



JISC Final Report

Project Information			
Project Hashtag	N/A		
Project Title (and acronym)	Handheld-device enhanced learning with Nintendo's Applications Beyond Institution and country (HaNABI)		
Start Date	1 November 2009	End Date	31 October 2010
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Partner Institutions	N/A		
Project Web URL	https://www.wiki.ed.ac.uk/display/JISC		
Programme Name	<i>Learning and Teaching Innovation Grants</i>		
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Date	19 November	Filename	HANABI_final_report_201210.pdf
URL	N/A		
Access	<input checked="" type="checkbox"/> Project and JISC internal		<input type="checkbox"/> General dissemination

Document History		
Version	Date	Comments
Ver.1	15 Nov 10	Sent as wiki link
Ver.1.1	15 Nov 10	Sent as a Word file
Ver. 2.0	17 Dec 10	Sent as a Word file
Ver. 2.1	20 Dec 10	Sent as a PDF file



Table of Contents

1) Acknowledgements.....	3
2) Report Summary	3
2.1 Project Overview.....	3
2.2 Project Outputs.....	4
2.3 Impact and Benefits to the Community	5
3) Main Body of Report	6
3.1 What did you do? (Methodology)	6
3.2 What did you learn?.....	22
3.3 Impact.....	47
4) Conclusions and Recommendations	48
5) Implications for the future	48
6) References	51
7) Appendices (optional)	53

1) Acknowledgements

This project was funded by JISC, belonging to its Learning and Teaching Innovation Grants Programme. It also received grants from [The Great Britain Sasakawa Foundation](#) in the form of a contribution to hardware purchase and [The Daiwa Anglo-Japanese Foundation](#) to support two introductory workshops held in Japan in December 2009. We also would like to thank [BEO Tokyo](#) and [Doshisha University](#) for providing the venues and for their general help in arranging the workshops in Japan in December 2009, as well as our other exchange partner universities (Gakushuin University, International Christian University, Keio University, Kwansei Gakuin University, Nanzan University, Okayama University, Ritsumeikan University, Seikei University, Sophia University, Tsuda College, Waseda University, Yokohama National University) for their co-operation.

2) Report Summary

2.1 *Project Overview*

The project centred on students who were spending their third year of the [MA Honours in Japanese](#) undergraduate programme at the University of Edinburgh on exchange placements at universities in Japan. We aimed to enhance their year abroad experience by addressing such issues as social isolation, limited pedagogical support, differences between courses at various Japanese host institutions and retrospective assessment. We decided to use [Nintendo DSi](#) handheld games consoles, with the application [Flipnote Studio](#) that allows users to create and share handwritten scripts via WiFi, as an e-learning tool. This combination enables users to maintain long-distance connections, because the consoles are small, portable devices on which users can handwrite directly onto the touch screen with a stylus. Handwriting practice is crucial for learners of non-alphabetical writing systems such as Japanese, which has three distinct types of character and requires mastery of more than 3000 for fluency. We explored ways of using the consoles to link third-year students with co-students elsewhere in Japan and with tutors back home. After two introductory workshops in Japan demonstrating how to use the DSi effectively as an e-learning tool, online tutoring was delivered with interactive language exercises and

feedback to supplement the students' formal language learning at their host universities and exposure to the Japanese-speaking environment, culture and society in everyday life. We assessed the use of advanced games consoles as a medium for delivering e-learning to communities of students learning non-European languages and also considered whether there were any aspects that might benefit non-language programmes.

2.2 Project Outputs

HaNABI produced the following outputs:

- Project wiki:
<https://www.wiki.ed.ac.uk/display/JISC/JISC+Learning+and+Teaching+Innovation>
- "Study/Tutoring" [Flipnotes](#) by students and tutors, and collaborative notes by students on the [Flipnote Hatena](#):
 - a. Japanese3EdinburghUni (now used for the current 2010-11 third-year students- see UoE_YearAbroad_09_10 for the ones in use during the time span of the project)
(<http://ugomemo.hatena.ne.jp/ch/11538386661521561720>)
 - b. UoE_YearAbroad_09_10
(<http://ugomemo.hatena.ne.jp/ch/174334417273889309>)
- Japanese language study wiki: <https://www.wiki.ed.ac.uk/display/jls/Home>
- Results of two online language achievement tests

