
IMPLEMENTING A MULTIMEDIA E-PORTFOLIO TO SUPPORT LEARNING, ACHIEVEMENT AND PROGRESSION.

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Wolsingham is an 11 – 18 School and Community College set in rural Weardale in Co Durham (UK). The school has a record of successful curriculum development and innovation in many areas including Key Skills, Employability Skills and E-portfolios. The school has developed and successfully trialled, a video-rich, multimedia E-portfolio [E-Me] that it is using with Year 7, 8 and sixth form students. The approach is unique in that students are taught how to use multimedia authoring software, are provided with a template, a structured collection of linked pages, and then supported as they collect and integrate digital evidence of their learning and achievement.

The project began with a small-scale pilot in February 2004 that demonstrated that students could use the software and digital recording equipment. During the academic years 2004/5 and 2005/6 all year 12 students compiled E-portfolios and currently all Year 8, 9 and 12 students have E-portfolios.

Early project work focussed on establishing the structure of the multimedia E-portfolio and addressed technical and support issues. As the project progressed the focus moved towards the integration of the portfolio building process into the curriculum and an investigation into how an E-portfolio might be used in an interview situation.

The Process

Students are encouraged to take responsibility for the development, content and format of their own E-portfolio. They are provided with a basic structure or 'template' and are taught how to use Mediator 8, a multimedia authoring package. The template includes links for CV, contact details, Key Skills, employability skills, career plans, exhibition of work etc (see Appendix A). The authoring language allows students to customise their E-portfolio. Having been introduced to the language, they can add or delete items from the basic template and create something that uses the most appropriate multimedia evidence to describe their individual learning and achievements. As well as being able to customise the content and structure they can also select their preferred font, backgrounds, button styles, transitions etc. The process of customising the appearance of the E-portfolio was identified as a motivational factor and encouraged students to take 'ownership' of their portfolio.

As students use the ICT tools to develop their portfolio, they practise and develop their ICT and multimedia skills.

A Year 12 E-portfolio starts life in September when the student enters their basic details and records a video commentary on their choice of courses, together with their expectations and aspirations. Opportunities to develop the E-portfolio are integrated into the Year 12 Tutorial programme.

- Following their target-setting interviews in October, January and May students record a commentary where they review their progress against previous action plans and identify new targets and plans.
- They complete a self-assessment of their employability skills, and record a commentary that identifies their strengths and weaknesses and highlights actions that they intend to take.
- Having researched their career options, students prepare and deliver a formal PowerPoint

presentation to an external audience; they will include this and a video of the actual presentation in their E-portfolio. They include the feedback given by the audience and their tutor, along with a self-evaluation.

- Throughout the year, and after the formal reporting sessions, students are encouraged to review their progress and integrate the reviews into their E-portfolio.
- As they plan investigations or experiments, students are encouraged to arrange for recordings to be made. These recordings can be included in their E-portfolio as evidence both for the subject and for Key Skills (Improving Own Learning and Performance and/or Working With Others). Some work has been done with vocational students, encouraging them to use video evidence to support subject specific assessments.
- Students can at any stage, write their E-portfolio as an executable program onto a CD or DVD.

Findings

We found that students, aged 10-18 years old, were able to develop the ICT skills that they needed to create and maintain a multimedia E-portfolio and that they 'valued' both the product and the process (see Appendix C). They also enjoyed the opportunity to be creative with multimedia evidence.

There must be sound educational 'reasons' for introducing student E-portfolios. Students will question why they need a collection of multimedia evidence recording their achievements, learning experiences, thoughts, plans and aspirations. Simply to encourage and cajole students to compile E-portfolios is not enough. They will need to have opportunities to 'use' their E-portfolio to help them in some way, or have the E-portfolio itself assessed to reward their efforts or recognise their competence. They will need to be convinced that an E-portfolio has 'value' or will help them.

Using a Presentational E-portfolio

For the past two years, all Year 12 students compiled an E-portfolio and had the opportunity to use it to support them in their End of Year Review Interview, a formal interview situation. The first time that students used E-portfolios in the interviews, we found that an E-Portfolio could enable a student, in an interview situation, to quickly find and present evidence of their achievements and competency. It became clear that, if an E-portfolio is to be used in an interview situation both the interviewee and interviewer must be clear about the skills/competencies that should/could be evidenced in the E-portfolio.

