What are Student Projects at Primary Level Teaching our Children?:
A Parent’s Viewpoint

Lim Suat Khoh

PRESENTATION OF THE PROBLEM

Singapore children are required to do several projects in the course of their primary school education, beginning with a science project at Primary Three and going on to one or two science and social studies projects in each of the upper primary years. These projects are graded and the marks form part of the continual assessment for the subject concerned. Students are also at times required to submit mini-projects in the form of reports on certain topics for English.

As a parent who has seen two children through their projects and having had discussions with friends and colleagues who have similar experiences, I am writing this article to discuss some concerns. The points are raised from our case studies and are certainly not generalizable as different schools may have very different practices.

From our discussions, the practices appear to take the following steps:

- A list of projects for the students to choose from is provided. The teachers verbally provide examples of what could be done and the written guidelines of what each project involves, if at all given, hardly ever exceed a short paragraph or three sentences.

- Students are told that they can do the projects individually or in groups without clear specification of different requirements for group versus individual work.

- Students are then left on their own to carry out the requirements of the project.

- The final product is submitted, often with an oral presentation at the higher levels of Primary Five and Primary Six.

From the above practices, I feel that the following are issues which raise concerns and will be discussed in the next four sections.
Unclear Educational Objectives

As a parent and an educator, I have difficulties figuring out the educational objectives of the science and social studies projects which my children were expected to complete, given the vagueness of the sketchy guidelines usually given. Although an obvious objective is for the children to learn more about the subject matter through doing the project, the following more generic objectives would also be educationally sound and thus desirable:

- Acquiring the skills of seeking and retrieving relevant information.
- Having experiences in planning, organizing, discussion, and teamwork.
- Practising analysis and synthesis and other higher-order thinking skills.

However, these objectives are difficult to achieve in students at such a young age if they are lumped together in a large project. Moreover, it is many parents’ experience that little guidance is provided by the teacher, and parents who are non-educators are unsure of how to help their children, ending up with providing too much assistance of little educational worth.

Let me give a real example. When my Primary-Four daughter was working on a project of making a model of an island with her group of classmates for a social studies project, her friends were slightly disturbed when they sought my assistance because I asked them to do some planning first before rushing out to buy the needed materials. I could see that their ideas were rather impractical and they were rather vague in their estimations of the quantities of various materials required. Since then, I have discovered that other parents unhesitatingly and unquestioningly provide all the materials only to have them thrown away later when they did not work and new materials were then required. Perhaps, in the present environment of encouraging creativity, I should have let them make mistakes and learn from them. But, at that point in time, I and not they, would have had to pay the financial and time cost of those mistakes which could have been avoided if there had been more planning and discussion. I also felt that planning and organization (including estimation and making a budget, sorting out the duties of team members, etc.) are very useful life skills to be acquired by the children. Parents are usually concerned with submitting
the final product and may not see the projects as vehicles for promoting such skills unless these objectives are clearly communicated to them by the teachers.

It is also felt that there should be a lot more preliminary work and guidance done in class as the children are still very young and new to the subject matter. In the model island project mentioned above, I had thought that, as a social studies project, they would either consider aspects of human needs such as water and food supply (perhaps, putting in agricultural features or a fishing village) or different physical features of the terrain such as rivers, hills, valleys, and so on. Instead, the group of girls, all from upper-middle socio-economic class homes, were considering a model including a swimming pool, a la Club Med, I suppose. In fact, they later decided to change the island to include pirates' treasure caves, a reflection of their diet of Enid Blyton adventure books. Although I am sure that a creative teacher could link even these to the objectives of a social studies curriculum and perhaps, an integrated approach may choose to link the adventure story of the English writing class to the social studies physical model, the students were, however, not given any feedback beyond a grade and I am still unsure if my interpretation of what such a project should look for was correct.

I have also noticed that parents and children give much attention to the visual presentation of the project. As students are often required to cut out pictures from magazines for their projects, I have found myself advising my children to choose a particular project because of the availability of the pictures rather than because of their interest in the topic. I thus compromise my educational principles as I believe that motivation is extremely important when a choice of topics is given. If the objective is for students to source for magazine cuttings, only a few choices where such cuttings are easily available could be given. On the other hand, topics where the sourcing of verbal rather than pictorial information is required can be grouped together for another project.

