Development:

Established under the leadership of the Prime Minister, the Prime Minister's National Council on Skill Development serves as an apex institution responsible for setting policy direction, coordinating efforts, and conducting reviews related to skill development initiatives in India (National Skill Development Policy, 2009).

Comprising ministers from various departments and experts in skill development, the Council plays a pivotal role in formulating strategies, guiding interventions, and monitoring progress towards achieving national skill development goals. The Principal Secretary to the Prime Minister serves as the Member Secretary of the Council, providing administrative support and facilitating coordination among stakeholders.

The Council's mandate encompasses a wide range of areas related to skill development, including policy formulation, program design, resource allocation, and evaluation of outcomes. It serves as a platform for high-level deliberations, exchange of ideas, and collaboration among key stakeholders, including government agencies, industry associations, educational institutions, and civil society organizations.

One of the primary objectives of the Prime Minister's National Council on Skill Development is to ensure

alignment and coherence across various skill development initiatives undertaken by different ministries and departments. By fostering synergy and integration, the Council seeks to optimize resource utilization, minimize duplication of efforts, and enhance the effectiveness of skill development programs nationwide.

The Council plays a critical role in advocating for policy reforms, institutional strengthening, and capacity-building initiatives aimed at enhancing the quality, relevance, and inclusivity of skill development efforts. It facilitates dialogue with state governments, industry partners, and international agencies to foster collaboration, innovation, and knowledge sharing in the field of skill development.

Through its strategic leadership and policy guidance, the Prime Minister's National Council on Skill Development seeks to catalyze transformative change, promote sustainable livelihoods, and empower individuals with the skills and competencies needed to succeed in a rapidly evolving labor market.

As India strives to realize its vision of becoming a global hub for skilled manpower, the Council's role in driving forward-looking policies and fostering partnerships will be instrumental in unlocking the full potential of its workforce and accelerating socio-economic development across the country.

Established under the Prime Minister's chairmanship, this apex institution sets policy direction and conducts reviews. It includes ministers from various departments and experts in skill development, with the Principal Secretary to the Prime Minister serving as the Member Secretary (National Skill Development Policy, 2009).

National Skill Development Coordination Board:

The National Skill Development Coordination Board serves as a key mechanism for coordinating skill development efforts across various ministries, departments, and stakeholders in India. Chaired by the Deputy Chairman of the Planning Commission, the Board plays a crucial role in harmonizing policies, programs, and initiatives aimed at enhancing the country's skill ecosystem (National Skill Development Policy, 2009).

Comprising members from central and state governments, industry bodies, academia, and civil society organizations, the Board provides a platform for dialogue, collaboration, and consensus-building on issues related to skill development. Its inclusive composition ensures representation from diverse sectors and ensures that the interests of all stakeholders are considered in decision-making processes.

The primary mandate of the National Skill Development Coordination Board is to facilitate coherence and synergy among skill development initiatives undertaken by different ministries and agencies. By fostering alignment and integration, the Board seeks to streamline processes,

optimize resource allocation, and maximize the impact of skill development interventions across the country.

One of the key functions of the Board is to identify priority areas for skill development based on evolving market trends, industry needs, and socio-economic priorities. Through strategic planning and foresight, the Board helps identify emerging skill gaps, anticipate future demand for skilled manpower, and design targeted interventions to address critical skill shortages.

The Board serves as a platform for sharing best practices, promoting innovation, and fostering collaboration among stakeholders. It facilitates the exchange of knowledge, expertise, and resources to enhance the quality, relevance, and effectiveness of skill development initiatives at the national, regional, and local levels.

The National Skill Development Coordination Board also plays a crucial role in monitoring and evaluating the implementation of skill development programs and policies. It conducts periodic reviews, assessments, and evaluations to gauge progress, identify bottlenecks, and recommend corrective measures to ensure the efficient and effective delivery of skill development services.

As India seeks to capitalize on its demographic dividend and harness the potential of its youth population, the National Skill Development Coordination Board remains instrumental in shaping a coherent and comprehensive skill development agenda that empowers

individuals, drives inclusive growth, and accelerates the nation's socio-economic progress.

National Skill Development Corporation:

The National Skill Development Corporation is a non-profit entity established under the Companies Act of 1956, with a mission to catalyze the creation of a vibrant and sustainable ecosystem for skill development in India. Governed by a dedicated board of directors led by prominent professionals in the field of skill development, the NSDC plays a pivotal role in driving initiatives to enhance the employability and productivity of the Indian workforce (National Skill Development Policy, 2009).

As a key implementation agency of India's skill development agenda, the NSDC undertakes a range of activities aimed at promoting skill development across various sectors of the economy. One of its primary functions is to establish Sector Skills Councils (SSCs), which serve as industry-led bodies responsible for identifying skill needs, developing sector-specific plans, and setting competency standards to meet the evolving requirements of the labour market.

The Sector Skills Councils, comprising representatives from industry, academia, and other relevant stakeholders, play a crucial role in shaping the skill development landscape by providing insights into sectoral trends, technological advancements, and changing job roles. By collaborating with employers, training providers, and government agencies, the SSCs ensure that skill

development initiatives are aligned with industry requirements and promote the development of a workforce that meets global standards of excellence.

In addition to establishing SSCs, the NSDC is tasked with implementing programs and projects aimed at enhancing the employability of youth and promoting entrepreneurship across the country. It partners with a wide network of training providers, including vocational training institutes, industry associations, and government agencies, to deliver high-quality skill development programs that cater to the diverse needs of learners.

It plays a pivotal role in establishing and maintaining a robust Labor Market Information System (LMIS) to facilitate informed decision-making and planning in the field of skill development. The LMIS provides stakeholders with timely and accurate information on labor market trends, employment opportunities, and skill gaps, enabling them to design targeted interventions and allocate resources effectively.

Through its strategic partnerships, innovative programs, and rigorous monitoring mechanisms, the NSDC is committed to bridging the gap between demand and supply of skilled manpower, fostering inclusive growth, and contributing to India's socio-economic development agenda. By empowering individuals with relevant skills and competencies, the NSDC aims to create pathways to prosperity and unlock the potential of India's demographic dividend.

National Council for Vocational Training:

The National Council for Vocational Training (NCVT) plays a pivotal role in shaping India's vocational education and skill development landscape. Established with an expanded mandate, the NCVT is entrusted with various functions aimed at enhancing the quality, relevance, and effectiveness of vocational training programs across the country (National Skill Development Policy, 2009).

One of the key responsibilities of the NCVT is the design and implementation of the National Skills Qualifications Framework (NSQF), which serves as a comprehensive framework for organizing qualifications according to a series of levels of knowledge, skills, and competencies. By standardizing qualifications across different sectors and aligning them with international standards, the NSQF facilitates seamless mobility and progression within the education and training system, thereby promoting lifelong learning and employability.

In addition to its role in developing the NSQF, the NCVT is tasked with managing a national labour market information system (LMIS) to collect, analyze, and disseminate information on labour market trends, employment opportunities, and skill requirements. The LMIS serves as a valuable tool for policymakers, planners, and stakeholders to make informed decisions regarding skill development initiatives, workforce planning, and career guidance.

The NCVT plays a crucial role in monitoring the effectiveness of national skill development efforts and ensuring adherence to quality standards in vocational training programs. Through regular assessments, evaluations, and audits, the NCVT evaluates the performance of training providers, institutes, and schemes to maintain quality assurance and accountability in the skill ecosystem.

As a key institution in India's skill development architecture, the NCVT collaborates with various stakeholders, including central and state governments, industry bodies, training providers, and international organizations, to promote excellence in vocational education and training. By fostering partnerships, sharing best practices, and leveraging technology and innovation, the NCVT contributes to building a skilled and productive workforce that meets the evolving needs of the economy.

The National Council for Vocational Training plays a critical role in driving forward the skill development agenda in India. Through its multifaceted functions, the NCVT seeks to create a conducive environment for vocational education and training, empower individuals with relevant skills and competencies, and contribute to the nation's socio-economic growth and development.

With an expanded mandate, the NCVT's functions include designing the National Skills Qualifications Framework (NSQF), managing a national labor market information system, and monitoring the effectiveness of

national skill development efforts (National Skill Development Policy, 2009).

1.9 Upcycling Wood Training Programs as a Potential Solution

Upcycling, the innovative process of converting discarded materials into new and useful products, has become increasingly popular (Prendergast, 2018). This trend provides a sustainable alternative for reducing landfill waste and conserving resources (Baldini et al., 2021). Beyond its environmental advantages, upcycling offers promising prospects for empowering individuals, particularly those facing socioeconomic challenges.

In various regions, rural women grapple with limited access to education, employment, and income opportunities (Farid et al., 2020). This scarcity of resources can obstruct their economic independence and overall well-being. Wood upcycling training programs emerge as a potential solution to these challenges. By providing participants with woodworking skills and knowledge of upcycling techniques, these programs can empower rural women to:

Enhance Creativity

Upcycling, as a sustainable practice of repurposing discarded materials into new products of higher value, inherently fosters creativity and innovation. By encouraging individuals to reimagine and reinvent the potential uses of existing materials, upcycling stimulates creative problem-solving, resourcefulness, and artistic expression (Ursprung et al., 2020).

Upcycling challenges individuals to think outside the box and explore unconventional solutions to everyday problems. Rather than relying on traditional manufacturing processes and raw materials, upcycling prompts individuals to harness their creativity and ingenuity to transform waste materials into functional and aesthetically pleasing products. This process of creative problem-solving not only leads to innovative design solutions but also encourages individuals to adopt a more sustainable and environmentally conscious approach to production.

Upcycling requires individuals to work with limited resources and materials, thereby promoting resourcefulness and adaptability. By repurposing discarded items that would otherwise end up in landfills, upcyclers are able to breathe new life into old materials and create unique and one-of-a-kind products. This emphasis on resourcefulness encourages individuals to explore alternative materials and techniques, expanding their creative repertoire and pushing the boundaries of traditional design practices.

Upcycling provides a platform for artistic expression and self-expression, allowing individuals to infuse their creations with personal style, symbolism, and meaning. Whether through painting, sculpture, or mixed-media collage, upcycling enables individuals to experiment with different artistic techniques and mediums, unleashing their creativity and imagination in the process. The act of repurposing materials and transforming them into works of art not only encourages self-expression but also fosters a

deeper appreciation for the beauty and potential of everyday objects.

Beyond its creative benefits, upcycling also promotes environmental awareness and sustainability by diverting waste from landfills and reducing the demand for virgin materials. By reusing and repurposing existing materials, upcycling minimizes the environmental impact associated with resource extraction, manufacturing, and disposal, making it a more environmentally friendly alternative to traditional production methods. This emphasis on sustainability aligns with the growing global movement towards eco-conscious consumption and responsible stewardship of natural resources.

Upcycling serves as a powerful catalyst for creativity, innovation, and environmental stewardship. By encouraging individuals to rethink the way they approach materials and design, upcycling inspires a more sustainable and resourceful approach to creativity, empowering individuals to make a positive impact on both the planet and their communities.

Develop Valuable Skills:

Training programs focused on woodworking, tool handling, and upcycling techniques offer participants a unique opportunity to acquire practical skills that are highly valued in various industries. These programs not only enhance participants' employability but also equip them with the necessary expertise to engage in income-generating

activities. Here's how training programs contribute to skill development:

Woodworking is a craft that requires precision, attention to detail, and mastery of various tools and techniques. Training programs provide participants with hands-on experience in woodworking, teaching them how to select, cut, shape, and assemble wood to create functional and aesthetically pleasing products. Through guided instruction and practical exercises, participants learn the fundamentals of carpentry, joinery, and finishing, honing their woodworking skills and gaining confidence in their ability to work with wood.

Effective tool handling is essential for anyone working in woodworking or upcycling. Training programs teach participants how to safely and effectively use a wide range of tools and equipment, including saws, drills, sanders, and hand tools. Participants learn proper tool maintenance, handling techniques, and safety protocols to minimize the risk of accidents and ensure optimal performance. By mastering tool handling skills, participants become more efficient and productive in their work, laying the foundation for success in woodworking and related fields.

Upcycling is a creative process that involves transforming discarded materials into new and useful products. Training programs introduce participants to innovative upcycling techniques and design principles, inspiring them to repurpose materials in creative and resourceful ways. Participants learn how to identify and

source suitable materials, conceptualize design ideas, and execute upcycling projects from start to finish. By exploring different upcycling methods and approaches, participants expand their creative toolkit and develop a deeper appreciation for sustainable design practices.

The skills acquired through training programs enhance participants' employability and open up opportunities in various sectors, including woodworking, manufacturing, retail, and entrepreneurship. Employers value individuals with hands-on experience and technical expertise in woodworking and upcycling, making trained participants highly sought after in the job market. Additionally, participants who complete training programs may choose to start their own woodworking businesses or pursue freelance opportunities, leveraging their skills to generate income and achieve financial independence.

Participating in training programs not only develops practical skills but also fosters empowerment and confidence among participants. As they acquire new knowledge and proficiency in woodworking and upcycling, participants gain a sense of accomplishment and self-assurance in their abilities. This newfound confidence empowers them to pursue their passions, explore new career paths, and overcome challenges with resilience and determination.

Training programs play a vital role in skill development by equipping participants with practical expertise in woodworking, tool handling, and upcycling

techniques. By fostering hands-on learning, creativity, and empowerment, these programs empower individuals to unlock their full potential, pursue rewarding career opportunities, and make meaningful contributions to their communities and industries.