The End of Year 12 Review Interview gave students a reason to compile an E-portfolio. There was an expectation that they would use their E-portfolio in the half-hour interview. To 'expect' a student, or indeed anyone, 'to use' an E-portfolio in an interview introduces its own set of challenges. Research into the interview/recruitment process revealed very little evidence of E-portfolios being used in the interview situation. It did, however, identify that increasing use was being made of competency based interview techniques. We took the view that a multimedia E-portfolio would enable the student to 'evidence' their competency and therefore would be useful in the End of Year 12 Interview.

We adopted competency based procedures for the interviews and then 'marketed' the E-portfolio as the 'thing' that would help the student prepare for, and 'perform' in the interview. To support students we devised a range of support sheets (see Appendix A and B for examples).

Many employers use a competency-based interview, in which the questions are based **entirely** on gathering evidence of your competencies. Competency Based interviewing is based on the belief that past behaviour is the best predictor of future behaviour. The employer

produces lists of competencies required for each job. The interview consists of a set of questions designed to find out whether you have the set of competencies required for the job. The set of competencies will be made up of 'core' competencies [Key Skills/Employability skills] AND some skills specific to the job.

You will be asked to give an example of a situation or task that led you to take a certain course of action. Probing questions will then be used to determine the course of action you took and what changes were created by those actions and the effects of those actions on others.

As part of their careers programme, Year 12 students research their career options and then prepare and deliver a formal PowerPoint presentation to an external audience. They include the PowerPoint presentation and a video of the actual presentation in their E-portfolio. Students work on this careers module in January and February.

This module was updated in 2005/06. Students were asked to identify a 'job' and research the skills, qualifications, experience and competencies required. They then completed a self-audit and devised an action plan that would ensure that they developed the required skills qualifications, experience and competencies. They were encouraged to build this audit and action plan into their E-portfolio. They were told that it would be this set of competencies that the panel would focus on in their End of Year Review Interview in July.

Checklist

- You have identified the job/career that you want
- You have found out, and listed, the:
 - o key competencies
 - o qualifications
 - o experiences

that you will need to get/do the job
- You have looked at the competencies, qualifications and experiences required by the job and have:
 - o identified the key competencies etc that I **already have**
 - o explained what I am doing to make sure that I develop the competencies that I need, but currently do **not have**
- You have included evidence, in an appropriate format (written; video, photographic etc) of the competencies, qualifications and experience that the job requires.

You will also need to update your CV so that it provides details of the 'key competencies', qualifications and experiences required by your chosen job. This is best placed towards the top of the CV in the Personal Profile section. A statement such as '..... , *seeking employment in retail management*'. You will need to hand in a copy of your CV prior to your End of Year review meeting. The panel will select questions appropriate to the job/employment area that you have identified.

The school developed a bank of competency based questions that focused on employability competencies. Developing the competency based focus of the End of Year Review meeting meant that the school had to review and update its year plan and student support materials. This led to a more coherent programme and provided a real application for the E-portfolio.

You need to prepare for your End of Year review meeting. It will be a competency based interview. The panel will ask for examples that demonstrate you have specific competencies. You will be able to use your E-me in the interview. The key is to prepare for the interview. To do this you need to find out what the key competencies are for your chosen job. Then make sure that your E-me contains evidence that you have, or have an action plan that will ensure that you will develop, the required competencies. Your evidence/examples must stand up to detailed challenging questions, including about whether there was anything that you learned from the experience.

When answering competency style questions it is best to adopt the STAR model, which will allow you to structure your answer in a logical and concise manner.

Situation – Describe the situation/problem you were faced with – use recent examples

Task – what did you have to do?

Action – what action did you take and why. Were there any challenges/obstacles and how did you overcome them?

Results – highlight the outcome

Feedback from members of the interview panel confirmed that opportunities for students to use an E-portfolio in recruitment interviews do not currently exist. However, they recognised that pressure from students with E-portfolios, coupled with the move towards competency based interviews would encourage recruitment professionals to review their position with regard to the use of E-portfolios. The project identified the need for further research and development work in this area.