The throwing together of too many vaguely delineated objectives in one project often leaves the learner achieving too little after much effort. Furthermore, it appears that for a particular project, students are given a wide choice of topics which actually promote different objectives, are of different genres (models, posters, charts, games, written reports) and so forth. In fact, one wonders if such widely diverse forms of presentation pose problems for teachers during assessment due to difficulty with regard to the comparability of the projects. To achieve
the desirable objectives such as acquiring organizational skills, planning skills, searching for information skills, or inculcating interest in a certain topic, small projects to be done in class under guidance, each to achieve one or two different specific objectives, may be more effective for the young learners at primary level.

**INSUFFICIENT GUIDELINES AND GUIDANCE**

As mentioned earlier, guidelines for projects hardly exceed a short paragraph. Students are often told verbally what to do and what not to do. Differences in requirements for group projects and individual projects are not specified. From a parent’s point of view, groupwork to be done outside school time involves some difficulties as the students are too young to manage their own transportation. Furthermore, groupwork requires many meetings and much co-ordination and discussion. Although I can see that teamwork is promoted, groupwork without appropriate guidance by the teacher can be time-wasting and unproductive and may result in unequal effort put in by team members.

Because of the young age of the pupils, verbal communication about the requirements of the projects can also be problematic. For example, a “postcards are not allowed” rule was imposed for projects on places of interest and on countries and for scrapbooks, and the teacher told the students that the shape of the book was not to be rectangular. These restrictions seemed so trivial when compared to what the educational objectives of projects should be that I would like to believe that they have been misunderstood by the children. However, the student concerned was adamant that he had to obey the teacher regarding these restrictions. Written guidelines would have been helpful in such an instance.

Without sufficient guidelines, parents are unsure as to how much and what sort of help to give. It is also not clear as to whether parental involvement is required or should be avoided. From the projects my children have done, those which require primary students to travel around Singapore taking photographs or to libraries to look up encyclopaedias and reference books would certainly require parental help in terms of transportation, provision of camera and film, and so forth. For other projects, help varies from providing ideas to dictating the actual write-up or doing the typing on the computer, from helping in the actual hands-on making of models to merely purchasing the materials. In fact, many parents give so much assistance to their children.
that the teacher would have difficulty judging the amount of credit which should go to the students. This is thus a call for realistic expectations from teachers of what children are capable of doing, putting these expectations down clearly in guidelines together with the extent and description of necessary and acceptable parental help.

The unclear expectations also result in additional stress and pressure on the young children. I have seen a project in which a great quantity of time, effort, and even money (in relative terms) was put in. This Primary Six project on the country of Thailand consisted of several parts, each of which was extremely visually appealing. However, besides the unifying topic of Thailand, the cohesion between the various parts was rather weak and the organization of the written report could be improved. I was given to understand by the group that they had to put in more different parts to obtain higher grades. Without sufficient guidelines, students can put in an unrealistic amount of time and effort into the project since the expectations are not made clear.

As mentioned in the previous section, I see doing projects as a tremendous vehicle for the development of useful generic skills such as planning, organizing, discussion, teamwork, and exposure to higher-order thinking skills such as analysis and synthesis. Yet, it seems that teachers expect the children to already have and use such skills in their projects without much teacher input. It is felt that the teacher would have more control of the achievement of these objectives if there was a great deal more discussion and planning done in class. My impression is that projects are viewed as extras to be done at the students' own time rather than during curriculum time. However, when primary students meet in groups out of school, this results in a lack of guidance and direction which could have been provided by the more mature and knowledgeable teacher.

It is also unreasonable for parents to take the greater part of the responsibility of developing these skills especially if they are not educationally trained. In fact, primary children tend to take more seriously their teachers' advice than parents' when it comes to school work. However, as such work is done outside curriculum time, the teacher's input becomes minimal and parents may provide too much to help in the completion of the project rather than the development of those skills.