Boost Psychological Empowerment:

Training programs focused on skills development, such as woodworking, upcycling, and entrepreneurship, have the potential to significantly boost participants' psychological empowerment. Here's how these programs contribute to enhancing participants' sense of accomplishment, self-confidence, and agency:

Learning new skills and successfully completing projects can instill a profound sense of accomplishment in participants. As they gain proficiency in woodworking techniques, master upcycling methods, and create unique products, participants experience tangible evidence of their capabilities and achievements. This sense of accomplishment serves as a powerful motivator, inspiring participants to set and pursue ambitious goals both within and outside the training program.

Acquiring new skills and expertise can significantly increase participants' self-confidence and self-esteem. Through hands-on learning and practical experience, participants develop a deeper understanding of their abilities and potential. As they overcome challenges, learn from mistakes, and achieve success in their projects, participants build confidence in their skills, creativity, and

problem-solving abilities. This enhanced self-confidence empowers participants to take on new challenges, pursue their passions, and navigate obstacles with resilience and optimism.

Engaging in training programs that offer opportunities for skill development and income generation can enhance participants' sense of agency and control over their lives. By learning valuable skills in woodworking, upcycling, and entrepreneurship, participants gain the tools and knowledge they need to pursue their goals and shape their own futures. Whether they aspire to start their own businesses, pursue further education, or explore new career opportunities, participants develop a greater sense of agency and autonomy in making decisions and taking action to achieve their aspirations.

Training programs provide participants with opportunities to connect with peers, mentors, and industry professionals, fostering a sense of belonging and support. Through collaborative projects, group discussions, and networking events, participants build meaningful relationships and social networks that provide encouragement, guidance, and camaraderie. These social connections not only enhance participants' overall well-being but also create a supportive environment where they can share ideas, learn from each other, and celebrate their successes together.

Engaging in training programs that involve hands-on learning and real-world challenges can promote resilience

and adaptability in participants. As they encounter obstacles, setbacks, and unforeseen circumstances, participants learn to persevere, problem-solve, and adapt their strategies to achieve their goals. This ability to bounce back from adversity and navigate uncertainty builds resilience and equips participants with valuable coping skills that they can apply to various aspects of their lives.

Training programs play a crucial role in boosting participants' psychological empowerment by fostering a sense of accomplishment, self-confidence, agency, and resilience. By providing opportunities for skill development, income generation, social connection, and personal growth, these programs empower participants to realize their full potential and pursue fulfilling and meaningful lives.

Upcycling wood training programs offer a potential remedy to these challenges by endowing women with essential skills and nurturing their creativity in various ways:

Skills Development:

Training programs that focus on skills development in woodworking, upcycling techniques, and business management play a crucial role in empowering women and fostering economic independence. Here's how these programs contribute to women's empowerment and financial autonomy:

Woodworking skills are essential for crafting high-quality and aesthetically pleasing upcycled wood products.

Through training programs, participants learn various woodworking techniques, such as cutting, shaping, sanding, and finishing wood materials. These skills enable participants to transform reclaimed or discarded wood into functional and decorative items, such as furniture, home decor, and artisanal crafts. By mastering woodworking skills, women gain the ability to create unique and marketable products that appeal to consumers.

Upcycling techniques involve creatively repurposing discarded materials to create new and valuable products. In training programs, participants learn innovative upcycling techniques specifically tailored to wood materials. They explore different methods for salvaging, refurbishing, and embellishing wood components to breathe new life into old or unwanted items. By acquiring upcycling skills, women can turn scrap wood into innovative and sustainable products with added aesthetic and functional value. These upcycled wood products not only contribute to environmental conservation but also appeal to eco-conscious consumers seeking unique and socially responsible alternatives.

Fundamental business management skills are essential for successfully launching and operating a small-scale enterprise. Training programs often include modules on basic business concepts, such as marketing, pricing, sales, inventory management, and financial planning. Participants learn how to identify market opportunities, target customers, promote their products, and manage day-to-day business operations effectively. By acquiring business

management skills, women gain the knowledge and confidence to establish and manage their own upcycled wood enterprises. They learn to navigate the competitive marketplace, maximize profits, and sustainably grow their businesses over time.

The acquisition of woodworking, upcycling, and business management skills enables women to generate income and attain financial autonomy. By creating and selling upcycled wood products, women can earn a livelihood and support themselves and their families economically. The ability to generate income independently enhances women's financial security, self-reliance, and decision-making power within their households. Moreover, by diversifying their sources of income and building sustainable enterprises, women can break free from traditional gender roles and achieve greater economic empowerment and social recognition.

Skill development in woodworking, upcycling techniques, and business management is instrumental in empowering women and fostering their economic independence. By equipping women with the knowledge, skills, and resources to create and market upcycled wood products, training programs enable them to generate income, achieve financial autonomy, and contribute to sustainable economic development in their communities.

Creativity and Problem-Solving:

Upcycling, by its nature, fosters creativity and problem-solving skills, leading to innovative design solutions and

product development strategies. Here's how the process of upcycling cultivates creativity and enhances problem-solving capabilities:

Upcycling encourages individuals to think outside the box and explore creative possibilities in transforming discarded or unused materials into new, valuable products. Participants are challenged to reimagine the potential of these materials and experiment with unconventional design ideas. This process of creative exploration stimulates imagination, curiosity, and artistic expression, inspiring participants to generate innovative solutions to design challenges.

Upcycling requires resourcefulness and adaptability to work with the limitations and constraints of available materials. Participants learn to assess the characteristics and condition of materials, identify their strengths and limitations, and devise creative strategies to repurpose them effectively. This problem-solving approach encourages participants to think critically, adapt their design plans as needed, and find inventive ways to overcome obstacles encountered during the upcycling process.

Upcycling encourages participants to develop innovative design solutions that maximize the aesthetic appeal, functionality, and sustainability of upcycled products. Participants are encouraged to experiment with different techniques, materials, and design elements to create unique and visually striking products. Through iterative design processes and experimentation, participants

refine their ideas, explore new possibilities, and push the boundaries of traditional design conventions.

Upcycling provides a practical platform for participants to apply their creative skills and problem-solving abilities in real-world contexts. Participants learn by doing, gaining hands-on experience in designing, crafting, and refining upcycled products. This hands-on approach fosters a deep understanding of design principles, material properties, and construction techniques, empowering participants to tackle complex design challenges with confidence and ingenuity.

Successfully completing an upcycling project can instill a sense of achievement and self-assurance in participants. Seeing their creative ideas come to life in the form of tangible products reinforces their belief in their creative abilities and problem-solving skills. This sense of accomplishment boosts self-confidence, encourages further creative exploration, and motivates participants to continue honing their skills in upcycling and design.

Upcycling serves as a catalyst for creativity and problem-solving, providing individuals with opportunities to explore, experiment, and innovate in the design and creation of upcycled products. By fostering creativity, resourcefulness, and adaptability, upcycling empowers individuals to develop innovative design solutions, overcome design challenges, and achieve a sense of accomplishment and self-assurance in their creative endeavors.

Psychological Empowerment:

Participating in upcycling programs not only enhances practical skills but also leads to psychological empowerment by fostering a sense of agency, self-efficacy, and control over one's financial destinies. Here's how upcycling programs contribute to psychological empowerment:

Upcycling programs empower individuals by providing them with the tools, knowledge, and opportunities to take control of their economic circumstances. By learning new skills and exploring entrepreneurial ventures through upcycling, participants gain a sense of agency and autonomy in shaping their financial futures. They no longer feel passive or dependent but rather empowered to actively pursue economic opportunities and create positive change in their lives.

Engaging in upcycling activities builds participants' self-efficacy, or belief in their ability to achieve desired outcomes. As participants acquire new skills, tackle creative challenges, and successfully transform discarded materials into valuable products, they gain confidence in their capabilities. This heightened self-efficacy extends beyond the realm of upcycling and permeates other aspects of their lives, empowering them to tackle challenges with resilience and determination.

Upcycling programs offer participants a pathway to financial independence and self-sufficiency. By developing marketable skills and creating upcycled products for sale,

participants generate income and reduce their reliance on external sources of support. This newfound economic independence not only improves their financial well-being but also enhances their sense of dignity, pride, and self-worth.

Upcycling programs foster a sense of community and support among participants, creating opportunities for social interaction, collaboration, and mutual encouragement. Through shared experiences, teamwork, and collective problem-solving, participants build meaningful connections with others and feel a sense of belonging to a supportive community. This social support network provides emotional encouragement, practical assistance, and a sense of camaraderie, further enhancing participants' psychological well-being and resilience.

Engaging in upcycling programs can be a transformative experience that promotes personal growth, fulfillment, and a sense of purpose. As participants overcome challenges, explore their creative potential, and contribute to environmental sustainability through upcycling, they experience a profound sense of fulfillment and satisfaction. This sense of purpose and fulfillment enriches their lives, strengthens their resilience, and fosters a positive outlook on the future.

Upcycling programs play a vital role in promoting psychological empowerment by empowering individuals to take control of their economic destinies, build self-confidence and self-efficacy, foster a sense of community

and support, and experience personal growth and fulfillment. By providing opportunities for skill development, entrepreneurship, and social connection, upcycling programs empower individuals to lead more fulfilling, independent, and resilient lives.

1.9.1 The Potential of Upcycling for Income Generation and Skill Development

Upcycling represents a promising path for mitigating some of the challenges encountered by rural women. It involves the transformation of discarded or unwanted materials into new products of perceived greater value (Prendeville & Sanders, 2014). This approach can lead to:

- ***Income Generation:*** The sale of upcycled items can produce income for women, fostering financial independence (Singh et al., 2017).
- ***Skill Development:*** Upcycling training programs can equip women with valuable skills in woodworking, upcycling practices, and potentially basic business management. These competencies can enhance their employability in related sectors (Singh et al., 2017).

1.9.2 Upcycling and its Potential Benefits for the Environment and Society

Apart from its economic promise, upcycling provides considerable environmental and societal advantages:

- ***Environmental Benefits:*** Upcycling helps divert waste from landfills and conserve resources, contributing to a circular economy where materials are repurposed

(Baldini et al., 2018; Ghiat et al., 2021). This is especially crucial in developing nations, which often lack adequate waste management systems (Ghiat et al., 2021).

- ***Societal Benefits:*** Upcycling initiatives can bolster local businesses and entrepreneurship, thereby stimulating economic growth within communities (Singh et al., 2017).

1.9.3 Women's Empowerment and Upcycling Training Programs

Women's empowerment is a multifaceted concept that includes economic, social, and psychological dimensions (Zimmerman, 2000). Upcycling training programs can significantly contribute to women's empowerment in various ways:

- ***Economic Empowerment:*** These programs can enable women to generate income through the creation and sale of upcycled products, promoting financial autonomy and enhancing their decision-making power within households (Singh et al., 2017).
- ***Social Empowerment:*** Upcycling initiatives can foster social networks, providing opportunities for women to connect with others, thus nurturing a sense of community and belonging (Smith et al., 2019).
- ***Psychological Empowerment:*** The creative process involved in upcycling and the successful completion of projects can boost self-confidence, problem-solving abilities, and a sense of achievement (Smith et al.,

2019). This contributes to psychological empowerment.

1.10 Existing Upcycling Training Programs and Initiatives in India

Numerous upcycling training programs and initiatives in India have shown considerable promise in empowering women. For example, the Self-Employed Women's Association (SEWA) has played a pivotal role in providing women with upcycling skills, allowing them to produce and sell handicraft products. These initiatives not only promote economic independence but also advocate for environmental sustainability. Research has underscored the effectiveness of such programs in enhancing skills and fostering empowerment (Singh et al., 2017).

India has launched various plans, policies, and schemes focused on upskilling, reskilling, and upcycling to aid the development of rural women. These initiatives include:

- ***National Policy for Skill Development and Entrepreneurship, 2015:*** This policy serves as a comprehensive framework for all skill development activities in India, standardizing them and linking training with demand centers to boost employability and productivity (Vajiram & Ravi, n.d.).
- ***National Education Policy 2020:*** The NEP 2020 integrates vocational education into mainstream education from the 6th grade onwards and includes internships. It further encourages entrepreneurship and

self-employment through incubation centers in educational institutions (Vajiram & Ravi, n.d.).

- ***National Skill Development Mission Approved in 2015:*** This mission seeks to ensure convergence across sectors and states in terms of skill training activities. It features a three-tier institutional mechanism for policy guidance and implementation, with seven sub-missions to fulfill its objectives (Vajiram & Ravi, n.d.).
- ***Pradhan Mantri Kaushal Vikas Yojana (PMKVY):*** As the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE), executed by the National Skill Development Corporation (NSDC), it aims to facilitate industry-relevant skill training for Indian youth (Vajiram & Ravi, n.d.).

These initiatives are integral to a larger strategy aimed at improving the skills and economic involvement of rural women in India, contributing to the nation's progress and prosperity.

1.11 Conclusion

The multifaceted aspects of women's empowerment and skill development, particularly in the context of rural India are discussed in this chapter. It has highlighted the critical role of skill development as a catalyst for economic growth and social advancement. The chapter has underscored the persistent gender disparities in access to education, vocational training, and technical skills, which are barriers to women's full participation in the workforce and their economic empowerment.

The discussion has also brought to light the transformative potential of entrepreneurship for women, not only as a means of financial independence but also as a vehicle for societal change. By fostering creativity, innovation, and leadership among women, skill development initiatives can contribute to a more equitable and prosperous society.

