Literacy/Remedial Education of Street and Working Children in Spanish Town and Montego Bay, Jamaica, West Indies.
OPERATIONS RESEARCH PROJECT

Literacy/Remedial Education

of

Street and Working Children

In

Spanish Town

and

Montego Bay

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The team appreciates the help, the hard work and the patience shown by everyone in bringing this project to satisfactory conclusion.
ABSTRACT

The Operation Research project was conducted over the period July 1998 to December 1999. The objective was to improve the literacy and numeracy skills of Street and Working Children, in Spanish Town and Montego Bay to Level 4 competency, based on JAMAL criteria. Many of the children were below Level 1.

Two groups of thirty children, one group in either location, were selected for the project. The team that planned and executed the project included two consultants together with two teachers at each location and the support staff.

The intervention did not achieve the objective of 100% students attaining Level 4. This was due to a number of issues, some of which were beyond the control of the Operations Research team.

The team claims much success regarding improvement in behaviour and outlook; the number of students who were admitted to schools in the formal education system, and the number of students who gained employment as well as some who started enjoying better relationship with their parents.

The number of students who dropped out is not a true reflection of the merits of the project. This number includes those who were
admitted to other schools; one girl who as a result of becoming literate during the first term, was able to imigrate with her mother; children who gained entry to vocational training institutions; children who became apprentices to master tradesmen; and some who found gainful employment.

The Directors and staff of the two agencies – Children First, Mrs. Claudette Richardson-Pid’s and Western Society for the Upliftment of Children, Mrs. Glenda Drummond – must be congratulated for the hard work, their creativity and flexibility in working with the ideas and other inputs from the consultants. The children, on the other hand, demonstrated that they can be responsive in very positive ways to programmes that clearly indicate a sincere interest in their welfare. Many of these children harbour lofty aspirations. Hopefully the contribution which the programme made to their personal development will be long lasting.
I. INTRODUCTION

This report culminates the Operations Research project, which was undertaken by L.A.R. and D. Enterprise Ltd. under the aegis of Development Associates Inc.'s Upliftment of Adolescent Programme. The project targeted street and working children in Montego Bay and Spanish Town. The cities are located in different sections of the island – Montego Bay in the NorthWest and Spanish Town in the SouthEast.

Montego Bay is classified a tourist resort, while Spanish Town, the former capital of the country, is a rambling commercial township. Both cities, because of constant, fairly large scale, diversified commercial activities, attract a large number of street and working children.

These children literally survive on the street. Some of them have homes. Circumstances however, lead them to the streets. Reports indicated that the number was increasing and that these children have had limited or no schooling, and were at a stage where they would find it impossible to enter school, given their background, level of academic attainment, and behaviour patterns.
Term of Reference
The project was designed therefore as a “Literacy/Remedial Education activity for “Street and Working Children”. The age of the primary target group, is the 10 -14 years old (however older children had to be included as insufficient numbers were in the 10 - 14 age group).


The main type of activity was to test “innovative interventions with a special population” as mentioned above, (i.e. street and working children between the ages of 10 - 14 years).

Anticipated Results
The anticipated result was that “Street Children in Montego Bay and Spanish Town will develop reading and numeracy skills, and will be motivated to continue their education toward personal fulfillment. They will also be guided in developing social skills through engagement in a thinking process, which is oriented towards

a) constructing meaning
b) aiding understanding
c) solving problems
d) becoming independent learners (Strategic Learning)"
Work Plan

Two agencies participated in the design of the project. These are the Western Society of the Upliftment of Children (WSUC) in Montego Bay and Children First in Spanish Town.

Both agencies were concerned about the increase in the number of street and working children in the respective cities. It was agreed therefore that a survey would be done to identify:

a) how many children fitting these categories were in both locations.
b) places from which they came – including home address, if any.
c) what exactly were their occupation on the streets.

In addition, the survey would provide a source from which children are selected for the literacy/remedial programme.

The Work Plan therefore had two parts. The first was to conduct the survey. The second, was to design and implement a literacy/remedial programme for a select experimental group.

This report is concerned mainly with the literacy/remedial programme. It will however include a brief report on the survey.
Rationale (for Project)

Children who are surviving on the streets have little opportunity to improve their situation in life. Many, it is believed inevitably, become involved in criminality. Some become users of drugs and ultimately add to the number of derelict adults squatting in public places.

One of the chief means of rectifying such situations is education. However, these children have become outcasts to the education system. Some of them have severed their relationship with schools with very little hope of renewing such relationship. Effectively, therefore they are debarred from opportunities for further development as, without basic literacy and numeracy, they cannot advance to other educational or training institutions. Neither are they in a position to access anything but low income employment. They seem destined for a life of poverty.

It was our conviction that these children are redeemable; that they are capable of learning if presented with appropriate opportunity.

Hypothesis

The hypothesis which forms the basis of this project is that street children of age group 10 – 14 years will develop reading and computation skills if:
a) given the opportunity.

b) the learning environment is conducive to learning.

c) appropriate strategies are employed to influence interest and learning.

The hypothesis is supported by concepts that promote the importance of innovative teaching strategies as a means of:

a) encouraging the right motivation and enthusiasm for learning.

b) making learners feel safe in the learning environment.

c) encouraging the application of knowledge by linking new knowledge to the experiences of the learner.

Walkins (1993) for instance, proposes that students will excel "where realistic goals are set, where support and encouragement is offered, and where achievement is properly recognized".

Overall, according to Walkins, it is important to make learners feel welcome, and that teachers should take time to establish rapport, which is "an essential aspect of effective communication". This is especially necessary, taking into account the background and social orientation of the target groups. It subsumes the need to build trust, to listen carefully to what each child is saying, and to mirror various positive aspects of the learner's behaviour and personality.
Walkins’ comment that learners often approach the learning situation with “psychological baggage,” is deemed to be relevant to the group. In contemplating therefore that they can be educated in a formal learning environment, it was necessary to recognize the restricting power of the “psychological baggage” and its impact in limiting study skills, confidence or self-doubt, fear of exposure and humiliation.

To prove the hypothesis therefore, it was important to review concepts of teaching and learning derived from research and experiments, elaborated by persons such as Marzano (1992) – “A Different Kind of Classroom”; Perrone (1991), - “Expanding Student Assessment”; Marzano (1993) – “Assessing Student Outcomes”; Calhoun; (1994) “How to Use Action Research in Self-Renewing School”.

**Action Plan**

There were two aspects to the Plan of Action; namely

- the survey to gather information on street and working children in both cities.

- the development and implementation of the literacy and remedial education programme.
For the survey, the plan was to use staff members of the respective agencies (WSUC and Children First) as field research officers. They would be assisted by children with similar background to those in the target population. It was felt that the involvement of these children was necessary to help the field officers (researchers) make contact on the streets.

Special forms for data collection were acquired, and the exercise was expected to be completed in one month.

The Literacy/Remedial Programme was planned to commence after the survey was completed. The reason for this is that the survey was expected to provide the list from which the children would be selected for the Operation Research project.

In the meantime, the team provided by L.A.R. and D. Enterprises Limited was responsible for:

1. developing the curriculum (Assistance in this area was provided by JAMAL and the Curriculum Development Unit of the Ministry of Education and Culture).

2. conducting orientation and planning sessions with teachers and other staff members who are involved with the programme.

3. formulating learning strategies and assisting with the development of learning material.
4. conducting review sessions and assist with resolving problems.

