Association for Media Education in Scotland

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BREAKING BARRIERS

Multimodal and Media Literacy

in the Curriculum for Excellence

AMES Position Paper

February 2011

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Conference Announcement

The **2011 AMES Conference** *Breaking Barriers: Multimodal and Media Literacy in the Curriculum for Excellence* will take place at **Abertay University** in **Dundee** on **Saturday 14 May 2011**. It will address the issues raised in this paper. The keynote speaker is Professor **David Buckingham** of the University of London's Institute of Education. David is a leading researcher in media education pedagogy and has published widely on the topic. There will also be a range of workshops allowing primary, secondary or further education educators to explore unfamiliar pedagogies or reinvigorate familiar ones. Details and application forms will be in schools after the Easter break. If you would like to pre-register email Des Murphy at desmurphy47@gmail.com.

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AMES Membership

Annual membership of AMES costs £20 for individuals (£10 if retired) or £35 for institutional membership. Membership will give you 2 issues of the *Media Education Journal*, 2 newsletters and reduced conference fees. Cheques payable to AMES or download direct debit form at www.mediaedscotland.org.uk.

Preface

This paper is titled *Breaking Barriers*, because ultimately that is the key challenge for curriculum reformers:

- breaking barriers in educators' minds so that we can envision and implement a more effective path towards media literacy education for all learners

- breaking barriers between educators and learners so that, rather than berating the young for their mediated lifestyles, we exploit and extend their media literacies

- breaking barriers between and within our institutions so that such desirable aims are encouraged rather than impeded.

Like the current and past Scottish governments, AMES believes that media education should be cross-curricular and available to all learners. But until now there has been little attempt to provide coherent support for educators. Consequently implementation has been patchy and dependent on individual initiative. SQA National Qualifications have not been helpful either as most subjects have neglected the significance of the media.

This situation appears to be changing. Over the past year AMES has had stimulating and encouraging discussions with Michael Russell, Cabinet Secretary for Lifelong and Community Learning, as well as officers of Learning and Teaching Scotland, the Scottish Qualifications Authority and Creative Scotland. However in the back of our minds a voice is heard saying "We've been here before … the barriers will remain unbroken."

In order to maintain momentum, AMES has decided to distribute this position paper. It comes at an ideal time, when the Course Rationale and Summary draft documents for National 4 and National 5 have been published, and before Learning and Teaching Scotland and Her Majesty's Inspectorate of Education are merged into the Scottish Education Quality and Improvement Agency (SEQIA) in July 2011.

So how do we ensure that our good intentions are translated into transformative action? The paper has four recommendations:

1. **SEQIA and SQA should ensure that media and multimodal literacy elements are embedded across curriculum areas at all levels.**
2. **SEQIA and SQA should ensure that assessment can be undertaken by a range of holistic multimodal responses as well as written monomodal responses.**
3. **SQA should ensure that there is a range of National Qualifications which articulates with the CfE in earlier years and which allows learners to further develop their media skills and understanding.**
4. **A feasibility study should be carried out to determine the most cost-effective way of delivering a sustainable programme of multimodal and media literacy support for teachers and trainee teachers (e.g. a review of good practice in the UK and other countries; the production of online CPD, teaching resources and assessment exemplars for Glow; a pilot project of full implementation of multimodal and media literacy across the curriculum in two secondary schools and their feeders, a further education college and a teacher education institute).**

Breaking Barriers: Multimodal and Media Literacy in the Curriculum for Excellence

Executive Summary

1. INTRODUCTION
AMES (Association for Media Education in Scotland) represents media educators in all sectors of Scottish education. We have become acutely aware of how media studies concepts are relevant across the curriculum and believe our analysis is worthy of wider circulation.

2. CONTEXTS
The paper has been developed within three main contexts.

2.1 The Curriculum for Excellence (CfE)
AMES applauds the CfE document "Literacy Across Learning" with its broad forward-looking definition of literacy. We agree that literacy education must combine the teaching of 'traditional' literacies with the multimodal literacies required to understand a diverse range of texts in different media. AMES also endorses the document's emphasis on critical literacy and the teaching of the skills of analysis, creativity and evaluation.

2.2 Recent Developments in the Discipline of Media Studies
Two recent trends are discernible within the academic discipline of media studies. First the various methodologies of textual analysis have been unified into a holistic multimodal description of communication which applies not just to traditional and interactive media, but to all forms of communication. Secondly attention has turned from the traditional mass media to the newer interactive media of the WWW, video games and social networks.

2.3 International Thinking on Curricular Responses to Digital Technologies
Media academics argue that literacy education must address multimodal texts (involving language, images, audio, layout, editing, etc.) and counterbalance the current bias towards the written word. This implies that assessment also needs to allow for multimodal in addition to the traditional written response. Also our current media can be seen as a 'convergence culture' in which content flows across multiple media systems. As some of this content is user-generated, educators should encourage learners to utilise their technological aptitudes, and develop their learning about safe and ethical use, thereby becoming even more effective producers.

