

WELSH BACCALAUREATE QUALIFICATION

THE INDIVIDUAL INVESTIGATION

What is it?

The Individual Investigation provides an opportunity for students to investigate a topic or an issue they are studying or have studied in any of their WBQ Core or Options programmes. The issue studied should be considered at a local or regional perspective and, at Intermediate and Advanced level, ideally in another context. However, it is the issue chosen and its illustration with suitable examples that is important, rather than the requirement to cover a range of scales.

What are its aims?

To enable students to develop their skills of:

- independent learning and autonomy;
- enquiry;
- creative thinking;
- reasoning;
- information processing;
- evaluation and reflection;
- presentation.

How long will it take?

- Foundation – about 20 hours of guided learning time.
- Intermediate – about 20 hours of guided learning time.
- Advanced – about 20 hours of guided learning time.

How can it be presented?

Outcome of Investigation	Minimum evidence required
Written presentation	A written presentation that will normally include graphs, images, statistical tables, diagrams, drawings, etc. and be 1000 words for the Foundation level, 1,500-2,000 words for the Intermediate and 2,000-2,500 words for the Advanced level (excluding graphs, diagrams, etc.).
Oral presentation with support materials in either electronic or non-electronic form	A witness statement or confirmation from a teacher, accompanied by copies of materials used in the presentation (e.g. slides/OHTs, maps, diagrams, prompt notes, etc.). The oral presentation should last a minimum of 5 minutes at Foundation level, 7 minutes at Intermediate level and 10 minutes at Advanced level.
At Foundation level only, other methods of presentation are possible e.g. annotated poster, small exhibition, electronic diary.	This is detailed in the Foundation Diploma Specification.

How is the Investigation assessed?

In order to meet the **Foundation level** standard candidates must achieve all of the assessment criteria listed in the following tables.

	LEARNING OUTCOMES <i>The candidate should be able to:</i>	ASSESSMENT CRITERIA <i>The candidate has achieved this outcome because they have:</i>
1.	Draw up a plan for the Investigation	Shown examples of planning the investigation.
2.	Identify and use a range of information for use in their Investigation	Demonstrated they can find information from more than one source by including examples in the finished presentation. Selected relevant information for use in their investigation.
3.	Present the findings of the Investigation	Selected a suitable format for presentation. Communicated the outcomes of the investigation, demonstrating their basic understanding and knowledge of the area investigated.
4.	Reflect upon the outcomes of the investigation and the plan produced	Drawn conclusions about the work completed Reviewed their progress against the original plan.

In order to meet the **Intermediate level** standard, candidates must achieve all of the assessment criteria listed below.

	LEARNING OUTCOMES <i>The candidate should be able to:</i>	ASSESSMENT CRITERIA <i>The candidate has achieved this outcome because they have:</i>
1	Plan how they will approach, carry out and complete an Investigation.	Provided information on (i) what the Investigation aims to do, (ii) the information they plan to collect, and (iii) how it will be analysed.
2	Identify sources, decide the relevance of and use a range of appropriate information in their Investigation.	Demonstrated they can (i) identify largely relevant sources, and (ii) select and use appropriate information from those sources when investigating the topic.
3	Present the findings of the Investigation in a relevant manner.	Demonstrated their (i) mostly relevant knowledge and basic understanding by (ii) using basic skills and techniques in the presentation of the Investigation.
4	Evaluate and draw conclusions based on the findings of the Investigation.	(i) Attempted a basic evaluation of the outcome of the Investigation, and (ii) come to conclusions based on the evidence found.

Advanced Diploma

	LEARNING OUTCOMES <i>The candidate should be able to:</i>	ASSESSMENT CRITERIA <i>The candidate has achieved this outcome because they have:</i>
1.	Plan how they will approach, carry out and complete their investigation.	Provided information and evaluated: (i) how they went about deciding on the issue and title of the investigation; (ii) the range of primary and secondary sources they planned to collect; (iii) how these sources would be analysed.
2.	Identify sources, decide on the relevance of and use a range of appropriate information in their Investigation .	Demonstrated they can (i) identify relevant and accurate primary and secondary information from a range of different sources; (ii) select and use appropriate information from those sources when investigating the issue chosen.
3.	Present the findings of the Investigation in an appropriate format.	Demonstrated they can: (i) collect information from a variety of sources; (ii) use a range of skills and techniques in the presentation of the investigation in an appropriate way; (iii) use the findings to show understanding of the complex nature of the causes and consequences of events or peoples' actions.
4.	Evaluate and draw conclusions based on the findings of the Investigation.	Demonstrated they can: (i) evaluate the issue they have investigated; (ii) make balanced judgements based on consideration of the issue showing awareness of differing opinions or points of view; (iii) come to well-supported conclusions based on the evidence found.

