Selvan (name changed) approached us diffidently. "I want to learn. Can you please help me?" A hesitant youth of 16, he haltingly told us his story. "I have failed in four subjects in my class 10 board exams, and have stopped going to School". He clearly saw himself as a failure in the academic world.

Selvan is just one among the thousands who are left behind as failures in our education system. The formal education programmes in our country are heavily biased towards teaching and learning of academic skills. This is based on our firm belief that academic skills are a way towards empowerment. Often, the superiority of academic qualifications over more traditional vocational skills is over-emphasised by teachers and the system. The institutions providing vocational training are badly neglected and have poor patronage.

We first experienced this gulf between the academic and the vocational 25 years ago, when we, as Architects working in a rural area, began to teach masonry skills to rural artisans. We were focussing on environment friendly building technologies that used local materials such as mud. The masons in rural areas were generally uninterested in building with mud and local materials, and so we were forced to work with so called “unskilled labour” i.e. youth who in fact were well versed in traditional practices of constructing with local materials. We initially started teaching them to produce various improved building elements and practical masonry skills. Our training was useful for them to build for themselves and for their neighbours and earn better wages. But they were still diffident in using their new skills in front of bossy contractors and masons and would never assert themselves. To overcome this, we decided to teach them useful techniques such as calculating and estimating quantities of materials required in construction, technical drawing and reading plans. We tried to enhance their reading, writing and arithmetic skills a little, just enough for them to take and execute small contracts by themselves without depending on other conventional contractors or masons and get a better income.

We did manage this to some extent, but the general feeling of being unlettered and uneducated among the artisans was difficult to overcome, as was their lack of confidence. The fact that they were "dropouts" from schools, and hence certified "failures" was like an enormous millstone around their neck that was difficult to get rid of. These were adults ranging from age 18 to 32. We felt we needed to work with younger age groups, and over longer periods, if we were to make a significant change in
confidence levels very low as had been branded “failures” by the system. So it did not make sense for us to start with basic reading and writing skills alone. We decided to introduce “hands-on” work, as we thought this would give an opportunity for them to engage in an activity where they were more confident of themselves, and through the activity, introduce writing and basic math skills. This is something we had done earlier with our building artisans training programmes.

their self-image of being “uneducated”. Over the years we brought down the age of the trainees we were working with as well as increase the duration of training sessions and their scope. We were generally successful in getting them to learn skills, have confidence in their ability to take up projects, complete them successfully and deliver increasingly higher quality constructions. Their income levels went up and they were more confident in traveling to far off places to take up work among people of other communities. Yet, the lack of formal education was still a big void hard to fill when it came to their self-perception. Society too does not give them their due recognition both socially and economically, however talented or skilful they are.

We then moved to an adivasi village, Sittilingi, 10 years ago and started Thulir, a learning centre for children and adults to learn and discover the joys of learning. It was created as an informal centre where students going to schools could come after school hours and during weekends. Sessions varied from story-telling, reading, learning basic language and arithmetic to science activities and various arts and crafts. There was to be no enrolment, attendance or fees and so students could come entirely on their own volition. We believe that learning happens best when there is self-motivation.

Within a couple of years, a few students who were age 14 and above and had opted out of school, started using the centre full time and asked us to help them learn. Selvan, whom we talked of earlier, was one of them. These students said they liked being in Thulir and could not cope with school (after class 8 students had to go out to non-Adivasi village school far away). Their basic academic skills were very poor or were completely non-existent and

We started with electrical wiring as many of the first batch students were interested (it was then perceived to be “cool” as you didn’t have to work in the sun and dirty your hands!). Coincidentally, an opportunity presented itself, as an expert electrician came to the village from Chennai to do some work for a neighbour. Bee-keeping was next as friends from an NGO offered this training for adivasi people specifically. Slowly, we added plumbing, masonry, bamboo furniture making, cycle and motorcycle repairs, Solar PV lighting, LED bulb assembly, computer skills, organic farming etc. The attempt was to, as far as possible, take on real life projects in and around our campus, so that the results of the projects are utilities and services that get used by the community. This we felt would make the work meaningful and give a sense of satisfaction and pride. Moreover, one would also see how well ones’ effort fares in real life thereby getting feedback for self-assessment and improvement. They learnt to write about, keep records for and do the calculations relevant to each particular project. For instance, if they were growing rice organically, they would learn to measure the area of the field, keep a record of labour and material inputs, maintain a graph of plant growth both manually and on the computer, keep accounts etc. If they were constructing a wall, they would learn to draw plans, estimate the number of blocks required, calculate expenditure and so on.
There were a few main reasons for consciously introducing a variety of hands on projects – firstly, there is limitation in scope for one kind of activity to be repeated many times in a given campus or community. Secondly we felt it was important for each student to experience more than one or two types of work, so that they could begin to become conscious of which type of activity they are naturally good at or interested in pursuing further. This way different students could choose different types of vocations if they so desire and still find work opportunities in the area. If we were to train all of them in a single vocation, say as masons, it would be difficult for all of them to find work in the local area. We also felt that as 14 to 18 year olds, they were not yet ready for choosing a vocation and needed time and space to discover and develop their interests.

It was important that they experienced a variety of learning situations; crafts, music, sports, languages, interacting with people from other cultures, etc. which they had missed out at school. Once they chose a vocation, specializing in it could happen as apprentices under professionals and experts for a longer duration (some years at least) and in real life projects. Conventional short term vocational training courses are hardly effective or useful.