3. RECOMMENDATIONS
The paper makes recommendations in four areas:

3.1 Review of Multimodal and Media Literacy across Learning
Multimodal literacy is obviously relevant to the Languages and Expressive Arts curriculum areas. But AMES has conducted case studies of how multimodal and media literacy perspectives can help us reflect on teaching and learning in history and mathematics and potentially increase motivation and understanding. We believe that these perspectives are applicable to all curriculum areas and ask that both SEQIA (Scottish Education Quality and Improvement Agency) and SQA (Scottish Qualifications Agency) ensure that multimodal and media elements are embedded across curriculum areas at all levels.

3.2 Review of Multimodal Literacy across Assessment

All formal assessment has a backwash effect on teaching and learning so it is essential to mitigate negative effects and preferably produce positive ones. AMES welcomes the notion of holistic unit assessment and we hope that assessment might move to a balance between traditional subject discipline tasks and authentic 'real world' tasks. We would also hope that learners might be allowed to respond to internally assessed elements in a range of multimodal rather than purely monomodal responses. Consequently AMES believes that a multimodal literacy review of assessment should be carried out across curriculum areas in the CfE as well as by SQA Curriculum Area Review Groups (CARGs) and Qualifications Design Teams (QDTs) before the writing of course arrangements begins.

AMES is also aware that there is a potentially ground-breaking SQA research project which includes learners' understanding of moving image in literacy testing. We believe that this should be expanded to consider multimodal understanding across a range of texts.

3.3 Review of SQA National Qualifications Provision

Academic, industry and government reports all emphasise the importance of digital participation to social and economic development and this implies that media qualifications will require substantial updating. There have always been connections between the Media Studies National Qualifications (NQs) and other qualifications: in particular, NQs in English and various levels of vocational qualification. Consequently there should be an overview of revisions to ensure coherence as well as to avoid overlap. Such an overview should also extend to areas where multimodality and new media are key features – for example Expressive Arts and Technologies curriculum areas.

AMES is aware of SQA's policy that there must be demand from teachers before new courses are introduced, but we feel that the pace of development in multimodal participative culture demands a more proactive response. Firstly AMES proposes a Digital Media Literacy National Qualification which might grow into a qualification as important as English for future education, citizenship and employment. Secondly, Scottish Screen pioneered a highly successful Moving Image Education programme in Scottish schools. However there are currently no non-vocational moving image qualifications. Consequently AMES believes that there should be a Moving Image Arts NQ. An alternative to this might be to design a Digital Media Arts NQ which can be overtaken in one or more of print, web, multimedia, audio or moving image media.

3.4 Feasibility Study for Teacher Support

Such proposals can be implemented and would make Scotland world-leaders in the field of multimodal and media literacy. We suggest a first step should involve a feasibility study to determine the most cost-effective way of delivering a sustainable programme of support for teachers and trainee teachers (e.g. a review of good practice in the UK and other countries; the production of online CPD, teaching resources and assessment exemplars for Glow; a pilot project of full implementation of multimodal and media literacy across the curriculum in two secondary schools and their feeders, a further education college and a teacher education institute).

AMES would be delighted to participate with SEQIA, SQA and Creative Scotland in such progressive and exciting developments.

Breaking Barriers: Multimodal and Media Literacy in the Curriculum for Excellence

An AMES Position Paper

"If media education is worth having, then everyone should have it"

Cary Bazalgette, 2011, www.manifestoformediaeducation.co.uk

1. INTRODUCTION

AMES has since 1983 represented the interests of media educators in the primary, secondary and further education sectors. Members of the Management Committee have in the past developed English, Media Studies and Computing qualifications for SQA as well as currently serving as setters and markers. Three members of the Management Committee are serving on the QDT working within the Languages group developing new awards within the Curriculum for Excellence (CfE) initiative. All of the committee teach, or have taught, other subjects – English, French, Mathematics, Computing, Digital Media Computing, Computer Games Design and Geography – and so we are acutely aware of how media studies concepts are relevant to other disciplines as well as to interdisciplinary working.

This time of massive change in teaching and learning is situated in an age in which the world is mediated through ever more powerful, diverse and effective media outlets. Consequently we believe that media education is more important than ever. As the CfE has rolled out across the early years and primary sectors, media production activities, such as video and animation along with the more traditional posters, magazines and comics, have been an intrinsic part of cross-curricular projects and helped provide the relevance, depth and breadth that CfE demands.

We have thought and debated deeply about the arising issues and believe that the conclusions in this position paper are worthy of wider consideration. We are confident that their implementation would benefit Scottish education as well as the wider culture.

2. CONTEXTS

The thinking behind the paper has been developed within three major contexts:

1. the Curriculum for Excellence
2. recent developments in the discipline of Media Studies
3. international thinking on the educational response to digital technologies, the internet and social media.

We consider each of these in turn, examine their implications and then present our proposals as to the way in which AMES can work towards their implementation in conjunction with Scottish educational organisations.