To summarise what we have said about the Individual Investigation so far:

<p>WHAT IS IT?</p> <p><i>The Investigation may arise from any part of the Core, i.e WEW, PSE or WRE, or be drawn from the integration of two or more of these, or be derived from the Options, but related to the Core.</i></p> <p>HOWEVER</p> <p><i>Although the Investigation may be drawn from any part of the Core, students will be expected to base their work within the context of living in an inter-dependent world, in which living in Wales is important.</i></p> <p>AND</p> <p><i>For the Intermediate and Advanced levels the Investigation should be illustrated with appropriate examples drawn from a Welsh perspective and at least one other wider scale (i.e. the UK, Europe, the world). However, it does not have to be a direct comparison of and contrast between the perspectives but should use examples from those perspectives to illustrate the theme under investigation. For the Foundation level the focus should be on one perspective only.</i></p>
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How should students plan their Investigation?

In planning their Investigations students should be aware that their work must meet the following requirements, no matter which level they enter:

- Ideally, it should be based on a topic or issue from the WBQ in which they are **interested**.
- The title of the Investigation is best stated in terms of a **question** or an **hypothesis** (see example titles below).
- The Investigation should allow the student to **obtain information** using a range of skills and techniques, e.g. the internet, books, designing and using questionnaires, and to **present the information resulting from these**, e.g. appropriate graphs, tables, maps, diagrams, illustrations.
- The student should show they are able to present **accurate and relevant information** so showing knowledge of the issue being considered.
- But this information should allow the student to reveal a clear **understanding** of the issue, i.e. explain the issues involved, and possible causes and consequences.
- Finally, the student should **evaluate** (at Foundation level this will involve **reflection**) the material and the issue raised and draw **conclusions**, e.g. make balanced judgements based on consideration of the issue showing awareness of differing opinions or points of view, come to an overall conclusion about the issue in line with the findings of the Investigation.
- There should be a **bibliography/list of references**. However, reward is given to those students who acknowledge the source of diagrams, maps, quotations, etc. within the text.

Some Titles

What are some of the effects of the decline of great sea ports on the people and the areas themselves? (Level 3)

This Investigation drew upon WEW and PSE, and some students' used their Option programmes, e.g. GCE Geography, History. One Investigation looked at the issue by considering what has happened since 1945 in Newham and Cardiff.

Is euthanasia acceptable? (Levels 2/3)

Submitted by students drawing on PSE and/or Health and Social Care. One study looked at the way in which the issue has been handled in Wales and the Netherlands.

What influences the ways in which countries/regions and their people react to a disaster? (Levels 2/3)

The Investigation drew upon WEW and PSE. It considered the response of people to the Aberfan tip disaster, the Chernobyl nuclear disaster and the south-east Asian tsunami.

Imagine you have £10,000 to spend on improving the facilities for young people in your local area. How would you find out what to provide, and how could you discover if you were successful? (Levels 2/3)

This study draws upon WEW and PSE, and provides opportunities to use the key skills of Application of Number and Problem Solving.

What can be done to lower the rates of teenage pregnancies? (Levels 2/3)

This type of Investigation allows students to draw on PSE and their Options, especially Health and Social Care. The students tend to study the issue locally, or in Wales and a part of another country, e.g. USA.

In WRE we learn about working with an employer and working together. How useful is part-time work in helping young people learn about the 'world of work'? (Level 2)

This Investigation allows students to combine WRE and their own experiences with the need to research what happens in another country or region.

Why do large cities have concentrations of people from different parts of the world? (Level 3)

This study draws on WEW, PSE and Option courses such as History, Geography and Economics. It is an ideal opportunity for students to develop the skills of questionnaire design and their analysis in a number of large towns, e.g. Cardiff and Paris.

Why do many people like to own a BMW or a Mercedes Benz? (Level 2)

This Investigation grew out of student's main programme of study, i.e. motor-vehicle studies and design and technology.

What are some of the factors that influence fashion? (Levels 2 and 3)

The student is following an Options programme focusing on fashion, but is very interested in the use of ICT.