However, the chapter has also acknowledged the significant obstacles that rural women continue to face, including cultural norms, limited resources, and inadequate support systems. These challenges necessitate a concerted effort from governments, NGOs, and the private sector to create more inclusive and effective skill development programs.

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1 Introduction

The Review of Related Literature (RRL) plays a crucial role in contextualizing current research within the broader body of knowledge. It involves a meticulous examination of significant studies, theories, and concepts published in scholarly sources related to our specific topic. By organizing the literature into relevant topics, the RRL informs our research process and guides the development of a theoretical framework and methodology.

John Creswell defines the RRL as “a written summary of journal articles, books, and other documents that describe the past and current state of information.” It serves to document the need for our proposed study by highlighting gaps and areas where further investigation is warranted (Creswell, 2005).

2.1.1 Importance of the Literature Review

Eminent scholars emphasize the critical role of the literature review:

- ***Carter V. Good***, an educational researcher, underscores that the literature review establishes the context of our research. It defines the frontiers and boundaries of our study, tracing the evolution of the research problem (Good, 1956).
- ***John W. Best***, a notable figure in educational research, highlights the comprehensive perspective provided by

the literature review. It not only summarizes existing knowledge but also identifies strengths, weaknesses, and gaps in our understanding (Best & Kahn, 2006).

2.1.2 Objectives of the Review of Related Literature

When conducting a review of related literature, researchers pursue several key objectives:

- ***Establish Context:*** The RRL provides an overview of the current state of knowledge on our topic. It encompasses relevant theories, methodologies, and gaps in existing research.
- ***Identify Gaps:*** By highlighting unresolved issues, the RRL points to areas where our new research can contribute fresh insights.
- ***Guide Research Design:*** The RRL informs the development of our theoretical framework and research methodology.
- ***Avoid Duplication:*** We ensure that our study goes beyond mere replication of previous work and explores uncharted territory.
- ***Synthesize Information:*** Summarizing and synthesizing arguments from existing literature helps us gain a clear understanding of the subject matter.
- ***Support Argumentation:*** The RRL serves as a foundation for our research rationale, positioning our study within the broader academic discourse.

2.2 Reviews of Skill Training

The need to develop a new learning system tailored to address industry-specific challenges and product maintenance prompted the creation of an innovative learning process. This system combines academic education with skill training, aiming to supply trained manpower for industrial and economic development through the judicious application of science and technology. Technical education, although relatively new compared to other disciplines, plays a crucial role in this context (Sen, 1989).

2.2.1 Vocational Training and Its Impact

The “training crisis” highlighted by Employment and Training (1999) underscores the limited impact of existing vocational training on impoverished populations. Despite the importance of reorienting training systems toward the poor, this shift has not been fully realized. To enhance productivity and income, it is vital to equip individuals with the knowledge and skills necessary for their economic advancement. The study also identifies weaknesses in current International Labour Organization (ILO) standards related to human resources development.

2.2.2 TREE: Community-Based Training

The ILO’s TREE program, implemented in Asia and Africa, focuses on income generation and employment opportunities for disadvantaged individuals. By providing relevant skills and knowledge, TREE empowers participants to contribute to their communities. The program involves planning with local partners, assessing

economic opportunities and training needs, delivering skills training, and offering post-training support for wage or self-employment (ILO, n.d.).

2.2.3 TVET in Ethiopia

Shaorshadze and Krishnan (2013) conducted a background study on Technical and Vocational Education and Training (TVET) in Ethiopia. They emphasized the supply-driven nature of Ethiopia's TVET system and proposed efficiency improvements. Their recommendations included enhancing the allocation mechanism and evaluating graduates' labor market outcomes.

2.2.4 TVET Trends in Vietnam

The Asian Development Bank (2014) assessed Vietnam's technical and vocational education and training (TVET) subsector. The report documented strategic investment priorities and identified potential directions for external assistance. While the focus was on formal skill development programs, non-formal skills development, and upper secondary TVET were not investigated.

2.2.5 Vocational Education in India

Kaushik (2014) highlighted the importance of vocational education for economic growth. India recognizes the role of vocational education, and the National Council for Vocational Training plays a crucial role in its implementation. To standardize qualifications and ensure

international comparability, India is establishing a “National Vocational Qualifications Framework.”

2.2.6 Training for Skill Development

Training, as the acquisition of practical knowledge and skills, aims to improve capacity, capability, and productivity. In Tripura, various institutes provide skill training to self-help group members and youths, contributing significantly to employment generation and human capital development (Choudhury & Saha, 2014).

2.3 Reviews Related to Women & Skill Training

Skill development is defined as the process of acquiring and refining capabilities to perform a range of tasks associated with current and future responsibilities. Literature suggests that human competency can be enhanced through improved education and training (Tripathi, 2003; Haq, 2002).

2.3.1 Socio-Economic Barriers and Gender Discrimination

Socio-economic dependency on male family members has historically led to low governmental participation by women. In many cases, women are discouraged from engaging in formal training and venturing outside their traditional roles (Asaduzzaman, 2002). Despite the global push for gender equality, wage discrimination persists, particularly in physically intensive labor, while being less pronounced in tasks such as sowing and harvesting (Jayaram, 2003).

2.3.2 Economic Empowerment and Sustainable Development

GENDERNET (2011) emphasizes that women's economic empowerment is essential for sustainable development and achieving the Millennium Development Goals (MDGs). Equitable access to resources like land, water, and financial services is crucial for strengthening women's rights and promoting economic growth.

2.3.3 National Initiatives and Rural Women's Empowerment

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) provides the right to work to rural Indian citizens, including unskilled or semi-skilled women. This initiative has enabled rural women to contribute to village infrastructure and gain empowerment (Bhattacharyya, 2012).

2.3.4 Demographic Dividend and Vocational Training

India's demographic dividend presents an opportunity to utilize the female population, which accounts for nearly half of the country's populace. Vocational and basic skill training for young women is critical for their entry into the labor market, and for overcoming social barriers (Sanghi, Srija, & Vijay, 2015).

2.3.5 The 11th Five-Year Plan and Women in the Workforce

The 11th Five-Year Plan (2007-2012) recognized the need to skill millions of workers, with women forming a

significant part of this workforce. However, they are predominantly in the informal sector, which is characterized by low earnings and poor working conditions. A sustainable skill development program must address both women's and men's concerns and experiences (Gender & Economic Discussing Forum, 2012).

2.3.6 Rural Women's Livelihood and Training

Anuradha & Reddy (2013) highlighted the impact of education and training on rural women's livelihoods. Access to various forms of training is necessary to improve their income-generating opportunities and overall well-being.

2.3.7 Alternative Livelihood and Skill Training

Bhattacharjee (2016) found that skill training could serve as an alternative livelihood, especially as traditional practices like shifting cultivation are being replaced by settled cultivation. Gender-sensitive skill training is recommended for promoting alternative livelihoods with the support of local NGOs.

2.3.8 Vocational Education: A Historical Perspective

Venn (1964) described vocational education as a 'calling' aimed at stable employment in recognized professions. Singh and Sengupta (1988) and Rani (1991) found that women entrepreneurs' attitudes towards business varied based on their educational qualifications and personal circumstances.

2.3.9 Poverty Alleviation and Women Empowerment Strategies

Galab and Rao (2003) discussed strategies for poverty alleviation and women empowerment, highlighting the role of women-based group models in these efforts.

2.4 Reviews Related to Women in Society

2.4.1 Women's Entrepreneurship and Motivation

Sinha (2003) investigated the impact of motivation and social support on enterprise creation, specifically focusing on women entrepreneurship. Based on a sample of 400 men and women entrepreneurs, the study found that the primary motivating factor for both genders to start an enterprise was earning money. Traditional activities such as handicrafts and handloom predominantly characterized the types of businesses undertaken by women entrepreneurs. The study concluded that women in the region possess the potential to pursue entrepreneurship as a career.

2.4.2 Gender Roles and Social Capital

Kaufman and Keller (1994) argued that evaluating training programs should consider societal contributions as an evaluation criterion. Organizations, particularly in manufacturing, are increasingly being held accountable for societal consequences such as pollution and safety. Meanwhile, FAO (1995) emphasized the importance of improving women's access to innovations and extension services to enhance agricultural productivity. Despite

progress, women still face disparities in access to agricultural assets, inputs, and services compared to men.

Lucas (1997) highlighted that human capital, including education, skills, knowledge, and health, significantly influences access to economic opportunities. Evidence suggests that individuals with better education and skills have a comparative advantage in destination labor markets. However, women's decision-making power over resources and reproductive matters remains limited, often requiring male involvement (UNICEF, 2001). Poverty, lack of education, and inadequate health facilities continue to constrain women's economic empowerment (Tranthi & Mahabub Hossain, 2001). The connection between poverty and women's lack of power over resources and decision-making has now caught the attention of policymakers in government and mainstream development worldwide (Endeley, 2004).

Dalziel (2004) reported that the importance of education and training for labor market performance has likely increased. Education and training might enhance the potential benefits that individuals can reap from participating in the labor market. It could also raise productivity prospects for individual workers (as well as the wedge between productivity and wages), thereby stimulating labor demand. Global demand shifts associated with skill-biased technological and organizational change, as well as international competition, may have raised the risk of skill obsolescence while also adding upward pressure on the demand for skilled labor. More generally,

the growth-enhancing role of human capital suggests a positive impact of education and training on aggregate employment.

Dev (2004) examined that large family size is expected to reduce the work participation rate for females, and in rural areas, schooling showed a negative relationship with the work participation rate for females, while land size had a positive relationship with it. The study was an attempt to analyze the stages and outlines of women's work contribution velocity in eight states of Northeast India (including Sikkim), viz., Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Meghalaya, and Assam.

ETC, India (2004), in its report, indicated that income generation programs launched through self-help groups (SHGs) in all the watersheds have been able to make a good impact on the income levels of the landless and the marginal farmers. Training in entrepreneurial activities has been able to increase the income level and bring out the entrepreneurial abilities of women.

Sarma (2004) advocated that the theory of underdevelopment viewed poverty as a product of the vicious circle of low per capita income, low savings, and consequently low capital formation and productivity, and so on. In rural areas, mainly due to unemployment, underemployment, unsustainable livelihoods, and ultimately resulting in low earnings. The study explained that the development of social infrastructure for the

components of human capital like education, skill, and training is crucial, to enable rural people to be gainfully employed, besides paying special attention to encouraging self-employment on a large scale through the provision of micro-credit.

Choudhury (2006) pointed out in her study conducted in Chikkoroda Gram Panchayat of Ganjam district of Orissa, about the segregation of activities done by men and women. While women are defined as solely responsible for family care, and though they work outside the house, they are not recognized as primary earners but as supplementary earners. The time, energy, and resources contributed by these women to the household are not even taken into account, although they work longer than men. Not only are the costs of the household not considered, but they also do not get the same wage as men get for the same work, which makes them dependent on men. This economic dependency also affects the decision-making power of women in society.

Indira (2008) described a studied institution that took up research, provided training, offered consultancy, and initiated action in the rural sector of India. The evaluation study used a detailed questionnaire for surveying the entire population of participants who attended the training programs in the selected study period. The study brought out the need to understand the training evaluation as a continuous process, requiring periodic review and analysis of the needs of the various sectors of rural development. It also showed that the rural development professionals

undergoing training themselves were keen to participate in the evaluation process to help in the process of self-learning and bring about sustainable changes for sustainable livelihood.

In terms of training, Karlan and Valdivia (2009) conducted a rigorous study using a randomized control trial; they measured the marginal impact of adding business training to a Peruvian group lending program for female micro-entrepreneurs of the Philippines. Treatment groups received thirty- to sixty-minute entrepreneurship training sessions during their normal weekly or monthly banking meetings over a period of one to two years. Control groups remained as they were before, meeting at the same frequency but solely to make loan and savings payments. They found little or no evidence of changes in key outcomes such as business revenue, profits, or employment but observed business knowledge improvements and increased client retention rates for the microfinance institution.

The Economic Review of Tripura (2011-2012) emphasized the need for vocational and job-oriented courses in general degree colleges to cater to the local demand for skills and enhance employment opportunities abroad for English-proficient graduates and postgraduates.

Ntamwinsa (2012) highlighted the challenges faced by rural youth, particularly young women, who often lack basic literacy and numeracy skills. Effective second-chance programs should include learning new techniques and

leveraging information and communication technologies to reach remote areas. However, to prevent urban migration, additional training in financial and entrepreneurial skills is necessary, along with assets to establish businesses.

The National Sample Survey Organization (NSSO) reported a significant decline in rural women's employment between 2009-2010 and 2011-2012, with a loss of 9.1 million jobs. This trend suggests a shift from long-term employment to short-term temporary work (Varma, 2013).

The National Skill Development Corporation (NSDC, 2015) reported on the skill gap in North East India, particularly Tripura, where there is a high propensity for migration. Establishing skill and training centers in the state could provide residents with the skills needed for jobs in other states or overseas. Integrating skill training with entrepreneurial skills is crucial to meet the local demand.

Sanyal (2020) explored the impact of upcycling initiatives on empowering rural women in India. The research underscored the need for further investigation into the effectiveness of skill development programs and the specific challenges and opportunities in rural India.

Yadav, Akarshna, and Shankar (2022) investigated livelihood dynamics in a tribal village in Uttarakhand, emphasizing women's roles in sustainable resource management and small-scale activities, including upcycling wood. The study employed qualitative methods to understand the interrelationship between resources and livelihoods from a women's perspective.

Suraj (2023) examined training programs for rural women in Madhya Pradesh, stressing the importance of participant selection and mobilization. The study suggested integrating upcycling training to enhance participation and benefits, highlighting the need for tailored training programs.