2.1 The Curriculum for Excellence

AMES sees critical multimodal literacy as a key to the individual development of learners as well as to the wider cultural and economic development of Scotland in a global context.

So we applaud the CfE document *Literacy across Learning: Principles and Practice* (Learning and Teaching Scotland, 2009) with its broad future-proof definition of literacy. We agree that literacy teaching must fuse the teaching of 'traditional' literacies of reading, writing, listening and talking with the multimodal literacies required to understand and create a diverse range of texts. AMES also endorses the document's emphasis on critical literacy and the teaching of the skills of analysis and evaluation. As all curriculum areas involve the use and production of multimodal texts we agree that this is a cross-curricular issue which all educators need to address.

2.2 Recent Developments in the Discipline of Media Studies

The academic discipline of media studies can be seen to be in its third phase of development. In its first phase it concentrated on how media infrastructure and social context shape content, form and audience response. The second phase gave more emphasis to the audience as active interpreters rather than passive consumers, and these responses were viewed as socially constructed and diverse rather than uniform. The current SQA Media Studies NQ arrangements reflect these first two phases.

The third phase, which has emerged in the last decade in response to the explosion in interactive multimedia, has two primary aspects.

First the various methodologies of textual analysis have been unified into a holistic multimodal description of communication which applies not just to traditional and interactive media, but to all forms of communication: speech, literature, drama, art, music, dance, mathematics, science, history and so on. Although the academic formulation of multimodal communication is recent, the ideas can be seen to resonate with classical formulations (e.g. Aristotle's *Poetics*) and are readily understandable by literature, drama, art and music educators. Multimodality is also entirely consistent with the best advice on page layout, interface design and video/audio editing and so is readily understood by computing and technology educators. But perhaps what is most powerful about the multimodal approach is that it provides a common language which allows both teachers and learners to use the same concepts across disciplinary divides.

The second aspect which has impacted media studies is the emergence of the new media of interactive video games, the WWW and social networks. Henry Jenkins is a leading scholar in this area and, in his book *Convergence Culture*, he describes the phenomenon of convergence as follows:

> "the flow of content across multiple media platforms, the cooperation between multiple media industries, the search for new structures of media financing that fall at the interstices between old and new media, and the migratory behaviour of media audiences that would go almost anywhere in search of the kind of entertainment experience they want. Perhaps most broadly, media convergence refers to a situation in which multiple media systems co-exist and where multiple media content flows fluidly across them."
>
> (Jenkins, 2006: 282)

One particular social effect of this is the emergence of participatory cultures "in which fans and other consumers are invited to actively participate in the creation and circulation of new content." (Jenkins, 2006: 290)

As educators and parents we are well aware of the phenomenon and the bizarre fact that the only time many learners are not connected digitally is when they are in the classroom. Whilst we may regard this as healthy we must acknowledge that it would be far better if the classroom was an area in which learners could utilise their technological facility through learning about safe and ethical use as well as how to be even more effective digital producers.

These two issues – multimodality and participatory culture – have been identified as key challenges faced by today's curriculum developers.

2.3 International Thinking on Curricular Responses to Digital Technologies

The founding article on multimodal literacy is the New London Group (NLG) paper *A Pedagogy of Multiliteracies: Designing Social Futures* (1996). The NLG – a collective of scholars interested in exploring how multimodality impacts education – included leading scholars such as Gunther Kress, James Paul Gee, Norman Fairclough, Bill Cope and Mary Kalantzis. They argue that to promote multimodal literacy requires the development of an educationally accessible metalanguage – in other words, a language for talking about meaning-making in all kinds of texts.

The NLG asserts that this metalanguage must satisfy some "taxing criteria". It must:

- support "a sophisticated critical analysis of language and other semiotic systems"
- "not make unrealistic demands on teacher and learner knowledge"
- not "conjure up teachers' accumulated and often justified antipathies towards formalism"
- "motivate teachers to work on and work with the metalanguage"
- be flexible and open-ended – a toolkit for working on meaning-making activities rather than a formalism to be applied to them, and which allows teachers and learners to make their own tools.

(New London Group, 1996)

The essential argument of multimodal scholars is that:

- all communication is multimodal (using some or all of modes such as image, audio, language, body language, layout, editing, …)
- all communication has three functions: a) representational b) compositional c) reader-engagement
- all communication has a social purpose and so involves trying to influence target readers through the deployment of rhetorical structures (e.g. design, narrative, genre, discourse) and rhetorical devices (e.g. how modes and intermodal relationships fulfil the three functions)
- multimodal literacy pedagogy must involve critical analysis *and* production
- critical analysis has two aspects: textual critique which evaluates how, and how effectively, composition engages the reader to deliver intended meaning and affect; contextual critique which evaluates the effect of the communication in its social settings
- the above provides a metalanguage for interdisciplinary working as well as providing

criteria for assessment (i.e. content, design, and reader-engagement).