The increasing emphasis on E-portfolios in the assessment process reinforces the need to investigate the potential of multimedia evidence to evidence skills [Key Skills, Employability Skills and Enterprise Skills].

While there was evidence that students had found the E-portfolio process useful, providing them with an opportunity to reflect on what they had done, achieved and felt, it was recognised that the project had not capitalised on the potential of E-portfolio to encourage and support reflective learning. This will also need to be a focus for further development.

To simply provide students with access to software that enables them to create an E-portfolio will have very little impact on teaching and learning and will do little to support student development. To harness the potential of the E-portfolio process, the process must be fully integrated into all aspect of the students work. Implementation will require a major curriculum review and a whole school training programme.

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Appendix A - E-Me supporting you

ICT and multimedia technology have developed so that it is now possible to produce a video rich, multimedia, 'CV' or e-portfolio. A multimedia e-portfolio [E-Me] will let you store evidence of what you have done and what you can do. You will be able to use it to help you reflect on what you have learnt as well as being able to customise it so that it supports you preparation for interviews. As many application forms now ask for evidence of competency, your E-Me will help you to fill in application forms. If you apply to university it will help you to write your personal statement.

For Key Skills, employability skills, citizenship and some of your A Level courses you will need to be able to demonstrate that you 'can do' *things* i.e. have developed a competency. Multimedia evidence can help you. E-me will let you store, structure, retrieve and present multimedia evidence.

By reflecting on what you have done, learnt or achieved you will be better able to plan and set targets for your future learning and development.

You will have the majority of ICT skills that you need to create and maintain a multimedia CV. We will show you how to use Mediator, a multimedia authoring package; we will give you a 'template' that you can use to help you to structure your evidence; we will support you as you develop your E-Me; we will provide you with an opportunity to practice using your E-Me in a formal interview situation.

Your E-Me should include:

- Curriculum Vitae
- Personal Statement
- Career Plan
 - You have identified the job/career that you want
 - You have found out, and listed, the:
 - key competencies
 - qualifications
 - experiences***that you will need to get/do the job***
 - You have looked at the competencies, qualifications and experiences required by the job and have:
 - identified the key competencies etc that I **already have**
 - explained what I am doing to make sure that I develop the competencies that I need, but currently do **not** have
 - You have included evidence, in an appropriate format (written; video, photographic etc) of the competencies, qualifications and experience that the job requires.
 - The video of your careers presentation along with feedback sheets
 - evidence of competency with employability Skills:
 - Punctual and able to manage own time
 - Respect for the views and contributions of others
 - Effective written Communication
 - Adaptable - ready to learn new skills
 - Clean and dressed appropriately
 - Honest, trustworthy, and reliable
 - Effective face to face communication

- Able to work effectively as part of a team
- Ask for help when not sure
- Have a lifestyle which does not conflict with work/school
- Able to think creatively and solve problems
- Prepared to take more responsibility and to use initiative

- ***Target Setting interview notes and Action Plans***

- Copies of Interim Reports -
- End of Year Reports - *all Subjects*
 - ***Tutor Report***
- Examination and Skills Certificates

- One piece of coursework, from each subject area.
- Evidence of your preparation and contribution to a formal discussion. (eg Ethics)
- Evidence that you have used Action Planning to help with two pieces of coursework.
- evidence of at least one extra curricular activity in which you have participated (eg science project, school production, work experience, sports team, mock trial, debating society etc)
- completed 'Preferred Learning Style' assessment

Appendix B - E-Me helping you - the Recruitment process

An e-portfolio is a collection of evidence, in a digital format that you can use to record your learning, achievement and competencies. Many schools and colleges are beginning to recognise the value of e-portfolios and are encouraging their students to compile them.

Why maintain a portfolio? It will encourage you to recognise and reflect on your learning and achievements. You will become more involved in your own learning, more aware of how you learn and will help you to plan what you need to do to move forward. This process will help you to prepare for job/HE interviews.

