Introduction:
This paper offers a case study of a rural STEM land where adolescents take responsibility of their learning. This self-direction results in renewed engagement from children and leads to a collaborative learning community with rich peer-to-peer and group learning. This case study is in rural outreach schools of Auroville with children from 7th to 9th grade at Udavi school and applying these principles with younger children from 3rd to 7th grade at Isai Ambalam School. It showcases the interventions and challenges that supported the creation of the culture of learning. It offers various examples of learning as a social activity, deep learning, art, reflective spaces as well as academic performance.

Activities and Interventions at STEM Land
The primary goal at STEM land is to develop the values of responsibility, equality and courage to create through its activities and interventions. Towards this goal STEM land is a dynamic space that is constantly and consciously adapting. Here is a glimpse on how things work:

Circle Time
- Includes everyone
- students, facilitators, volunteers as well as youth who come in to learn at STEM land.
- Announcements, progress and group issues are shared and discussed.

Multi-Grade Classroom
- Four sessions a week are held with multiple-grades.
- Significant peer learning happens for both hands-on activities as well as academic aspects.

Weekly Puzzles
- We introduce activities e.g. the weekly puzzle that creates conversations about mathematical challenges.
- Children engage in conversations with each other over puzzles and no child has copied the solution from another to claim as their own.

Project Presentations
- Once a week students present their projects in programming and hardware.
- This inspires other students to create similar projects or build on what is presented.
- It gives a need to be accurate and rigorous.

Material Accountability
- Children take responsibility of the materials in STEM land.
- At one point a wooden ball from one of the games was lost. Unable to find another quite like it the students 3D printed the piece and painted it with nail polish to make it look like the original.

Plans and Tracking
- Children plan their goals every week and track their work both at STEM land and at home.
- Children also reflect and document how they felt after their weekly assessments and what they will do different the next week.
- The first year this was done using spreadsheets which took a lot of time to type and there were errors.
- A software now helps them track this information in a database with quick entry for their academic goals.

Assessments
- There are weekly assessments for the topic selected by the child at 3 levels – novice, intermediate, expert allowing students to assess their skill level.
- Unlike examinations, students can have conversations with other children about the content without using pen and paper. This encourages abstraction and talking mathematics.

LIAP (Leadership in Action Programs)
- One of the challenges was that not all children found themselves able to make choices or execute on the choices they made.
- We organized a leadership program that looked at aligning who I am (what I care about), how I think (my socializations and patterns) and what I do and gave children tools they could use in different situations.
- This was followed by triads which are reflective spaces where 3 children and a facilitator meet and share what they able to practice over a fortnight. Here are some reflections from the children shared at triads with facilitators:

Student1: “The game we were playing as a group during lunch hour are very physical. One child was unwell and was being forced to play the game by the group with the threat of being excluded from further games. I decided not to participate in such a game as I stand for caring.”

Student 2: “There is no specific organization of mouse in the box to keep it. It is being put back haphazardly and gets tangled and the mouses are going bad. I would like to organize the box”.