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Nurturing Cognitive, Artistic, and Emotional Growth by Creative Collaborative Techniques: Indian Practices

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Abstract

Creative endeavors often need more than one mind in conceptualization and execution [1]. In recent years both companies and research communities call for collaborative work practices and user-centred approaches in various design fields. Implementation of such practices at the university would surely help build individuals self esteem and high interpersonal skills. It would prepare them in a unique way for the competitive world. This paper seeks to explore the facet of Collaborative Design on the simple art of Rangoli or Kolam making, kila making and aims to raise curiosity on the relevance and existence of Collaboration in other traditional practices.

Keywords: Kolam (Rangoloi), Killa making (Fort making)

INTRODUCTION

Global collaboration is a reality for most companies today, with multidisciplinary teams working in parallel and independently to develop products with limited resources and shorter and leaner design cycles[2]. With culture differences, language barriers, learning methodologies and society norms; there is a thrust on development of an individual with a multifaceted personality. The generation of good design is often a confluence of ideas arising from diverse sources

Design in India has traditionally been a phenomenon that has been practiced over rituals, festivals or even daily practices- strongly intertwined with spirituality and religion. The three basic tools used in collaborative designing are collaboration, co-ordination and co-operation.

Coordination is the orchestrated efforts of individuals or groups to align or synchronize separate actions. They exchange relevant information and resources in support of each other's distinct goals. In other words, people coordinate (align/sync) distinct efforts (such as IT upgrading computers and facilities changing out desks) to create more efficiency, but they remain independent.

Cooperation is the coordinated efforts of a group of two or more people to perform their assigned portion of an agreed-upon shared process or task. They are dependent on each other to execute a mutual objective. People co-operate to perform their portion of a shared task as planned. For example, IT works with finance and Shipping to purchase and deliver new computers on time.

Collaboration is the mutual engagement of a group of two or more in a co-creative effort that achieves a shared goal or vision. They are interdependent, with each unique contribution essential to the whole. People co-labour in an act of creation, and the input of all the contributors changes the result. An example would be several people and departments working together to shift an organization's culture.

2.0 Overview

1. INTRODUCTION

Industrial placement or internships are beginning to be considered vital to be included in a higher education curriculum. More students and companies are aware of the benefits of practical experiences obtained during internships by making part of a course programme. It has been reported 1 that students increasingly demand internship programmes so they can acquire professional skills before looking for a job while at the same time, companies train students in their organization and use internships to reduce uncertainty in the hiring process after graduation. Thus, internships serve the needs of three parties: students, academic institutions and companies

The current acceleration of technology has ushered in new challenges in the field of education (Ellianawati et al., 2020). Responding to the need to be efficient in an increasingly technological world, educational researchers are considering integrating technology into the classroom (Matsuura & Nakamura, 2021). One way to do this is through STEAM (Science, Technology, Engineering, Art, and Mathematics). STEAM, where 'A' stands for arts and humanities. Art elements are proposed to enhance the learning process such as student participation, and interest in STEM which will encourage them to be able to solve problems creatively and innovatively (Quigley et al., 2020). In addition, STEAM led to the astonishing innovations that the 21st century demands (Perignat & Katz-Buonincontro, 2019). [3]

While Design is necessarily a part of Indian ethos, documenting different facets of Indian Design practices across Craft, Dance, Artforms and practices is a mammoth task. For the purpose of illustration and for ease of analysis, this paper seeks to explore elements of Collaborative behaviour across a commonly practiced area of Collaborative Design in the Indian context-.

1. The Rangoli or the Kolam
2. The kila making

A group of young energetic students were chosen for the task at the competition level and the task was allotted.

