Developing information literacy through independent learning projects in a UK setting: pilot projects for Year 9 and Year 6 pupils

Dr Rebecca Jones

Malvern St James, Avenue Road, Malvern, Worcestershire. WR14 3BA UK www.malvernstjames.co.uk
Email library@malvernstjames.co.uk

Abstract
Two information literacy skills pilot projects are being undertaken at Malvern St James School (MSJ) with Year 6 and Year 9 pupils during 2009-10. The projects encourage the development of independent learning skills, with pupils planning, managing and executing both the research and practical elements of their project. Each pupil sets their own aims and objectives and it is the process skills as well as the project that is assessed. The projects examine pupil motivation levels, if pupils can use research to inform their practical project and how pupils respond to opportunities to undertake self-directed learning.

Introduction
Two pilot projects were started in the academic year 2009-10 at MSJ; a United Kingdom (UK) girls' independent boarding school with 370 pupils aged between 4-18 years. The Year 6 Independent Learning Challenge (ILC) took place from January-June and the Year 9 project consisted of an intensive week in June. Year 6 pupils are 10-11 years old and Year 9 pupils are 14-15 years old.

This is the first year that this type of self directed project of has been undertaken in the Junior Department. Planning of the project took place between the librarian, the class teacher and the head of the Junior School. Individual lesson plans were then developed by the librarian.

The initial Year 9 project proposal was modified due to time constraints, exam timetabling and whole-school activities that had been planned for the half term. Instead of being run over a series of three weeks, the leadership team decided that the project had to be carried out during a single week. This meant that the initial three week plan had to be contracted into a more intensive week.

Aims
The aims of the project were based on the Negotiated Independent Learning Unit (NILU) developed by Carmichael (2009), a teacher-librarian from Brisbane, Australia, who has created a module of work to allow the practical implementation of independent learning theory.

> The Independent Learning Program provides a method, an example of how these principles and concepts can be translated into units of work that are student centred, process skill based, uses personal interest as the motivating factor, takes into consideration personal learning styles of the learner and offers a way that students can realise self confidence and autonomy (Carmichael, 2009).

The ethos of Carmichael's unit matched with the aims that I had for the students at MSJ. I wanted pupils to be able to develop independent learning skills whilst exploring a topic that motivated them but was not constrained by curriculum targets. Crucially the project provided recognition of the learning journey and assessment of independent and information literacy skills and not just assessment of the final product. It is the element of skills assessment that is a key focus and this supports the aims of the expand acronym QCDA (n.d.a) who state that,

> Assessment is at the heart of a successful curriculum and is a fundamental part of good teaching and learning. It enables learners to recognise achievement and make progress, and teachers to shape and adapt their teaching to individual needs and aspirations.

The criteria for assessing and evaluating independent and information literacy skills are based on those used for the expand acronym EPQ (AQA, 2008). See Table 1 below.

Table 1. Assessment criteria

Manage	Identify, design, plan, and complete the individual project, applying organisational skills and strategies to meet stated objectives.
Use Resources	Obtain and select information from a range of sources, analyse data, apply relevantly and demonstrate understanding of any appropriate linkages, connections and complexities of their topic.
Develop and Realise	Select and use a range of skills, including new technologies, to solve problems, to take decisions critically, creatively and flexibly, and to achieve planned outcomes.
Review	Evaluate outcomes including own learning and performance. Select and use a range of communication skills and media to convey and present evidenced outcomes and conclusions.

The criteria provide a framework for assessing the work undertaken in the ILC by both Year 6 and Year 9 pupils. The expectations for the different age groups will be modified accordingly and all Year 6 pupils will communicate their findings by creating a PowerPoint presentation. Year 9 pupils will have a wider choice. It is hoped that assessment will promote engagement both with the task and the learning process. It also enables the students to see the range of skills that are being evaluated in their task.

The MSJ projects had the following aims:
To provide each pupil with the opportunity:
1. To explore a topic that both interested and motivated her
2. To develop or learn new skills that enabled her to achieve her set goals independently
3. To develop her information literacy and independent learning skills within a formally assessed unit of work.