<div align="right">(Instrell, 2008, 2010)</div>

In the last decade a profound change has occurred with the widespread use of interactive and online media. The resulting issues have been addressed by the MacArthur Foundation paper, *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century* (Jenkins et al, 2006).

Jenkins et al explore the phenomenon that most teens are involved in participatory cultures which involve online affiliations, digital creativity, collaborative problem-solving and circulations of their own content. These informal skills are desirable in the 21st century classroom and workplace, and educators must ensure that every young person has access to the skills and experiences in order to become a full participant in society. Additionally educators must enable learners to see how media shape their world-view as well as introducing them to ethical standards that should affect their practices as media makers and participants in online communities.

The paper lists the key skills of new media usage:

> "**Play** – the capacity to experiment with one's surroundings as a form of problem-solving
> **Performance** – the ability to adopt alternative identities for the purpose of improvisation and discovery
> **Simulation** – the ability to interpret and construct dynamic models of real-world processes
> **Appropriation** – the ability to meaningfully sample and remix media content
> **Multitasking** – the ability to scan one's environment and shift focus as needed to salient details
> **Distributed Cognition** – the ability to interact meaningfully with tools that expand mental capacities
> **Collective Intelligence** – the ability to pool knowledge and compare notes with others toward a common goal
> **Judgment** – the ability to evaluate the reliability and credibility of different information sources
> **Transmedia Navigation** – the ability to follow the flow of stories and information across multiple modalities
> **Networking** – the ability to search for, synthesize, and disseminate information
> **Negotiation** – the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms."

<div align="right">(Jenkins et al, 2006: 4)</div>

Recent research also shows that teens are still engaging with traditional mass media in print, audio, film and television (Ofcom, 2008). So to understand, appreciate and critique mass and online media requires the traditional literacies as well as critical multimodal literacies.

These papers suggest two questions which must be addressed by the CfE:

- How do we respond to the multimodal conception of communication?
- How do we respond to the emergence of online participatory cultures?

3. RECOMMENDATIONS

We think that the answers may be found by implementation of the following:

1. a review of multimodal and media literacy across learning
2. a review of multimodal literacy across assessment
3. revision of SQA National Qualifications
4. feasibility study for teacher support.

3.1 Review of Multimodal and Media Literacy across Learning

The Moving Image Education project clearly demonstrates that pupil creation of media artefacts is applicable across the curriculum and fits in with the ethos of the CfE (Scottish Screen, 2009). AMES would like to see such a similar approach applied across all types of media text.

The good news for course designers in curriculum areas which have communication as their central concern – for example, Languages and Expressive Arts – is that this 'new' model is perfectly consistent with old conceptions.

Course designers in some curriculum areas – for example Mathematics, Sciences, Social Studies – might not immediately see communication (and hence literacy) as central to their concerns. But viewing the communication aspects of their discipline through a multimodal lens suggests different ways of delivering and assessing content in ways that address pedagogic and motivational concerns.

Case Study 1: History

> *"A historian has to be a very good writer to make us feel emotion while the poorest of filmmakers can easily touch our feelings."*
> *Robert Rosenstone, 2006, 'History on Film/Film on History'*

For example, let us view the subject History through a multimodal media lens. This should be productive because much of the evidential base as well as interpretive historical commentaries are texts in a range of media. Each of these texts is a rhetorical communication designed to influence an audience. The key aspects of media studies approach employed in the current NQs are interesting when applied to history:

- **Categories**: there are different genres of history (e.g. social, economic, cultural, political, women's, African-American, …) with different purposes (information, education, entertainment, propaganda, etc.); historical accounts deploy a range of media (articles, books, comics, fiction, films, television documentaries, video games, websites, museum displays).
- **Language**: these histories employ the modes of words, images and audio in different ways to produce different interpretations of the same events.
- **Narrative**: historical accounts are stories and, like fiction, plot their stories through initial setups, turning points, cause-effect chains and resolutions.
- **Representation**: the past is gone for good; it is unattainable and all we can have is a range of competing interpretations of past events; histories are authored, composed

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narratives from particular perspectives.

- **Audience**: the audience for historical accounts can be fellow historians, undergraduates, school/college learners, museum visitors, the general public, …
- **Institution**: historical accounts will be affected by the institutional source (e.g. university department, author of school text book, museum, fiction/non-fiction author, film company, television company, …)
- **Technology**: historical knowledge is critically affected by the ability of a culture to record its culture; hence we know little about the Picts but are likely to be overwhelmed with evidence from present and future cultures; today's technologies mean that some historians are questioning whether the best way of representing the past is in the form of silent black print – perhaps we should be considering graphic novels (e.g. Art Speigelman's *Maus*) and film (e.g. Steven Spielberg's *Schindler's List*) as more engaging ways of representing the past to today's learners.

