

ASE Response to QCA consultation on proposal for 'Extended Project (Level 3)'
August 2006

Q: In what capacity are you responding to this questionnaire?

Subject Association

Q: In relation to which subject/sector are you responding to this consultation?

Science

Q: Are the aims (of the extended project proposal) appropriate?

Yes

Q: Size and category of qualification: . If the extended project is the size of an AS, do you think it would be (choice of answers)

- about right?

Since an AS qualification is accepted and its value understood by all key players including higher education, employers and parent, it is sensible that the size is valued equally to an AS qualification.

It would be important that students and teachers had a clear picture of the required detail, length of the project, and importantly the scope for working within or beyond a student's main area of study before starting it – extended project work will be a new experience and there will be a feeling of setting off into the unknown – neither teacher nor student will know what the outcome will be (albeit an 'answer' to a question). Another scenario which should be allowed for is that students, after a few weeks, feel that they would like to change topic to one which others are having more 'success' with.

Q: If it is put into the AS category, the advantage is that it will be easily recognised by higher education and employers. The disadvantages are that it does not meet the normal criteria for an AS, the level of attainment may not be clear and it may not fit as well into the specialised diplomas.

Should it be awarded as an AS or have its own category of qualification?

- ✓ Award as an AS

Content

Q: Is any critical aspect missing from the list of knowledge, understanding and skills?

No

Q: Many aspects will be common to all extended projects, but some will be optional depending on the nature of the project. Any optional aspects have been indicated as being present "where appropriate". These optional areas are:

- selecting and using technology
- problem solving
- group work
- delivering an oral presentation (as opposed to simply preparing a presentation).

Should these aspects be optional, mandatory or not be included?

	optional	mandatory	not be included
Selecting and using technology	✓	○	○
Problem solving	✓	○	○
Group work	✓	○	○
Delivering an oral presentation	✓	○	○

Practical work should be included as optional.

Oral presentation (with a question and discussion session) could be mandatory (and possibly periodic during the project) – this will enable assessment of the students' own understanding of the concepts researched and surrounding issues. Periodic presentations would also enable benchmarking of progress by students against their peers and enable them to consider, and be guided on, future avenues. It would be useful to explore this in more detail in the pilot phase.

Assessment objectives

Q: Do the assessment objectives cover the full range of skills to be assessed in the various types of outcome?

Yes

Q: Are the relative weightings and flexibility of the assessment objectives appropriate to cover the intended range of types of outcome while still ensuring comparability between all extended project types?

Yes

Q: The draft criteria encourage students to choose and design a personally relevant extended project, subject to agreement on how the project should be scoped in order to enable it to meet the criteria. Is this appropriate?

Yes, however teachers will also need clear guidance so they can help their students make the most appropriate choices. These may be within a clear main subject area, or interdisciplinary if appropriate and motivating to the students concerned. Providing guidance and support to both teachers and students for undertaking and assessing interdisciplinary projects, may prove challenging and should be a focus for the pilot phase.

Students, and teachers, will need some guidance to design a project which is both 'meaty' enough to warrant the 180 hours input, fertile regarding information and data obtainability, and interesting and/or useful.

There could be opportunities for Centres or clusters to make links with local or national businesses and other institutions (NGOs, QUANGOs, local government and SetNet) to offer project options that are of benefit to and supported by those businesses and institutions.

Q: Should a wide range of types of possible outcome, ie performances, investigations, artefacts essays, be allowed?

Yes

Another potential and indirect outcome is 'change' – a project relating to the local or wider Centre, community or environmental concerns could result in data and information used by decision makers to improve a situation. This could be rewarding for the students concerned.

Q: Will the differences between projects with different types of outcome present a significant problem in achieving comparability in assessments?

Yes

The challenge will be to assess the full range of potential projects equally without resorting to the simplest and quickest mechanisms such as tick boxes, which do not adequately assess breadth and quality etc. and are moreover de-motivating for both teachers and students. More comprehensive and effective assessment methods should be explored as a priority during the pilot phase.

Will assessment be carried out by teachers in the students' own Centres and then moderated, or will there be specialist assessors or a combination? A consideration is the length of time that would be required for an independent assessor to mark an extended project; the subject specialisms and/or the interdisciplinary facets required by assessors to match the subject areas of the project.

Q: The draft criteria allow for the possibility of students doing a group project, provided that the individual's role in the project is clearly defined. Do you think it is appropriate to allow group projects, considering the difficulties in accurately assessing an individual's contribution?