A multimedia portfolio, E-Me, will let you store evidence of what you have done and what you can do. You will be able to structure it to help you reflect on what you have learnt as well as being able to customise it so that it supports you in an interview for employment or progression into training or Higher Education. By reflecting on what you have done, learnt or achieved you will be better able to plan and set targets for your future learning and development. It also means that it is easy to select and 'package' specific evidence that you might need for an interview or learning review meeting.

ICT and multimedia technology have developed so that it is now possible to produce a video rich, multimedia, 'CV'- an E-Me.

Competency-based interviewing

You have developed a 'competency' when you can consistently apply your skills and knowledge to complete a particular task. It is the ability to use your skills and knowledge to 'do something'.

Many employers use a competency-based interview, in which the questions are based *entirely* on gathering evidence of your competencies. Competency Based interviewing is based on the belief that past behaviour is the best predictor of future behaviour. The employer produces lists of competencies required for each job. The interview consists of a set of questions designed to find out whether you have the set of competencies required for the job. The set of competencies will be made up of 'core' competencies [Key Skills/Employability skills] AND some skills specific to the job.

You will be asked to give an example of a situation or task that led you to take a certain course of action. Probing questions will then be used to determine the course of action you took and what changes were created by those actions and the effects of those actions on others.

The End of Year review meeting

You need to prepare for your End of Year review meeting. It will be a competency based interview. The panel will ask for examples that demonstrate you have specific competencies. You will be able to use your E-me in the interview. The key is to prepare for the interview. To do this you need to find out what the key competencies are for your chosen job. Then make sure that your E-me contains evidence that you have, or have an action plan that will ensure that you will develop, the required competencies. Your evidence/examples must stand up to detailed challenging questions, including about whether there was anything that you learned from the experience.

When answering competency style questions it is best to adopt the STAR model, which will allow you to structure your answer in a logical and concise manner.

Situation – Describe the situation/problem you were faced with – use recent examples

Task – what did you have to do?

Action – what action did you take and why. Were there any challenges/obstacles and how did you overcome them?

Results – highlight the outcome

Appendix C - Student Questionnaire 2005 - E-Me and Me

Please read each of the statements below and then put a tick in the box that best describes your agreement/disagreement with the statement.

Agree +	Disagree +			Strongly agree	agree	disagree	Strongly Disagree
65%	35%	1	I am proud of my E-Me	9%	56%	29%	5%
16%	85%	2	I have wasted too much time on my E-me – I could have used the time to do other things	4%	13%	73%	13%
75%	27%	3	By working on my E-Me I have developed useful multimedia skills	13%	62%	22%	5%
58%	44%	4	My E-Me has helped me to record what I have learnt and done during the last 10 weeks	0%	58%	33%	11%
84%	18%	5	I understand why the school wants me to develop an E-Me	35%	49%	15%	4%
80%	22%	6	I have had been given enough support to help me to develop my E-Me	20%	60%	18%	4%
35%	67%	7	The E-Me is too complicated for me to use	7%	27%	47%	20%
29%	73%	8	I have talked to my parents about my E-Me	0%	29%	35%	38%
75%	27%	9	I will continue to develop my E-Me even if the school stopped 'nagging' me.	5%	69%	24%	4%
69%	33%	10	I have enjoyed working on my E-Me	11%	58%	24%	9%

11. Please explain how your E-Me has helped you.

12. How can we improve the E-Me

13. How else can we help you with your E-Me

Appendix D - Student Questionnaire 2006 - E-Me and Me

Please read each of the statements below and then put a tick in the box that best describes your agreement/disagreement with the statement.

Agree +	Disagree +			Strongly agree	agree	disagree	Strongly Disagree
93%	7%	1	I am proud of my E-Me	12%	81%	7%	0%
48%	52%	2	I have wasted too much time on my E-me – I could have used the time to do other things	14%	33%	52%	0%
90%	10%	3	By working on my E-Me I have developed useful multimedia skills	33%	57%	7%	2%
81%	19%	4	My E-Me has helped me to record what I have learnt and done during the last 10 weeks	29%	52%	19%	0%
83%	17%	5	I understand why the school wants me to develop an E-Me	17%	67%	14%	2%
86%	14%	6	I have had been given enough support to help me to develop my E-Me	17%	69%	12%	2%
12%	88%	7	The E-Me is too complicated for me to use	2%	10%	62%	26%
79%	19%	8	I have talked to my parents about my E-Me	19%	60%	19%	0%
67%	33%	9	I will continue to develop my E-Me even if the school stopped 'nagging' me.	14%	52%	26%	7%
64%	33%	10	I have enjoyed working on my E-Me	5%	60%	21%	12%

13. Please explain how your E-Me has helped you.

14. How can we improve the E-Me

13. How else can we help you with your E-Me

Please explain how your E-Me has helped you.