(Rosenstone, 2006; Munslow, 2007)

Many historians will baulk at the use of comics or historical films as essential aspects of history courses. However such films can allow us to *experience* the 'look' of the past, the suffering of the Holocaust, the ideals of revolutionary struggles and so on. As Robert Rosenstone says, we should judge such texts "not just in terms of whether their individual moments can be verified, but rather in terms of whether their overall portrait or vision has something meaningful to say about our past." (Rosenstone, 2006: 49)

Multimodal literacy pedagogy involves both critical analysis *and* production. So a key component of history should be the active production of history by learners. For example a class visit to WWII battlefields and graves in Northern France could be recorded in blogs rather than written reports and illustrated with video and still images captured on mobile phones. Such media production activity is a powerful tool in the development of the CfE's four capacities as well as developing teamworking and problem-solving skills prized by employers.

Similarly the vast amount of multi-media archive material available on the Web means that it is relatively straightforward to access information. We suggest that history teaching would benefit by allowing learners to use online resources as well as printed texts to produce their own histories. For example, imagine a learner studying jazz in Level 5 Music. If he were also studying Level 5 History he might be able to produce his own historical account of the roots and influence of the jazz trumpeter Miles Davis and to mix historical genres of biography, musical and cultural history to produce a multimodal fully referenced presentation/essay which combines text and photographs and is hyperlinked to audio and video clips. This would reinforce the notion of history as a selective, authored and designed point of view. At the same time it would allow the learner to become aware of issues of cultural difference, so developing his understanding of citizenship and social responsibility.

We have concentrated our multimodal media literacy lens on one subject area and we think that this suggests ways of making it more motivating to 21st century learners. We believe that this analytical tool will be equally productive in other subjects and curriculum areas.

3.2 Review of Multimodal Literacy across Assessment

Assessment is a key issue for the CfE as assessment demands can have negative backwash effects on teaching and learning. Consequently AMES believes that assessment as well as content needs to be reviewed by all SQA Curriculum Area Review Groups and Qualifications Design Teams.

AMES welcomes the notion of *holistic* unit assessment and we would hope that the assessments devised might be pedagogically useful rather than the current inconvenient hurdles. In addition we would ask that course assessment should shift towards a balance between traditional subject discipline tasks and *authentic* 'real world' tasks. We would also hope that learners might be allowed to respond to internally assessed elements in a range of *multimodal* rather than purely monomodal responses. We believe that multimodal assessment can be based on criteria such as digital proficiency, content, design, reader-engagement and critical evaluation.

Case Study 2: Mathematics

"How can you solve new math problems with an old math mind?"
Charles M Schulz,1964, 'Peanuts'

If we apply a multimodal lens to mathematics we see that it is a combination of mathematical symbolism, images (e.g. diagrams, graphs) and words. In current mathematics assessment there is a strong bias towards symbolism over images and words. But for professional mathematicians these three modes – symbols, images, and words – are complementary. To use one mode is inadequate to a full understanding of the problem and each mode can illuminate aspects not apparent via the other modes. However mathematical assessment is so dominated by symbolic manipulation that many learners learn to master this to the detriment of mastering the other skills of visualisation and expressing the problem and its solution in words. Consequently they leave school with an impoverished and disabling impression of mathematics.

Correct symbolic manipulation is of course essential to mathematics and takes most learners many years to master. In Higher Mathematics, for example it will take the whole year for most learners to master the symbolic manipulation for calculus and every unit assessment (currently pared-down versions of the symbolically dominated final examination) is an unwelcome early hurdle. We would argue that, if the policy is for holistic unit assessment, then it would be better to replace the current unit assessments with ones which are, in one sense, less demanding, but in another, more demanding in that they are metacognitive in nature. In other words unit assessment in Higher Mathematics should test the learner's understanding of the principal modes of mathematics as well as the ability to switch between modes. For example, they should be able to:

- write down the meaning of a symbolic expression such as $\frac{dy}{dx} = 0$ in words and draw a diagram to explain its meaning
- given a solution to an equation, convert it into graphical form and say what extra information is visible in the graphical expression.

The emphasis in mathematics teaching and learning on 'getting the right answer' also leads

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to learners not caring about mathematics as a communicative activity. Many learners are happy to 'get the answer' and do not see why it is necessary to write the solution in a reader-friendly and coherent manner. Learners need to understand that mathematics is a peer-reviewed activity and that correct setting-out is a key mathematical skill. In the world of work, whether the mathematics used produces company accounts or calculates the stresses on the wing of a new jet airliner, it will need to be reported for peer review in a form which conveys the findings in a cohesive form that engages the reader. If we are to promote mathematics as communication it is essential that we *assess* it as communication. We need to move outside the traditional mathematics question type and design assessments that promote mathematics as *rhetoric*. For example, give the learners a correctly solved problem which is poorly set out and ask them to spot five things which would fail it as a piece of mathematical rhetoric.

The tyranny of the 'right answer' also leads to mathematics papers always having graphs and charts that are correct. Mathematics assessment in this area is clearly not authentic. When a mathematician reads her newspaper she uses her critical skills to spot the misuse of statistics. The word 'average' is often used with no indication as to whether it refers to the mean, median or mode. Charts are often manipulated in such a way as to mislead the reader and support the political stance of the newspaper.