- Result of JLPT (Japanese Language Proficiency Test) Level 2 mock test on their return to UK

- Short summary of student survey

- Qualitative data regarding students' learning experiences during their year abroad: summary of interviews

- Project reports: [HANABI Interim Progress Report](#)

- Dissemination:

Research paper: [Global Mobile Learning with Games Consoles](#) (prepared for the mLearn conference, October 2010)

[Poster](#) session: [The 13th BATJ Annual Conference](#), Reading, September 2010

Have-a-Go session: [Innovating e-Learning 2010 Online Conference](#),

November 2010. Have-a-Go on project wiki:

<https://www.wiki.ed.ac.uk/display/JISC/HANABI+Have+a+Go+area>

2.3 Impact and Benefits to the Community

- Students benefited academically: we found a significant increase in the number of students attempting the advanced levels of the [JLPT](#) in comparison with numbers in recent years, reflecting greater confidence in their linguistic ability; keen users of the consoles as a learning tool have extended their educational usage beyond the tutorial activities, e.g. by installing electronic dictionaries and language-based games, creating their own databases to practise reading and writing Japanese characters, etc.
- Students benefited personally and psychologically: the project was successful in fostering improved communication with and among students during the year abroad and far fewer felt isolated. (See the section, '*What did you do?*')
- Teaching staff at Edinburgh noted improved communication with students in Japan in general as well as specifically for activities connected to the project.
- Teaching and support staff developed an understanding of uses of wireless games consoles and issues around connectivity, student support at a distance, integrating additional activities with host institution programmes, as well as pre- and post-year abroad activities.

- Second-year students who will take part in console-based tutorial activities when studying in Japan as third years in 2010-11, benefitted from pre-departure workshops in Edinburgh for instruction and confidence building.

2.4 Main Lessons Learnt

The level of involvement and engagement with the project varied. Reasons for limited participation, or non-participation in some cases, were linked to various factors, including pressure of work from host institutions (See 3.2), limited familiarity and confidence with consoles, difficulty of access to a wireless network, and low motivation because it was not a part of the formal, summative assessment.

We need to re-assess the level and kinds of pedagogical intervention that will be most useful, taking into account the fact that third-year students on exchange placements are already formally enrolled in courses at another institution and the extent to which activities are embedded in the curriculum.

Students did not make much use of the blog space provided, for various reasons. The idea of regular reflective journal entries is welcomed, because it encourages students to consider their learning processes and because they are required to report on their language study as part of the current third-year assessment (See 3.1.1). However, providing a suitable tool for blogging seems to be critical.

Staffing issues affected the whole project significantly (See 3.2), but we were able to re-allocate work to get back on track and complete the project.

3) Main Body of Report

3.1 What did you do? (Methodology)

3.1.1 Background

Since its inception the MA Honours in Japanese programme at the University of Edinburgh has required students to spend their third year of study at a university in Japan. The major objectives of the year abroad are:

- Cultural immersion
- Improvement of language skills
- Understanding of foreign culture and society

At the host institutions in Japan, students follow a Japanese language course for overseas students at an appropriate level, and, depending on where they study, may also be offered Japanese Studies courses in English, auditing of some lectures in Japanese with the home students, or workshops and study days on Japanese culture. They are also encouraged to take part in intercultural activities with Japanese and other visiting students. Most of them live in university accommodation, sharing with Japanese and international students. Thus, students experience cultural immersion while they improve their language skills.

However, in the past some students have encountered issues with social isolation, limited pedagogical support from their home institution, and disparity in the learning outcomes and achievements after the completion of the year abroad, due to the differences amongst host institutions' curricula. Furthermore, assessment of the third-year programme is conducted retrospectively. 60% of the credits for the study abroad course is assessed through a portfolio. This consists of (i) a reflective report on their language learning that describes and evaluates their individual progress during the year, (ii) examples of work completed at the host institution (including both assignments and exercises completed under test conditions), (iii) essays in Japanese and English, and (iv) translations from and into Japanese using texts of the students' own choice. The remaining 40% of the credits are assessed through assignments and examinations that actually take place in the fourth year (i.e., these credits are taken in the third year but examined in the fourth year.) This system has sometimes resulted in failure to address pedagogical support problems when they arise.