The overall plan for implementation allowed for some amount of rigor and control in the application of teaching methods. However, it was realised that flexibility was necessary to ensure appropriate response to needs and situations that may arise from time to time.

Several instruments (forms) were developed for use in the programme. These would help in monitoring the process and ensuring the process though flexible was systematic. The following is a list of the instruments which were developed.

1) an INTAKE form, to record information on each student.

2) INDIVIDUAL ASSESSMENT FORM, for recording information regarding special needs that the students may exhibit. Such information would come from interview, observations, or special reports that may be supplied by parents or other sources.

3) INDIVIDUAL TREATMENT PLAN, which outlines objectives and steps that will be taken in relation to special needs that are identified in the assessment.

4) LESSON PLAN. This basically is an outline or format for preparing lesson and various learning activities.

5) PROGRESS REPORT. This form was to be used to record progress in relation to the INDIVIDUAL TREATMENT PLAN as
well as information on how well a student is progressing in the Literacy/Remedial Programme.

Finally, it was planned that the entire Operation Research team would meet periodically to assess what was happening in the project, and determine steps to be taken to foster a successful completion.
II. PHYSICAL FACILITIES

Facilities at both locations were far from ideal. Apart from the limitations in physical space, the inconvenience to teachers and students was great.

In Spanish Town, the research group were without a proper classroom for most of the project time. They moved from the open yard under a large guango tree to a recently covered and paved area. The Teacher - Mrs. Aneita Jones exercised great skill and patience as the shadows of the leaves and branches protected her and the students from the direct rays of the sun. When the guango tree is without leaves, the class experience great difficulty in the open environment. Quite frequently the dust is blown across the unpaved yard disrupting the class as books, teaching aids are scattered and chalkboard are overturned by the wind. On rainy days, there is nowhere to hold classes and sudden downpours are frequently disruptive.

The guango tree (classroom) is part of the school yard/premises of the Y.M.C.A. Children from the 'Y' will sometimes pass through the class, or are playing nearby. This too was a distraction.

The situation in Montego Bay is not much better despite the fact that there is a building to house the children. Staff and students here contend on a daily basis with a number of hazards. During
weekends, the entrance to the building is used as a dump where debris and garbage are disposed.

Quite frequently, they have to cope with other deposits that endanger the health of teachers and students. The size of this building is approximately 20’ x 12’ and over sixty (60) children are accommodated there. The research group shared this accommodation with other children who are participating in the programme of WSUC.

The agency has recently secured new accommodation, which has increased classroom space on the third floor of a building.
IIa. IMPLEMENTATION – THE SURVEY

Rationale for Survey

Reports from WSUC and Children First indicate that there was a growing number of children surviving on the streets without adult care and supervision. Hence their educational, social and psychological development are jeopardized thus classifying them as “at risk children”. The situation merits consideration under the United Nations Convention on the Rights of the Child, especially with regard to “Children’s Protection” right. Many, if not all of these children are destined to remain illiterate and barely numerate.

Proper planning in respect to the development and protection rights of children required empirical data that will rationalize the objectives of such programmes.

The Agencies mentioned above had an interest in the results, as they are promoting programmes for the development, relief and advancement of such children.

As a consequence, the survey was included in the project proposal to U.A.P. as a matter or priority. The survey was also expected to identify children for this project.
The study was to determine the number of street and working children in Spanish Town and Montego Bay, their special circumstances, and nature of "Street Activities".

Prior to the commencement of the survey the following were put in place:

a) Design survey method – instrument.

b) Recruit field workers.

c) Train/provide guidance for workers to embark on sensitive areas such as: collecting data at bus depot, on street, in the market, on the beach and in other places where street and working children can be found.

d) Process data and develop list of street/working children.

The data collection instrument/form sought information such as:

Name and age
Number of siblings
Address, if any
Parental contact, and contact with adults other than parents.
Extent of time on the streets, and nature of street activities that occupy time on the streets.
Amount of income generated from street activities, and how is income used.
Association with school.

Special interests and aspiration.

The survey was conducted over a six (6) weeks period July 13 – September 4, 1998.

**Research Team**

Two researchers, one in Montego Bay and the other in Spanish Town were identified and trained. They were selected based on their knowledge of the data collection procedures and their familiarity with the local environments. Twenty other persons – ten in Montego Bay and ten in Spanish Town were identified and trained to assist with the data collection. These were children of similar circumstance/background as those of the target population. Their involvement helped to diffuse suspicion, on the streets, regarding the motives of the Researchers.

Hence, there were two teams of data – collectors – one in Montego Bay and the other in Spanish Town. Each team comprised eleven persons.

Tape recorders were provided to facilitate the data gathering process.
Data Collection Forms

Adequate numbers of forms were printed to document information on hundreds of street and working children to be found in Spanish Town and Montego Bay.

The delicate/sensitive nature of this data gathering process required an orientation exercise with the researchers. Fortunately, both agencies had employees who were knowledgeable of the situation and deeply committed to project.

These forms were not used on the streets because their use would lengthen the interviews, which, for many reasons, was not prudent. Consequently, information was recorded and transferred to the forms when the researchers returned to the office.

Montego Bay- Data Gathering

The staff of the Western Society for the Upliftment of Children (WSUC) was briefed about the assignment. A research field worker and ten other persons selected from Child Advocates group were recruited to collect data.

In order to achieve the goal the following was decided upon.

- Work teams were to comprise two individuals.
- Work area – beachfront, fast food outlets, bus terminus, Markets, plazas, street corners and wholesale stores
- Working hours – 9:30a.m. – 1:30p.m. on Thursdays and Fridays
- Identification – WSUC t-shirts to be worn by the research teams.
- How to conduct a survey, e.g. meeting youngsters, getting attention, avoiding duplication, getting job done without frustration.

It was decided that the group should meet at the project office at 9:30a.m. on Thursdays and Fridays to prepare and start street work at 10:00a.m. A simpler DATA COLLECTION form was drafted for easier management.

The change in the usage of the form came about because the original form being larger and in book form, created suspicion and resistance to collecting information on the street. The book was however still used for the transfer of information.

**Strategies**

The work teams were placed in areas familiar to them e.g. Children from Cantebury (a community near the centre of Montego Bay) were placed to work in the North Gully area.
The teams wore t-shirts marked “Western Society for Upliftment of Children” for clear identification.

The children in the research team used their friends to make contact with other street and working children. In many cases the children in the research team spent a considerable amount of time establishing contact and encouraging street children to participate in the interviews.

Hustling1 days, were chosen as the best time to make contact, as more children were then on the street.

Problems Faced and Solutions

Despite many precautions some problems were experienced, thereby slowing down of the data gathering process somewhat. The problems encountered were:

- Excessive questions from passers-by when the interviews were taking place. These persons wanted to know why the children were being questioned.

- Mixed reactions from parents, guardians and on-lookers. Some of these persons expressed concern and anger at having their children interviewed.

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1 “Hustling” doing whatever is necessary to earn some money. Events (like market days, special functions) provide great opportunities for “hustling.”
Some interviewees were too busy to talk to the interviewers. Hence the interviewers had to be following the children while conversing. Sometimes the children were moving very fast and it took great effort to keep up with them.

Children flocked the office for information and assistance after they were invited there by the interviewers. Very often they expected food or other forms of welfare.

Results/Accomplishments

Data collection was successful as after overcoming many obstacles, the interviewers were able to contact and interview an estimated 90% of the street and working children in both cities.