We need to develop *critical* mathematical literacy. For example we need different assessments to test knowledge and understanding of statistical charts. We need, for example, to introduce the idea from multimodality that all texts have a reading path. To critically read a line graph in a newspaper article is a complex skill:

1. read the title/caption to get the gist of what it shows
2. read the horizontal axis label and numbers and check the scale
3. do the same for the vertical axis
4. check where the numbers on each axis start and end
5. look at the shape of the graph and find out its trend
6. 'talk back' to the graph: who gathered the data?; who created the graph?; does it make sense?; has some data been excluded?; has it been manipulated to make the trend more in line with the viewpoint of the newspaper?

The wisdom of Darrel Huff's 1954 book *How to Lie with Statistics* is needed now more than ever, as increasing computer power and our headline-obsessed media look set to drown us all in a sea of dubious statistics. Is it not about time that mathematics assessment treated critique as being as important as symbolic manipulation?

We have taken an extensive critical look at mathematics, a subject not immediately associated with literacy. We believe that it shows how viewing a subject through the lens of multimodal literacy can potentially improve teaching, learning and assessment. It shows how authentic and holistic assessment can be used to tackle pedagogic problems and give learning a shelf-life which extends beyond the examination hall.

We are also aware that there is a potentially ground-breaking SQA research project which includes understanding of moving image in literacy testing. We believe that this should be expanded to consider *multimodal* understanding across a range of page-based, moving image and interactive media.

3.3 Review of SQA National Qualifications Provision

3.3.1 Introduction of New National Qualifications
This section considers how SQA might respond to the challenges of the NLG and Jenkins. Current English NQs deal well with essential traditional literacy skills and have little room to deal with the critical, design and production skills required for effective and responsible use of online texts. We propose a Digital Media Literacy NQ which we hope would grow into a qualification that would be regarded as important as English for future education, citizenship, enterprise and employability.

We envisage that a Digital Media Literacy NQ might have 3 units:

- Unit 1: Information research skills – online and library sourcing, evaluating, synthesising and referencing of information; knowledge and understanding of the ethics, economics, politics and cultural effects of the WWW, social networks, user-generated content, handheld devices and video games.
- Unit 2: Creative digital production skills – an individual project in which the learner researches, designs and produces creative digital responses on a topic and in media of their own choosing.
- Unit 3: Collaborative learning – a group project which draws on the skills developed in units 1 and 2 and involves collaborative research leading to the presentation and of findings in several media forms. The assessment would involve individual evaluations of the processes and products of the research.

As well as involving working with others, problem-solving and creativity, such a qualification would be an excellent preparation for the Scottish Baccalaureate.

In unit 1 of the course we imagine that, rather than a dry educator-led discussion of ethical, economic, political and cultural issues, it is the learners themselves who investigate and report back on and discuss the issues. The educator's role is that of the 'guide on the side' as well as correcting factual errors and conceptual misunderstandings. Learners would be expected to report their findings to others using software tools to produce, for example, concept maps, e-books, comics, animations, audio/video podcasts, wikis and blogs. In this unit learners would develop their independent working and critical analysis skills.

Unit 2 would involve researched and designed creative digital responses to something which interests them. Learners would be expected, with minimal help other than that available within the programs or online, to develop their skills in designing and implementing software solutions. For example, it could involve creating an audio-visual response to a poem, play or novel they are studying in English. It could involve a girl responding to the dominant images of women in the media by using editing software tools to produce a 'mash-up' which takes various video and still images and combines them with audio to form new content. The response would have to be a rhetorical, designed response with a clear purpose, target audience and textual unity. Again the educator's role would be advisory rather than directive.

Unit 3 would involve a group research project and aim to develop social skills of negotiation, networking, responsibility and respect for others' views. The multiple media responses to the research could be in different forms. For example, in a project on climate change one

sub-group might produce a four-page newspaper insert explaining the causes of climate change and its likely effects. Others might produce a creative response to the findings e.g. a montage of images; an audio soundscape. Another sub-group might edit and repurpose the insert in a website which includes the image montage and audio soundscape. The challenge would be to orchestrate each sub-group's response so that they collectively convey a sense of unity of vision.

We feel that such a course would answer the challenges of the NLG and Jenkins as well as fulfilling the aims of the CfE. AMES understands the SQA policy of only introducing a new subject if there is a demand from educators. However we feel SQA should adopt a more progressive and proactive role by devising and promoting such a course.

AMES also believes that there is a place for a new creative-oriented Moving Image Arts National Qualification. Scottish Screen/Creative Scotland has pioneered a highly successful Moving Image Education programme in Scottish nursery, primary and secondary schools which will hopefully help nurture a future generation of Scottish film and video makers (Scottish Screen, 2009). However there is an anomaly in that there are currently no non-vocational moving image qualifications. Consequently AMES believes there should be a Moving Image Arts NQ similar to the much-praised CCEA qualifications in Northern Ireland (http://www.rewardinglearning.org.uk).