We sought to address the above issues through the HaNABI project, which was initiated to assess whether language learning support using mobile devices can make a contribution to ameliorating these issues and to assess the potential for using mobile learning more generally for other languages and for other academic subjects. A range of mobile devices suitable for delivering m-learning content were considered, including netbooks and smart phones, but the [Nintendo DSi](#) was selected on the grounds of its cost and functionality.

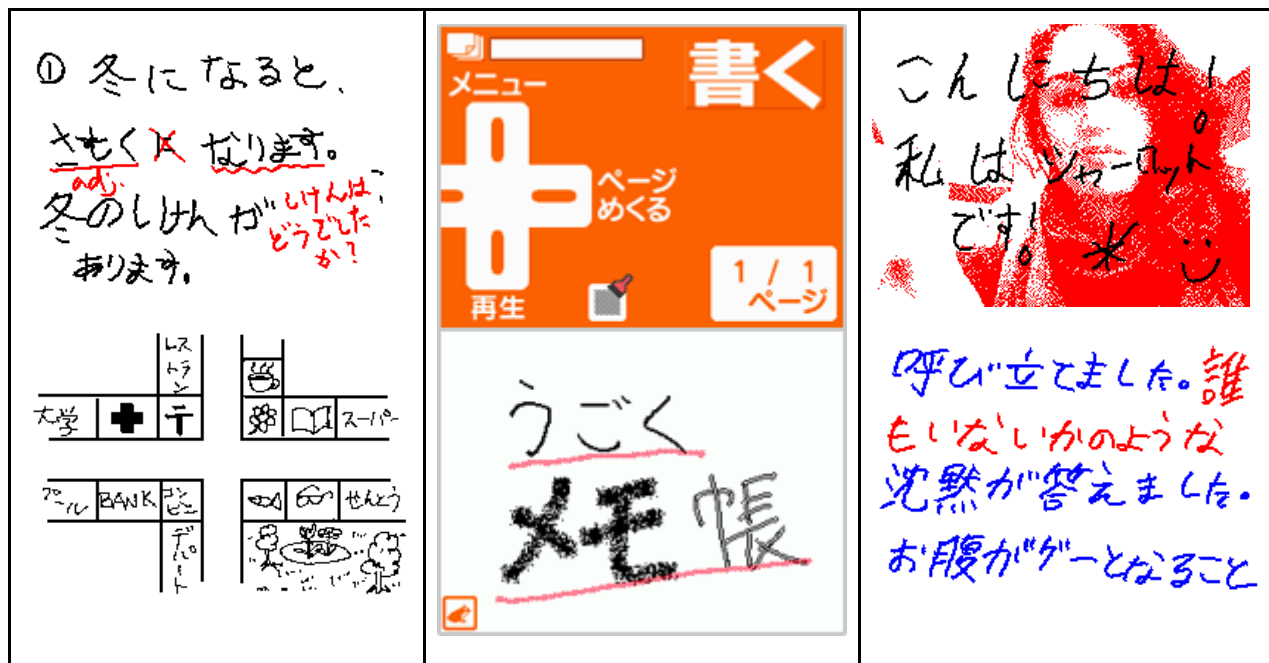
We noted that in Japan, [Nintendo DS series](#) consoles have been used widely as a mobile learning device, including at educational institutions.¹ We were also interested that some former students who came back from their year abroad in Japan had bought Japanese DS series consoles there, brought them back to the UK, and used them as a dictionary or language learning tool in class. We concluded that the use of the Nintendo DSi console as an e-learning tool might be helpful in enhancing students' educational experience during the year abroad and further integrating this learning with the overall programme, identifying the following merits:

1. A DSi console costs about £100 - that is, cheaper than other portable devices such as iPhone - and the DS series is the world's most popular type of games console.
2. It is small, portable and durable - all Nintendo hand-held games consoles are made to last and survive maltreatment by children.
3. It uses a free [Nintendo Wi-Fi connection](#) that does not need any subscription.
4. The most notable function of the DS series is a handwriting facility that is essential for learning languages with a non-Roman script such as Japanese, Chinese or Arabic. The three components of the Japanese writing system (see above) are usually used in combination in everyday reading matter such as newspapers, magazines or books.