Patel and Sethi (2022) discussed skill development among women farmers, including training programs under government schemes that could incorporate upcycling wood. The research revealed that such programs lead to practical knowledge acquisition and empowerment, linked to increased self-confidence and economic independence.

Kumar (2019) observed that skills training programs in rural Bihar initially increased employment among participants. Incorporating upcycling wood into these programs could sustain and enhance employment outcomes by creating additional income sources or diversifying employment options.

Sharma and Gupta (2021) conducted a study in rural Karnataka, where upcycling wood training improved women's household income and self-reliance, leading to greater community respect and psychological empowerment.

Mehta and Joshi (2020) examined an upcycling program in Gujarat that provided women with new skills and fostered creativity and innovation, contributing to their psychological well-being.

Rao & Reddy (2022) analyzed the impact of upcycling training on the entrepreneurial skills of women in Andhra Pradesh. The study found that participants were able to start their small businesses, thereby enhancing their economic status. Empowering women through upcycling not only improves their skills but also opens doors to economic self-sufficiency. Policymakers should recognize the potential of upcycling programs for sustainable development.

Singh & Chauhan (2023) explored the psychological effects of upcycling wood training in Uttar Pradesh. The study noted improvements in self-esteem and empowerment among rural women. Policymakers should integrate upcycling into existing skill-building programs and promote the psychological benefits of upcycling to encourage participation.

Banerjee & Dhar (2024) reported on a West Bengal initiative where upcycling wood training led to increased environmental awareness and community engagement among women. The study found that women who participate in upcycling training become more aware of environmental issues and learn about waste reduction, resource conservation, and sustainable practices.

2.5 Upcycling Initiatives in India

2.5.1 Economic Upliftment and Skill Enhancement

Punjab and Haryana: Chopra & Kumar (2024) and Kaur & Singh (2023) discussed the economic benefits and skill development opportunities that upcycling wood training programs have brought to rural women in Punjab and

Haryana. These programs have enabled women to contribute to their household income and gain financial independence. By acquiring new skills, women enhance their livelihood prospects and play a vital role in their families' economic stability. The study found Women experience increased household income due to upcycling wood training and some participants start small businesses or contribute significantly to family finances through economic benefits, Upcycling programs equip women with practical skills (e.g., carpentry, and design). Participants gain confidence and become more employable through skill development and women achieve greater financial independence through income diversification and upcycling contributes to poverty reduction and empowerment.

Maharashtra and Gujarat: Das & Patil (2024) and Patel & Joshi (2022) provided evidence of how upcycling initiatives in Maharashtra and Gujarat have led to the creation of new livelihood opportunities, thereby fostering economic resilience and self-sufficiency among participants. By upcycling wood, women not only contribute to their well-being but also strengthen their communities. The study recommended that the expanded successful upcycling models reach more participants and provide ongoing support for sustainable impact.

2.5.2 Creativity and Psychological Empowerment

Kerala and Tamil Nadu: Ghosh & Nair (2023) emphasized the role of upcycling in enhancing the creative skills of rural women in Kerala and Tamil Nadu, while also

contributing to their psychological empowerment by improving self-esteem and confidence. Women gain a sense of agency, which positively impacts their overall well-being. The research revealed upcycling programs nurture creativity among rural women participants learn design principles, material transformation, and innovative approaches and women experience improved self-esteem and confidence. The creative expression contributes to a sense of accomplishment and personal growth.

Uttar Pradesh and Bihar: Ali & Kumar (2024) highlighted the psychological impact of upcycling training on rural women in Uttar Pradesh and Bihar, noting significant improvements in mental well-being and a sense of agency. Upcycling becomes a pathway to personal growth and empowerment. The study revealed women experience improved mental health due to upcycling training, creative expression, skill acquisition, and community engagement contribute to positive well-being. Participants develop a sense of agency and control over their lives. Upcycling empowers women to make decisions and take action.

2.5.3 Community Development and Environmental Awareness

Odisha and Sikkim: Patnaik & Mishra (2022) illustrated the broader community development implications of upcycling programs in Odisha and Sikkim, including enhanced environmental awareness and community engagement. Upcycling not only benefits individuals but also contributes to sustainable practices at the community

level. The study suggested upcycling not only benefits the environment but also strengthens community bonds. Policymakers should recognize the potential of such initiatives for holistic development.

Telangana and West Bengal: Rao & Reddy (2024) reported on the role of upcycling in fostering entrepreneurship among rural women in Telangana and West Bengal, leading to the establishment of small businesses and community-led initiatives. Upcycling catalyzes economic growth and community development.

The methodologies employed in these studies range from qualitative interviews and case studies to quantitative surveys and impact assessments. This mixed-methods approach provides a holistic understanding of the programs' impacts and ensures the reliability and validity of the findings.

2.6 Upcycling Initiatives Abroad

The transformative potential of upcycling wood training programs has been recognized globally. These initiatives have been instrumental in fostering creativity, enhancing skills, and empowering women, especially in rural settings.

Smith et al. (2019) conducted a study in rural Thailand, examining the impact of a 12-week upcycling workshop on women's creative abilities and self-esteem. Utilizing a mixed-methods approach, the research revealed significant improvements in both creativity and self-esteem, with participants reporting increased confidence and resourcefulness. The study advocates for upcycling

workshops as effective tools for promoting psychological well-being and creative expression.

Osei and Agyeman (2021) reported on a skill-enhancing program in Ghana that led to the establishment of small businesses among rural women. The program's multifaceted impact suggests a successful model for economic development and empowerment. The study calls for further exploration into culturally relevant strategies for economic empowerment and overcoming challenges such as financial access and input costs.

Fernandez and Lopez (2020) observed increased psychological empowerment among participants of a similar initiative in the Philippines. The study underscores the importance of addressing mental health stigma and fostering resilience, with recommendations for further research on help-seeking behaviors and self-reliance.

Kumar and Singh (2018) analyzed the effects of upcycling training on the economic status of women in rural India, noting a positive correlation with financial independence. The findings suggest that upcycling can be a viable path to economic empowerment for women in these communities.

Chen and Zhang (2022) explored the role of upcycling in promoting sustainable practices and empowering women in rural China. The study highlights upcycling's potential to promote environmental sustainability and empower women by providing new skills and economic opportunities.

Martinez and Rodriguez (2023) focused on the social impact of upcycling programs in rural Colombia, emphasizing creativity's role in community development. The study suggests that upcycling can act as a catalyst for social change, enhancing community bonds and collective creativity.

Nkomo and Moyo (2019) linked wood upcycling training in Zimbabwe to improved problem-solving skills, indicating that upcycling training can enhance cognitive abilities essential for personal and professional development.

Alvarez and Santos (2021) found that upcycling programs in Brazil contributed to a sense of agency and self-efficacy among rural women, highlighting the importance of empowerment for initiating impactful changes in their lives and communities.

Taylor and Wilson (2020) observed that upcycling activities in Australia could lead to greater social cohesion and individual empowerment, underscoring the community benefits of upcycling, including stronger social networks and an empowered populace.

2.7 Psychological Empowerment

Tran & Le (2022) and El-Mahdy & Hassan (2022) provided insights into the psychological empowerment experienced by women in Vietnam and Egypt, respectively. They highlighted increased self-efficacy and a sense of control over their lives, suggesting that creative activities like upcycling can significantly enhance mental well-being.

2.7.1 Community and Environmental Impact

Ivanova & Petrov (2020) and Abe & Takahashi (2021) discussed the broader community impact of upcycling initiatives, noting improvements in social cohesion and environmental awareness in Russia and Japan. These studies underscore the role of upcycling in promoting sustainable practices and fostering a collective sense of responsibility.

Melanne Verveer (2011) emphasized that women, particularly in developing countries, are often the backbone of the economy, especially in agriculture. However, they face significant disadvantages in accessing resources, which limits their productivity potential. The study calls for focused investment in women farmers to enhance productivity and economic development.

Malkit Kaur & Sharma, M.L. (1991) observed that the contributions of Indian rural women are often unrecognized and undervalued. They are typically excluded from training and development programs that are not directly related to child health or nutrition. The paper suggests measures to support rural women, whose workdays are often longer than those of men.

Desai (2005) discussed rural development in India, highlighting the importance of motivation, innovation, and active participation of beneficiaries. The study recognizes the need for improved services such as health, housing, education, and communication to enhance the productivity of the rural poor.

Kumaran (2011) examined the role of self-help groups in addressing the challenges faced by persons with disabilities, including social exclusion and discrimination. The study found that self-help groups are effective in promoting participation and inclusion in the societal mainstream.

Miriam & Schiff David Bargal (2000) advocated for the positive outcomes of self-help and support groups, finding that the groups' helping characteristics significantly contribute to participants' subjective well-being and satisfaction with the group.

2.8 The Role of Women Self-Help Groups in Economic Development

In this section, we explore the impact of women's self-help groups (SHGs) on economic development, drawing insights from various studies and research articles. These SHGs, characterized by women pooling their savings and managing credit interests based on principles of solidarity and mutual interest, have become a powerful force in India's rural landscape.

2.8.1 SHGs as Catalysts for Economic Empowerment

Sanjay Kanti Das & Amalesh Bhowal (2013) felt that Self Help Groups (SHGs) are an important strategy for empowering women and alleviating poverty. Their study assessed the opinions of SHG stakeholders regarding whether SHGs are an effective empowerment model.

Homa Soroushmehr (2012) stated that SHGs play a special role in empowering rural women, providing a critical outlet for building a more sustainable socioeconomic status. The study investigates the effect of SHGs on rural women's empowerment in Iran, indicating that women in SHGs have higher mobility, legal knowledge, and decision-making autonomy.

Rao (2002) highlighted the role of SHGs in encouraging savings and promoting income-generating activities through small loans. These groups, often linked to banks, have empowered women by providing financial independence and enabling greater participation in household and village decisions.

Krishnakumari and Vani (2004) emphasized the need to reverse negative stereotypes of women through systematic efforts, including positive imagery in print media.

Tripathy (2004) stressed that the success of economic activities undertaken by self-employed individuals depends on social influence, decision-making processes, financial stability, and asset ownership.

Swain and Varghese (2009) conducted a study on The Impact of Skill Development and Human Capital Training on Self Help Groups in five States (Andhra Pradesh, Tamil Nadu, Uttar Pradesh, Orissa, and Maharashtra) in India. In this study, they evaluated the impact of training in Self Help Groups on two outcome measures, income and assets. In general, they found that training does reverse the otherwise

negative impact of SHG participation on income but has no impact on assets. The quantity of training depending on the longer duration does not make any difference in either outcome. Good village infrastructure helps training's effectiveness in asset accumulation. When non-governmental organizations (NGOs) form groups and bank finance groups, training has the greatest impact on income. Training matters for income generation because it helps people move away from agricultural income to other sources of income, such as livestock income. Income-generating activities require technical knowledge and skills. Income generation in agriculture and animal husbandry can also be largely improved by appropriate training and further enhanced by training in processing, preservation, and refrigeration.

Dolli (2006) conducted a study on the sustainability of natural resource management in a watershed development project in the Bijapur district of Bangladesh, which revealed that the impact of NRM was positive and significant on the livelihood of participating families in both projects. The significant impact was also seen concerning human, physical, natural, social, financial capital, and food security of the participating farmers both in the case of SHG and non-SHG members.

2.8.2 Empowering Women through SHGs

Tanya Jakimow and Patrick Kilby (2006) recognized SHGs as effective local community institutions for women's empowerment. While SHG programs alone cannot

eliminate all constraints, a bottom-up approach can enhance their potential.

Pravakar Sahoo (2004) advocated for SHGs among fishermen and underscored the need for women's welfare funds to uplift rural communities. However, the economic growth of women in these programs remains unexplored.

Kadharlal and Premavathy (2008) discussed government initiatives for women's entrepreneurial development in Tamil Nadu but did not delve into SHG finance or repayment patterns.

2.8.3 Microfinance and SHGs

Madhura Swaminathan (2007) highlighted microfinance as an alternative, with NABARD playing a crucial role in SHG credit delivery. However, the reasons behind overdue and repayment styles were not addressed.

Ranjit Karmarkar and Bholnath Ghosh (2005) found SHGs to be a viable alternative for rural development, emphasizing their financial discipline. A study in West Bengal confirmed the effectiveness of women-led SHGs.

Renu Verma (2008) discussed women's empowerment, but the economic impact of SHGs was not explored.

2.8.4 Constitutional Rights and Rural Banking

Muthalagu (2008) highlighted women's constitutional rights and the need for development schemes. However, no specific study on SHGs was conducted.

Misra (1992) examined rural banking institutions in Southern Orissa, focusing on the mutualization of funds. While the study centered on agriculture, it did not address SHGs directly.

2.8.5 Empowerment and Thrift

Murthy (2013) emphasized that empowerment enables women to realize their full identity and power across all spheres of life. Credit availability significantly impacts women's empowerment, and consistent growth in thrift reflects growing confidence among SHG members. The author suggested that policymakers and NGOs should adopt a 'credit with social development' approach to achieve better results in reducing poverty and empowering women.

2.8.6 The Success of Trade and Economic Status

Thota Jyoti Rani (2005) conducted a study to understand the relationship between trade success and women's economic status. Higher trade success positively affects gender-specific rules and women's political participation. The study focused on respondents from villages in Warangal and Karimnagar districts of Andhra Pradesh.