The title of the course indicates that this is different from Media Studies in that it will focus on the eminently multimodal art of film rather than institutional and social aspects. Such a course might have 3 units:

- Unit 1: Moving image techniques: critical appreciation of a full range of moving image techniques across the media
- Unit 2: Moving image research project: independent research on a relevant topic of the learner's own choosing
- Unit 3: Moving image production: creative and technological skills in the art and craft of moving image media pre-production, production and post-production.

An alternative to this might be to design a generic Digital Media Arts course with a similar structure but which can be overtaken in one or more of print, web, multimedia, audio or moving image media. The principles of multimodal design are an ideal conceptual underpinning to such a course.

3.3.2 Review of Media-Related Courses

AMES welcomes the opportunity to contribute to the development of new national awards at levels 4 and 5. We recognize that a review of qualifications at those levels, and subsequently level 6, is due and important. Skillset and other relevant organisations are promoting the inter-connected nature of a convergent digital media. Government reports such as *Digital Britain* (DCMS/BIS, 2009) emphasise the importance of digital participation to social and economic development.

Multimodality and participative culture raise a number of profound questions which must be addressed by the Media Studies QDT. There is also a need to consider implications of multimodal literacy and participatory culture for the more vocational media qualifications for National Certificate (NC), Higher National Certificate (HNC) and Higher National Diploma

(HND). It will also be necessary to review Expressive Arts and English courses in the light of multimodal literacy.

Case Study 3: Media Studies

> *"Media education may be one of the last professions to reinvent itself in response to contemporary media changes; we should have been the first."*
>
> *Henry Jenkins, 2011, www.manifestoformediaeducation.co.uk*

Let us now apply the multimodal lens to the Media Studies NQs. For example, we might ask if the current 'key aspects' approach needs adjusting. AMES believes the approach is still valid and holistic. However it could be argued that if we introduce notions of multimodality and participatory culture then these give even greater emphasis to the social origins and influence of all communication. Also the phenomena of remixing and mash-ups remind us that all texts are a reworking of previously existing texts. The current key aspects omit the social and intertextual contexts despite the fact that most media educators do consider these. This would seem to imply that *Sociocultural Context* should be added as a key aspect.

We need to take account of user-generated production. This would seem to imply that we reconceptualise the key aspect Audience so that as well as being active interpreters, audiences are viewed as having the potential to be active producers too.

Perhaps the Narrative and Languages key aspects could be combined into a new key aspect *Rhetoric*. This would cover both rhetorical structures and rhetorical devices in a way which is more suited to the analysis of narrative and non-narrative texts such as websites. It would also satisfy those who feel the splitting of Language and Narrative in the current Unseen Analysis is questionable.

What adjustments are needed for course content? Multimodality – based on multimodal social semiotics – provides a more complete model of communication than the semiotics of Roland Barthes which influenced the first phase of Media Studies and is a key element of the current SQA Media Studies NQs. Because of the wide availability of digital tools – for example, desktop publishers, web publishers, video/audio editors – which can be used by non-specialists, there is a need to utilise a model of communication which emphasises design as well as critique. Barthesian semiotics is an excellent tool for critical analysis of the ideological content of a production but less useful when one is faced with issues of how to organise textual elements spatially on a page, temporally in video/audio or hypertextually in websites.

All professional media products have a multi-media presence – the medium of the product itself and marketing and coverage across *multiple* media. It could be argued therefore that the focus on the *single* text in the Media Analysis section of the final examination and in the Media Production unit is questionable.

The current division of media analysis across fiction and non-fiction texts was included to ensure learners engage with 'public sphere' texts (e.g. documentaries, newspapers and broadcast news) as well as being able to critically examine advertising. If we are to maintain this division then we need to ensure that learners analyse 'public sphere' and advertising

content across traditional mass *and* new media. Such a move away from analysis of the single text would, we suggest, be more relevant and motivating for learners. It seems clear that the media industry focus is currently on the interaction between old and new media: for example: the 'monetisation' of online media content which many users think should be free; how to create 'buzz' around a new film using a combination of old and new media.

What is the role and range of media production in the course? Is it merely creative experience? Or should it be emphasised that Media Studies production is a group production within a simulated media institutional context which gives learners experience of the challenge of creativity and craft within the constraints of time, cost and compliance? How do we reflect the cross-media and promotional aspects of professional production?

If we accept Jenkins' notion of participatory culture then we must also consider user-generated creation as an increasingly important and alternative mode of production. So the question arises: should such 'prosumer' production and distribution form part of the media production units?

In the current arrangements, the course assessment of media production is done by written examination. If one accepts that authentic assessment is a goal then this seems an anomalous way of assessing a learner's media production knowledge and understanding.

This case study reflects unresolved debates within AMES itself. We feel that the Media Studies QDT needs to resolve them in order to produce courses which are seen as relevant by learners, universities and the media industries.