Data on 140 street/working children was collected. The method of checking and double-checking, through follow-up visits to the streets, convince the researchers that the coverage was very comprehensive. Nonetheless, due to the fact that children are recruited to the streets regularly, the researchers concluded that the coverage must have been at least 90%.

Spanish Town - Data Gathering

Those persons assigned to the project were briefed on the outcome that was expected and ten (10) children were identified to assist the researchers in collecting the data. These youngsters were
mainly street/working children who were members of Children First Environment Protectors Club. They were organized in teams and assigned to cover specific areas. In addition, they were given instructions on the purpose and goals of the research, and as well, were trained in how to go about the task which was given to them.

Two months were spent in completing the survey.

**Areas Covered**

The following were identified as prime areas for collecting information.

- The Market
- Plazas
- Games Shops
- Bus Terminus
- Canals – where children wash themselves
- Wholesale Shops
- Fast Food Shops
- Street Corners

In the above mentioned areas, street and working children can be found collecting empty bottles, selling bag juice and box juice and
performing tasks for higglers and shoppers. They also push handcarts, transporting goods purchased by various higglers.

**Method of Approaching Youngsters**

Interviewers over a period of time succeeded in creating a friendly atmosphere, which put the interviewees at ease and willing to provide the requisite information.

The wearing of t-shirts assisted the process greatly. It was discovered that many people knew of the agency, and so the t-shirts were a quick means of identification. Identifying the leaders in the group of street and working children and gaining their confidence also lessened the difficulty for the interviewers. Overall the researchers had to be very careful in order not to alienate the children.

**Challenges**

- Excessive questioning from passers-by. Members of the team addressed this appropriately by their co-operation, knowledge and reference to Children First. Those who were not acquainted with the agency's name were familiar with the Co-ordinator, Mrs. Richardson-Pious.
威胁的暴力来自采访对象的亲属，他们对研究人员一无所知，却怀疑最坏的情况。

有些被采访者是游牧民，这增加了重复计算的可能性。研究人员不断双倍检查数据。

一些公众成员将研究人员误认为儿童官员，他们认为这些官员计划将儿童送入机构。

父母们对此反应不一，既表达了担忧和愤怒，因为他们认为孩子在本应赚钱的时候被采访。

团队成员被认为是同性恋者。基于这个污名，使用混合团队（男性和女性）的策略被发现很有用。

“触怒”法律。街上的警察开始对团队的数据收集过程感到好奇。尽管高级官员被告知这次调查，但这一信息并未传达给巡逻队。在解释了这项工作的性质并出示了相关文件后，采访者才被允许继续。

有些采访必须在夜间进行。观察到更多年轻人在晚上“兜售他们的商品”。
evenings and at nights, and were not available for interviews during the day.

It was noticeable that boys were more visible on the street than girls.

Overall, the identification of street and working children did not present any major difficulty. They were very visible on the street, and as soon as the purpose of the contact was clarified they became very willing to give information. They all were not currently attending any educational institution, but had an expectation of attending.

Conclusion

The data collection was completed within the months of July, August 1998. The survey was completed in September 1998. The number of street and working children identified is as follows – Montego Bay 140; Spanish Town 205. See table 1.)
Table 1

Number of street and working children by location and sex.

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>MALE</th>
<th>FEMALE</th>
<th>TOTAL</th>
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<tr>
<td>Montego Bay</td>
<td>(92%) 129</td>
<td>(8%) 11</td>
<td>140</td>
</tr>
<tr>
<td>Spanish Town</td>
<td>(92.7%) 190</td>
<td>(7.3%) 15</td>
<td>205</td>
</tr>
<tr>
<td>TOTAL</td>
<td>92.5% 319</td>
<td>(7.5%) 26</td>
<td>345</td>
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IIb. IMPLEMENTATION (Operation Research)

The Literacy/Remedial Programme

The Operation Research project was concerned with the implementation of a Literacy/Remedial programme, which targeted street and working children in the two cities. Hypothetically, the programme was based on the belief that street and working children, given the opportunity, will develop reading and computation skills at a fairly rapid rate. This is supported by the concept that "students learn better when teaching strategies activate background knowledge and experiences, in an effort to introduce new knowledge".

Such a view is given some weight by a variety of concepts and conclusion drawn from research. For instance, the need to establish and maintain rapport has been given much prominence. This is based on the generalization that people influence people, which can be translated to mean that teachers influence attitudes toward subject matter, as well as toward self. *(Postman, 1979)*

*Mager (1968)* on the other hand, highlight the view that to eliminate "aversive conditions" from the relationship will influence attitude and the pace of learning. Aversive condition is described as "any event that:

a) Causes mental or physical discomfort."
b) Causes person to think less highly of self.

c) Results in strong anticipation of any of these”.

These above mentioned considerations are very important in the case of street and working children who live and operate on the fringes of social and economic milieu. Awareness of such considerations must lead, therefore, to the accentuation of “positive conditions” (opposite of “aversive conditions”) that encourage meaningful interactions and attitude to learning.

The “strategies” to which the hypothesis alludes, therefore, are those that will make students feel welcome to the learning environment. They will foster rapport; an atmosphere of mutual respect and effective communication. These will emerge from a commitment to make the learning environment “the centre of enquiry” (Calhoun, 1994) and to help students unload the “psychological baggage” (Marzono, 1979) which these children, certainly, collected as individuals who have been denied “opportunities for bonding” (UNICEF, 1995) and social and personal development.

The task, naturally, was expected to present some difficulty. The children in the target group, (as described in the Situational Analysis of Women and Children in Jamaica – UNICEF 1995) are among those who:
(a) Experience no intellectual stimulation in their homes.

(b) Are unused to adult supervision and authority

c) (where such supervision and authority exists) are exposed to harsh parental practices which often cause physical, and emotional damage.

Obviously, these children would not be expected to show any "readiness to learn". Secondly, behaviour patterns may not be conducive to learning in a formally structured situation. It may even be expected that they will have difficulty settling into a classroom for a sustained period.

**Method**

The Operation (Action) Research model was considered to provide a valid approach to surmounting problems of learning in cases where these variables exist. As described by Calhoun, Action Research in education is a "normative model for learning based on the application of scientific methods of fact finding and experimentation, to practical problems requiring action solutions and involving the collaboration and co-operation of scientists, practitioners and laymen".
Applying this as a framework, the Operation Research team, comprising of two consultants, and the staff (administrative and teaching) or practitioners undertook the following:

1. Specification of desired results.

2. Development of instruments by which success will be measured.

3. Development of procedures, lessons and materials designed to achieve the specified result.

4. Identification of steps to ensure continued improvement of programme effectiveness.
Mager's (p.49) two-phase model of PREPARATION and DEVELOPMENT/IMPLEMENTATION illustrates the essence of the approach.

**Phase 1: Preparation**

- Identify target population
- Need Assessment
- Develop programme pre-requisites
- Programme Objectives
- Criteria

**Phase 1: Outline of the Preparation Phase**

First the "target population was identified and selected by use of the survey. The Need was determined as a consequence of the contract with Development Associates, Inc. The Objectives were also identified in the contract. This was to "move" street children to Level-4 literacy using the Jamaica Adult Literacy (JAMAL) criterion. To validate the "needs" and the objectives, JAMAL assessment tests were used as a part of the "front end analysis"
that is necessary to determine programme content (programme pre-requisites).

Subsequently, phase 2 was applied. This is depicted in the following diagram.

