Assessment for Learning (AfL) in Geography

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PDST Geography

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Link to PDST site
Credits

This AfL session was designed in late 2013 and early 2014 by the PDST Geography team including:

Adrian Barrett – Sligo
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Cathal O Conchuir – Galway
Marcella Strong – Louth
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Team co-ordinators: Miriam Hamilton and Tony Dunne
Workshop Learning Outcomes

• Aware of the reasoning behind AfL
• Aware of the 5 main elements of AfL
• Appreciation of the importance of questioning in AfL
• Willingness to give some aspect of AfL a try back in school
Our Approach

• No experts just facilitators
• Worked examples
• Use some of the resources from previous in-services
• Participation
• Discussion
• Relevant to future assessment changes
Assessment?
Assessment
Learning Outcomes
Self-Assessment
Feedback
Formative Assessment
Success Criteria
Evaluation
Goals
Improvement
Test
Progress
Standards
Summative
Marking
Diagnose
Exit Pass
Questioning
Learning
Information
Effective
Concept Map
Teaching
Peer-Assessment
Defining Assessment

“Assessment in education is about gathering, interpreting and using information about the processes and outcomes of learning”.

“It takes different forms and can be used in a variety of ways...”

Assessment in the Primary School Curriculum – Guidelines for Schools. NCCA 2007 p.7
http://www.juniorcycle.ie/About.aspx
Continuum of assessment

- concept mapping
- questioning
- teacher observation
- teacher-designed tasks and tests
- standardised testing
- portfolio assessment
- conferencing
- self-assessment

Child leads the assessment

Teacher leads the assessment

PDST Professional Development Service for Teachers
Assessment for Learning (AfL)

Enables teachers and students to focus on three key questions -

1. **Where are** students **now** in their learning?
2. **Where are** students **going** in their learning?
3. **How** will students get to the **next point** in their learning?

NCCA Assessment Guidelines p9.
Assessment for Learning: Key Elements

1. Learning Outcomes and Success Criteria
2. Effective Feedback
3. Effective Questioning
4. Self assessment - Students as owners of their own learning
5. Peer Assessment - Students as Instructional resources for each other

Assessment for learning strategies need to be phased into practice over time.

*AfL Assessment for Learning – A Practical Guide 2010 p38*
Assessment for Learning

We are learning to

- Asking Good Questions
- Sharing the Learning Intention: WALT
- Sharing the Success Criteria: WILF
- Self and Peer Assessment

What I’m looking for
‘when the cook tastes the soup, it is formative or AfL; when the guests taste the soup, it is summative AoL.’
A questioning approach by teacher and students

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Where are they now?</td>
<td>• Where am I at?</td>
</tr>
<tr>
<td>• Where am I taking them?</td>
<td>• Where am I going?</td>
</tr>
<tr>
<td>• How are they getting there?</td>
<td>• How am I going to get there?</td>
</tr>
<tr>
<td>• How do I know they’ve arrived?</td>
<td>• How do I know I’ve arrived?</td>
</tr>
</tbody>
</table>
AfL in the Geography classroom

An exemplar
Geography and AfL

• Geography is about the relationships between people and places
• The science of observation and location
• Many stimuli available for investigation such as maps, photographs, graphs, cartoons, diagrams, videos etc
• Local environment can be investigated through fieldstudies
Afl example: sketching a photograph

• Shared learning outcome
To draw a sketch of a photograph

• What you will need to do to achieve this
Draw a frame
Insert main lines such as horizon or coast
Name and locate features on the sketch
Construct a colour key
Title the sketch
Checking previous knowledge of location

Where’s the dot?
• Where’s the boy? Letterfrack 1987
• Where’s the boy in the photograph?
• Where’s the boy exactly in the photograph?
Letterfrack 1987
Drawing a sketch of a photograph
Sketch of a meander on the Dargle river
Fieldsketch Looking South from Corbawn Lane