4. FEASIBILTY STUDY FOR TEACHER SUPPORT

The above plan *can* be implemented and would make Scotland world-leaders in the field of multimodal and media literacy. AMES proposes that feasibility study be carried out to determine the most cost-effective way of delivering a sustainable programme of multimodal and media literacy support for teachers and trainee teachers. We suggest such a study might consider:

- a review of good practice in the UK (e.g. Bazalgette, 2010; Bearne and Bazalgette, 2010; Buckingham, 2003; Burn and Durran. 2007; Machin, 2007) and other countries (this has already been carried out for SQA in regard to English)
- the production of online CPD, teaching resources and assessment exemplars for Glow
- a pilot study of full implementation of multimodal literacy across the 3-18 curriculum with say two secondary schools and their feeder early education/primary schools, a further education college and a teacher education institute.

AMES would be delighted to participate in such progressive and exciting developments.

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Appendix: Abbreviations and Glossary

AMES: Association for Media Education in Scotland – charity which represents the interests of media educators to Scottish organisations.

CARG: Curriculum Area Review Group – representatives from partner organisations, stakeholders, teachers, and parents who work with SQA in each curriculum area to offer guidance and advice on the development of qualifications. There are eight curriculum areas: Expressive arts, Health and Wellbeing, Languages, Mathematics, Religious and Moral Education, Sciences, Social Studies, Technologies.

CCEA: Council for the Curriculum, Examinations & Assessment – CCEA is an examination board in Northern Ireland which sets examinations, advises the government on what should be taught in schools, and monitors the standard of qualifications and examinations.

CfE: Curriculum for Excellence – The CfE aims to transform education in Scotland by providing a coherent, more flexible and enriched curriculum from 3 to 18. It aims to focus classroom practice upon the child and around four capacities of education (successful learners, confident individuals, responsible citizens, effective contributors).

CPD: Continuing professional development – career-long teacher development.

Creative Scotland: Creative Scotland was formed in 2010 and is the new national organisation for coordinating Scotland's arts, screen and creative industries. It inherited the functions of Scottish Screen and the Scottish Arts Council, and now has an additional remit for the creative industries.

Glow: Glow is Scotland's national intranet for education, developed exclusively for Scotland's educational community.

HMIE: Her Majesty's Inspectorate for Education – HMIE's principal activity is to promote sustainable improvements in standards, quality and achievements for all learners in Scottish education through independent evaluation. Inspections and reviews of schools and other educational establishments, community learning and the education functions of local councils help ensure improvement as well as informing Scottish educational policy and practice. From from July 2011 HMIE and LTS will be brought together into a new executive body called the Scottish Education Quality and Improvement Agency.

HNC: Higher National Certificate– SQA's level 7 vocational qualification.

HND: Higher National Diploma – SQA's level 8 vocational qualification.

LTS: Learning and Teaching Scotland – LTS is the principal curriculum body for Scotland, supporting the delivery of the Curriculum for Excellence, assessment, community and lifelong learning and the innovative use of Glow and other learning technologies. From July 2011 LTS and HMIE will be brought together into a new executive body called the Scottish Education Quality and Improvement Agency.

NLG: New London Group – an international collective of scholars interested in exploring how multimodality impacts education.

NC: National Certificate: Level 4 SQA qualification.

NQ: National Qualification – SQA NQs are taken by learners studying in Scottish schools and colleges. The majority of school leavers in Scotland leave with NQs at various levels.

Ofcom: Ofcom is the United Kingdom communications regulator for TV and radio sectors, fixed line telecoms and mobiles, plus the airwaves over which wireless devices operate. Ofcom operates

under the Communications Act 2003. It has a media literacy remit as well and commissions and publishes research on children's and adult's use of old and new media.

QDT: Qualifications Design Team – SQA QDTs work on the design of qualifications within individual subjects such as Physics, History, English and Music. They are made up of nominated subject experts from local authorities, colleges, universities and employers.

Scottish Baccalaureate: The Scottish Baccalaureate consists of a coherent group of Higher and Advanced Higher qualifications in Science or Languages as well as an interdisciplinary project.

SCQF: Scottish Credit and Qualifications Framework – SCQF has 12 levels of national qualification. 16 year-olds will achieve levels 3, 4 or 5. Higher and Advanced Higher are levels 6 and 7 and are required for university entrance. Honours degree, Master's degree and Doctorate are levels 10, 11 and 12 respectively. SQA are currently revising courses for National levels 4 and 5.

SEQIA: Scottish Education Quality and Improvement Agency – from July 2011 HMIE and LTS will be brought together into this new executive body.

Skillset: Skillset is the UK industry body which supports skills and training for the creative media industries.

SQA: Scottish Qualifications Authority – the national body in Scotland responsible for the development, accreditation, assessment and certification of qualifications other than degrees.

SVQ: Scottish Vocational Qualifications – SQA SVQs are work-based qualifications.

SWG: Subject Working Group – SQA SWGs carry out discrete pieces of work, for example: the rationale and course summary, unit specification or unit support packs for a particular subject area.

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