Selvan, who came to us as a shy boy who was very aware of his shortcomings in academic skills, spoke very little and refused to make eye contact, flourished in this practical learning environment. Soon it was obvious that he had excellent qualities. He was gentle and generous, highly skilled in working with his hands, taking on any challenge head on and trying his best. He worked patiently with others. He could take on the most delicate repair tasks such as fixing mobile phones with the same ease as doing physically demanding tasks such as repairing roofs and making bamboo furniture. He showed a special flair in electronics and could even take apart and fix equipment he had never seen before.

We started getting batches of 6 to 15 such students each year. They came to us as "failures" and "drop-outs", with very little self-confidence and lots of fear. But we found that they were quick to pick up practical skills and did excellently. Their self-confidence grew and extended to all spheres of their lives, even academics. Soon their parents started putting pressure on them to finish class 10 exams and the students too felt this need to prove themselves to their peers in the village. Slowly one by one, with our help, most of them finished writing and passing this exam as private candidates while coming to Thulir for our programme. The interesting outcome was that the Thulir work programme seemed to give confidence to the students to tackle academic exams which they could not earlier. Many decided to continue higher studies enrolling in class 11 in schools outside of our valley, some even at the age of 19 and 20! Some have gone on to Colleges for degree courses.

A few of our students had to get back to work at the family farm. A few, whose families faced serious financial difficulties, had to go away to work as unskilled labour. A few have taken to working as masons and carpenters. Four of our students, including Selvan, joined back as staff, teaching younger children and taking responsibilities for administration and campus maintenance.

Over the years, the village has undergone many changes. From being farmers growing most of their food themselves (mostly rain fed millets, chicken, goats), the villagers have now started eating PDS (Public Distribution System) rice and growing water intensive cash crops. Their cash requirements have grown with easy access to private schools and colleges, health care, loans for buying motorbikes, tractors etc. There is a strong feeling in the community that degrees would lead to better jobs (usually government jobs). There is also aggressive marketing by private English medium schools and more importantly by private colleges that are far away (up to 70 kms. away) but offering daily bus services at their door steps for commuting. Very few want to learn a vocation or skill anymore.

The overwhelming message that schooling seems to instil in the students and their parents is that only white collar jobs are worth having and that vocations that involve hands- on work are meant only for the failures from the system. This has meant that courses that teach vocational skills such as the ones at various ITIs (or ours) now have very few takers. Coupled with this, hundreds of colleges have mushroomed offering all kinds of degrees, so that
any parent who has the financial means can send their child to a college for a degree. The sad truth is that most students who have passed school do not have the necessary academic skills to pursue an academic degree course, or even an ITI course, with any kind of seriousness.

Selvan has grown in confidence now and has become one of the most sought after skilled technicians in the area. But the pressure to prove himself academically stills nags him. He went back to high school at the age of 20 spurning an offer of a job in the city as an electronics technician with modest pay, and is now in college. Academic learning is still a huge hurdle he is struggling with, but he is determined to overcome it and get his certificate. He realises that his self-esteem and the respect of others depend on his getting this vital piece of paper.

Given this situation, what is the scope of hands-on work in schools? Most rural, Adivasi and first-generation learners excel at this and so it would give such children greater confidence to tackle academic subjects. Urban children would probably be at a disadvantage in hands-on work, and so would need to put in more effort at learning. This would be an eye opener to them. Not only would this help inculcate in them a healthy attitude towards the hands-on skills that are vital for any society to survive, but it would also increase their respect towards the people who possess these skills. It is important to bring a change in the attitude of our society to manual labour (which in today's context would include all kinds of manufacturing and service industry jobs that require ability to work with machines and tools). This would also help the people in this sector to work as important and valued contributors to our economy and society, instead of feeling that they are dropouts who could not make it to the "superior" white collared jobs.

Today, schools operate as islands cut-off from the community around them. Children are naturally inquisitive about adult work and feel important whenever they are allowed to take part in it. A school does consume a variety of goods and services that brings it in contact with the community around. These can become learning opportunities where children can interact with adult work and the community around. Many thinkers in the past, like Gandhiji and Vinobha had proposed integrating work and academics. There have been many interesting educational projects, such as at Vigyan Ashram in Pabal, where this has been tried. There are several essays and attempts even in the west at bringing in “work” to schools such as in the "studio schools" in UK and teaching vocational subjects as part of mainstream schools in Finland. Perhaps it is time we gave it a serious thought in our country.

Education today in our schools concentrates only on improving cerebral skills. Rural, Adivasi and first generation learners are at a disadvantage in this system. Education should focus on the "head, heart and hands" where Academic skills, Art, Craft, Sports and Work in the community have to be given equal importance.

Imagine a world where an integral part of a school education was practical, hands-on work. What if the curriculum included real-life projects inspired by the needs of the school or the community? Practical work could act as an equalizer. Our education system would be more balanced and fair to all strata of society. The school gets rooted in the community. In such a world, the Selvans of our country would not have felt inferior, struggling to straddle two different worlds, but would have flourished in their chosen fields as equals!

Anu and Krishna, both trained as architects, have been working with Rural communities for the past 25 years, exploring Alternative Building Technologies, Skills training among Rural youth and Alternative Education. They may be contacted at thulir@gmail.com