The merits of using DSi's free application [Flipnote Studio](#) are as follows: It allows users to draw graphical representations of Japanese characters, record spoken sentences and share them with their fellow students and their tutors. For the purposes of this project, it enabled tutors to provide students with regular language exercises, and students to post their responses back to their tutors, who assessed them and provided feedback prior to the delivery of the next exercise. Student responses, both written and oral, could be shared with other students using the dedicated free webspace, "[Flipnote Hatena](#)". The online tutor provided spontaneous, context-dependent tasks and feedback on a regular basis. The technology available (i.e. DSi's software "Flipnote Studio" and the dedicated

¹http://www.osakac.ac.jp/ecip/ds/alc_netacademy.html; Chaka, C. (2009) From Classical Mobile Learning to Mobile Web 2.0 Learning, in Guy, R (ed) The Evolution of Mobile Teaching and Learning. Santa Rosa, CA: Informing Science Press, pp. 79 – 101; and Marriott, RCV, Torres, PL (2008) Handbook of Research on E-Learning Methodologies for Language Acquisition, Hershey, Pennsylvania: Idea Group Inc.

website, “Flipnote Hatena”) allowed the tutor to address individuals, small groups or the whole class.



Examples of Flipnotes (including students' work)

3.1.2 Aims and objectives

We set out with the aim of providing interactive online learning, especially for non-alphabetical character handwriting, to keep students' motivation, to connect learners at different host institutions and teaching staff at Edinburgh, to relieve the sense of isolation while studying away from home (they are absent for approximately one year), to monitor students closely to give them regular support, and to offer swift feedback. Our objectives were (i) to explore options for use of games consoles in the context of mobile e-learning and higher education, (ii) to stimulate innovation in international education, maximizing the year abroad experience, (iii) to create a new assessment framework for the year abroad course, and (iv) to develop a flexible infrastructure that has synergies with existing e-learning components of the programme. At institutional, i.e. university-wide, level, we aimed to find out more about the use of mobile devices for language learning and for communication, in particular the issues around support and scalability, and integration with other aspects of the curriculum.

3.1.3 Methodology

The project's strategy was to work with the 2009-10 cohort of third-year students (24 in total) on exchange at 13 institutions in Japan to develop both the infrastructure and learning exercises for using games consoles to support Japanese language learning. In order to pave the way to continue activities introduced through the project in 2010-11 and 2011-12, some work in Edinburgh was also undertaken, with first years (in two first-year Japanese courses, 64 students in total) and second years (15 students).

The project's methods involved developing the technical infrastructure for using DSi to link dispersed bodies of language students and developing learning exercises based on the expertise of current Japanese language tutors. A multiple research method, comprising online surveys, virtual ethnography and semi-structured interviews, was employed to evaluate the DSi tutorial activities and to obtain a more holistic picture of the study. Prior to initiating the project, consent forms were distributed to all the students so that we could confirm that they were well informed and given the opportunity to withdraw from the study.

1: Project preparation and management

- The initial project plan was drawn up in November 2009.
- Thirty of consoles were purchased in Japan in December 2009, so that they could be used for, then distributed at, the workshops there.
- Steering Group Meetings, involving a group set up in November 2009, and Monthly Progress Meetings for members of the project team, have been conducted regularly to ensure the smooth running of the project.
- We set up the project wiki ([Atlassian's Confluence](#), as this is available for Edinburgh staff and students), and it was also used for giving information on Flipnote tutoring as well as for collaborating to produce documents and reports. For collaboration, it sometimes caused problems when more than one person was working on the same document - someone often had to give up what they wrote (read-write conflicts

can occur when users are working on the same item) so we decided to use Google doc for collaboration as well.