**Phase 2**

- **Unit Outlines**
  - Determining critical lesson outlines that will provide for instance, students with ability beyond merely being able to recognize words.
  - Determining how learning should flow to ensure effectiveness in comprehension and retention.
  - Selecting and preparing material that serve the objective and encourage interest and enthusiasm.
  - Determining how best to deliver the material, i.e. mediating learning.
  - Taking action.

- **Tests**
  - Comparing of performance with objectives.
Phase 2: Development and Implementation Stages of the Learning Programme

Several methods were used in the Implementation stage of phase 2. Some of these were designed to impact on the students' personal development while others were aimed at achieving literacy and computation objectives. The two sets of outcomes are inter-related, however as issues of personal development will influence attitude and pace of learning.

At the personal development level the methods employed attempted the following.

1. To encourage children to see themselves as persons with potential for learning and coping with their environment.

2. To encourage stronger links between parents and children and seek to make home more supportive of the school.

3. To make children more aware of issues (themes) in the society especially those which impact directly on their lives. Emphasizing themes appeared effective. Those used were communication, relationships, love, safe sex, peace, black history, music and community leadership.
Activities used included, games, drama, story-telling, Creative Art Work and Music. These called for the use of a variety of skills. Stories were used to enhance thinking, speaking and listening skills.

Games were used to enhance social skills as well as thinking and analytical abilities. Drama gave the children an opportunity to express themselves in a variety of ways. Drama also assisted them to focus on the development of speech, and to express what they observe.

**Remedial Education**

It can be seen that a wide array of teaching methods was used to help the students progress from one level to another.

This was necessary for a variety of reasons. All learning according to Marzano (1993) "takes place against the backdrop of the learners’ attitudes and perceptions, and the use of productive habits of mind". In this context, it became obvious at an early stage in the programme that teachers would need to apply the highest level of physical and mental energy, creativity and innovation to cope with the learning needs of the students in the target group.
The consultants and teaching staff, in recognition of this, prepared basic formats for engaging the students in the learning process. Kolbs learning inventory model was useful in this regard. The model is depicted in the following diagram, and is self-explanatory, Guest & Kenny, 1983.

- Simulation
- Exercise/assignment
- Practical demonstration

Critical thinking
Reasoning
Modeling
Problem Solving

The model, for instance, called for the use of physical and symbolic representations to get students to "recast information" to assess situations and facts; (Cooper, 1983; Frederiksen 1977; Mayer...
These "symbolic representations, such as "graphic organizers," can be applied with respect to different patterns of information, such as:

1. Descriptive patterns – organizing facts about specific persons, places, things, events.

   ![Diagram](image)

2. Sequence patterns – e.g. organizing events in specific chronological order.

   ![Diagram](image)
3. Problem Solving Patterns – organizing information in terms of identified problem and its possible solutions.

![Diagram of Problem Solving Patterns]

Samples of “symbolic representations” are given “attachments” which accompany this report. The attempt at developing and using these was a response to the need for finding interesting material to gain and maintain the students’ enthusiasm for learning. The examples given above are related to lessons in speaking, writing and reading.

RESULTS

Composition of Research Group

Two groups of thirty (30) students (one group at each location) were selected from the list, which was compiled from the survey. They were chosen primarily on the basis of testing which sought to ascertain literacy and numeracy achievement levels. The testing was followed by interviews to determine:

a) Willingness to join the programme.
b) Family background and information on social contact and way of life.

c) Past acquaintance with school

d) Expectations and aspirations.

At the end of the process, the following students were selected. Table 2 shows the number of students by sex and "level of literacy" at entry point to the project.

**Table 2**  Number of children (by sex and achievement) in the Research Group

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>LEVEL 3</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Spanish Town</td>
<td>16</td>
<td>9</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Montego Bay</td>
<td>11</td>
<td>1</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>27</td>
<td>10</td>
<td>14</td>
<td>1</td>
</tr>
</tbody>
</table>

The group in Montego Bay contained a significant number of students with achievement levels of Level 2 and Level 3. This reflects the fact that more children in Montego Bay – than is the case in Spanish Town – received some amount of schooling prior to
their being on the street. The investigation showed that a high number of the children in Montego Bay fit the description of Working Children and not Street Children. Some of them live with parents or relatives, at considerable distance from the city. They journey to the city in the mornings and return home at nights.

The inclusion of these children in the project is relevant. Their further development and their re-orientation to formal schooling is of great importance. It constitutes a challenge to influence proper attitudes and perceptions to create a zeal for developing greater proficiency.

III ORIENTATION

There was some difficulty at first to get students adjusted to the formal learning environment. They tended to be very boisterous and aggressive. They used foul language instinctively, and showed a high level of intolerance. This led frequently to fights and many threats to inflict bodily harm on each other.

The project team anticipated this and was ready to deal with any occurrence. Orientation sessions were used as a means of providing information and discussing issues in a manner that will help students accept responsibility to make the environment safe and productive.
Both sets of teachers, and other staff members, showed a great amount of patience in providing guidance, and engaging the students in activities that influence “critical thinking”. This helped students to assess their behaviour and determine its impact on others and the environment as a whole. During all this, the teachers were respectful of the students’ views, and made several appeals to positive aspects of their personalities.

The students responded very well. They were enthusiastic in discussing issues, and generally, were willing to state their opinion even if it conflicted with that of the teacher. They participated in establishing rules and very quickly, by the second term, assumed responsibility to apply sanctions when rules are breached. Some very stringent sanctions were applied. For instance in Spanish Town, such behaviour as fighting, cursing, and late-coming drew monetary fines of set amounts. The class from time to time determined how the funds should be used.

Researchers and Teachers were pleasantly surprised and heartened at the level and rate of adjustment to the learning environment. Behaviour was remarkably similar at both locations.

In the first place the students responded with excitement and interest to the attention which they received during the survey.
This led to an alliance with the Researchers, and the children often visited the Officers to chat with their newfound “friends”.

Consequently, recruitment to the classes was quite easy, and the NGO’s found it somewhat difficult to keep the numbers for the research group down to thirty respectively.

Another interesting aspect of the adjustment process is that the children placed great importance on the wearing of uniforms. They quickly identified themselves as students and wanted to appear as such.

Thirdly, they showed great enthusiasm for classroom teaching, which required them to do work in their books. They demonstrated great satisfaction when on the completion of such work, their effort was rewarded with a ‘tick’ (√).

On the other hand, they registered disappointment (and sometimes anger) if there is an “X” affixed to their work. They prefer if the teacher leaves the work unmarked until they produce work which deserves a ‘tick’ (√). Their diligence to ‘chalk and talk’ classroom interaction with teacher, offers an interesting comparison with ‘activity oriented’ teaching. It is noticeable that in Montego Bay especially, the children became easily bored with some of the activities. The following sequence is not unfamiliar.
1) The teacher introduced an activity (game), say in reading and spelling.

2) The children entered this exercise with great enthusiasm.

3) Within a short time they would ask the teacher to change the exercise by exclaiming “Let’s do another one teacher”.

Remarkably however, these students would sit for long periods paying attention to the teacher and responding enthusiastically to questions, in the traditional classroom style. The issue, here, was to find methods that influenced learning. The teachers used a variety of learning aids (charts, props, and simulations) to achieve this end.

About midway in the first term a small number from both groups had problems with regular attendance. Reasons ranged from economic (where children had to become involved in income generating activities for personal or family support), to social or unstable family life.