On another point, I have sensed some reluctance of teachers to provide more information regarding projects, even when they are not
assessed. Once, my daughter was required to do a mathematics project after PSLE and when she came to me for ideas, I asked for the purpose of the project. I felt that certain ideas would be more suitable for charts or games for an exhibition, while others would be better for a report-type of project. The answer was that the teacher did not specify the purpose and the child was extremely unwilling to ask for more information from the teacher. (I have also sensed this fear of seeking more information from teachers in other instances not regarding projects from both my children, and wonder if it is due to a "cannot-be-bothered" attitude of the children or a repressive atmosphere in the classroom where children are discouraged from asking questions.) Moreover, I never did find out if her project was relevant and what it was used for — perhaps, the objective was to keep the students occupied after the PSLE.

Assessment

Projects form a rather substantial part of the continual assessment of a subject. Because of the desire for high grades, children or parents choose projects based on the score factor rather than the interest factor as mentioned earlier. I also see projects as a wonderful means to inculcate interest and a desire for learning as they are sustained pieces of work, where the result is more tangible than a mere mark. Projects also contribute to children learning to take pride in their work. Personally, I would prefer that projects not to be part of formal assessment but be given rough grades and much encouragement and feedback from the teacher.

While realizing that it may be necessary to signal the importance of projects to parents by making them part of formal assessment, I have mentioned above that there are two difficulties regarding assessment. Firstly, there seems to be a whole range of different topics and presentation modes that a project can take and comparability is difficult. Analytical ability is required in a written report, organizational ability in a scrapbook, physical dexterity in making a model, and creativity comes in different forms in each of these. Moreover, expectations are seldom clearly stated. It is certainly hoped that just as objectives determine the assessment in tests and examinations, there are also clear objectives and the assessment of projects matches these objectives. Secondly, the quality and quantity of parental assistance in projects need to be considered and accounted for. Clearer guidelines as to what parents should do or should not do would go some way in making
parental assistance more controlled and comparable. Parents can, therefore, not claim ignorance and if they provide more help in order to obtain higher grades, they will have to answer to their own moral conscience as well as reap their rewards in the values they pass on to their children.

The requirements and standards also appear to be upgrading as Singapore becomes more affluent and more developed. I feel that the students may be concentrating more effort on the presentation of the project than the content matter. If the assessment guidelines are not predetermined and made clear, presentation standards will keep going up and this favours children who can afford or have access to computers and better software and the use of more expensive materials.

MANAGEMENT OF PROCEDURES

The management of the procedures can be carefully thought through by the schools. There seems to be problems of finding sufficient curriculum time for presentations by students. Perhaps, the role and objectives of projects in the curriculum need to be thought through and properly defined in order that the management of procedures would be properly carried out.

One illustration of how perception of the role the projects can affect the management of procedures is the running of the Primary Science Activity Badge Scheme, which is developed by the Singapore Science Centre. This scheme provides an excellent opportunity for students to pursue small manageable activities in scientific fields, developing science knowledge, initiative, and creativity. When science teachers carry out the scheme with enthusiasm and a good understanding of the spirit and philosophy of the scheme, it succeeds in bringing Science into the lives of young students. Because the scheme is free from formal assessment, the activities allow flexibility in the development of the child’s interest in science.

However, even well planned schemes can fail to achieve the desirable objectives when not properly managed and administered. Some real anecdotal examples are given here:

- A Primary Four student was given a card early in Term 2 but without any instructions. The ignorant parent did not know what she was supposed to do and simply left the matter aside and forgot
all about it. Towards the end of Term 3, the students were told to submit the activities within a 2-week deadline. Because of the short period of time, the tasks were no longer enjoyable but became compulsory, pressurizing, and irksome. Instead of the more enjoyable but time-consuming activities, those which could be done quickly and easily were chosen. The spirit of the whole scheme was thus lost.

- In another case, a student tried to hand in the completed work but the teacher was not keen to receive the projects. At the mother’s urging, the student requested the teacher to accept her activities but she did not dare to remind the teacher about the matter and the badge was still not given to her by the time she graduated from the school after Primary Six.

- Class presentations are not possible because of lack of curriculum time.