Key

Quartzite

Bray Head

Headland
## Checklist for drawing a sketch of a photograph

<table>
<thead>
<tr>
<th></th>
<th>Green</th>
<th>Amber</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a frame?</td>
<td>😊</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Is there a title?</td>
<td>😊</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Is there a colour key</td>
<td>😊</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Are the main lines such as the coast and horizon there</td>
<td>😊</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Are the 3 feature located accurately with a box</td>
<td>😊</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Are the 3 features named properly</td>
<td>😊</td>
<td>😞</td>
<td>😞</td>
</tr>
</tbody>
</table>

What did I do really well? __________________________________________________________

What do I need to practice? ______________________________________________________
Blind Drawing

- Pairs sitting back to back
- One of the pair faces the screen the other faces away
- Person facing the screen describes the photograph using the nine square grid
- Partner draws and can question but not look
- Insert coastline
- Insert a road, an industrial building, and a playing field
Dingle – An Daingean Cuis 2012
Blind Drawing Continued

• Switch places and roles and work as before on the second photograph
Blind Drawing Continued

• Finish off your sketches
• Use rubric to assess your own sketch
• Use the rubric to assess your partners sketch
• Discuss your assessment of each others sketch
• What did do well?
• What do you need to improve?
Teacher getting feedback 1

- Teacher observes students and listens very carefully to the pairs as they do the drawing:
  
  Are they using the grid?
  Are they using the terms correctly?
  Are they able to communicate with one another?
  Who is finding it difficult?
  What are the difficulties?
  How can I help them to overcome these difficulties?
Teacher getting feedback 2

- Students self assess using rubric
- Students peer assess with partner using rubric
- Teacher observes and listens to the students
- All students hold up rubric for teacher to assess the class
- Teacher asks students can they sketch a photo.
- Students indicate using traffic lights, thumbs up/down, or fingers (3 = Yes, 2 = Partly, 1 = No)
Teacher action after feedback

• Teacher work with reds while ambers discuss with greens where they went wrong
  or
• Greens and ambers paired with reds to help them develop the skills
Questioning

'That's a good question which demands some real evasion.'
“What’s in questioning you ask? Everything. It is a way of evoking stimulating response or stultifying inquiry. It is, in essence, the very core of teaching”.

John Dewey.
Quality questioning

- Purpose
- High or low order
- Follow up
- Wait time
- Distribution
So questions should assess different skills and venture towards higher order thinking?

1. Recall
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation
Dingle – An Daingean Cuis 2012
Question types on Dingle and Wicklow photographs

A. Name the towns.
B. Are they high or low oblique photographs?
C. What type of photographs are they?
D. Give the location of a quay.
E. Name and locate 3 functional zones in each.
F. Classify them as central places.
G. Compare Dingle with Wicklow.
H. Where would you locate a shopping centre in---?
I. ‘Of the two I’d prefer to live in Dingle.’ Discuss.
High order or rich questions

- Usually not one word answers
- Cannot be answered immediately
- Require thought
- Often open ended
- Require learners to make links
- Often require learner to ask themselves further smaller questions
This is an excellent example of a multicyclical landscape. Do agree or disagree with this statement. Explain your answer using evidence from the photo.
Processing this question in my head

• What does multicyclical mean?
• Is this an example of a multicyclical landscape?
• Is there evidence for different cycles such as rocks, tectonic, fluvial, coastal, water, nutrient etc?
• What landforms can I identify to support this
• Is this an excellent example of same?
Other questions on the photograph

1. What is the oldest thing in the photo?
2. If we came back in 1 million years what changes might have happened?
3. What is a stone age person landing here by boat likely to have seen?
4. What processes are currently working in the landscape here?
5. Title the photo and explain your title.
Living graphs

• Gives a human context for the information
• Helps students to relate to information
• Encourages thinking
• Placement of statements must be explained by reference to information from the graph
• Can be used with maps and photos as well
John the gravedigger loses his job

A mother sobs over the death of her last 6 children who died in a cholera outbreak

People are encouraged to migrate

Birth Rate

Death Rate

Total population

Natural increase

Natural decrease

Population cycle
I was called after the Pope because I was born the year he visited Ireland.

