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Citation: BROCHOCKA, BAYNES and SMITH, 2001. Pupils views of school and popular culture, their opinions of design and technology at Key Stage 3 and their perception of its relevance for their futures. IDATER Conference 2001, Loughborough University.

Additional Information:

- This is a conference paper.

Metadata Record: [https://dspace.lboro.ac.uk/2134/1033](https://dspace.lboro.ac.uk/2134/1033)

Publisher: © Loughborough University

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Pupils’ views of school and popular culture, their opinions of design and technology at key stage 3 and their perception of its relevance for their futures

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**Abstract**

This study arose from research into the educational value of 3-D sketch modelling conducted in a rural community college. To provide a context for their work, the researchers conducted detailed structured interviews with 18 14-year-olds. These covered their views of school, of design and technology as a subject and of a specific project to design and make knock down furniture. In addition, the researchers were able to construct a ‘snapshot’ of each child’s interests, aspirations and cultural background. The results proved to be worth further analysis separately from the modelling research.

The findings bear out the results of a much larger sample undertaken by Tyers as part of the Crafts Council Learning Through Making project. Design and technology, and particularly making, appear to be universally enjoyed by pupils. However, they rate it as of minor importance in their general education.

In this study, because of the more detailed interview technique, the researchers are able to relate this general conclusion to the children’s own awareness of fashion and design, their personal making activities, and contemporary children’s culture. Against this background it is all the more surprising that young teenagers do not see design and technology as relevant to their lives now and in the future.

Keywords: teenage culture, design and technology

This paper arises from a pilot study of the educational value of 3-D sketch modelling. It was conducted at Uppingham Community College, a rural comprehensive school in the East Midlands. To provide a context for the enquiry, the researchers decided to interview each of the pupils involved. The interview schedule covered their views of school, design and technology as a subject and the design and make project associated with the pilot study. In addition, the researchers were able to construct a ‘snapshot’ of each child’s interests, aspirations and cultural background. Since the results throw light on pupil’s perceptions of the status and value of design and technology, they are worth reporting in their own right, separately from the modelling research already described by Smith, Baynes and Brochocka (2001).

A structured interview was held with each student at the end of a project lasting 10 weeks. During that time the researchers had joined with the class teacher and worked closely with the students. In a structured interview, the student is led informally through a series of questions with answers being recorded in detail by the interviewer. It is thus able to probe beyond the immediate response and discover why a particular student responded in a particular way.

The project was to develop a prototype flat-pack table for a new range of furniture to be launched by IKEA for the younger market. Representatives from IKEA came to a final exhibition and presentation by the students. The project was a vehicle for introducing the students to various forms of 3-D sketch modelling.

It is worth noting that as a result of the researchers’ close working relationship with the
students, the students were keen to give their views and take part in the interviews. Although they sometimes had difficulty in putting their thoughts into words, they were not shy or inhibited. A further significant point is that during the project the researchers deliberately attempted to raise the students’ awareness of design as a creative process and of the need to design for a market. In conducting the structured interviews, the schedule of questions was used as a starting point but the students were encouraged to talk more broadly about their ideas and aspirations.

It is interesting to compare the results of this small but detailed survey with a much broader survey of Key Stage 4 pupils conducted in 1996. This was carried out by John Tyers as part of Loughborough University’s contribution to the Crafts Council Learning Through Making project1 which was written up by Roberts and Baynes (1998). Tyers used a questionnaire and received 2,300 individual pupil responses. The specific focus of his work was ‘making’ but his results proved relevant to the wider field of the design and technology and art and design subject areas. Where relevant, comparisons are made with his findings.

The interview schedule had four sections:

- about the student
- about school
- about the project
- about design and technology.

This paper looks at each section in turn and then presents some conclusions and raises some issues for the future.

Section 1: About the student

There were 11 questions in this section of the schedule.

1. Age
2. Gender
3. What are you really interested in? In school? Outside school? What do you like doing best at the moment?
4. Why are you interested in it? Why do you like doing it?
5. Do you like reading? What do you read? What is your favourite?
6. What do you like watching on TV? What are your favourite programmes?
7. What music do you listen to?
8. Are you interested in fashion: clothes; hair styles; mobile phones?
9. Do you have a particular hobby?
10. Do you use a computer at home or other place outside school? What do you use it for?
11. Do you design, make, model or draw outside school? Tell me more about it. Why do you enjoy doing it?