- Students of a certain Primary Six class were only allowed the Young Environmentalist or Meteorologist cards. A student who had a burning interest in animals was told that the Zoologist card was only for the Primary Fours but unfortunately, his class was not on the scheme 2 years previously. The disappointed student is now waiting for his younger sister to reach Primary Four so he can help her with her Young Zoologist tasks.

Because the Activity Badge Scheme is meant for primary schools and some of the activities require presentations to the class, individual students cannot join the scheme except through their schools. It is thus imperative that such an admirable scheme be carried out in the right spirit by schools if we are to promote interest in science from a young age.

**Implications, Suggestions and Conclusion**

The above discussion shows that there is much to do in reconceptualizing the whole process of doing projects at primary level. I wish to propose some principles to keep in mind:

- Projects can be extremely effective in providing the context for the development of analytic skills, planning, organizing, and teamwork skills.
• Children need to acquire these skills with help from teachers and parents.

• The educational objectives for doing projects must be clearly delineated and assessment must match these objectives.

• Doing projects must be seen as worthwhile and due recognition given in terms of curriculum time and teacher input.

In view of the discussion above and these four principles, I would suggest that a major project be done, possibly integrating both science and social studies, only at Primary Six level. In the earlier years from Primary Three to Five, a structured scheme of small projects are to be planned with carefully selected objectives. The skills brought forth by each mini-project should be reinforced constantly. Some of these small projects should be done in class and others could involve parents, with detailed guidelines given. An illustration of such a suggested scheme is given in the Appendix. The major project at Primary Six would be a culmination of the scheme of mini-projects, and it will be an indicator if the skills acquired earlier have indeed been acquired.

There are certainly problems concerning what children actually learn in the process of doing projects at primary levels and it is hoped that some of the parental concerns can be considered when curriculum planners and developers, together with teachers, develop their curriculum. I believe that such considerations are necessary, especially in the light of promoting a more thinking and creative next generation.

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## APPENDIX

### SUGGESTED EXAMPLE OF SCHEME OF PROJECTS

<table>
<thead>
<tr>
<th>Level</th>
<th>Project No.</th>
<th>Subject</th>
<th>Topic/Theme</th>
<th>Objectives</th>
<th>Project Type</th>
<th>Assessment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3</td>
<td>1</td>
<td>Science</td>
<td>Materials</td>
<td>Sourcing of pictures, teamwork, organizing of information</td>
<td>Scrapbook &amp; Chart</td>
<td>No for groupwork, Yes for individual work</td>
<td>Groupwork — for chart done in class. Pictures to be collected at home. Individual scrapbooks — started in class, teacher to assist in organizing and planning, finishing to be done at home.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Science</td>
<td>Properties of materials</td>
<td>Experimenting, recording</td>
<td>Worksheet on floating and sinking</td>
<td>No</td>
<td>Home involvement. Experiment to be done at home with parents, class discussion to follow.</td>
</tr>
<tr>
<td>P4</td>
<td>1</td>
<td>Social Studies/Maths</td>
<td>Transportation</td>
<td>Gathering information Organizing Information</td>
<td>Charts</td>
<td>No</td>
<td>Different groups to do different aspects, e.g. one on MRT system, one on survey of modes of transport, one on historic modes, etc.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Social Studies</td>
<td>Occupations</td>
<td>Gathering information through interviews</td>
<td>Report and short presentation</td>
<td>Yes</td>
<td>Individual, worksheet to guide student in interviewing.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Science</td>
<td>Zoology/Botany</td>
<td>Specimen and information collecting</td>
<td>Presentation to class</td>
<td>No</td>
<td>Science Badge Scheme, selected projects; ongoing throughout the year, home involvement, continual checks and encouragement</td>
</tr>
<tr>
<td>P5</td>
<td>1</td>
<td>Social Studies/NE</td>
<td>Water</td>
<td>Gathering information Organizing, reporting</td>
<td>Report</td>
<td>Yes</td>
<td>Groups to discuss, plan on sections e.g. reservoirs, PUB data, resources etc. in class. Each member to do research on one section. Put together in class. Several sessions.</td>
</tr>
</tbody>
</table>