Why do women wear make up? (Level 1)

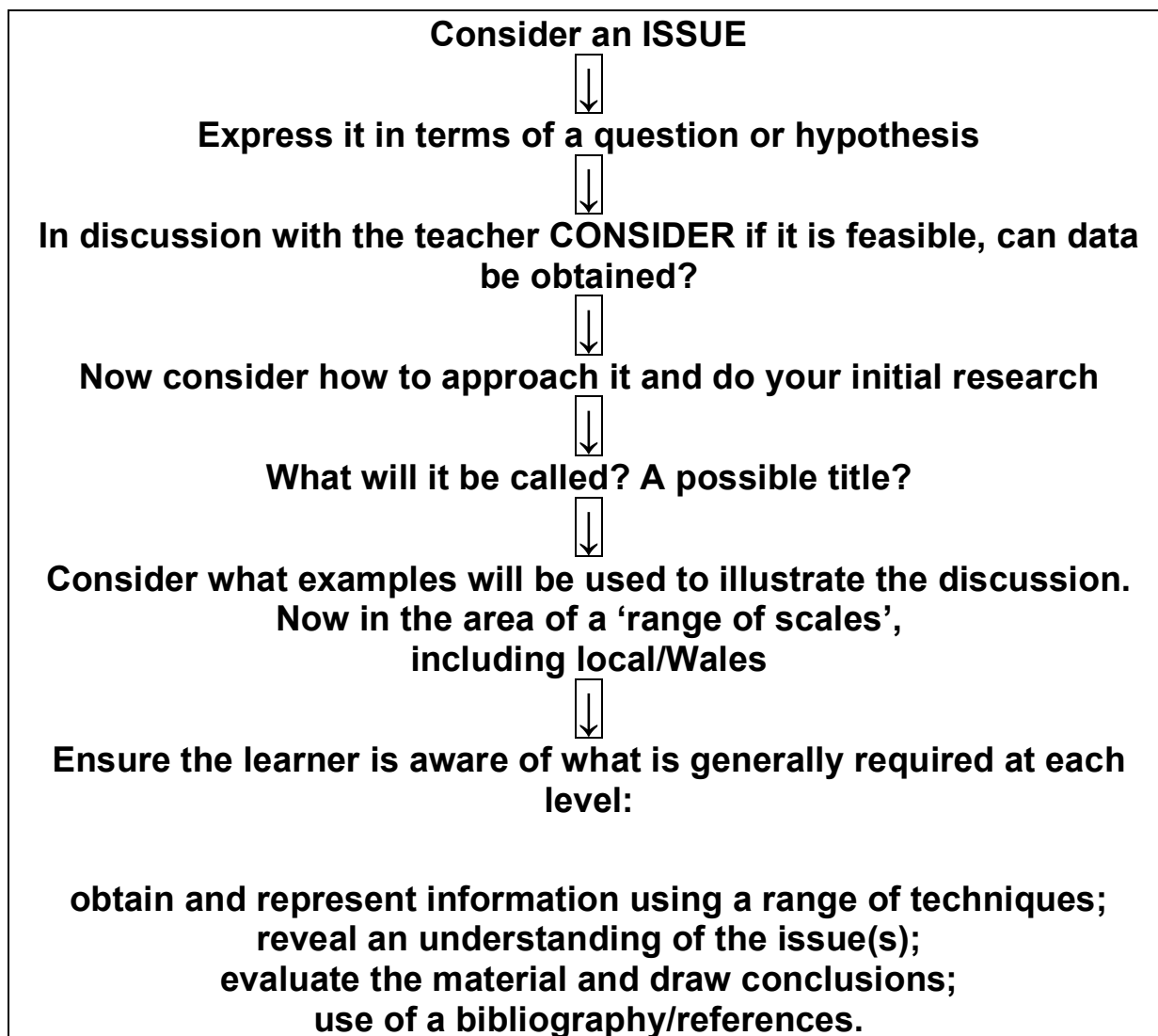
This was an Investigation completed by a Hair and Beauty student.

What is a good child minder?

The student who completed this Investigation was following a CACHE course and was interested in the question of what makes for a good child minder compared with a poor one; and how you can tell.

So, we can try to bring all these pieces of information together and suggest the type of action plan that teachers could use with their students, as a sort of map to follow.

THE INDIVIDUAL INVESTIGATION: AN ACTION PLAN



A few points of explanation

Many teachers have asked the Project Team to say a little more about three things in particular:

- learning outcomes;
- the types of skills to be used;
- the use of ICT.