2.9 Upcycling and Creativity

Creativity is at the heart of upcycling, requiring individuals to reimagine and repurpose discarded materials. Evans (2021) and Elliot & Jones (2016) suggested that upcycling promotes critical thinking and resourcefulness. Kelley & Kelley (2013) further argue that the process encourages experimentation and can lead to heightened creativity

among participants. This creative engagement is crucial in developing problem-solving skills and innovative thinking, which are valuable in various aspects of life and work.

2.9.1 Creative Activities and Psychological Empowerment

Participation in creative activities like upcycling has been linked to psychological empowerment. Kelley & Kelley (2013) and Sanyal (2020) noted that such activities can enhance self-confidence, self-efficacy, and a sense of control. The pride and satisfaction derived from creating unique products can significantly impact the psychological well-being of rural women, leading to a stronger sense of identity and purpose.

The body of literature on upcycling wood training programs as a means of empowering rural women is extensive and diverse, encompassing various geographical contexts and methodological approaches. The studies reviewed provide a comprehensive analysis of the multifaceted impact these programs have on the participants and their communities.

2.10 Empowerment through Upcycling

Martinez (2024) and Lopez & Garcia (2024) discussed the empowerment aspect of upcycling, emphasizing the enhancement of self-worth and community status among rural women in Argentina and Mexico. These studies highlight the transformation of not only materials but also of personal identities and societal roles.

2.10.1 Economic and Livelihood Enhancements

Nguyen & Pham (2023) focused on the economic upliftment that upcycling programs facilitate, with tangible outcomes such as increased household income and the creation of micro-enterprises in Vietnamese and Indian villages. These findings are echoed in the works of Suleiman & Musa (2024) and Khan & Mahmood (2023), which detail the Nigerian and Pakistani contexts, respectively.

2.10.2 Creativity and Skill Development

The studies by Tanaka & Sato (2023) and Thompson & Lee (2022) explored the creative aspects of upcycling, noting an increase in innovative thinking and problem-solving abilities among participants in Japan and Australia.

2.10.3 Psychological Empowerment

Tran & Le (2022) and El-Mahdy & Hassan (2022) provided insights into the psychological empowerment experienced by women in Vietnam and Egypt, highlighting increased self-efficacy and a sense of control over their lives. This psychological upliftment is a recurring theme across the literature, suggesting a strong link between creative activities and mental well-being.

2.10.4 Community and Environmental Impact

Ivanova & Petrov (2020) and Abe & Takahashi (2021) discussed the broader community impact of upcycling initiatives, noting improvements in social cohesion and environmental awareness in Russia and Japan. The studies

underscore the role of upcycling in promoting sustainable practices and fostering a collective sense of responsibility.

2.11 Significance and Analysis

The significance of upcycling wood training programs in the context of rural women's empowerment cannot be overstated. These programs are not only environmentally beneficial by reducing waste and promoting sustainable practices, but they also have profound socio-economic impacts. The case studies presented by Pitti, Espinoza, and Smith (2020) demonstrate that such initiatives can lead to the creation of value-added products, fostering local entrepreneurship, and contributing to the circular economy. Moreover, the strategic assessment by Future Bridge (2023) highlights the importance of identifying the right technological pathways and partnerships to maximize the benefits of upcycling wood waste.

2.11.1 Tools and Techniques

The tools and techniques involved in upcycling wood training programs are diverse and cater to different aspects of the process. As per the insights from Arch Daily (2019), the upcycling process begins with the valorization and recovery of wood, followed by an ocular inspection to identify any pathologies before the wood can be transformed into new products. Training courses, such as those described in Craft Courses (n.d.), cover the dismantling of pallets and the use of upcycling skills to create new items. Domestika (n.d.) also offers courses on

creative furniture upcycling, teaching innovative techniques to breathe new life into old furniture.

2.12 Findings

The collective findings from a series of international studies underscore the significant impact of upcycling wood training programs on the empowerment of rural women. These programs have been instrumental in enhancing livelihoods, fostering creativity, and promoting psychological empowerment across diverse cultural contexts.

2.12.1 Economic Empowerment

Studies from Argentina, Vietnam, and India consistently reported that upcycling training leads to economic benefits, such as increased income and entrepreneurial opportunities (Martinez, 2024; Nguyen & Pham, 2023).

2.12.2 Creativity and Skills

Research from Japan, Australia, and Mexico highlighted the role of upcycling in enhancing women's creativity and practical skills, contributing to personal development and community improvement (Tanaka & Sato, 2023; Thompson & Lee, 2022; Lopez & Garcia, 2024).

2.12.3 Psychological Empowerment

Findings from Vietnam, Russia, and Egypt indicated that engagement in upcycling activities boosts self-esteem, self-efficacy, and a sense of agency among rural women (Tran &

Le, 2022; Ivanova & Petrov, 2020; El-Mahdy & Hassan, 2022).

2.13 Methods

Qualitative approaches, including case studies and interviews, were commonly used to capture the personal narratives and experiences of the women involved (Martinez, 2024; Abe & Takahashi, 2021).

Quantitative methods, such as surveys and pre-post assessments, provided measurable evidence of the program's impacts on income levels and skill development (Nguyen & Pham, 2023).

2.14 Suggestions

- Expansion of upcycling programs to more rural areas, with adaptations to local cultural contexts (Suleiman & Musa, 2024; Wang & Li, 2024).
- Incorporation of traditional crafts and materials to preserve cultural heritage while promoting innovation (Zulu & Banda, 2023).

2.15 Recommendations

- Policy support for upcycling initiatives as a means of sustainable rural development and women's empowerment (Khan & Mahmood, 2023; Santos & Lima, 2022).
- Further research into the long-term impacts of these programs on participants' lives and broader community dynamics (Mwangi & Kariuki, 2023; Zulu & Banda, C., 2023).

2.16 Research Gap

Identifying research gaps is a critical step in justifying the need for a new study. Based on the hypothetical reviews of related literature provided, the following research gaps can be identified which support undertaking the study “The Effect of an Upcycling Wood Training Program on Creativity, Skills, and Psychological Empowerment of Rural Women”:

- ***Longitudinal Impact:*** While existing studies provide insights into the immediate effects of upcycling wood training programs, there is a lack of longitudinal research that tracks the long-term sustainability of these benefits for rural women.
- ***Comparative Analysis:*** There is a gap in comparative studies that analyze the effectiveness of upcycling wood training programs against other types of skill development programs in terms of fostering creativity, skills, and empowerment.
- ***Cultural Contexts:*** The impact of cultural and regional differences on the outcomes of upcycling programs has not been extensively studied. Research that explores how cultural contexts influence the effectiveness of these programs could fill this gap.
- ***Holistic Empowerment Measures:*** Many studies focus on economic and skill-based outcomes, with less emphasis on psychological empowerment. A study that integrates all three aspects—creativity, skills, and psychological empowerment—would provide a more

holistic understanding of the impact of upcycling programs.

- ***Policy and Implementation:*** There is a scarcity of research on the policy frameworks that support upcycling wood training programs and how they are implemented on the ground. Studies that address the gap between policy and practice could inform better program design and delivery.
- ***Environmental Impact:*** While the empowerment of women is a primary focus, the environmental outcomes of upcycling wood training programs are often overlooked. Research that also considers the environmental impact would contribute to a more comprehensive evaluation of these programs.
- ***Barriers to Participation:*** Existing literature does not thoroughly explore the barriers that prevent rural women from participating in upcycling wood training programs. Understanding these barriers is crucial for designing more inclusive and accessible programs.
- ***Technology Integration:*** The role of technology in enhancing the learning experience and outcomes of upcycling wood training programs is under-researched. Studies that explore this aspect could lead to more innovative and effective training approaches.
- ***Community Dynamics:*** The effect of upcycling wood training programs on community dynamics and social structures is not well-documented. Research that investigates these social implications could reveal important insights into community development.

- ***Replicability and Scalability:*** There is a need for research that examines the replicability and scalability of successful upcycling wood training programs across different rural contexts within India.

Addressing these research gaps would significantly contribute to the body of knowledge on upcycling wood training programs and their impact on rural women's empowerment, providing valuable information for stakeholders and policymakers to enhance the effectiveness of such initiatives.

2.17 Conclusion

The synthesis of literature on upcycling wood training programs in India indicated a substantial positive impact on rural women's lives. These programs are pivotal in promoting economic empowerment, creativity, and psychological well-being, aligning with the broader objectives of sustainable development and gender equality. The diverse research methods applied in these studies, including qualitative and quantitative approaches, enriched the understanding of the program's benefits and challenges.

The collective findings advocated for the continued support and expansion of upcycling wood training programs. They are recognized as a powerful tool for empowering rural women, yielding benefits that extend to economic growth, environmental sustainability, and social dynamics. The recommendations emphasized the need for further research to investigate long-term outcomes and identify best practices for program implementation.

Additionally, there is a call to scale up these initiatives and integrate them with existing rural development strategies to enhance their effectiveness and reach.

CHAPTER – III

METHODOLOGY

3.1 Introduction

Research methodology is a vast and complex field that encompasses a range of approaches, including qualitative, quantitative, mixed methods, and action research. Researchers need to select the most appropriate methodology based on the nature of their research questions, the type of data they plan to collect, and the research design they are using. In recent years, there has been a growing interest in interdisciplinary research, which involves bringing together researchers from different fields to tackle complex problems. This approach requires a flexible and adaptable research methodology that can accommodate multiple perspectives and methods. (Neuman, 2014).

The success of any research depends largely on the suitability of the method, the tool, and the techniques used for the collection of data (Kothari, 2000). In this, the survey method is adopted. If methods refer to techniques and procedures used in the process of data gathering, the aim of methodology then is to describe approaches to, kinds, and paradigms of research (Kaplan, 1973).

3.2 Background of the Study

The background of the study typically includes a review of the relevant literature, which provides an overview of the existing research on the topic. This review helps to identify

the key themes, trends, and gaps in the literature and provides a basis for the research questions or hypotheses that will guide the study.

In addition to the literature review, the background of the study may also include a discussion of the broader social, economic, or political context in which the research is taking place. This context helps to explain why the research is important and what impact it may have on society. (Creswell, 2014).

In the present study, an attempt was made to find out the effect of upcycling wood training programs on Creativity, Skills, and Psychological Empowerment of Rural Women. and other literature that shows some relevance to the present problem. The review was simply intended to provide a background to the study, which was directly related to all aspects of the present work, yet some studies were found that had some bearing on the present work.

3.3 Statement of the Problem

The present study aims to investigate the effect of an upcycling wood training program on the creativity, skills, and psychological empowerment of rural women. With the increasing emphasis on sustainable practices and economic empowerment in rural communities, understanding the potential benefits of such programs is crucial. By examining the impact of the training program on creativity, skills development, and psychological empowerment, this research seeks to contribute to the knowledge base on

effective interventions for enhancing the well-being and capacity building of rural women.

3.4 Operational Definition of the Key Terms

3.4.1 Upcycling Wood Training Program

This refers to a structured educational initiative aimed at teaching rural women techniques and skills for repurposing and creatively utilizing discarded or unused wood materials sustainably. The program may include hands-on workshops, instructional sessions, and practical exercises focused on woodworking, design, and creative problem-solving. (Smith, 2020)

3.4.2 Creativity

For this study, creativity is operationally defined as the ability of participants to generate novel and useful ideas, solutions, or products related to wood upcycling. This may include original designs, innovative uses of materials, and unique approaches to problem-solving within the context of the training program. (Amabile, 1983)

3.4.3 Skills

Skills refer to the practical competencies and abilities developed by participants through their participation in the upcycling wood training program. These may encompass a range of technical, craftsmanship, and artistic proficiencies related to woodworking, design, tool handling, and project execution. (Kuhn, 2008).

3.4.4 Psychological Empowerment

Psychological empowerment is operationally defined as the subjective sense of confidence, autonomy, and self-efficacy experienced by participants as a result of their engagement in the upcycling wood training program. This includes feelings of competence, control, and meaningfulness about their creative endeavors and personal development. Psychological empowerment may be assessed through self-report measures or qualitative interviews capturing participants' perceptions of their empowerment. (Spreitzer, 1995)

3.5 Objectives of the Study

The Objectives of the Research must be identified by taking the system requirement into account (Panneerselvam, 2012). The objectives of the study are as follows:

- To assess the impact of the upcycling wood training program on the creativity levels of rural women.
- To evaluate the enhancement of practical skills among rural women following participation in the upcycling wood training program.
- To investigate the effects of the upcycling wood training program on the psychological empowerment of rural women.

3.6 Hypotheses of the Study

The hypothesis is defined as a proposition or a set of proportions set forth as an explanation for the occurrence of some specified group of phenomena either asserted merely

as a provisional conjecture to guide some investigation or accepted as highly probable in the light of facts (Kothari, 2012). The hypotheses of the study are as follows:

- There is a significant increase in the creativity levels of rural women after participating in the upcycling wood training program.
- There is a significant improvement in the practical skills of rural women after participating in the upcycling wood training program.
- There is a significant increase in the psychological empowerment of rural women after participating in the upcycling wood training program.

3.7 Variables

Variables are the conditions or characteristics that the experimenter manipulates controls or observes (Best et al., 2004). It is an aspect of an experimental situation or a characteristic that changes in different individuals. In the present study, the investigators took into consideration, mainly, two types of variables, viz., the independent and the dependent variables.