- 1 Helped me realise what I achieved/done
- 2 It hasn't'
- 3 It's a good way for me to look at and record the work I have done at 6th form, although I feel it is not that useful in interview situations
- 4 It has helped me develop more ICT skills
- 5 Helped me think of things that will help me get the job I want
- 6 It has helped me realise my skills and put all my work in one portfolio
- 7 I feel E-me has been useful for keeping a record of achievements throughout my past experience of school and college
- 8 Allowed me to see where I am, and where my skills are, to help me find the job that I want
- 9 Easier to show people work and achievements
- 10 Prepared me for the interview
- 11 Drawn everything together from what I have done during the year.
- 12 It came in handy as an aiding tool, however I would have much preferred to use examples on paper
- 13 It helped show off the skills I have by showing off the certificates and awards more clearly.
- 14 Collect info about myself together
- 15 My E-me has helped me to collect and view what I have done over the year.
- 16 It helped me show my photography to the interviewers
- 17 I can add all my best work onto disk
- 18 It has been a tool to show my skills and work to the employer
- 19 Helped me focus on my skills and qualities and what could be improved
- 20 It helped me to put career plans and targets into perspective
- 21 More computer literate, more independent learning
- 22 It was easier to use than my progress file
- 23 It helped me provide evidence for situations I have been part of and supported my interview questions.
- 24 It helped me to think about things
- 25 Easier way to display examples of good work
- 26 It has given me an insight on what I need to do in the interview
- 27 It helped me to think of my future plans and pursue a career
- 28 Helped me prepare for the future.
- 29 Improved my presentation and computer skills.
- 30 It has helped me understand what I need in a real interview situation
- 31 It has helped me place all my evidence together
- 32 It has helped me recognise my achievements
- 33 It has helped me recognise my achievements
- 34 It allows me to display evidence of my work
- 35 It has helped to realise what skills employers are looking for.
- 36 Reference to work in interview
- 37 It has helped me to organise achievements I have made
- 38 It has helped me organise my achievements
- 39 It has helped me organise what skills I have and I have decided what my best pieces of work are.
- 40 E-me has not helped me a great deal, however I feel it is a useful source to have, I have just realised how good it actually is.
- 41 It helped me to realise which skills I have, and those I need to develop.
- 42 It helped me to analyse my year and its events
- 43 Keep track of work
- 44 It hasn't'
- 45 It meant that my work was easy to hand
- 46 My E-me has helped me to prove that I am building on the competency skills in which I need for my future job role. It has greatly helped me towards the end of year review, and will help me when doing future interviews

Appendix E - Student Questionnaire - 2005 and 2006 Summary

	2005			2006	
	Agree +	Disagree +		Agree +	Disagree +
1	65%	35%	I am proud of my E-Me	93%	7%
2	16%	85%	I have wasted too much time on my E-me – I could have used the time to do other things	48%	52%
3	75%	27%	By working on my E-Me I have developed useful multimedia skills	90%	10%
4	58%	44%	My E-Me has helped me to record what I have learnt and done during the last 10 weeks	81%	19%
5	84%	18%	I understand why the school wants me to develop an E-Me	83%	17%
6	80%	22%	I have been given enough support to help me to develop my E-Me	86%	14%
7	35%	67%	The E-Me is too complicated for me to use	12%	88%
8	29%	73%	I have talked to my parents about my E-Me	79%	19%
9	75%	27%	I will continue to develop my E-Me even if the school stopped 'nagging' me.	67%	33%
10	69%	33%	I have enjoyed working on my E-Me	64%	33%