Learning outcomes

These try to discover if the student has achieved the aims of the Individual Investigation programme, are four in number, and are common to Foundation, Intermediate and Advanced levels. The main thing that distinguishes them is the level of autonomy expected of the student as they move up through the levels. For example, at Foundation level students are expected to 'draw up a plan' for their Investigation, usually with the support of the tutor, whereas at Intermediate and Advanced they are expected to 'plan'. Similarly, learning outcome 4 has demands that range from 'reflecting upon the outcomes of the Investigation and the plan produced' at Foundation, through 'evaluation and drawing conclusions based on the findings of the Investigation' at Intermediate and Advanced. Whether these learning outcomes have been achieved is determined by the extent to which the assessment criteria have been fulfilled. Again using learning outcome 4, the assessment criteria range as follows:

Foundation	Intermediate	Advanced
<i>Drawn conclusions about the work completed. Reviewed their progress against the original plan.</i>	<i>(i) Attempted a basic evaluation of the outcome of the Investigation; (ii) come to conclusions based on the evidence found</i>	<i>Demonstrated they can: (i) evaluate the issue they have investigated; (ii) make balanced judgements based on consideration of the issue showing awareness of differing opinions or points of view; (iii) come to well-supported conclusions based on the evidence found.</i>

The types of skills to be used

It is hoped that the Investigation will provide students with the opportunity to develop and use a range of skills, including the following:

Skills	Related techniques
Reference skills – ability to make use of a variety of sources for obtaining information	- data collection through work in the 'field' -data collection from audio-visual materials, books, magazines, reports, maps at various scales, statistical data, graphs
Communication skills – ability to present information in a clear and appropriate way through written and oral communication	Transformation of data: into graphs; maps, speech, writing, landscape sketching, audio-visual materials.
Interpretative skills – ability to give meaning to data	Interpretation of data: graphs, maps, satellite images. Analysis of documentary evidence – old maps, photographs, advertisements, questionnaires. Annotation to highlight significant features.
ICT	The use of ICT to produce or enhance analysis and enquiry, e.g. the use of spread sheets, word processing. The analysis and evaluation of ICT generated data and materials.
Evaluative skills –ability to analyse critically and interpret evidence and to formulate conclusions	Role play exercises/games. Decision making exercises. Discussion.
Problem-solving skills – the ability to enquire, to think clearly, critically and constructively and make decisions based on evidence	Research and investigation. Enquiry – application of understanding to new situations.

The use of ICT

It is expected that ICT will form an important part of Individual Investigations. A common format for enquiries is:

Collecting information

- collect primary and/or secondary data (either individually or collectively).

Analysing information

- process data/information into a visual form (create, edit, manipulate and use appropriate maps, diagrams and graphs);
- analyse, extract and synthesise relevant information;
- evaluate and draw conclusions.

Presenting results

- produce a report of findings.

All of these processes can be supported by the use of ICT and a framework for planning is outlined below. This diagram indicates where the use of ICT might enhance the quality of the investigative work done by the students. Teachers should critically evaluate where ICT is best used within their own school or college and plan how to enable students to go beyond their current level of ICT skills.

Collecting information	Analysing information	Presenting results
<p>Primary sources –</p> <p>Manual:</p> <ul style="list-style-type: none"> - data collection and entry, e.g. with lap/palmtops in the field, questionnaires. - Digital cameras. <p>Automatic:</p> <p>Datalogging, e.g. weather stations.</p> <p>Secondary sources</p> <p>Databases Use CD-ROM, Internet and commercial databanks to obtain, statistics, maps, remote images and up-to-date information.</p> <p>Interactive Use Internet (email and web links) to obtain data from people/organisations elsewhere.</p>	<p>Handling data</p> <p>School/college-produced databases:</p> <ul style="list-style-type: none"> - ask questions - look for relationships. <p>Spread sheets:</p> <ul style="list-style-type: none"> - make calculations - model changes - draw graphs from data <p>Analysing patterns</p> <p>Use packages to</p> <ul style="list-style-type: none"> - look for spatial patterns and relationships. <p>Use simulations and modelling software to:</p> <ul style="list-style-type: none"> - investigate and develop ideas - predict and solve problems - help make decisions. 	<p>Presenting data</p> <p>Use word-processing</p> <ul style="list-style-type: none"> - to present results as text, tables, graphs, maps, illustrations. <p>Use desktop publishing to further improve quality of presentation.</p> <p>Use presentation packages such as powerpoint to present results in an oral or group situation.</p> <p>Use multi-media authoring to display information on a web page.</p>