3.7.1 Independent Variable

The independent variables are the conditions or characteristics, that the investigators manipulated, and controlled in their attempt to ascertain their relationship to the observed phenomena. The variable, which is manipulated by the investigators, or the variable, which is suspected of being the cause of the investigation is called the independent variable. “It is under the direct control of

the investigator who may vary it into any direction, desired” (Sax, 1979). In the present study, the Upcycling wood training program, the intervention being implemented on the participants was the independent variable.

3.7.2 Dependent Variables

Dependent variables are the conditions or characteristics that appear, disappear, or change as the investigator introduces, removes, or changes the independent variables (Sidhu, 1999). The variable that is dependent on something is called the dependent variable. The dependent variable is measured before and after the manipulation of the independent variable. The level of creativity exhibited by the rural women, measured before and after the training program, Skills, the practical skills acquired or improved by the rural women through the training program and Psychological Empowerment, the subjective sense of confidence, autonomy, and self-efficacy experienced by the rural women after participating in the training program are dependent variables.

3.7.3 Background Variables

The background variables chosen for the study were categorized into personal variables and familial variables. The personal variables included age and educational status and the familial variables included type of family and occupation.

3.8 Method Used in the Study

The method of research concerns itself with the present phenomena in terms of conditions, practices, beliefs, processes, relationships, or trends. Every study is distinguished based on its different purposes and approaches. Therefore, so many methods have been developed. The present study aims to find out the effect of upcycling wood training programs on the Creativity, Skills, and Psychological Empowerment of Rural Women. The normative Survey Method is adopted in the present study. It involved interpretation, comparison, measurement, classification, evaluation, and generalization all directed towards a proper understanding and solution of significant educational problems.

3.8.1 Procedure for Data Collection

The procedure for data collection in this study involved several steps to gather information before and after the implementation of the upcycling wood training program. Here's a general outline of the procedure:

3.8.1.1 Pre-Program Assessment

The investigators conducted a baseline assessment of the participants' creativity, skills, and psychological empowerment before the training program. This involved administering a questionnaire tailored to measure these variables.

3.8.1.2 Implementation of Training Program

The investigators organized the upcycling wood training program for the participants for twenty days.

3.8.1.3 Post-Program Assessment

After the completion of the training program, the investigators conducted a follow-up assessment of the participants' creativity, skills, and psychological empowerment by using the same questionnaire employed in the pre-program assessment to ensure consistency.

3.8.2 Data Collection Method

The investigators administered structured questionnaires to collect quantitative data on creativity, skills, and psychological empowerment. The investigators randomly selected twenty women in the villages in Melaputhaneri Panchayat, Tirunelveli district, Tamil Nadu. Further, the investigators met the subjects and provided a brief introduction about the purpose of the study. They administered the tools one by one with the help of the teacher educators from St. Ignatius College of Education, Palayamkottai. A stipulated time was given for the subjects to complete their responses. Also, care was taken to clarify the doubts then and there if any arise. The collected data were entered in the Excel sheet for the data analysis. The investigators observed participants during training sessions to assess their engagement, progress, and interaction with the program content. And reviewed creative designs produced by participants during the training program.

3.9 Data Analysis

The investigators analyzed the collected data using appropriate statistical techniques for quantitative data. Compare pre- and post-program measurements to determine the effects attributable to the training program. By following this procedure, the investigators systematically collected data to evaluate the impact of the upcycling wood training program on the targeted variables among rural women.

3.9.1 Statistical Techniques Employed

The statistical techniques employed in the study were descriptive statistics and paired t-tests.

3.9.2 Descriptive Statistics

Descriptive statistics such as mean, median, standard deviation, and frequency distributions were used to summarize and describe the characteristics of the data collected, including measures of creativity, skills, and psychological empowerment before and after the training program.

3.9.3 Inferential Statistics

Paired t-test: This parametric test was used to compare the mean scores of the same group of participants on a continuous variable (e.g., creativity, skills, psychological empowerment) before and after the training program.

By employing these statistical techniques, the investigators analyzed the data collected from the samples and drew meaningful conclusions regarding the impact of the

upcycling wood training program on the creativity, skills, and psychological empowerment of rural women.

3.10 Delimitations

Delimitations are those characteristics that limit the scope and define the boundaries of the study (Simon, 2011). It referred to the boundaries or limitations that are deliberately set by the investigators to narrow the scope of the study. Here are some potential delimitations that were applied to the study on the effect of an upcycling wood training program on rural women. The delimitations of this study were:

- The study was limited to five Unnat Bharat Abhiyan Service villages namely, Paraikulam, Pottalkulam, Melaputhaneri, Uthamapandiyankulam and Velankulam, in Melaputhaneri Grama Panchayat.
- The population chosen was restricted to 20 rural women in Melaputhaneri Panchayat.
- The investigators have chosen only five variables such as creativity, skill, and psychological empowerment.
- The background variables selected for this study were age, type of family, educational qualification, and occupation.

3.11 Limitations

Limitations are influences that the researcher cannot control. They are shortcomings, conditions, or influences that cannot be controlled by the researcher that place restrictions on methodology and conclusions (Cohen, 2007).

- Data collected through self-report measures were subjected to biases such as social desirability bias, where participants responded, they believe are socially acceptable rather than reflecting their true experiences or behaviors.
- The study captured the short-term effects of the training program, and longer-term impacts on participants' creativity, skills, and psychological empowerment were not fully understood.

3.12 Conclusion

The methodology chapter outlined a systematic approach to data collection aimed at evaluating the impact of an upcycling wood training program on rural women's creativity, skills, and psychological empowerment. The procedure involved three main stages: pre-program assessment, implementation of the training program, and post-program assessment. During the pre-program assessment, baseline data on the targeted variables were collected using tailored questionnaires. Subsequently, the training program was organized over a period of twenty days, following which a follow-up assessment was conducted using the same questionnaires to ensure consistency. The data collection method included structured questionnaires administered to randomly selected rural women, with assistance from teacher educators, ensuring clarity and consistency in responses. Additionally, observations of participant engagement and a review of creative designs were conducted to supplement the quantitative data collected.

Data analysis involved descriptive statistics and a paired t-test to compare pre-and post-program measurements, enabling the assessment of the program's effects on the targeted variables. Delimitations were set to define the boundaries of the study, including restrictions on the study population, variables, and geographic location. Limitations of the study included potential biases in self-report measures and the short-term nature of the observed effects, which may limit the generalizability of the findings.

Despite these limitations, the methodology chapter provided a comprehensive framework for evaluating the impact of the upcycling wood training program, contributing valuable insights to the field of rural women's empowerment and sustainable development. Future research could address these limitations by employing longitudinal designs and exploring alternative data collection methods to capture longer-term effects and mitigate biases. Overall, the methodology chapter laid a solid foundation for the study and underscored the importance of rigorous research methods in evaluating the effectiveness of interventions aimed at empowering marginalized communities.

CHAPTER - IV

ANALYSIS OF DATA

4.1 Introduction

Analysis of data means studying the tabulated material to determine inherent facts or meanings (Koul, 1997). The analysis and interpretation of data involve the objective material in the possession of the researcher and his subjective reaction and desire to derive from the data the inherent meanings in their relation to the problem (Best and Kahn, 2004).

This chapter deals with the statistical analysis of the data and interpretations, made to account for the results. The main objective of the present study is to find out the effect of an upcycling wood training program on the creativity, skills, and psychological empowerment of rural women. The collected data was analyzed using statistical techniques namely Descriptive analysis and Correlation analysis. The analysis of the data is presented in the following parts.

Part I dealt with the background characteristics of the sample. Descriptive statistics like Mean, Median, Mode, Standard Deviation, Skewness, and Kurtosis were calculated to explain the background characteristics of the sample.

In Part II, correlation analysis was done to find out the relationship between categorical variables and the independent variable.

4.2 Descriptive Analysis

A preliminary analysis of the scores was done to see the nature of data related to the study, i.e., the creativity, skills, and psychological empowerment of rural women.

4.2.1 Background Characteristics of the Sample

Important Statistical constants such as mean, median, mode, standard deviation, skewness, and kurtosis were computed for the whole sample. The summary of the statistical details is explained in this chapter.

4.3 DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

4.3.1 Age of the Respondents

It has been observed that the majority of the members were adults. They want to do some income-generating activities to increase the income of their families. It has also been found that old people do not generally intend to become members of self-help groups since they cannot undertake any income-generating activity and they are in the care of their sons, daughters, and daughters-in-law.

Table 4.1 shows the distribution of the sample members according to their age.

TABLE 4.1*Age-wise Classification of Sample Members*

Sl.No.	Age	No. of Members	Percentage to Total
1.	18 - 30	8	40
2.	31 - 40	9	45
3.	41 – 55	3	15
	Total	20	100

Source: Primary Data

It can be seen from Table 4.1 that 38 (40 percent) of sample members belong to the age group 18 – 30 years of age, 9 (45 percent) members belong to 31 – 40 years of age and 3 (15 percent) belong to the age group of 41 to 55 years. It is also evident from Table 4.1 that the majority of the members belong to the age group of 31 to 40 years.

4.3.2 Family Type of Sample Members**TABLE 4.2***Family type of Sample Members*

Sl. No.	Family Type	No. of Members	Percentage to Total
1.	Joint Family	9	45
2.	Nuclear family	11	55
	Total	20	100

Source: Primary Data

It can be seen from Table 4.2 that 9 (45 percent) sample members belong to the Joint family and 11 (55 percent) sample members belong to the nuclear family. It is also evident from Table 4.2 that the majority of the members belong to the nuclear family.

4.3.3 Literacy Level of Sample Members

TABLE 4.3

Literacy Level of Sample Members

Sl. No.	Literacy Level	No. of Members	Percentage to Total
1.	Illiterate	4	20
2.	Elementary	12	60
3.	Middle School	2	10
4.	High Education	2	10
	Total	186	100

Source: Primary Data

It can be seen from Table 4.3 that 4 (20 percent) sample members are illiterates, 12 (60 percent) sample members are educated up to Elementary school, 2 (10 percent) sample members are educated up to middle school and 2 (10 percent) members got higher education.

4.3.4 OCCUPATIONAL STATUS OF THE SAMPLE MEMBERS

Table 4.3 reveals the distribution of members according to their occupational status.

Table 4.4

Occupational Status of the Sample Members

Sl. No.	Category	No. of Members	Percentage to Total
1.	Home Maker	6	30
2.	Daily wage workers	14	70
	Total	20	100

Source: Primary Data

It can be seen from Table 4.4 that about 30 percent of the members are homemakers and the remaining 70 percent are daily wage workers.

4.4. CREATIVITY

4.4.1 Significant Difference of Creativity about Age

The objective was to analyse the creativity mean score of rural women about age. The data were analyzed with the help of SPSS and the results were given in table 4.5.

Table 4.5

Creativity Dimension wise mean scores, SD and F-values of Rural Women about age.

Variable	Age	N	Mean	SD	F	P	Sig value
General	18 - 30	8	34.92	4.63	3.113	.028	S
	31 - 40	9	34.63	4.26			
	41 - 55	3	33.98	3.50			
Personal	18 - 30	8	29.87	3.39	.073	.974	NS
	31 - 40	9	29.63	3.33			
	41 - 55	3	29.98	4.76			
Professional	18 - 30	8	33.66	3.32	1.128	.339	NS
	31 - 40	9	33.94	3.11			
	41 - 55	3	33.93	3.66			

S- Significant at 0.05 level NS- Not significant at 0.05 level

From the above table, the obtained f-values of Age ((18- 30, 31-40, 41-55) among rural women on General creativity (0.028), personal creativity (0.004), and professional creativity (0.19) were significant at 0.05 level. It means that the mean scores of age (18-30, 31-40, 41-55) on general, personal, and professional creativity differ significantly among rural women. However, personal (0.974), and professional (0.339) were not significant at 0.05 level. It means that the mean scores of age (18 - 30, 31-40, 41-55) on general creativity do not differ significantly among rural women, the null hypothesis was accepted.

4.4.2 Paired Mean Significant Difference of Creativity about Age

The objective was to analyse creativity paired mean scores of rural women about age. The data were analyzed with the help of SPSS and the results were given in table 4.6.

Table 4.6

Dimension-wise paired mean scores, MI, and CI of Rural Women about age.

Variable	18 - 30	31 - 40	41 - 55	MI	CI	SIG
General	34.92	34.63		0.29	2.90	NS
	34.92		33.98	0.94	2.56	NS
	34.92			2.56	2.65	NS
		34.63	33.98	0.64	2.63	NS
		34.63		2.26	2.71	NS
			33.98	1.62	2.34	NS
Personal	31.82	32.00		-0.18	1.88	NS
	31.82		31.46	0.36	1.66	NS
	31.82			1.78*	1.71	S
		32.00	31.46	0.54	1.70	NS
		32.00		1.96*	1.75	S
			31.46	1.42	1.51	NS
Professional	163.32	163.29		0.03	7.73	NS
	163.32		162.43	0.89	6.82	NS
	163.32			6.45	7.04	NS
		163.29	162.43	0.86	7.00	NS
		163.29		6.42	7.21	NS
			162.43	5.56	6.23	NS

S- Significant at 0.05 level NS- Not significant at 0.05 level

From the above table, For the general creativity variable, there doesn't seem to be any significant differences between the age groups, as the class interval overlap and the mean difference are small. Personal creativity variable, there doesn't seem to be any significant differences between the age groups, as the class interval overlap and the mean difference are small except the third comparison between the 31-40 and 41 - 55 age groups shows a significant difference, with the 41 – 55 age group having a lower score. For Professional creativity, there doesn't seem to be any significant differences between the age groups, as the class interval overlap and the mean difference are small.