- We contacted all the exchange partner universities to let them know about the project, and to ask them to help with the handover of the consoles to the next students.
- Consent forms were signed by all 24 of the 2009-10 cohort of third-year students on exchange at the 13 institutions in Japan. One withdrew from the project in April 2010, and another in August 2010, so the number of the students used in the analysed data sometimes varies from 22 to 24, depending on the timing of a given activity.

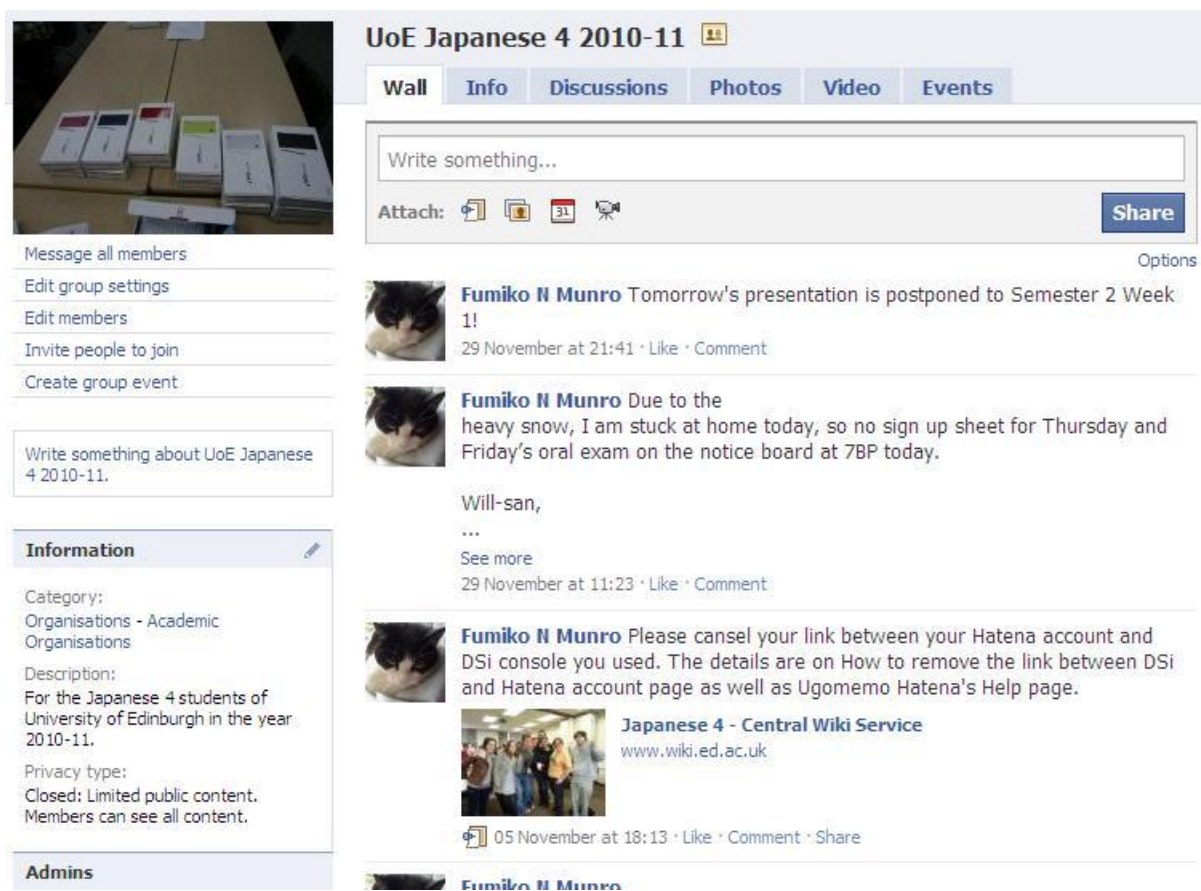
2: Setting up an online learning environment

VLE (Virtual Learning Environment)

Although WebCT, which is the university's existing standard VLE system, was already active for the third-year courses before the project started, it was not actually used for this project due to its incompatibility with the [DSi's web browser](#).