Some of these children really have a difficult life. One child, who suddenly was not attending, on investigation, was found to be living in a hen house. In another case, the family was almost nomadic, while others faced harsh, abusive conditions at home. The difficulties which children faced produced some negative impact on their adjustment to the learning situation.
A very important element of the adjustment issue is the bond, which quickly developed between staff of agencies and the students. As a result of this bonding, most of the children freely shared personal information with the teachers. This allowed teachers to make some form of intervention, which helped to remove some obstacle, which impeded school attendance. The bond which they formed at “school” also helped to cushion the stress which accompanied the difficulties which they were experiencing.

In many of these cases, new problems emerged as soon as one is solved which brought an element of continuous problem-solving to the project, and proved to be very distracting to both teachers and students. Nonetheless, the research team felt obliged to commit time to helping students grapple with their problems.

Spanish Town was most affected by this situation. The teachers had to display great flexibility, creativity and innovation in dealing with it.

IV OUTCOMES

Students were exposed to a number of Strategic Learning approaches to develop skills in reading, writing and computation. Tables 3 and 4 show the progress which students made during four terms – from July 1998 to December 1999. The July term
started late, because six weeks were spent conducting the survey and selecting and orienting the students.

The figures in Table 3 show that in Spanish Town, seven or 23.3% of the students progressed from Level 1 to Level 2 by the end of the second term. Similarly, two of the three students who entered at Level 2 progressed to Level 3.

There was some movement between levels as well during the third term. However, the movement was not as rapid as expected compared to the first period. Some of those who made progress to Level 2 seemed to slow down during this term. At the end of "term 3" there were four students in Level 2 and 5 in Level 3. On the other hand, eight had dropped out. The breakdown of the drop-out figure shows that one emigrated (as a result of the success of the project), three went off to other schools; one was sent to Approved School; and one entered the H.E.A.R.T. Academy for skill training.

By the commencement of the fourth term only 20 students remained in the programme. Of this amount, ten had achieved Level 2; three achieved Level 3 and three achieved Level 4. Four of the students were still at Level 1.

Of the four who attained Level 4, two entered at Level 1, one at Level 2 and one entered at Level 3. Those who seemingly made no
progress – in that they remained at Level 1 throughout, manifested learning deficiencies. Nonetheless, the programme helped them in that there was marked improvement in their behaviour and their social skills. Interestingly, these students were among the highest in attendance.
### TABLE 3 (Spanish Town)

**PROGRESS OF STUDENTS AT TERM 1, TERM 2, TERM 3 and TERM 4**

<table>
<thead>
<tr>
<th>NAME</th>
<th>AGE</th>
<th>SEX</th>
<th>ATTENDANCE RATE</th>
<th>TERM 1</th>
<th>TERM 2</th>
<th>TERM 3</th>
<th>TERM 4</th>
<th>LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherine Brecombre</td>
<td>11</td>
<td>F</td>
<td>62%</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>Fair progress</td>
</tr>
<tr>
<td>Testina Cameron</td>
<td>14</td>
<td>F</td>
<td>60%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Appears retarded</td>
</tr>
<tr>
<td>Nicola Edwards</td>
<td>16</td>
<td>F</td>
<td>60%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Slight improvement</td>
</tr>
<tr>
<td>Adisha Lawrence</td>
<td>15</td>
<td>F</td>
<td>75%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Improved deportment</td>
</tr>
<tr>
<td>Keisha McFarlane</td>
<td>11</td>
<td>F</td>
<td>87%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Appears retarded</td>
</tr>
<tr>
<td>Andrea Johnson</td>
<td>14</td>
<td>F</td>
<td>68%</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>Slight improvement</td>
</tr>
<tr>
<td>Tamara Mullings</td>
<td>15</td>
<td>F</td>
<td>50%</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Poor attendance</td>
</tr>
<tr>
<td>Dane Fearon</td>
<td>15</td>
<td>M</td>
<td>45%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Poor attendance - little progress.</td>
</tr>
<tr>
<td>Dwayne Finn</td>
<td>13</td>
<td>M</td>
<td>90%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Appears retarded</td>
</tr>
<tr>
<td>Fabian Finlay</td>
<td>13</td>
<td>M</td>
<td>90%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Appears retarded</td>
</tr>
<tr>
<td>Dain Miller</td>
<td>15</td>
<td>M</td>
<td>55%</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>Improved student but usually ill.</td>
</tr>
<tr>
<td>Steven Nelson</td>
<td>16</td>
<td>M</td>
<td>97%</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>Slow learner</td>
</tr>
<tr>
<td>Anthony Reid</td>
<td>13</td>
<td>M</td>
<td>70%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Slow learner</td>
</tr>
<tr>
<td>Daniel Rose</td>
<td>15</td>
<td>M</td>
<td>62%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Poor attendance</td>
</tr>
<tr>
<td>Hopeton Swaby</td>
<td>16</td>
<td>M</td>
<td>62%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Poor attendance</td>
</tr>
<tr>
<td>Romaine Turril</td>
<td>17</td>
<td>M</td>
<td>65%</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>Improved student</td>
</tr>
<tr>
<td>Nicolas Vassell</td>
<td>15</td>
<td>M</td>
<td>68%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Slow learner</td>
</tr>
<tr>
<td>Renaldo Whonder</td>
<td>15</td>
<td>M</td>
<td>60%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Slow learner</td>
</tr>
<tr>
<td>Nickroy Hunter</td>
<td>14</td>
<td>M</td>
<td>93%</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Improved student</td>
</tr>
<tr>
<td>Ingrid Walker</td>
<td>18</td>
<td>F</td>
<td>12%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Attendance ceased – migrated.</td>
</tr>
<tr>
<td>Neisha Brown</td>
<td>12</td>
<td>F</td>
<td>20%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Left second term for another school</td>
</tr>
<tr>
<td>Nickisha Brown</td>
<td>12</td>
<td>F</td>
<td>24%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Left second term for another school</td>
</tr>
<tr>
<td>Latoya Henry</td>
<td>13</td>
<td>F</td>
<td>10%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Left during first term.</td>
</tr>
<tr>
<td>Duran Barnam</td>
<td>13</td>
<td>M</td>
<td>18%</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>Sentenced to Approved School</td>
</tr>
<tr>
<td>Dennis Foster</td>
<td>18</td>
<td>M</td>
<td>23%</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>Dropped out of school.</td>
</tr>
<tr>
<td>Andrew Henry</td>
<td>13</td>
<td>M</td>
<td>11%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Dropped out of school.</td>
</tr>
<tr>
<td>Ricardo Henry</td>
<td>13</td>
<td>M</td>
<td>8%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Dropped out of school.</td>
</tr>
<tr>
<td>Andrew Sinclair</td>
<td>14</td>
<td>M</td>
<td>52%</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>Should have been at Level 3</td>
</tr>
<tr>
<td>Garth Orr</td>
<td>18</td>
<td>M</td>
<td>50%</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>Irregular attendance</td>
</tr>
</tbody>
</table>
Drop Out

Montego Bay

As stated before, the achievement levels of the Montego Bay intake was higher than that in Spanish Town. (See table 4)

The figures indicate that there was also some movement between levels at this location. For instance, eleven (11) students were at Level 2 at the end of term 2. Of this number, four (4) were at Level 1 in the first term. Similarly, four (4) of the nine (9) who were at Level 3 at the end of term 2, were at Level 2 in term 1. The number of drop-out at this time was three (3).