All the students were in Year 9. Out of the group of 20, 18 were interviewed. There were seven girls and 11 boys in the survey.

The school serves a country area but there was not a sense of a specifically rural perspective in the students’ lives. Many of the parents are commuters to Leicester, Peterborough, Corby or Northampton; others ran businesses based in the country but not specifically rural in content.

There was a very marked gender difference in the students’ interests inside and outside schools. Girls were united in saying that their main interest was ‘friends’. Boys thought friends important but placed them below a specific activity which absorbed them – a sport or a hobby.

Why did the girls value friends? Companionship – not being alone – then being able to chat, gossip and ‘have a good laugh’ were key reasons. For boys, one sport or another was the main interest at school. They liked being part of a team, they enjoyed being active and got a buzz from the competitive element.

Some girls did have an all-consuming interest in addition to friends. In every case it was active and had a creative or caring aspect:

- music
- drama
- animals.

Girls were also interested in sport and often combined this interest with membership of a club or group, sometimes teaching younger children. In addition to specific sports, boys listed:

- bike riding
- skateboarding

1 The full results of this Questionnaire have not been published but the researchers were able to refer directly to the research material held in the archive at the Design and Technology Department, Loughborough University.
one interest that fully united boys and girls. Classical music (and other types of popular music such as jazz and folk) did not come onto the listening agenda. Boy bands were popular with the girls but the overall favourite types of music were Rap and the related Hip-Hop. Eminem was much appreciated, particularly because he upset parents and teachers and ‘you wouldn’t like him’. Rock and Heavy Metal followed from Rap.

Without exception the girls were interested in fashion: hair; accessories; shoes; but particularly clothes. They were fascinated by the game of ‘What’s in’ and ‘What’s out’. They definitely wanted to be seen as knowing about trends and understanding exactly what was ‘in’.

All the girls were allowed to choose their own clothes and the majority actually went shopping by themselves to buy their own.

By contrast, none of the boys said they were interested in fashion. They did not care what was ‘in’, or ‘not really’. They would want to dress smartly for a special occasion. Some were keen to wear the clothes that went with their special hobby – skateboarder’s baggy trousers, for example.

All but one of the girls interviewed had a mobile phone. Only one of the boys had a mobile and the others said they did not want one. The girls used their phones to support their main interest: friends. The principal use was sending text messages to each other with chatting coming a close second. Connecting with home (usually the original reason for the phone’s purchase) was a minor consideration.

Only one student came from a home without a computer. Often there was a family computer plus an individual machine for the student. They were widely used for homework, much material being gathered from the Internet. Boys, but not girls, were interested in computer games.

This widespread computer access is in direct contrast to Tyers’ findings. In his results, only 1.1% of all students had access to a computer. This change has taken place over a five-year period.

The majority of the boys had a specific hobby, either a sport or a modelling activity. Some included computer games as a hobby. Most modelling was for war or fantasy gam-
ing. Boys were definitely not interested in cooking. Several laughed at the idea that they might be found in the kitchen.

None of the boys did any making, painting or drawing that was unconnected with their hobby. The girls’ involvement in making was small. Dressmaking was non-existent. Only one girl did any sewing: ‘mending because I have to’. Five girls engaged in cooking, one as part of a family rota. Two did it because they enjoyed it, the others if Mum was late home and they needed something to eat. For those who enjoyed it, the inspiration came from a home interested in food and cooking.

In contrast to the boys, the majority of girls did some painting and drawing just for the pleasure of doing it. People and animals were their favourite subjects.

The majority of the girls engaged in one major design activity: changing their bedrooms on a regular basis. One girl, who wanted to be an interior designer, changed her room every week. For all, this private and personal space was a focus of intense interest and effort.

**Section 2: About school**

There were five questions in this section of the schedule.

1. Which school subject do you think is the most important? Why?
2. Which school subject do you enjoy most?
3. Which school subject do you think is the least important?
4. Do you like school? What would you change about school if you could?
5. Do you have any ideas about what you would like to do after you leave school? What are your ambitions?

In presenting the results for questions 1 and 2 it is possible to make a direct comparison with Tyers’ survey. However, the two surveys were conducted on different models. At Uppingham, the students were simply asked which subject was most important or most enjoyed. A few named more than one and this accounts for there being more than 18 in the list. In Tyers’ questionnaire, students ticked the appropriate subject box and could tick as many as they thought appropriate. This is why the percentages add up to more than 100%.