Facebook

In order to support the tutorial activities and communication with the students abroad we initiated social networking, creating a Facebook group for third-year students studying in Japan as well as further groups for first and second year courses and for all those who are studying or have studied on the MA Japanese programme at Edinburgh. All but one joined the group for the third-year students on their year abroad. We suggested that they could create a new 'university' account to join this group (in case of confidentiality issues), but all who joined decided to use their private accounts. Now that the students have returned to Edinburgh and entered their fourth year, this group continues to operate and works as a less formal class noticeboard and a communication tool.



The screenshot shows a Facebook group page for 'UoE Japanese 4 2010-11'. The page has a cover photo of several books on a table. The navigation tabs include Wall, Info, Discussions, Photos, Video, and Events. A text box for writing a message is visible, along with an 'Attach' button and a 'Share' button. The group information section on the left includes a category of 'Organisations - Academic Organisations', a description for Japanese 4 students at the University of Edinburgh, and an admin list. The main content area shows three posts from 'Fumiko N Munro' regarding postponed presentations and exam notices. A link to 'Japanese 4 - Central Wiki Service' is also present.

Facebook group (it has been updated from Japanese 3 to Japanese 4 from this academic year)

Hatena Group (online group space provided by [Hatena](#)) for the class

This was established just before the workshops, and the majority of students, who managed to set up Hatena accounts at the workshops, joined. A Hatena account was necessary in order to connect their Flipnote Hatena account (created from the console's user information) with other Hatena services, so that they could manage their posted Flipnotes easily on web browsers. A Hatena account also gives a free blog space, as well as access to the group's blog space, which was made available only to the teaching staff and the students. However, these blog spaces were rarely used by the students.

Hatena::Group::Japanese3edInburghuni キーワード 検索

japanese3edinburghuniグループ

リンク集 編集

- DS Stations(無料WiFi)
- Freespot(無料WiFi)
- エラのうごメモ
- カロラインのうごメモ
- マークのうごメモ
- アダムのうごメモ
- サンディのうごメモ
- ルーシーのうごメモ
- ローラのうごメモ
- ボリーのうごメモ
- ハリエットのうごメモ
- ジョンのうごメモ
- ジュリアのうごメモ
- アーレンのうごメモ
- クレアのうごメモ
- アリソンのうごメモ
- ケイトリンのうごメモ
- クリスのうごメモ

Ugomemo Tasks

1. Look at this example speech
2. Make 1-minute speech on 'What I found in Japan'

japanese3edinburghuniグループ

For Japanese 3 Year Abroad students at the University of Edinburgh.

- 日記一覧
- カレンダー
- キーワード一覧
- 掲示板

The class group space shared by only students and teaching staff

e-Portfolio

We considered incorporating the PebblePad e-portfolio into the 2009-10 Japanese 3 year abroad courses and assessment, but in the light of observations by the current students, we decided not to do so, to avoid any additional support issues. We also discovered that PebblePad does not work on DSi's browser as this does not support Flash (for PebblePad, Adobe Flash version 7 or later is required). That means that students cannot get access to PebblePad on the DSi console, but it would be possible for them to put the links of their Flipnote language work on the Flipnote Hatena website to share access to their PebblePad with classmates. We will look further into ways of combining use of the DSi with other types of e-learning systems in the near future.

3: Developing and delivering language tuition

Since November 2009, various activities have been completed, including tutoring, lecturing and providing tasks for both the third-year students who were in Japan and the first and second students in Edinburgh.

A: The activities for the third-year students:

A.1. Guidance for Content Delivery:

We conducted on-site technical workshops in use of the DSi for third-year students in Tokyo and Kyoto in December 2009 in order to distribute consoles, familiarize students with them and demonstrate how to use the console as an e-learning tool (for a detailed agenda, see Appendix 2). We had 16 students attending in Tokyo and 5 students in Kyoto. 3 out of 24 students were unable to attend due to clashes with their host universities' courses or living too far away from either workshop site. However, they managed to catch up with help from their classmates, as well as through instructions on wiki pages and e-mails from the tutors.