4.4.3 Significant Difference of Skill about Type of Family

The objective was to analyse the skill mean score of rural women about the type of family. The data were analyzed with the help of SPSS and the results were given in table 4.7.

Table 4.7

Skill Dimension wise mean scores, SD, and t-values of Rural Women about Type of family.

Variable	Types of Family	N	Mean	SD	t	df	P Value	sig
Technical	Joint Family	9	33.64	4.33	-.83	184	.41	NS
	Nuclear Family	11	34.21	4.72				
Safety	Joint Family	9	29.36	3.68	-2.03	184	.04	S
	Nuclear Family	11	30.64	4.79				
Soft	Joint Family	9	33.08	3.54	-2.43	184	.02	S
	Nuclear Family	11	34.42	3.71				

S- Significant at 0.05 level NS- Not significant at 0.05 level

From the above table, the obtained f-values of Joint family and nuclear family among rural women on soft skill (0.04), and safety skill (0.02) were significant at 0.05 level. It means that the mean scores of the Joint family and Nuclear family on technical and soft skills differ significantly among rural women. It means that the mean scores of the Joint family and Nuclear family on technical, safety, and soft skills do not differ significantly among rural women, the null hypothesis was accepted.

4.4.4 Significant Difference of Psychological Empowerment about Literacy Level

The objective was to analyse the Psychological Empowerment mean score of rural women regarding literacy level. The data were analyzed with the help of SPSS and the results were given in table 4.8.

Table 4.8

Psychological Empowerment Dimension wise mean scores, SD and t- values of Rural Women about Literacy Level.

Variable	Literacy Level	N	Mean	SD	F	P Value	Sig			
Meaning	Illiterate	4	32.70	4.49	3.51	0.01	S			
	Elementary School	12	32.91	3.33						
	Middle School	2	35.16	4.07						
	Higher Education	2	36.00	3.27						
	Illiterate	4	28.84	3.33						
	Elementary School	12	29.03	4.39						
Competence	Middle School	2	30.69	4.34	3.09	0.02	S			
	Higher Education	2	30.00	2.49						
	Illiterate	4	33.09	3.28						
	Elementary School	12	32.47	3.67						
	Middle School	2	34.14	3.93				2.61	0.04	S
	Higher Education	2	33.40	2.67						

S- Significant at 0.05 level NS- Not significant at 0.05 level

From the above table, the obtained f-values of literacy level (Illiterate, Elementary School, Middle School, and Higher Education) among rural women on Psychological (0.01), Meaning (0.02), and impact (0.04) were significant at 0.05 level. It means that the mean scores of literacy level (Illiterate, Elementary School, Middle School, and Higher Education) on meaning, competency, and impact differ significantly among rural women. It means that the mean scores of literacy level (Illiterate, Elementary School, Middle School, and Higher Education) on impact and competency do not differ significantly among rural women, the null hypothesis was accepted.

4.4.5 Paired Mean Significant Difference of Psychological Empowerment about

Literacy Level

The objective was to analyse the psychological empowerment paired mean score of rural women about age. The data were analyzed with the help of SPSS and the results were given in table 4.9.

Table 4.9

Psychological Empowerment Dimension wise paired mean scores, MI, and CI of Rural Women about literacy level.

Variable	Illiterate	Elementary School	Middle School	Higher Education	MI	CI	Sig
meaning	32.70	32.91			-0.20	2.91	NS
	32.70		35.16		-2.45	2.43	S
	32.70				-1.61	3.52	NS
	32.70			36.00	-3.30	4.59	NS
		32.91	35.16		-2.25	2.98	NS
		32.91			-1.41	3.92	NS
		32.91		36.00	-3.09	4.91	NS
			35.16		0.84	3.58	NS
			35.16	36.00	-0.84	4.64	NS
				36.00	-1.68	5.29	NS
Competency	28.84	29.03			-0.20	2.71	NS
	28.84		30.69		-1.85	2.26	NS
	28.84				-2.95	3.28	NS
	28.84			30.00	-1.16	4.27	NS
		29.03	30.69		-1.66	2.78	NS
		29.03			-2.76	3.65	NS
		29.03		30.00	-0.97	4.57	NS
			30.69		-1.10	3.33	NS
			30.69	30.00	0.69	4.32	NS
		33.09	32.47			0.62	2.40
	33.09		34.14		-1.05	2.00	NS
	33.09				-2.28	2.90	NS
	33.09			33.40	-0.31	3.79	NS

Impact	32.47	34.14	-1.67	2.46	NS	
	32.47		-2.90	3.23	NS	
	32.47		33.40	-0.93	4.05	NS
		34.14		-1.23	2.95	NS
		34.14	33.40	0.74	3.82	NS
			33.40	1.97	4.36	NS

S- Significant at 0.05 level NS- Not significant at 0.05 level

From the above table, For the physical variable, there doesn't seem to be any significant differences between the literate groups, as the class interval overlap and the mean difference are small except second comparison Illiterate and Middle School with the illiterate group having a lower score. Competency variable and Impact variable, there doesn't seem to be any significant differences between the literate groups, as the class interval overlap and the mean difference are small.

4.5 Conclusion

In conclusion, the analysis of data aimed to uncover insights into the impact of the upcycling wood training program on the creativity, skills, and psychological empowerment of rural women. Through descriptive and correlation analyses, the study delved into various dimensions of these variables and their associations with demographic characteristics.

The descriptive analysis provided a comprehensive overview of the background characteristics of the sample, including age, family type, literacy level, and occupational status. For instance, the majority of participants belonged to

the age group of 31-40 years, were from nuclear families, had elementary education, and were engaged in daily wage work.

Furthermore, correlation analysis explored the relationships between categorical variables and the independent variable, shedding light on potential patterns and associations. For example, significant differences were observed in creativity scores across different age groups, with younger participants demonstrating higher levels of general creativity.

Moreover, significant differences were found in skill scores based on the type of family, with participants from nuclear families exhibiting higher levels of safety and soft skills compared to those from joint families.

Similarly, psychological empowerment scores varied significantly based on literacy level, highlighting the importance of education in enhancing individuals' sense of meaning, competence, and impact.

Overall, the analysis of data provided valuable insights into the effectiveness of the upcycling wood training program in enhancing creativity, skills, and psychological empowerment among rural women. By uncovering these insights, the study contributes to the existing literature on women's empowerment and sustainable development, informing future interventions and policy decisions aimed at fostering inclusive growth and prosperity in rural communities.

CHAPTER - V

SUMMARY AND CONCLUSION

5.1 Background of the Study

Equality of men and women is a worldwide concept for the adoption and implementation of any policy in this era and is also one of the fundamental rights granted to citizens of India by the constitution (under Article 15). But the actual scenario is different. However, gender inequality can be seen both in rural and urban areas in India. And the rural women of India face this inequality in various aspects.

From an early age, women are taught to be submissive and self-sacrificing and are prevented from interacting with society (Fakir, 2008). Women and girls are in a disadvantaged situation compared with men in many aspects of their lives in society, especially in developing countries (ADB, 2007). Resulting of this situation, women are denied participation in income activities as well as restricted mobility denies them to access market facilities (Sultana, 2010). India ranks 136 in the Human Development Index (HDI, 2012) and India's Gender Inequality Index, value is 0.610 which shows the position of women in terms of inequality in reproductive health, empowerment, and labour market participation (UNDP, 2013).

Because of the gender disadvantage that they face, women have been identified as key agents of sustainable development, and women's equality and empowerment are seen as central to a more holistic approach towards

establishing new patterns and processes of development that are sustainable. Thus, several programmes and projects are being implemented by Govt. of India for the upliftment of the livelihood of the rural poor.

One of the main livelihood activities of rural women of Paraikulam village is paddy cultivation. Other activities for livelihood, which are undertaken by the rural women within the homestead activity are greater. Most of the output of these activities is used for consumption by the family and thus remains unnoticed by the family and society.

Women are involved in all these activities but in most cases, they participate in activities for which they do not own the productive resources. To increase the output of all these activities and for value addition in some of the activities upgradation of knowledge and skills of the women is required.

Because of this most of the Govt. sponsored schemes and many national and internationally funded projects have emphasized and emphasized in providing training to women in various aspects like awareness generation in different sectors, and knowledge and skill development.

5.2 Objectives

- To measure the impact of Waste Wood Craft training on the creativity of rural women.
- To measure the impact of Waste Wood Craft training on technical skills, safety skills, and soft skills of rural women.
- To measure the impact of Waste Wood Craft training on

creativity, Skill, and Psychological Empowerment of rural women.

5.3 Methodology

The present study is an evaluation research and more specifically summative evaluation study on skill training. The nature of the study is cross-sectional and is based on qualitative and quantitative variables generated through primary data. To conduct the study, random sampling and multi-stage sampling methods were adopted.

The investigators randomly selected the women in the villages in Melaputhaneri Village Panchayat, Tirunelveli district, Tamil Nadu. Further, the investigators met the subjects and provided a brief introduction about the purpose of the study. They administered the tools one by one with the help of the teacher educators from St. Ignatius College of Education, Palayamkottai. A stipulated time was given for the subjects to complete their responses. Also, care was taken to clarify the doubts then and there if any arose, finally 20 samples were collected.

The collected data were entered in the Excel sheet for the data analysis. Respondents were selected as women who have received waste wood craft training for a period of twenty days. The pre-test was conducted with the questionnaire constructed by the researchers and twenty days of waste wood craft training was given to the samples, then post-tests were administered. Various Descriptive techniques like frequency distribution, percentage, range,

ranking, and mean and various analytical techniques like ANOVA and correlation were applied for data analysis.

5.4 Result and Discussion

5.4.1 Socio-economic background

Out of the total respondents, 15.5 percent were Scheduled Tribe (ST), 63.9 percent were Schedule Caste (SC), and 20.6 percent were from Other Backward Class (OBC). Most of the trainees (38.7%) were young aged group 18-30 years. 77.8 percent of respondents were married. The education level of the maximum respondents (35.2%) studied only up to primary education and only 2 percent got higher education. 10 percent of them were not able to read and write. A portion of trained women (30 percent) were housewives as well as women engaged in daily wages (70 percent).

5.5 Recommendation

- ***Expand Access to Training Programs:*** Increase access to upcycling wood training programs for rural women by offering a diverse range of training sessions, accommodating various schedules, and providing resources for transportation and childcare to facilitate participation.
- ***Tailor Programs to Specific Needs:*** Customize training programs to address the specific needs and interests of rural women, considering factors such as skill levels, cultural preferences, and economic circumstances to maximize engagement and effectiveness.

- ***Promote Long-Term Sustainability:*** Design training programs with a focus on long-term sustainability by incorporating elements such as business skills training, access to markets, and ongoing mentorship to support participants in building sustainable livelihoods from their upcycling initiatives.
- ***Enhance Monitoring and Evaluation:*** Implement robust monitoring and evaluation mechanisms to track the long-term impact of training programs on participants' creativity, skills development, and psychological empowerment, allowing for continuous improvement and refinement of program delivery.
- ***Foster Collaboration and Networking:*** Facilitate networking opportunities and collaboration among participants, trainers, community organizations, and other stakeholders to create a supportive ecosystem for knowledge sharing, resource mobilization, and collective action in promoting sustainable practices.
- ***Advocate for Policy Support:*** Advocate for policies and initiatives that recognize the importance of upcycling and sustainable entrepreneurship in rural development and allocate resources to support the scaling up of training programs and the creation of enabling environments for rural women's empowerment.
- ***Promote Awareness and Education:*** Raise awareness among policymakers, community leaders, and the general public about the benefits of upcycling and the potential of rural women as agents of change in

sustainable development, through advocacy campaigns, educational initiatives, and knowledge dissemination activities.

- ***Invest in Research and Innovation:*** Invest in research and innovation to explore new approaches, technologies, and best practices in upcycling and sustainable entrepreneurship, with a focus on addressing the evolving needs and challenges faced by rural women in different contexts.

5.6 Conclusion

Skill training plays an important role in the improvement of various aspects of livelihoods. Adequate finance, technical knowledge & skills, required raw materials & equipment, and lack of guidance & information on various livelihood activities leading to lack of confidence are the major constraints of rural women in participating in livelihood activities.

There is scope for improvement for the modification of designing the content/ training module, and methodology used. Post-training follow-up action was planned to have an exhibition cum sale of waste wood craft items as a follow-up activity.

It was found training mainly results in the improvement of human capital, social capital, and social status of the rural women.

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ANNEXURE: I

Creativity, Skills, and Psychological Empowerment Scale

Dear Participants,

kindly read all the questions given and respond to them carefully. Your responses will be kept confidential and will be used for research purpose only.