**Most important subjects.**

<table>
<thead>
<tr>
<th>Uppingham study</th>
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</thead>
<tbody>
<tr>
<td>Out of 18, %</td>
<td></td>
</tr>
<tr>
<td>named as ‘most important’</td>
<td>%</td>
</tr>
<tr>
<td>maths</td>
<td>11</td>
</tr>
<tr>
<td>English</td>
<td>8</td>
</tr>
<tr>
<td>science</td>
<td>2</td>
</tr>
<tr>
<td>drama</td>
<td>1</td>
</tr>
<tr>
<td>geography</td>
<td>1</td>
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<tr>
<td>total</td>
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</table>

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>% of all students naming as most important</td>
<td></td>
</tr>
<tr>
<td>maths</td>
<td>94.7</td>
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<tr>
<td>English</td>
<td>93.9</td>
</tr>
<tr>
<td>science</td>
<td>77.7</td>
</tr>
<tr>
<td>design and technology</td>
<td>5.5</td>
</tr>
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</table>

**Most enjoyable subjects.**

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<thead>
<tr>
<th>Uppingham study</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Out of 18, named as most enjoyable</td>
<td>%</td>
</tr>
<tr>
<td>design and technology</td>
<td>7</td>
</tr>
<tr>
<td>PE</td>
<td>6</td>
</tr>
<tr>
<td>drama</td>
<td>5</td>
</tr>
<tr>
<td>art</td>
<td>2</td>
</tr>
<tr>
<td>total</td>
<td>20</td>
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<table>
<thead>
<tr>
<th>Tyers study</th>
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<tbody>
<tr>
<td>% of all students naming as most enjoyable</td>
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<tr>
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<tr>
<td>PE 39.3</td>
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<td>science</td>
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**At Uppingham, the students were united in finding the least important school subjects to be religious education and humanities with a sprinkling of others (for example, music and French) were ‘least important’. This appeared, from further discussion, to actually mean ‘don’t like it’ or ‘not good at it’.

Tyers found that students had a clear idea about why their selected subject was important:**
The boys did not talk about a future lifestyle. Only one referred to having ‘a good job and a nice home’. Although most of the girls visualised getting married it was not a high priority. Children were not on the agenda either. Amongst the girls’ images of the future were:

- owning a home
- travelling
- having a car
- having money
- living in the country, owning animals
- being on *Top of the Pops*
- ‘writing and becoming famous somehow’.

Section 3: About the design and technology project

This section, dealing with the students’ responses to the knock-down furniture project, was not entirely relevant to the present survey. However, the work that they did on the market research for their designs showed sharp awareness of lifestyle choices and how these are expressed in buying patterns. There was no marked gender difference in the level of awareness, showing that although boys did not read life-style magazines or shop for clothes, they did in fact have a good general knowledge of current fashion and consumer culture.

Section 4: About design and technology

There were five questions in this section of the schedule.

1. Do you enjoy design and technology? Why? Why not?
2. Do you think design and technology will be useful to you in the future? Why? Why not?
3. Which of the materials you have used so far have you most enjoyed? Which have you least enjoyed? Why?
4. How could you explain to someone what design and technology is about?
5. Do you enjoy art? Why? Why not?

Every one of the 18 students said that they enjoyed design and technology. They identified the subject very strongly with making and this was the key factor in their enthusiasm. Typical comments were:
- Its practical. I like making things for other people.
- Not sitting around listening.

At Uppingham it was the ‘active’ nature of the enjoyable subjects that attracted the students. A second factor was ‘being good at it’. Not surprisingly, students enjoy working in areas where they can succeed and achieve something tangible.

Students found it very hard to suggest changes to school. Only one student was able to identify possible changes to the curriculum and teaching methods. He based his proposals on a more student-centred approach with individual learning programmes. These ideas had been introduced to him by his brother studying at university.

In terms of plans for the future, there were dramatic gender differences. Only one boy had a clear set of ambitions. This was the same student with plans to reform the school curriculum. He was determined to go to university to become an architect or an illustrator. For the others it was a vague sense of direction: ‘to do something active’ or (most common) to ‘wait for my GCSE results and go from there’.