The above two areas of creativity were chosen for the following reason for development:

1. Cognitive development:

Drawing Kolam or rangoli involves pinching powder and creating dots and lines, develops the motor coordination strengths in neurons. The brain's frontal lobe is linked to abilities including focus, planning, reasoning, memory, problem solving and motor control. Higher order functions are simulated through planning and deciding to choose the design and drawing through it. The dots are looked as problems and the lines through them are the goal. (Mani, 2023) [4]

Killa-making refers to the craft of building tiny-scale models of forts. In Maharashtra, this is one of the dissolved customs associated with Diwali celebrations. It involves planning of materials like clay, mud, stones, leaves, model of the fort and a firm layout of the fort to be made. One needs to have an eye for details and a sense of aesthetics. It helps in brain to eye, hand development along with the lessons in history learnt as well.

2. Artistic development:

Designing kolam involves intricate and captivating patterns crafted by hand using rice flour or colored powders. This artistic process stimulates creative thinking, providing a platform for individuals to express their unique ideas and artistic styles. Kolams often feature repetitive geometric patterns. Consistent practice in kolam design nurtures a natural affinity for recognizing patterns, a valuable skill in problem-solving tasks that involve identifying patterns or trends.

Many local competitions during Diwali give children the opportunity to display their talents by making intricate and elaborate models of the forts of the maratha kingdom. These competitions develop teamwork, innovation, and historical knowledge amongst the participants and promote community interaction.

3. Emotional development.

Emotional intelligence refers to the ability to recognize, understand, manage, and express emotions effectively in oneself and others. Kolam creation provides a means of self-expression, allowing individuals to channel their emotions and feelings into the art. Drawing kolams can serve as a therapeutic outlet, helping individuals process and understand their emotions better. As kolam creation involves creativity and artistic interpretation, individuals can express complex emotions through their unique designs, using colours and patterns to reflect their emotional state.

With kila making the historian in the individual can be enlightened. The struggle made by the maratha soldiers can be felt and acknowledged. It also build perseverance. Waldorf education emphasizes the nurturing of practical skills and a sense of purpose in children.

Observing the dedication and teamwork of young builders during Killa making offers a glimpse into the Waldorf philosophy of cultivating life skills and a strong sense of purpose through rhythmic, repetitive actions.

3.0 How do the components of Collaborative Design fit into the art of Community Rangoli/ kila making?

A group of students were chosen for the task and the following parameters were observed:

Creativity: Kolam is an interesting tool to stimulate the mind of a person. There is a lot of room for creativity.[5] New designs can be drawn and initiated. Whatever the history or story, this floor art maybe kolam or kila making which is a hand-me-down from one generation to another comes only with practice. The continuous fall of powder or clay between the thumb and forefinger is an art that is a test to your creativity. Many patterns and designs are born on the spur of the moment with Mother Earth as a canvas.

Innovation: Joining dots or mixing clay has to give innovative ideas, every time they go down to create this traditional art. When a group is involved it has to have an idea which involves the brains of all the team members involved.

Develop mathematical ability: Mathematics is a dreaded subject in schools; bringing creativity in mathematics can reduce the burden. Making layouts, drawing lines, bringing symmetry and joining dots to give a structure or drawing definetly improves the analytical skills.

Resolving Conflicts: From the decision of the pattern to be drawn or the kila to be made, scaling down, and haing mutual consent in colours, obejcts or props used it definetly has amicable conditions involved.

Communication method: Using proper communication verbal or non verbal, having patience and lsirening skills get enhanced.

Decision making: During the course of the activity making on the spot decisions of changes if any really improves the personality of the individual.

3.1 Final outcomes:

At Vidyalankar Campus, Mumbai: Rangoli making & Killa making

CONCLUSION & FUTURE SCOPE

Both the activities chosen involved collaborative practices and aimed at holistic development of an individual as a whole. The study threw interesting insights on the existence of subspaces, interdependencies and defined outcomes in such artforms. The effect of Externalization on building in a creative and mutually agreeable product is also emphasized. This study has been done merely to highlight the element of Collaborative Design in an intuitive and naturally practiced habit such as Rangoli, killa making for the Indian population.

My hope is that in teaching about culturally-embedded mathematics, students begin to see the world around them – in all of their contexts – as mathematics, and as mathematics that *matters*.

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