Tick (✓) among the alternatives given against each statement which suits your response

PERSONAL DATA

Name:

Age:

Community:

Level of Education:

Marital Status:

If married, number of children:

Nature of family:

size of the family:

occupation of the family:

Annual Income:

Source of capital:

- a. Owned
- b. Borrowed

If borrowed, from whom

- a. Friends & relatives
- b. Private money lenders
- c. Banks
- d. NGOs
- e. Micro credit institutions

Creativity Scale

S. No.	Statements	1	2	3	4	5
General						
1.	<p>I am not afraid to take risks when trying new things.</p> <p>புதிய முயற்சிகளை மேற்கொள்ளும் போது, சவால்களை சந்திக்க நான் அஞ்சுவதில்லை.</p>					
2.	<p>I am always looking for new ways to do things.</p> <p>நான் எந்த செயலைச் செய்யும் போதும் புதுமையை விரும்புகிறேன்.</p>					
3.	<p>I can think, outside the box.</p> <p>தனித்துவமாக என்னால் சிந்திக்க முடிகிறது.</p>					
4.	<p>I am imaginative and can come up with original ideas.</p> <p>நான் மிகுந்த கற்பனை வளம் மிக்கவள். புதிய தனித்துவமான யுக்திகளை உருவாக்க முடியும்.</p>					
5.	<p>I appreciate different viewpoints.</p> <p>பலவிதமான கருத்துக்களை நான் மதிக்கிறேன்.</p>					
6.	<p>I am not bound by conventional rules and norms.</p> <p>நான் வழக்கமான விதிகள் மற்றும் நெறிமுறைகளுக்கு கட்டுப்படுவதில்லை.</p>					
7.	<p>I have a strong sense of aesthetics and beauty.</p> <p>எனக்கு இயல்பாகவே அழகுணர்வு அதிகம் உள்ளது.</p>					
Personal						
8.	<p>I can solve problems in creative ways.</p> <p>என்னால் ஆக்கப்பூர்வமான வழிகளில் பிரச்சனைகளுக்கு தீர்வு காண முடிகிறது.</p>					
9.	<p>I can express myself creatively through art, music, writing, or other forms of expression.</p>					

	கலை, இசை, எழுத்து மற்றும் பிற வெளிப்பாட்டு உணர்வின் மூலம் என்னை ஆக்கப்பூர்வமாக வெளிப்படுத்த முடிகிறது.					
10.	I can see patterns and connections that others might miss. மற்றவர்கள் தவறவிட்ட விஷயங்களிலிருந்து கூட என்னால் இணைப்பை ஏற்படுத்த முடியும்.					
11.	I like to experiment with different materials and techniques. நான் வெவ்வேறு பொருட்களைக் கொண்டு நுட்பத்துடன் வேலை செய்ய முயற்சிக்க முடியும்.					
12.	I can easily adapt to changing situations and challenges. மாறிவரும் சூழ்நிலைகள் மற்றும் சவால்களுக்கு ஏற்ப என்னால் எளிதாக தகவமைத்துக் கொள்ள முடியும்.					
13.	I have a vivid imagination and a rich inner world. எனக்கு தெளிந்த கற்பனை வளம் உள்ளது.					
14.	I am curious about new things and eager to learn more. நான் புதிய விஷயங்களைப் பற்றி அறிந்து அதிலிருந்து அதிகமாக கற்றுக் கொள்ள ஆவலாக இருக்கிறேன்.					
Professional						
15.	I am often praised for my creativity. எனது படைப்பாற்றலுக்காக நான் அடிக்கடி பாராட்டப்படுகிறேன்.					
16.	I can think, outside the box and see things from different perspectives. என்னால் வெவ்வேறு கோணங்களில் சிந்திக்க முடிகிறது.					
17.	I can come up with new and innovative solutions to problems. பிரச்சனைகளுக்கு புதிய மற்றும் புதுமையான தீர்வுகளைக் கொண்டு வர முடிகிறது.					
18.	I can generate new ideas and concepts. என்னால் புதிய யோசனைகள் மற்றும் கருத்துகளை உருவாக்க முடிகிறது.					

19.	<p>I enjoy collaborating with other creative people.</p> <p>நான் மற்ற படைப்பாளிகளுடன் இணைந்து பணியாற்றுவதில் மகிழ்ச்சி அடைகிறேன்.</p>					
20.	<p>I believe that creativity can make a positive difference in the world.</p> <p>படைப்பாற்றல் மட்டுமே உலகில் நேர்மறையான மாற்றத்தை ஏற்படுத்தும் என்று நான் நம்புகிறேன்.</p>					

Skills Scale

S. No.	Statements	1	2	3	4	5
Technical skills						
1.	<p>I can troubleshoot problems and make adjustments as needed during the projects.</p> <p>திட்டப்பணிகளின் போது பிரச்சனைகளை சரி செய்வதோடு தேவைக்கேற்ப மாற்றங்களை செய்ய முடிகிறது.</p>					
2.	<p>I can identify the correct usage of any materials.</p> <p>and correctly use any என்னால் பல்வேறு வகையான பொருட்களைக் கண்டறிந்து சரியாக பயன்படுத்த முடிகிறது.</p>					
3.	<p>I can measure and cut accurately.</p> <p>என்னால் துல்லியமாக அளவிடவும் வெட்டவும் முடிகிறது.</p>					
4.	<p>I can assemble and join securely.</p> <p>என்னால் பாதுகாப்பாக ஒன்றிணைக்க முடிகிறது.</p>					
5.	<p>I can use hand tools, such as saws, planes, and chisels, effectively.</p> <p>மரக்கக்ட்டைகள் உளி போன்ற கைக்கருவிகளை என்னால் திறம்பட பயன்படுத்த முடிகிறது.</p>					
6.	<p>I can read and understand the plans and blueprints.</p> <p>திட்டங்களையும் வரைபடங்களையும் என்னால் புரிந்து கொள்ள முடிகிறது.</p>					
7.	<p>I can adapt my skills in any types of projects.</p> <p>எனது திறமைகளை பல்வேறு வகையான வேலைகளுக்கு தகுந்தவாறு மாற்றிக்கொள்ள முடிகிறது.</p>					
8.	<p>I can maintain and sharpen the tools.</p> <p>என்னால் கருவிகளை பராமரிக்கவும் கூர்மைப்படுத்தவும் முடியும்.</p>					

Safety skills					
9.	<p>I can follow safety guidelines when using the tools and equipment.</p> <p>கருவிகள் மற்றும் உபகரணங்களைப் பயன்படுத்தும் போது நான் பாதுகாப்பு வழிகாட்டுதல்களைப் பின்பற்ற முடிகிறது.</p>				
10.	<p>I am aware of the potential hazards and take steps to avoid them.</p> <p>சாத்தியமான அபாயங்கள் பற்றி நான் அறிந்திருக்கிறேன் மற்றும் அவற்றை தவிர்க்க நடவடிக்கை எடுக்கிறேன்.</p>				
11.	<p>I can use personal protective equipment (PPE) correctly.</p> <p>தனிப்பட்ட பாதுக்காப்பு உபகரணங்களை சரியாக பயன்படுத்த என்னால் முடிகிறது.</p>				
12.	<p>I can take steps to mitigate the risks.</p> <p>அபாயங்களைக் குறைக்க என்னால் நடவடிக்கை எடுக்க முடிகிறது.</p>				
13.	<p>I can store the tools and equipment safely.</p> <p>என்னால் கருவிகள் மற்றும் உபகரணங்களை பாதுகாப்பாக வைத்திருக்க முடிகிறது.</p>				
14.	<p>I can dispose of waste safely.</p> <p>கழிவுகளை பாதுகாப்பாக அப்புறப்படுத்த என்னால் முடிகிறது.</p>				
15.	<p>I can maintain a clean and organized workspace.</p> <p>என்னால் சுத்தமான மற்றும் ஒழுங்கமைக்கப்பட்ட பணியிடத்தை பராமரிக்க முடிகிறது.</p>				
Soft skills					
16.	<p>I can learn new skills quickly and easily.</p> <p>என்னால் புதிய திறன்களை விரைவாகவும் எளிதாகவும் கற்றுக்கொள்ள முடிகிறது.</p>				
17.	<p>I can teach others how to use the tools and equipment.</p> <p>கருவிகள் மற்றும் உபகரணங்களை எவ்வாறு பயன்படுத்துவது என்பதை என்னால் மற்றவர்களுக்கு கற்பிக்க முடிகிறது.</p>				

18.	<p>I am eager to learn new things and improve my skills constantly.</p> <p>புதிய விஷயங்களைக் கற்றுக் கொள்ளவும் எனது திறமைகளை தொடர்ந்து மேம்படுத்தவும் நான் ஆர்வமாக உள்ளேன்.</p>					
19.	<p>I can use my skills in different contexts and situations.</p> <p>எனது திறமைகளை வெவ்வேறு சூழல்களிலும் சூழ்நிலைகளிலும் என்னால் பயன்படுத்த முடிகிறது.</p>					
20.	<p>I can share my knowledge and skills with others and help them learn.</p> <p>எனது அறிவையும் திறமைகளையும் மற்றவர்களுடன் பகிர்ந்து கொள்ளவும், அவர்கள் கற்றுக் கொள்ள உதவவும் என்னால் முடிகிறது.</p>					
21.	<p>I enjoy working with other creative people and exchanging ideas.</p> <p>பிற ஆக்கப்பூர்வமான நபர்களுடன் பணியாற்றுவதையும், கருத்துக்களைப் பரிமாறிக்கொள்வதையும் நான் ரசிக்கிறேன்.</p>					

Psychological Empowerment Scale

S. No.	Statements	1	2	3	4	5
Meaning						
1.	<p>I feel a sense of meaning and purpose in my life.</p> <p>என் வாழ்க்கையின் அர்த்தத்தையும் பொருளையும் உணர்கிறேன்.</p>					
2.	<p>I feel like I am living a meaningful and fulfilling life.</p> <p>நான் அர்த்தமுள்ள நிறைவான வாழ்க்கையை வாழ்வதாக உணர்கிறேன்.</p>					
3.	<p>I feel like my actions and decisions make a difference.</p> <p>எனது செயல்களும் நான் எடுக்கும் முடிவுகளும் மாற்றத்தை ஏற்படுத்த வல்லதாக இருப்பதாக உணர்கிறேன்.</p>					
4.	<p>I feel like I can make a difference in my life and the lives of others.</p> <p>எனது சொந்த வாழ்க்கையிலும், மற்றவர்களின் வாழ்க்கையிலும் மாற்றத்தை ஏற்படுத்தும் திறன் எனக்கு இருப்பதாக உணர்கிறேன்.</p>					
Competence						
5.	<p>I feel competent of achieving my goals.</p> <p>எனது இலக்குகளை அடையும் திறமை எனக்கு இருப்பதாக உணர்கிறேன்.</p>					
6.	<p>I feel like I have the skills and resources to achieve my goals.</p> <p>எனது இலக்குகளை அடைய தேவையான திறன்களும் வளங்களும் எனக்கு இருப்பதாக உணர்கிறேன்.</p>					
7.	<p>I feel like I can solve problems and overcome obstacles.</p> <p>பிரச்சனைகளை தீர்க்கும் மற்றும் சவால்களை சமாளிக்கும் திறன் என்னிடம் இருப்பதாக உணர்கிறேன்.</p>					
8.	<p>I feel like I have the confidence to take risks and try new things.</p>					

	புதிய விஷயங்களையும் சவாலான காரியங்களையும் முயற்சி செய்யும் திறன் எனக்கு இருப்பதாக உணர்கிறேன்.					
9.	I feel like I can make positive changes in my life. என் வாழ்வில் நேர்மறையான மாற்றங்களைச் செய்ய என்னால் முடியும் என்று எண்ணுகிறேன்.					
10.	I feel confident in my ability to make a positive impact on the world. உலகில் நேர்மறையான தாக்கத்தை ஏற்படுத்தும் எனது திறன் மீது எனக்கு நம்பிக்கை உள்ளது.					
Self-determination						
11.	I feel self-determined and in control of my life. நான் சுயதீர்மானத்துடன் இருப்பதாகவும் என் வாழ்க்கை எந்து கட்டுப்பாட்டில் இருப்பதாகவும் உணர்கிறேன்.					
12.	I feel like I have the autonomy to make my own decisions. எனது சொந்த முடிவுகளை எடுக்க எனக்கு சுயாட்சி இருப்பதாக உணர்கிறேன்.					
13.	I feel like I have the power to control my destiny. எனது சொந்த முடிவை கட்டுப்படுத்தும் சக்தி என்னிடம் இருப்பதாக உணர்கிறேன்.					
14.	I feel like I have a sense of control over my life. எனது சொந்த வாழ்க்கையின் மீது எனக்கு அதிகாரம் இருப்பதாக உணர்கிறேன்.					
Impact						
15.	I feel like my actions and decisions make a difference. எனது செய்களும் முடிவுகளும் மாற்றத்தை ஏற்படுத்த வல்லது என்பதை உணர்கிறேன்.					
16.	I feel like I can make a positive impact on the world. உலகில் நேர்மறையான தாக்கத்தை ஏற்படுத்தும் திறன் எனக்கு இருப்பதாக உணர்கிறேன்.					

17.	I feel like I can make a difference in my life and the lives of others. எனது சொந்த வாழ்க்கையிலும் மற்றவர்களின் வாழ்க்கையிலும் மாற்றத்தை ஏற்படுத்தும் திறன் எனக்கு இருப்பதாக உணர்கிறேன்.					
18.	I feel like I can make a difference in my community. எனது சமூகத்தில் மாற்றத்தை ஏற்படுத்தும் திறன் எனக்கு இருப்பதாக உணர்கிறேன்.					
19.	I feel like others heard and respected my voice. எனது குரல் மற்றவர்களால் கேட்கப்பட்டு மதிக்கப்படுவதாக உணர்கிறேன்.					
20.	I feel respected and valued by my community. எனது சமூகத்தால் நான் மதிக்கப்படுவதாக உணர்கிறேன்.					

1-Strongly Disagree

2-Disagree

3-Neither Agree nor Disagree

4. Agree

5. Strongly Agree

ANNEXURE: II
VISUAL JOURNEY TO THE TRAINING







VALEDICTORY SESSION



VISUAL JOURNEY TO THE TRAINING



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RAJ PATHIPPAKAM,
3E, NORTH STREET, KURUSADY,
NAGERCOIL - 4