Importantly, the projects also link in to the aims of two significant UK education documents, Every Child Matters (DCSF, 2009) and Personal Learning and Thinking Skills (PLTS). If the projects are successful, the hope is that these links to UK education policy will encourage the embedding of these activities into the timetable on a more permanent basis.

Every Child Matters (Teachernet, 2009) is "an overarching Government approach to the well-being of children and young people from birth to age 19." The ILC contributes to two of the five central outcomes; 'Enjoy and achieve' and 'Make a positive contribution'. As pupils choose their own topic each young person is free to develop their interest in a way that most suits their learning style and abilities. The support and guidance provided in the classroom and by skilled practitioners also increases their ability to progress and achieve. The final presentations allow pupils to share their achievements with others.

The PLTS (QCDA, n.d.b) framework describes the qualities and skills needed for success in learning and life and is comprised of 6 groups of skills:
- Independent enquirers
- Creative thinkers
- Reflective learners
- Team workers
- Self-managers
- Effective participants

The project enables pupils to develop a range of these skills when pursuing their own self-managed learning experience. This approach is advocated by the QCDA (n.d.c) who state that,

> learners are likely to encounter skills from several groups in any one learning experience. For example, an independent enquirer sets goals for their research with clear success criteria (reflective learner) and organises their time and resources effectively to achieve these goals (self-manager). To develop independence, learners need to apply skills from all six groups...

During the project pupils have to plan and manage their progress and review their learning goals. They have to problem solve, research and organise their challenge and consider how to bring their project to a successful conclusion.

Methodology

Year 6 pupils have a one hour slot allocated each week, as part of the speaking and listening section of their literacy lessons for a total of 16 weeks starting in the spring term, to complete their challenge. In this group of 15 students, five pupils miss half of the lesson for timetabled Speech and Drama lessons and need to devote time outside the session to complete the tasks. The pupils are expected to complete additional work on their challenge for homework and over holiday times.

For their project, pupils will produce a written element consisting of completed planning and brainstorming sheets and learning style preferences. Each pupil has to present their ILC at the end of the project at an official presentation evening. For this session each pupil will have constructed a set of PowerPoint slides that include a write-up of their research, practical and self-evaluation.

Pupils have been given a checklist for the contents of their PowerPoint presentation. Some pupils will also bring along their practical work if appropriate. Other pupils will talk about their achievements or practical experiences. All pupils have been given a copy of the assessment and marking criteria for their project. The projects will be assessed jointly by the librarian and the class teacher.

The lessons take place in the classroom initially for discussions and idea exploration and then move to the senior information and communication yechnology (ICT) suite for pupils to complete planning and research. Pupils then work in the location appropriate to their task and can also complete work at home. The majority of pupils have had to arrange practical sessions with staff from the senior school. For some this has meant setting up an interview and creating questions for discussion whilst others have been developing practical skills and or receiving a master-class. [See Appendix A for the full list of projects.]

Year 9

For Year 9 pupils their project will run intensively over one week during the latter part of the summer term. All pupils will be 'off timetable' during this time. For this project the independent learning task will have an academic focus with pupils designing a project based around one of their curriculum subjects. Subject staff will suggest possible research questions as examples for pupils in order to whet their appetite and as an example of the scope of the project.

The Year 9 cohort consists of 26 pupils who are split into three working groups. The research week will contain some timetabled elements including whole group sessions and smaller group sessions. These will consist of whole class direction at the start of the project and skills training in smaller groups as the project progresses. [See Appendix B for the project week timetable].

It is hoped that the change in the original proposal of the project from three weeks to one intensive week will still allow pupils the chance to reflect on their learning experience. An advantage of splitting the project over a longer time period was to avoid pupil 'burn out' and to give them the time to evaluate their approach and product. This process will now have to be incorporated into a smaller time frame which may adversely affect the quality of their reflections.