In complete contrast, all the girls had plans for some sort of career. Even the one girl who was not quite sure wanted ‘to work in the city in a posh office and wear smart clothes’. Amongst the jobs identified by the girls were:

- interior designer (chosen by several)
- nurse
- beauty therapist
- lawyer
- physiotherapist
- actress
- ‘working with animals, a vet if my exams are OK’.

‘Interesting’ came way down the list at 25.6%. The Uppingham students agreed with these priorities. The important subjects would help them to secure a good job in the future.

- useful to me 91.1%
- needed for most jobs 86.7%
- includes reading/writing 33.2%

Tyers found that subjects were considered enjoyable for completely different reasons:

- interesting 83.3%
- I am good at them 59.3%
- useful to me 43.3%
- involve making/creating 38.6%
Less of the teacher talking at you.

I like using different materials and tools.
You achieve something.

There was less unanimity on design. However, many students identified the excitement of seeing ideas turn into reality.

I like having ideas.

It is creative to come up with something new.
Researching is satisfying.
I enjoyed the model-making.

In this particular project, the students also enjoyed working together in groups and, although they found it challenging, obtained great satisfaction from exhibiting their designs and explaining them to ‘clients’ from IKEA.

None of the students saw design and technology as having any relevance to their future lives as consumers. The subject was only identified as relevant for those going into a trade involving making, future designers, or teachers of design and technology.

In spite of the fact that the process of design was particularly emphasised during the knock-down furniture project, only one girl thought that any of these techniques might be useful in everyday life.

The students’ choice of favourite materials showed some gender stereotyping. Few of the boys said they liked textiles. However, a surprisingly large number of girls selected wood. This may reflect the fact that they had enjoyed the current project using MDF.

The students who liked art were those who were good at it. These were the same students who were confident in using drawing in their design work.

Conclusions

These conclusions should be read in the context that they are based on a small sample only and further research is required to determine if the responses are true of a normal population.

The students, who were at a transition stage between being children and young adults, were thoroughly aware of and involved in popular culture. The girls in particular had absorbed the values of consumer society and set their goals in relation to it. They did not make any connection between school culture and popular culture, seeing these two aspects of their lives as almost completely separate.

The students (again particularly the girls) were thoroughly involved in material culture in their everyday lives. They had direct experience of choosing in fashion and interior design. The girls’ bedrooms provided them with a forum for trying out their own design skills. Here again, however, they made little connection between the design of clothes and other consumer goods.

The students had relatively small opportunities for making at home. There was little evidence of involvement in traditional domestic making activities: cooking, sewing; gardening; dressmaking. Yet their main reason for liking design and technology was that it involved making.

Gender differences at this age are evidently very considerable. Boys and girls appear to occupy different cultural spheres linked only by music. The girls were more confident, more communicative and able to look ahead to images of their own future lives.

The view of education held by the students was entirely instrumental. The subjects valued were those thought to be appropriate to obtaining a good job and making a material success of one’s life. Here too the values of the consumer society were paramount.

However, the subjects enjoyed were those with a large active or creative element. Perhaps this represents a first stage in institutionalising the division between work and leisure that is characteristic of much of the consumer society.

Design and technology is particularly enjoyed because of making and handling materials. However, the practical relevance of design and technology to everyday life is hardly understood at all. The students interviewed are not making the connection between the content of design and technology and the skills needed to make the best of consumer society. In particular, they are evidently unaware of the general applicability of many design methods, such as problem solving. For them design and technology is only relevant if you intend to do design-related work.

Issues

Can the gap between ‘school culture’ and ‘popular culture’ be narrowed? Would it be a useful thing to do?
Is it possible for design and technology to mount a campaign to highlight and promote the general social and cultural value of the educational experiences it has to offer?

Should design and technology make more of educating the future consumer and place less emphasis on educating future designers? Are the two roles complementary or incompatible?

Can the design and technology curriculum be reformed to emphasise ‘learning through making’ thus building on the aspect of the subject that students enjoy most?

These are issues of key importance to the future of design and technology. They emerge sharply from listening to what students have to say. The researchers argue that teachers and curriculum planners would benefit from paying more attention to the lives, ideas and preferences of students who, after all, are at the fulcrum of the educational process.

Acknowledgements

Tim Smith, Lynn Stewart, colleagues and Key Stage 3 pupils Uppingham Community College.

References