By the end of the fourth term, there was only one (1) student at Level 1. On the other hand, there were two (2) at Level 2, six (6) at Level 3 and eight (8) at Level 4. The number of drop-out had climbed to thirteen (13).
The number of drop-out in the Montego Bay group is very high. Twenty five percent of these dropped from the programme to attend high school. Another thirty percent found employment. Some of these were aided by WSUC in response to the desperate circumstances, which these children faced. Most of those who moved into employment had attained at least Level 2 in the programme. Tables 5 and 6 give a breakdown of drop-outs – the attainment levels at the point of leaving the programme. Drop Out

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# TABLE 4 (Montego Bay)

PROGRESS OF STUDENTS AT TERM 1, TERM 2, TERM 3 and TERM 4

<table>
<thead>
<tr>
<th>NAME</th>
<th>AGE</th>
<th>SEX</th>
<th>ATTENDANCE RATE</th>
<th>TERM 1</th>
<th>TERM 2</th>
<th>TERM 3</th>
<th>TERM 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jermaine Forrester</td>
<td>15</td>
<td>M</td>
<td>80%</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Garth Wilson</td>
<td>18</td>
<td>M</td>
<td>70%</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Andre Burt</td>
<td>15</td>
<td>M</td>
<td>65%</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Mikhail Shaw</td>
<td>15</td>
<td>M</td>
<td>95%</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Latoya Craigie</td>
<td>16</td>
<td>F</td>
<td>90%</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Kervin Shaw</td>
<td>16</td>
<td>M</td>
<td>90%</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Kevin Shaw</td>
<td>16</td>
<td>M</td>
<td>90%</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Ralston Rowe</td>
<td>16</td>
<td>M</td>
<td>60%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Ricardo Witter</td>
<td>15</td>
<td>M</td>
<td>85%</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Pino Woolzenereft</td>
<td>17</td>
<td>M</td>
<td>70%</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Kevin Patten</td>
<td>16</td>
<td>M</td>
<td>60%</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>David Clarke</td>
<td>18</td>
<td>M</td>
<td>95%</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Jamie Palmer</td>
<td>16</td>
<td>M</td>
<td>80%</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Miguel Jarrett</td>
<td>17</td>
<td>M</td>
<td>45%</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ann Marie Campbell</td>
<td>16</td>
<td>F</td>
<td>40%</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Jeffrey Scott</td>
<td>17</td>
<td>M</td>
<td>50%</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Marcia McFarlane</td>
<td>16</td>
<td>F</td>
<td>50%</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mark Wilson</td>
<td>18</td>
<td>M</td>
<td>60%</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sheldon Archer</td>
<td>16</td>
<td>M</td>
<td>60%</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Leroy Thompson</td>
<td>17</td>
<td>M</td>
<td>30%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sean Bernard</td>
<td>16</td>
<td>M</td>
<td>40%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Odean Brown</td>
<td>16</td>
<td>M</td>
<td>30%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mark Sterling</td>
<td>15</td>
<td>M</td>
<td>78%</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Kevern Peterkin</td>
<td>16</td>
<td>M</td>
<td>50%</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Bruce Clarke</td>
<td>16</td>
<td>M</td>
<td>30%</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Orlando Taylor</td>
<td>15</td>
<td>M</td>
<td>50%</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Robert Newsome</td>
<td>17</td>
<td>M</td>
<td>40%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Delano Malcolm</td>
<td>16</td>
<td>M</td>
<td>45%</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
**INFORMATION ON DROP OUTS**

Table 5 (Spanish Town)

<table>
<thead>
<tr>
<th>NAME</th>
<th>DROP-OUT POINT TEAM</th>
<th>LEVEL ATTAINED</th>
<th>REASON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neisha Brown</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Moved to an All-Age School</td>
</tr>
<tr>
<td>Nickeisha Brown</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Moved to an All-Age School</td>
</tr>
<tr>
<td>Latoya Henry</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Whereabouts unknown</td>
</tr>
<tr>
<td>Ingrid Walker</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Migrated</td>
</tr>
<tr>
<td>Duran Barham</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Went to approved school</td>
</tr>
<tr>
<td>Dennis Foster</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Employed</td>
</tr>
<tr>
<td>Andrew Henry</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Whereabouts unknown</td>
</tr>
<tr>
<td>Ricardo Hunter</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Whereabouts unknown</td>
</tr>
<tr>
<td>Beswick Salmon</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Whereabouts unknown</td>
</tr>
<tr>
<td>Andrew Sinclair</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Employed</td>
</tr>
<tr>
<td>Dennis Merrick</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Whereabouts unknown</td>
</tr>
<tr>
<td>Garth Orr</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>Gone to HEART programme</td>
</tr>
<tr>
<td>NAME</td>
<td>DROP-OUT POINT TEAM</td>
<td>LEVEL ATTAINED</td>
<td>REASON</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------</td>
<td>----------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Andre Burt</td>
<td>1 √ 2 3 4</td>
<td>1 √</td>
<td>To attend high school 65% attendance</td>
</tr>
<tr>
<td>Tim Wozencraft</td>
<td>1 √ 2</td>
<td>1 √</td>
<td>To attend high school 70% attendance</td>
</tr>
<tr>
<td>Sheldon Archer</td>
<td>1 √</td>
<td>1 √</td>
<td>To attend high school 60% attendance</td>
</tr>
<tr>
<td>Ann Marie Campbell</td>
<td>1 √ 2</td>
<td>1 √</td>
<td>Changed address</td>
</tr>
<tr>
<td>Robert Shaw</td>
<td>1 √</td>
<td>1 √</td>
<td>Changed address</td>
</tr>
<tr>
<td>Bruce Clarke</td>
<td>1 √ 2</td>
<td>1 √</td>
<td>Found employment 30% attendance</td>
</tr>
<tr>
<td>Leroy Thompson</td>
<td>1 √</td>
<td>1 √</td>
<td>Found employment 30% attendance</td>
</tr>
<tr>
<td>Orlando Taylor</td>
<td>1 √ 2</td>
<td>1 √</td>
<td>Found employment 50% attendance</td>
</tr>
<tr>
<td>Odean Brown</td>
<td>1 √ 2</td>
<td>1 √</td>
<td>Found employment 30% attendance</td>
</tr>
<tr>
<td>Jeffery Scott</td>
<td>1 √</td>
<td></td>
<td>Relocated</td>
</tr>
<tr>
<td>Ralston Rowe</td>
<td>1 √ 2</td>
<td></td>
<td>Relocated – attending another school</td>
</tr>
<tr>
<td>Marcia McFarlene</td>
<td>1 √ 2</td>
<td></td>
<td>Relocated</td>
</tr>
<tr>
<td>Leon Bernard</td>
<td>1 √</td>
<td></td>
<td>Relocated</td>
</tr>
<tr>
<td>Delano Malcolm</td>
<td>1 √ 2</td>
<td></td>
<td>Found employment</td>
</tr>
<tr>
<td>Miguel Jarrett</td>
<td>1 √</td>
<td></td>
<td>Found employment</td>
</tr>
<tr>
<td>Kavern Peterkin</td>
<td>1 √</td>
<td></td>
<td>Relocated</td>
</tr>
</tbody>
</table>
V DISCUSSION

Selectees
Initially, forty-three (43) children in Montego Bay and fifty-five (55) in Spanish Town expressed an interest in joining the programme. A simple random sampling technique was used to select the thirty names for each location. This effectively reduced the possibility of bias in making the final selection.

As a consequence, a number of children with varying learning disabilities were admitted. There were, as well, some children who exhibited behaviour patterns which seemed to be related to mental and emotional problems. Fortunately, the number in the latter category was very small. On the other hand, it was difficult to determine how many of those who made slow or no progress at all, were the result of a learning disability. For instance, some may have lacked genuine interest, or were experiencing severe difficulties which had a negative influence on learning ability.