Teaching staff, who are timetabled to teach the year group are available to monitor and supervise pupils, but individual pupils will not be attached to a specific supervisor. Overall supervision will be taken on by the librarian and head of year. Teaching staff will be used to provide specialised *subject clinics* during periods that they would normally be teaching the year group. It is hoped that once the pupils have selected their topic then demand for the clinics can be assessed and more formally structured.

An unknown element is how exactly pupils will be managed, as until they have made a topic selection it is difficult to provide an absolute structure. The staffing level should mean that supervision will be possible in several areas. A key element will be the choices of topics selected by the pupil. The group will be encouraged to choose a topic that can be effectively supported by the staff available rather than requiring additional specialist input. Topic negotiation with students will be a key element and the librarian will need to have an overall view of the selected topics. School equipment such as computers, cameras and video cameras will also have to be shared especially as the Year 9 project week also coincides with the Year 7-8 Arts week where pupils will also be involved with practical projects that require the use of ICT and arts based facilities.

Project outcomes
Year 6
As the project does not conclude until the end of June the outcomes cannot be fully discussed. However, during the different stages of the project some results have been noted.

Choosing a topic has proved to be quite an alien concept for Year 6 pupils and as it is the first time that the ILC has run, it has been a challenge explaining our expectations. Deciding on a suitable topic was a challenge for some and they have needed guidance relating to the expected scope of their final project. There was a tendency for less adventurous or indecisive pupils to borrow ideas from others in the class and friends also wanted to be able to work together. It is a really fundamental part of the ILC that each pupil follows their own project in order to develop their independence of thought and a sense of responsibility for their own work. Cooking and sporting challenges were the most popular topics. Some pupils also needed guidance on to ensure that they were undertaking enough original work. The pupil who was simply researching famous mathematicians was encouraged to do a short film of her talk so that she was able to critique her performance.

Pupils' ability to undertake research has also been mixed and some pupils have been confused as to why they needed to research their topic at all especially if it has been creative, that is writing a story or making a dress. For these pupils it was not until they experienced problems with their practical that they began to use their initial research. The pupils baking the cake began to realise that perhaps the task was more complex than they had first thought and that different recipes and methods achieved different results. This experience meant that they began to make some links with their original research and they began to reflect on the recipes with a new level of understanding.

A lot of work has had to be done with individuals guiding them on the selection of their information to ensure that it was relevant. Some pupils were able to find information on their topic but not really know what it meant, so initially just copied some sentences into their work. These pupils benefitted from thinking through their research idea and what it was exactly that they wanted to achieve.

Explaining the assessment criteria to the group underlined how the initial research and brainstorming related to their final project, in relation to the awarding of marks. This really helped to highlight the importance of the research process. The presentation sheet also provided pupils with step by step guidance on the approach they should have when undertaking the presentation part. Before the final presentation evening pupils will have run through their PowerPoint to half of the group and received collaborative feedback from both staff and pupils.

Encouraging pupils to reference all the ideas and pictures they have found has also been an ongoing task and a process that will need to be reinforced when these pupils move into Year 7 of the senior school.

The idea of learning styles was new. This has been the least successful part of the project as pupils have been unsure how to relate their learning preferences to their practical work. More work is needed on conveying the relevance of learning styles and how the pupils can use them to improve their learning, performance and understanding.

The formal collaborative elements of the project have been less successful than the informal more spontaneous offers of advice that have taken place within the group in the classroom.

Year 9
As the Year 9 project does not take place until June 2010 there are no definite outcomes at the time of writing. Expected outcomes include observed enthusiasm to complete a self-defined project, the integration of research to inform the practical element of the project, development of project management skills, an understanding of the specific application of information literacy skills to achieve defined goals and a sense of academic achievement. It will be interesting to see whether older pupils will be more able to relate their research to their projects and select relevant information. I am also interested in observing how the academic focus of the project affects motivation and topic selection and whether suggestions from teachers on possible topics affect the level of creativity. I am also hoping that older pupils will be able to manage their time efficiently over the week and are able to work with their preferred learning styles. How pupils reflect on their experience will also be of interest and whether they think that a one week programme allowed time for effective reflection and problem solving.

