Introduction

In 1998 I set-up and administered a complementary currency system in an orphanage in Bangladesh. Called The Token System by its users, it ran for a period of months, and was successful at promoting community and encouraging better resource usage.

Development

1. **I identified a problem.**
   The orphanage of about 65 children and 15 staff had just received a donation of two new computers from USA. I arrived to see that computer time was not being well allocated; the larger boys were using real or implied physical force to help themselves to computer time when they felt like it, so only a selected few had access to the computers.

2. **I formulated a solution.**
   I had brought about 100 red plastic tops from milk cartons, having identified them as potential game counters. The breakthrough came when I saw that they could function as a simple sort of currency to keep track of computer time. One token allowed 45 minutes of computer use. My initial thought was that I would allocate these to the children, but a little reflection showed that it would be a better idea to pass them on to the house mothers to give to the children, resulting in a flow as shown below:

3. **Initial response**
   After a day or two of deliberate obtuseness by a few of the previous system’s beneficiaries, the children quickly adjusted to the new system. My initial fears that it would decrease aggregate computer use proved largely unfounded, and were more than offset by the children’s perception that computer use had become a scarce resource – encouraging them to concentrate harder and plan their use better.
As expected, some children had a lot more tokens than they had been given by their house mothers.Whilst almost all the children were given tokens, only about a half ever cashed them in for computer time. Since I never heard reports of extortion, this was evidence of productive inter-child token flows (e.g. gifting or trading) although I did not investigate this further.

The house mothers of the younger children initially had little interest in the scheme, because the computers had traditionally been associated with the elder boys. However, attitudes changed once they realized that the children could trade the tokens with one another. Overall, the house mothers, in spite of having little or no formal education (most were illiterate) were quickly able to understand the scheme and see its benefits. They were very glad to have some positive means with which to reward their children.

**Refinements**

1. **Room Booking**
   Frequent appointments such as mealtimes, prayer, school etc. meant that the possibilities for computer use were very uneven during the day. Competition for popular time slots put the system administrator in the invidious position of choosing who could cash in their token. An informal ‘first come, first serve’ method was briefly tried, but placed stress on my memory, so it quickly evolved into a weekly sheet of time slots for children to sign themselves up. Some children made little use of it, preferring to cash in tokens on the spur of the moment, while others learnt how to use it to get the best time slots. (I did not allow trading of time slots, so if someone didn’t turn up for a slot they had booked, another token was needed before someone else could use it). The booking system was generally respected as impartial.

2. **Green Tokens**
   A lot of effort had been spent by the donors in USA to provide a range of software with educational content, but the children showed almost no interest to explore this, preferring instead to play a few, predominantly simple games. This can be explained by:
   - (i) peer pressure
   - (ii) the initially steep learning curve of the software
   - (iii) a culture of re- rather than pro-activity
   - (iv) language difficulties

To counter this problem, I introduced *Green* tokens, which entitled the computer to be used for ‘educational purposes’. Motivated by the effective ban on their favourite games, several children explored the range of educational software available. This proved quite attractive and the children’s usage patterns broadened out, so that some children chose to use the red (unrestricted) tokens for educational software.

**Later developments**

In parallel with the token system, I regularly taught the basic skills (such as word-processing and typing) to selected elder children and staff from the local school. Gradually, their abilities developed until it became realistic to expect productive work from them. It therefore became important to provide a mechanism in the scheme to allow children to carry out productive work.

1. **Tenders**
   Jobs of work were expressed in a humorous, culturally aware manner by mimicking the ‘tender notices’ that fill Bangladeshi newspapers. (c.f. Appendix 1). I adopted a policy of posting them unannounced and disclosing only minimal information about them. This was designed to encourage enterprise and counter the prevailing passivity culture.

2. **Blue Tokens**
   A third colour of token was available, which motivated the invention of another denomination of time. Blue tokens were used for time spent working on the tenders. Their rarity inspired some interest, and went some way towards strengthening the analogy of the token system as money in the children’s minds.
3. **Prioritising Time** 🟠 > 🟡 > 🟢

To expedite productive work, **blue** tokens were given top priority when booking rooms. A timeslot that was booked with a **green** or **red** token could be overridden by someone else who used a **blue** token, and time that was booked with a **red** token could be also overruled by someone booking the slot with a **green** token.