It is obvious that learning took place despite the fact that the target of 100% movement to Level 4 was not attained. Most of the students advanced at least one level (See Tables 7 and 8 - which shows how students progressed). Six of the completers in Spanish Town attained level 3–4. On the other hand, two of those in Montego Bay attained Level 2, five Level 3 and eight Level attained Level four.
For the most part teachers were working simultaneously with students at more than one level. This created some difficulty, which was compounded by the commitment to treat behavioural and emotional conditions that threatened to disrupt the learning environment. The consultants provided some assistance in counseling, but this needed to be more sustained if the pressure on the teachers was to be reduced.
<table>
<thead>
<tr>
<th>NAME</th>
<th>LEVELS</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherene Brecombre</td>
<td>√</td>
<td>Fair progress</td>
</tr>
<tr>
<td>Testina Cameron</td>
<td></td>
<td>Serious reading problem</td>
</tr>
<tr>
<td>Nicola Edwards</td>
<td>√</td>
<td>Slow progress - much effort</td>
</tr>
<tr>
<td>Andrea Johnson</td>
<td>√</td>
<td>Fair progress</td>
</tr>
<tr>
<td>Tamara Kidd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adisha Lawrence</td>
<td>√</td>
<td>Improvement in deportment</td>
</tr>
<tr>
<td>Keisha McFarlane</td>
<td></td>
<td>Did not master Level 1</td>
</tr>
<tr>
<td>Tamara Mullings</td>
<td>√</td>
<td>Irregular attendance</td>
</tr>
<tr>
<td>Dane Fearon</td>
<td>√</td>
<td>Poor attendance - little progress</td>
</tr>
<tr>
<td>Dwayne Finn</td>
<td>√</td>
<td>Appears retarded</td>
</tr>
<tr>
<td>Fabian Finley</td>
<td>√</td>
<td>Appears retarded and in need of specialised attention</td>
</tr>
<tr>
<td>Dian Miller</td>
<td>√</td>
<td>Poor health and fair progress</td>
</tr>
<tr>
<td>Steven Nelson</td>
<td></td>
<td>Showed improvement</td>
</tr>
<tr>
<td>Anthony Reid</td>
<td>√</td>
<td>Improved student</td>
</tr>
<tr>
<td>Daniel Rose</td>
<td>√</td>
<td>Improved student</td>
</tr>
<tr>
<td>Hopeton Swaby</td>
<td>√</td>
<td>Poor attendance little progress</td>
</tr>
<tr>
<td>Romaine Tyril</td>
<td>√</td>
<td>Improved student</td>
</tr>
<tr>
<td>Nickolas Vassell</td>
<td>√</td>
<td>Slow learner little progress</td>
</tr>
<tr>
<td>Renaldo Whonder</td>
<td>√</td>
<td>Improved student</td>
</tr>
<tr>
<td>Nickroy Hunter</td>
<td>√</td>
<td>Showed improvement</td>
</tr>
<tr>
<td>NAME</td>
<td>LEVELS</td>
<td>REMARKS</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Robert Newsome</td>
<td>✓</td>
<td>Regular attendance, low attainment</td>
</tr>
<tr>
<td>Damion Wallace</td>
<td>✓</td>
<td>Regular attendance, slight improvement</td>
</tr>
<tr>
<td>Garth Wilson</td>
<td>✓</td>
<td>Irregular attendance but with improvement</td>
</tr>
<tr>
<td>David Clarke</td>
<td>✓</td>
<td>Regular attendance and with improvement</td>
</tr>
<tr>
<td>Kevin Patten</td>
<td>✓</td>
<td>Regular attendance, behavioural procurement, improvement</td>
</tr>
<tr>
<td>Michael Shaw</td>
<td>✓</td>
<td>Regular attendance with improvement</td>
</tr>
<tr>
<td>Ricardo Whitter</td>
<td>✓</td>
<td>Irregular attendance, improved behaviour and attainment</td>
</tr>
<tr>
<td>Jamie Palmer</td>
<td>✓</td>
<td>Irregular attendance, poor behaviour, high attainment</td>
</tr>
<tr>
<td>Kirk Sterling</td>
<td>✓</td>
<td>Regular attendance. Works to support family, high attainment</td>
</tr>
<tr>
<td>Jermaine Forrester</td>
<td>✓</td>
<td>Regular attendance and punctual, high attainment</td>
</tr>
<tr>
<td>Mark Wilson</td>
<td>✓</td>
<td>Poor and irregular</td>
</tr>
<tr>
<td>Kevin Shaw</td>
<td>✓</td>
<td>Irregular attendance - high attainment</td>
</tr>
<tr>
<td>Latoya Craigie</td>
<td>✓</td>
<td>Caught on quickly and developed through programme</td>
</tr>
<tr>
<td>Kervin Shaw</td>
<td>✓</td>
<td>Sleeps during classes - improved performance and behaviour</td>
</tr>
</tbody>
</table>
**Method**

Every effort was made to use methods that would gain and maintain the interest of students, and, at the same time, encourage learning. This proved to be a Herculean task. Approaches such as Pre-reading Plan (PREP) and KWL were of limited value in their original forms. When these were modified to link with the experience of the students, and, as well, include pictures, the children's interest and involvement were more sustained. (Examples of these are exhibited in the section Attachments).

To further activate interest, students were allowed to participate in clarifying what they ought to learn, and the methods they preferred. The children gravitated to activities (making objects, simulations, playing games, or theme teaching that involved music and drama). They also enjoyed group discussions, which focussed on popular themes.

Field trips also offered opportunities to influence learning in Mathematics and English Language. In other words, this provided opportunity to connect the students “inner potential, and desire for expression to the learning of the important subject matter” (McNeil 1999). Naturally, the children loved the idea of going on field trips.
Unfortunately because of inadequate resources, only limited use could be made of this medium.

Inevitably, much use was made of traditional learning aids in classroom sessions. These included flash card, blocks (for alphabet and counting), charts and props. In addition, creative use was made of dominoes, playing cards, mystery box and “notice boards”. The use of music has been very rewarding in getting the children’s attention. One teacher converted songs by popular DJ’s and invited the students to provide the rhythm. By this means, the teacher was able to get the children’s attention and this offered opportunity to introduce the subjects at hand.

Attempts at Co-operative Learning was not as successful as was expected, for instance in Spanish Town the students were divided into groups and taken to the library to research a specific topic. Each group should have produced a report on the findings of the research. The students gave a commitment to do so, but did not, although they were competent to do so.
**Positives and Negatives**

This research had its positive and negative aspects. Some of the positives are:

- The full support and collaboration provided by the Executive Directors of both NGO's. Their understanding of the goals and commitment to its principles are very commendable and appreciated.
- The level of enthusiasm and support provided by the staff of the NGO's.
- The adaptability of the students. They were very anxious to participate and cooperated with the teachers, even though many obstacles were present.

The negatives include the following:

- Inadequacy of the physical facilities.
- Behavioural problems demonstrated by the students, for example, aggressiveness, quickness to fight, and a range of other deviant behaviour – in the early stages.
- Need for students to break classes to earn money. This was necessary when holidays approached. The NGO's recognized the need and the inevitability of this, and are assisting students in need to find jobs. Some students became involved in disputes with members of the external environment. This sometimes posed a threat to the NGO community – especially in Spanish Town.
It is worthy of note that some behavioural problems, remained unresolved. This is due partly to the strong influence of the students' background outside the “school”. After holidays for instance, many of the old problems resurfaced.