Conclusions
At this point of the project some conclusions may be drawn. Working with a dedicated member of the Junior Department has been invaluable as has having a supportive head of the Junior School. This has enabled smooth planning and working conditions. These have been vital relationships from the standpoint of being able to find space in the curriculum to actually run these pilot projects. Support from subject specialists within the school has also meant that pupils have been able to pursue their interests both within and outside of the lesson time. Working within a boarding school has meant that pupils have been able to take advantage of the longer school day to arrange meetings and masterclasses with senior school teachers. I t has also meant that pupils can access the equipment they need to use to undertake their projects and presentations.

One part of the process that needs to be revisited is how pupils can link their learning style to the realisation of their project and the impact that learning styles have on the choice of their practical. The experience of Year 9 pupils will hopefully inform this aspect of the project and show whether this approach to thinking about how we learn is understood, used or valued by pupils.

If the Year 6 project were to run again it would be useful to strengthen the dialogue with the parents to share the aims and scope of the challenge and to explain to them the importance of the skills that are being explored.

Monitoring of the learning experiences and the effectiveness of the assessment process also needs to be put into place to ensure that pupils can build on this experience as they move through the school.

Year 6 pupils have needed time to understand the scope of ILC and their comprehension of the unit has developed slowly over the weeks. It has been the completion of the practical task that has provided a context for them to review and select relevant information from their original research. For some, thinking about how to communicate what they have learned whilst undertaking the ILC has been a huge part of the learning process itself. At the end of the project it will be interesting to examine pupil self-evaluations and discover what they have learned from this experience.

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Appendix A
Student independent learning challenge projects

Name	Project	Practical
Holly	Cake art	Decorating a cake with her own design
Phoebe	Handbag design	Making a bag
Eleanor	Writing a horror story	Writing a short story
Francis	Dress making	Making a prom dress
Katherine	Health and Fitness	Interview sports centre staff and design healthy living leaflets
Maria	Climbing	Having a climbing lesson
Georgina	Famous mathematicians	Research and video of her research
Lucinda	Family tree	Researching her family history
Paige	Jelly	Experimenting with jelly
Charlotte	Cooking	Making a cake
Sophie	Cooking	Making a cake
Holly	Interior design	Designing a living room
Cindy	Sport	Improving hockey skills
Lucy	Climbing	Having a climbing lesson
Amelia	Carving	Making a jigsaw

Appendix B Year 9 independent learning challenge timetable

DAY	P1	P2	B	P3	P4	P5	P6	L	P7	P8	P9	P10
Mon	**Intro** Outline The week Planning	**Intro** Brainstorm & sharing ideas Group discussion		Brainstorming Recording your thoughts	Initial topic focus – 1st Research computers	Research computers	Refine focus with Teacher support (In groups)		**Group session** Recording your sources Plagiarism	Confirm focus Plan time table	Topic Decided and recorded Planning & brainstorming completed Decide on practical	
Tues	Group : **Learning styles**	How can you use your learning style?		Research Email contacts Evaluate your sources 1 **Maths clinic**	Research Email contacts Evaluate your sources 2	Research **ICT clinic**	Research **ICT clinic**		Research Evaluate your sources 3	Group meeting: Presentat-ion options	Plan & arrange practical & equipme-nt **Geog, Music & RS clinics**	Write up research
Weds	Group: Using diff media & stats	Individual progress review		Practical: Interviews/making/filming **PE/Sports clinic**		Individual Progress reviews **Science clinic**			Group: Research project checklist	**Lang & Latin clinic**	Write up your research	
Thurs	Group: Marking criteria	**Geog & Drama clinic**		How to present 1	How to present 2	How to present 3			Group: Future research: Where can you go next?	Write up your practical	Plan possible extension tasks **English Clinic**	
				Collate information for project. Print out reports. Finish practical.								
Fri	Group meeting Project checklist	Finish written elements		Practise presentation		Evaluate process Finish project.			Presentation Afternoon			