4. **Exchange system**

Prioritising time use created a pressure amongst children to change the colour of their tokens, so I allowed the children to exchange tokens, at the following, somewhat punitive exchange, rates of exchange:

![Exchange rates](image)

**Conclusions**

My initial conception† of the system was specific enough to quickly capture the users’ imagination but also general enough to allow a series of *ad hoc* refinements. When I left the orphanage after 4 months, it had evolved to the point at which it was popular with all parties involved. Many factors influenced its development:

**Developmental Factors**

+ 1. The orphanage had a well-delimited pre-existing community  
2. The users were mainly children old enough to easily grasp it  
3. The existing time allocation system involved conflict and was manifestly unfair  
4. The beneficiaries of existing system were children used to deferring to outside influence  
5. Robust & aesthetically pleasant tokens were available to the administrator but not to others  

− 6. The children were unused to the scheduling their own time  
7. Bangladeshis are unused to such innovative systems  
8. Bangladesh has a culture of deference to authority which can be disabling

† The inspiration for the system may have stemmed from a scheme of my mother’s for controlling my own computer use some 15 years previously.
**System Outcomes**

1. It was well understood and well received by everyone involved
2. The tokens facilitated other exchanges amongst the children
3. Children were given a degree of freedom and flexibility about how/whether they used the computers
4. House mothers had a means to reward good behaviour
5. The tenders did encourage the children’s proactivity
6. Children’s computer usage broadened out a lot from the previous narrow focus on games
7. The system of prioritizing time use and booking slots encouraged some children to plan ahead

8. Differences in the tokens used lead to allegations of token ‘forging’. These were implausible and almost certainly untrue. However, my exaggerated desire to preserve the integrity of the system lead me to waste some energy and goodwill for a few days while I investigated them.

Some children did develop a hoarding tendency that could have created problems if scheme had run continuously since only a limited number of tokens were available. This could have been tackled by a system of demurrage, such as expiry dates on the tokens.

Judging that the maturity of the children was not sufficient that they could administer it themselves, I made provision for the continuation of the system by writing up an explanation of it for my successor in the orphanage. Unfortunately, I had to leave Bangladesh before she arrived and a personal handover was not possible. This may have been a significant influence in her decision to discontinue it.

**Final Remarks**

The orphanage can be seen as a microcosm of Bangladesh. The country combines social wealth, material poverty and a great imbalance of power. Like most of the precious resources donated from abroad, the computers were intended for the common good. As too often happens, the foreigners who donated them were unable to ensure that the resources were equitably used; I arrived to find that opportunists had appropriated them for their own exclusive use.

My approach to promote equity and built solidarity in the community was the token system described above, a simple form of community currency. Some of its success was due to the fact that it required minimal resources and that it evolved gradually and in close consultation with all the involved parties. It shows how important it is to supplement traditional approaches to development with innovative organizational systems that focus on social justice.

However, although the token system took little time and effort to administer and was popular with all parties, it only ran for the few months I was present at the orphanage to administer it. This serves to underline the importance of personal factors, which are of primary importance in sustainable development.
Notice Inviting Tender

1. Written tenders are invited by the Robin ‘Hood’ Uncle Computer Office of Public Works from individual bona fide contractors or groups thereof for the work described below. Preference will be given to contractors with a proven record.

2. Description of work: Input of approximately 600 (six hundred) Bangla hymn titles, many of which have been already entered in.

3. Maximum offer: $per hundred titles.

4. Estimated Time requirement: Approximately 6 (six) – 15 (fifteen) hours depending upon ability and experience at Bangla typing.

5. Training available: An introduction to computer use & Bangla typing not exceeding 1 (one) hour.

6. Last date of receiving tender: 19/7/98

7. Earnest money: 0 (zero) Computer Taka.

8. Contractors are advised that their performance on this tender will significantly affect the success of their subsequent tenders.

9. Schedule of work, full rules & regulations are available from the Computer Office of Public Works. Any inquiries should be addressed to Robin Hood Uncle in person.

10. The office retains the right to accept or reject any tender without assigning any reason whatsoever.

Robin ‘Hood’ Uncle.