**Programme Success**

The project, despite a number of constraints, was a success. Eight-one percent of the students made some improvement on the level at which they entered the project. Some showed achievement well above that at which they entered the programme. Tables 6 and 7 show the levels attained by those students who completed the programme. *(See Tables 7 and 8)*

The conclusion is that the goal that all students would have attained Level 4 may have been too ambitious. Such a projection occurred mainly because the variety of factors that negatively affected learning were not properly assessed – given the timeframe for developing the project. Nonetheless, the levels of personal development that took place was substantial and even the slow learners
are now displaying a readiness to learn. Several students at the time of testing could not identify or write letters of the alphabet. One teacher remarked that some could not even write the letter "O". At the same time, in both locations, there were students who were deemed to have severe learning problems. Two, for instance, have subsequently been tested and admitted to the school of Hope for mentally retarded children.

The results prove the hypothesis to be correct. The hypothesis states that "students learn better if teaching strategies activate background knowledge and experience". Such strategies are expected to stimulate interest, and understanding and foster long-term memory, thereby influencing change in knowledge, perceptions and performance. All of this took place.

Something needs to be said about the "teaching strategies" which have been employed. Basically, the strategies aimed at establishing relationships of trust, confidence and respect in the relationships between teachers and students, and students to students. Secondly, there was a focus on helping students to believe in themselves – i.e. their capacity to absorb knowledge and the validity of their personal experiences.
Thirdly, the teachers were dedicated to showing a caring attitude, which helped the students to cope with the circumstances surrounding their lives.

All of the above ensured the development of a dynamic learning environment, and fostered keen interest in the various activities.

Sustainability, The element of "culture-drag" was a strong impeding force. Culture-drag is described as "the inability of a group or individual to escape the past". In the case of the students, it was very difficult for them to escape the street culture. In Spanish Town especially, the students are constantly in touch with the streets. They suspend their street activities to attend classes during the day, then return to the street in the afternoon. They also spend their weekends on the streets, and at times, suspend classes to take advantage of up-coming holidays and special occasions when their services are in greater demand. Sometimes the work opportunity during these periods result in offers of long-term employment. This contributed to the drop-out rate. It also meant that some children – mostly boys – returned to the programme after long absence. Three students (one in Spanish Town, and two in Montego Bay) left the programme in the first term and returned near the end of the third term.
Unfortunately, they could not be accommodated and are classified among the drop-out.

**Drop Out**

The drop-out rate seems high. On reflection however, it may not be as high as it seems. In other words, many of those who left the programme did so as a result of the progress, which they made. Approximately fifty percent (50%) of the dropouts managed to secure places in schools in the formal educational system. Two others entered the training programme of the Human Employment and Resource Training Trust (H.E.A.R.T. Trust). Others, some aided by the Agencies, gained employment. Although these students are listed in this category, they are counted among the successes of the programme. (Mostly they should be classified as non-completers).

**VI SUGGESTIONS FOR FUTURE**

The future does not have to be gloomy for street and working children in Jamaica. Many of these children are bright and have potential to benefit from education and training opportunities.
Their potential may not be realized if special provisions are not made to ensure that they are exposed to the right teaching strategies. It would be very difficult for them to fit into the formal education system from the viewpoint that their background and mental development would make them incompatible with children who have been in the system from age four (4).

Secondly, teachers in the formal system do not necessarily have the preparation/training to cope meaningfully with some of the social problems, which these children would bring to the learning environment.

The researchers fortunately have the background in education and social work. The counterpart Agencies are engaged in social work. Its principal officers have similar background in teaching and social work.

The research project's implementation process manifested a strong mix of the two disciplines. Our suggestion for the future is three-fold.

1. Similar programmes should be organized with similar intent to move these children beyond mere literacy to "become better integrated in their environment, to enhance their personal dignity, to acquire knowledge
and skills, which they need in order to lead a better life”.

2. Special facilities and arrangements should be made so that contact time can be dramatically increased to the level that sustainable changes can occur.

3. The flexible approach to the programme implementation should be maintained as a means of ensuring relevance, validity and transferability in the long run. This means that adequate resources should be provided to ensure meaningful response to the learning needs of the street children. There should also be adequate provision for the supply of material and the development of learning packages that are appropriate to the learning styles of the students.

The above suggestions can be implemented by:

- Assisting Agencies like Children First and Western Society for the Upliftment of Children to acquire facilities and personnel.
- Encourage other NGO’s to develop their capabilities to deliver such a programme.
- Establish two or three special residential facilities to implement such a programme. These are important from the point of view that they can contribute to the prevention of juvenile delinquency, while making
important contribution to the development of human capital in the country.

- Use lessons learnt from this research project to enrich programmes that are offered in Children's Homes, Places of Safety and Correctional facilities for children.
VII CONCLUSION

The project funds of Fifty Thousand United States dollars, (US$50,000.00) at July 1998 rate of exchange, amounted to One Million, Eight Hundred Thousand Jamaican dollars ($1,800,000.00). This was expected to cover compensation of personnel who were involved with the implementation of the project, as well as the procurement of teaching material, reproduction of learning aids and work-sheets, travelling and meeting workshops expenses. In addition, a substantial amount of expense was accumulated in conducting the survey.

Under such circumstances, and bearing in mind the fact that two groups – over one hundred miles apart, were involved, it was inevitable that resources would be somewhat strained. This was compounded by the steady depreciation of the Jamaican dollar and the rising cost of living. It can be said therefore that the programme was cost effective and that the qualitative results are very encouraging.

Observation, which is a legitimate form of assessment or programme evaluation, indicates that along with improvement in literacy and numeracy real behavioural change has been achieved. Our concern however, is for the sustainability of the change. Under different circumstances this could be realized with greater
certainty. Such circumstances would include networking with support services that would deepen and strengthen the contact with the children.

Overall, the lessons learnt are:

- Street and Working children will learn if they are made to feel respected and experience appropriate support and encouragement.

- A caring attitude toward the children is important to establish and maintain rapport.

- Achievement in school can help in improving relationships between children and parents – especially if the school is able to mediate.

- Children obviously are conditioned to classroom “chalk and talk” type teaching. Activities introduced in such settings must be developed with the children’s involvement if such activities are to hold their interest.

- The children love to go on outings, and they display curiosity and enthusiasm in exploring new environment.

- Drama and music are very important aspects of the learning environment. These get everybody involved and provide an excellent means of gaining attention, and introducing subject matter.
The project should be repeated in a residential setting which offers greater possibility for control of intervention for learning and personal development.
BIBLIOGRAPHY

Calhoun, Emily F.; How to use Action Research in Self-renewing Schools; ASCD, Alexandria, VA, 1994

Guest, David & Kenny, Terrence Techniques and Strategies in Personnel Management; Butler & Tanner Ltd. Frome & London, 1983

Mager, Robert E. Developing Attitude Toward Learning; Fearon Pitman Publishers, Inc; Belmont, Calif. 1968

Marzano, Robert J et al Assessing Student Outcomes; Performance Assessment using the Dimensions of Learning Model; ASCD; 1993

Marzano Robert J; A different Kind of Classroom; ASCD, VA, 1992

McNeil, John D; Curriculum – Teacher’s Instruction; Prentice – Hall N.Y. 1999

Perrone, Vito (ed); Expanding Student Assessment; ASCD; 1991