

# 'Prized' Projects

Rarely do we see the innovative abilities of schoolchildren demonstrated so well as in the winning entries to national design competitions. But do these competition entries tell us anything more about the nature of children's design-and-make activities? This article takes a look at who enters what in the Design Council's annual Design Prized competition.

Entry forms for the years 1980 and 1981 give details of the age and sex of each entrant and the intended purpose of each device entered. Table 1 shows that while the overall participation rate of girls is about 15% of the total, their involvement in the competition is minimal after age 14. Girls' relative disappearance from the competition in the older age groups is consistent with the pattern of their involvement in CDT public examinations (see 'CDT - What's Missing?' this issue).

machine work holding device, an electronics test and demonstration device and an improved hacksaw blade tensioning device. The stated need in each case makes no reference to the potential user but is confined to a technical specification.

(iii) An 'others' category where, because of inadequate information (e.g. description confined to a brief title), or uncertainty about the motivation of the candidates, it is not possible to place the entry in either (i) or (ii).

Table 2 gives details of the type of entry made by boys and girls in both years. It is clear from the data that girls were much more likely to submit projects that had a social origin, while the designs of boys were more likely to originate from problems with a technical orientation. The probability of this difference occurring by chance is less than one in a thousand ( $X^2$  test for two independent samples:  $p < .001$ ).

Table 1  
Entries by sex and age group

	1980				1981			
	boys	girls	N/C*	Total	boys	girls	N/C*	Total
Group 1. (under 14 years)	38	12	3	53	25	13	1	39
Group 2 (14-16 years)	57	7	5	69	41	8	1	50
Group 3 (over 16 years)	73	5	8	86	55	2	9	66
<b>TOTALS</b>	<b>168</b>	<b>24</b>	<b>16</b>	<b>208</b>	<b>121</b>	<b>23</b>	<b>11</b>	<b>155</b>

\*N/C - non-classifiable by sex - entry forms for these did not contain information of sex of participants.

A marked difference between the type of device entered by boys and girls is also evident from the entry form descriptions. While each individual device demonstrates a separate facet of design and technological activity, the entries can be grouped as follows:-

- (i) A 'social' category where entry forms give a clear indication that the project arose out of a perceived social need. Educational toys and games, (e.g. a child's cycle trainer and a tactile toy), and aids for the elderly and disabled (e.g. a chess set for the blind and a device to assist an elderly person to get into a bath) feature strongly in this category.
- (ii) A 'technical' category where entry form descriptions stressed the intrinsic interest in invention. The emphasis is placed on 'making things better' and include devices such as a pedestal drilling

Any conclusions about the appropriateness of certain design and technology activities for girls that might be drawn from this very limited study can only be speculative. It could not, for example, be concluded that one type of design project is more appropriate for girls or for boys. Without knowing who initiated the design projects that were eventually submitted to the competition, it is impossible to claim that girls will, in general, choose design problems with a high social visibility, although there is evidence from the science area (Ormerod 1989, Head, 1982) that girls who choose the physical sciences see them as related to social issues. On the other hand, teachers may assume girls to be more interested in 'caring' roles and encourage them towards this aspect of technological problem solving. Similarly, boys may be expected to be less interested in projects of this type. In selecting project briefs, boys and girls themselves may be influenced by what they perceive to be their 'expected' interest areas.

This study does, however, raise some interesting questions about pupil motivation in design and technology and about the nature of technology itself. For example, to what extent is the outcome of a design activity likely to be influenced by the way in which a problem is presented? The outcome

Table 2  
Type of project entered by boys and girls in each year

	1980		1981	
	boy	girl	boy	girl
'Social'	32	12	47	23
'Technical'	117	5	54	0
'Other'	19	7	20	0



*Left:  
Play structure for young children*

of a design problem that is tackled for its own sake will probably be as innovative as a solution that emanates from a wider social need – but is it as likely to have identified any unintended wide effects? It could be argued that all technology is social since it, of necessity, involves people, but there may well be a difference between an activity that seeks to make life better for people and an activity by people to make better technology, with the former proving more attractive to women. In 'Starting Points' (this issue) the author continues this discussion by arguing for an approach to design and technological activity which would maximise the educational benefits for all pupils – girls and boys.

I would like to thank the Design Council's education staff for their help and for permission to reproduce the photographs shown here.

**References**

- Head, J. , Personality and Attitudes to Science, in Head, J. (ed.), *Science Education and the Citizen*, Chelsea College/ British Council, 1982.  
 Omerod, M.B., The 'Social Implications' Factor in Attitudes to Science, in *British Journal of Educational Psychology*, 41, 1979, 19.



*Left:  
Electronic spirit-level*

*Below:  
Garden tools for disabled people*

*Bottom left:  
Sports trolley for disabled children*