Yes and No

Whilst team-working skills could be enhanced and should be valued, the danger of team breakdown through perceived inequality of input should not be underestimated. There would also be a period of uncertainty at the beginning as groups are negotiated based on (current) friendship etc. A further point is that members of the team may leave the Centre or have periods of illness, holiday etc which could disrupt the overall progress. Clear guidance will be required for both teachers and students regarding plagiarism.

Q: . Do you think that the assessment evidence required is sufficiently flexible to make it appropriate for all project types?

Yes

Periodic oral presentations and questions (a sort of viva) would reduce the risk of plagiarism as students would need to understand and expand upon what they had written or were presenting.

Q: Do you agree with the grading scale of pass, merit and distinction?

No

For acceptance and understanding of the value by the key players, including parents, higher education and employers, the extended project should be graded according to AS grades (A-E).

Implementation

Q: Is the framework and criteria appropriate both to students taking A-level programmes and to those taking specialised diplomas?

Yes

Q: If it is made the size of an AS (180 guided learning hours), and bearing in mind its particular requirements, when would be the best time for students on a post-16 two-year level 3 programme to take the extended project?

Spanning the two years

It is probably best not to restrict the timing of study for the extended project as best timings will very much depend on circumstances of individual students and the facilities offered by the Centre(s) and other organisations. For many students, they will not be in a position to make informed choices or carry out quality work on a project until they have some experience of post 16 learning, and many will likewise not wish to leave the bulk of the project work towards the end of an A level (or equivalent).

Q: Do you think there is a role for higher education (HE) in helping to scope extended projects?

Yes

Q: Do you think there is a role for employers in helping to scope extended projects?

Yes

Q: Do you think that the extended project will provide students with useful preparation for HE and employment?

Yes

Q: What do you think will be the key issues of manageability in centres?

Students carrying out extended projects require generic communications skills as well as specialist enquiry skills which they will need help in developing at least in the early stages of the project; and ideally throughout the project. The timetabling issues arising from this could be significant and need to be explored in depth for a full range of projects and Centre situations during the pilot phase. For practical based projects, additional issues about availability of equipment, storage of experiments, plus supervision, health and safety issues need to be explored in further detail.

Most centres will timetable in approximately 1 hour slots – this kind of project work may (should?) include out of Centre research time and longer periods of practical work in Centre. Individual students may therefore need bespoke timetabling. This would be another problem of group working – ensuring all members have the same slots allocated for the project work.

To ensure success, parts of an extended project need to be timetabled, facilitated by specialists and funded on the same basis as an AS (or vocational equivalent).

Q: What do you think will be the key staff development needs for teachers delivering the extended project?

Guiding students in making appropriate project choices and helping students to gain the generic communication and specialist enquiry skills to work independently.

In addition, empowerment and budget to allocate to projects as needed/necessary – this could be travel for students to carry out research/surveys, equipment purchase or hire, literature or subscriptions, attendance at conferences. It would also be more efficient for schools in a cluster to manage similar projects in a co-ordinated way so meeting time for the project co-ordinators would be beneficial. Specialist colleges amongst others, may take a leading role.

The assessment of the extended projects.

Q: The extended project will be optional for students on A-level programmes. How can these students be best encouraged to take the qualification?

- By encouraging HE to require it in their offers
- Through funding arrangements
- By demonstrating the benefits to students
- By making it an entitlement for post-16 students
- The availability of dedicated professional developments for teachers on the extended project
- Other – please state
- HE institutions using the project written outcome and oral presentation as a differentiation tool in the selection process.

Q: Do you see any requirements in these criteria that you believe might restrict any disabled candidates' access to the qualification?

No

Q: If you would like to make any further comments on the extended project, please do so below.

The ASE welcomes the benefits that the extended projects bring to developing the breadth, depth and enthusiasm for particular subjects in students. However to be successful, there are significant management and assessment issues which should be fully explored and their solutions clarified during the pilot phase. Taking into account the experience of existing qualifications which have the equivalent to extended projects

(such as parts of the AS in Perspectives on Science, the A level in Advancing Physics and Salters Horners Advanced Physics) should form a valuable extension to the pilot.

The Association for Science Education is the UK's largest subject association with 18000 members drawn from all areas of science education, providing a powerful force to promote excellence in science teaching and learning. Through a national network of teachers, technicians, lecturers and advisors as well as a team of permanent staff, ASE creates conferences, online resources, publications, INSET and many varied projects to offer support and encouragement to everyone involved in science education.