My identical twin Mary and I are getting our first provisional licences today.
Pyramids for Irish population and for a minority group 2006

Everybody is treated equally in Ireland
Pyramid can be split and turned on its side for ease of comparison
Problems with questions

• Most are low order
• Impromptu, unplanned on the spur of the moment
• Only 20% require thinking
• Wait time too short
• Often only to certain students
How can we improve our questioning?

- Ask ‘open’ questions – to promote thinking
- Increase ‘wait time’
- ‘No hands up’
- Allow students to confer
- Acknowledge and give feedback
- Have students formulate questions
Planning Questions

• Questions need to be prepared
• Geography team might discuss role of questions in their subject
• Include key questions in year plans
• Include key questions in lesson plans
• Put up key questions around the class
• Awards for quality questions
Distributing questions

• Hands down- think - wait
• Lollipops with names – random – anyone can be asked
• Give students a country name – have the country names in a box. Select a country that student answers
• Give 3 post-its to each student. They hand one up when they ask a question or a quality one
Solving a mystery in the local environment

• At the end of a study on weathering.
• Pose the question: Is weathering affecting our school at the moment?
• How could we get the answer to this question?
Success criteria

• Get a map of the school from Scoilnet Maps
• Plan a route around the school
• Get a compass and be able to use it
• Walk route looking for evidence of mechanical, chemical, biological weathering
• Photograph the evidence
• Draw a large map of school and locate the photos on it
Criteria for written report

• Aim: we set out to-----
• Plan: we planned-----
• Gathering our data: we set out --- we observed, identified, photographed ------
• Our results: we found--------
• From these results we could tell-----------------
Hi, I’m Speardy the Norman

What are you looking at Celty?
I’m going to conquer this area and set up a town so I want!

- Lowland – easy to build on
- Wood and rock for building and fuel
- Fertile land – crops – tax – wealth
- Rivers – water – power – food
- Easy to defend
- Communications – routes to other Norman settlements – for trade and security
Shade in the land which is over 100 metres

Choose a location for Speardy and explain why it’s a good one.
Checklist for success

- Locate by grid reference
  
  *Explain choice of location*

- Relief – height in metres, slope and aspect, landform

- Water source – river named

- Defence – difficult to attack – explain

- Routeways – land and sea – linking to
Effective Feedback

“Feedback is among the most powerful moderators of learning”

Hattie, 2012
Formative Feedback – methods where students get information about their learning

• Comment only
• Oral Feedback
• Rubrics
• Scaling

• Traffic Lights
• Peer Assessment
• Checklists
Feedback Sandwich – 2 ways

Positive Comment

Constructive criticism: How to improve....

Positive comment
Feedback:

Two stars = 2 things that are good about the piece of work

A wish = something they can improve to make it even better

- WWW: What Worked Well
- EBI: Even Better If
My lundform is a vee valey like the one in Killarey. It was made by a river depositing and cutting into the rock. The river like a saw. It throws its stones. It carries away the brooken rocks like a transporter. The weather helps by raining and onion weather. Brooken rock fall in soilsiders into the river.
Assessment for Learning (formative) is *not* an attack on assessment of learning (summative assessment). These are complementary approaches - it’s about getting the balance right.

It is the teacher who decides the balance and timing of formative and summative assessments;

(“Putting Assessment for Learning into Practice,”
David Spendlove, 2009)
<table>
<thead>
<tr>
<th>Assessment OF Learning (Summative)</th>
<th>Assessment FOR Learning (Formative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happens after learning takes place</td>
<td>An integral part of learning process</td>
</tr>
<tr>
<td>Information is gathered by teacher</td>
<td>Information is shared with learner</td>
</tr>
<tr>
<td>Information is usually transferred into marks</td>
<td>Information is available on quality of learning</td>
</tr>
<tr>
<td>Comparison with performance of others</td>
<td>Is linked to learning outcomes and success criteria</td>
</tr>
<tr>
<td>Looks back on past learning</td>
<td>Looks forward to the next stage of learning</td>
</tr>
</tbody>
</table>
So what’s new?

• Little
• Teachers always used these techniques
• Also as parents, siblings, friends we always used these techniques
• Shift in focus from teacher teaching to student learning
• Focus is on how learning happens
Workshop Learning Outcomes

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So how did we do?