A.2. Delivery of Materials and Tutoring Activities for the third-year students:

A.2.1 [Flipnote Studio](#) tasks

We delivered a variety of language exercises to the third years such as speaking tasks, individual and collaborative writing tasks, short tests in reading, writing and recognizing characters, and self-testing exercises. The forum for this was a dedicated channel on [Flipnote Hatena](#), which enabled students to find and download the tasks from tutors and to edit and upload their work. We also used [Flipnote Letter](#) (see the illustration below), which enables the user to send a [Flipnote](#) to someone privately for simple language tasks. When students finish their task, they can send the Flipnote directly back to the tutors and the tutors send feedback to the students directly. Thus they need not be shared by others.

Examples of feedback from a tutor: (i) [feedback on writing characters and pronunciation](#), (ii) [Tutors informally giving encouragement with picture and voice](#). For uploaded students' work (in the channels of [Japanese3EdinburghUni Channel](#),

([UoE_YearAbroad_09_10 Channel](#)), tutors used the comment facility to provide feedback (example of students' work and comments from a tutor).



Flipnote Letters- Inbox with students' work



Flipnote Letter- Sent box with tutor's feedback

1. [JLPT](#) related tasks (Level 3: Intermediate, Level 2: Upper intermediate)
 - a. Writing: average participation (8 tasks in total): 39.5%
 - i. Writing and reading *kanji* characters: 4 in total (L3: 54.1%/L2: 34.8%)
 - ii. Vocabulary: 2 tasks in total (L3: 45.8/L2: 26.1%)
 - iii. Grammar: 2 tasks in total (L3 & L2: 26.1%)
 - b. Dictation: 2 tasks in total, participation: 4.5%

For most of these, students had to record some example sentences they made to use the target vocabulary and grammar items.

2. Creative tasks (Writing: [Seasons Greetings](#), Speech: [1-minute speech](#)), participation: Writing: 41.7%, Speech: 21.7%
3. Collaborative tasks (group relay writing: [example A](#)): participation: 39.1%

A.2.2 Web-based language tests with computer-assisted marking function

We also set up a couple of simple multiple question type language tests, one set at the same level as Level 3 of [JLPT](#) (10 May 2010), and the other equivalent to Level 2 (1 June 2010). We used [Classmarker](#), since this is web-based, supports Japanese characters, and also worked without complications on [DSi web browser](#). As the actual JLPT marking is conducted by [Optical Mark Recognition](#), with only multiple choice questions to test knowledge of vocabulary including *kanji* characters, grammar, and listening comprehension, but no speaking or handwriting, these online tests were also conducted as multiple choice only. Unfortunately the DSi web browser does not support sound streaming, so those online tests were made without the listening comprehension part. Even though we knew that JLPT gradings would be changed from July 2010, due to the lack of information and resources on the new version, we used the old gradings such as Level 3 (intermediate) and Level 2 (Upper intermediate). Participation in the Classmarker's JLPT Level 3 test was 20 out of 24 (83.3%), and the average score was 86%, which was commendable. Participation in Level 2 was not as good: only 3 students managed to complete the test, 4 appeared as still in progress (29.2% in total), and the average score was 48%, ranging from 60 to 31%.

ClassMarker TM ✓ Home | Search [Shortcuts](#) Logged in: Fumiko / [Log out](#) >

Test My classes My tests My account Help

日本語 Level 4 (previous L3)
 Time left: 1 hrs 29 mins 44 secs

Question 1 of 70

1. ____の読み方は何ですか。
 とい1.1 野菜の 売り場に 人が 集まっ ている。

a) 野菜: やさい
 b) 野菜: やすい
 c) 野菜: のさい
 d) 野菜: やきゅう

Question 2 of 70

とい1.2 野菜の 売り場に 人が 集まっ ている。

Example of Japanese language online test

ClassMarker TM ✓ Home | Search [Shortcuts](#) Logged in: Fumiko / [Log out](#) >

My classes My classes My tests My account Help

My tests

My classes
 Search
Japanese 3 Year Abroad 09-10
 Tests and results
 ▶ Class Results
 Assign tests
 Administer learners
 Create new class

External testing

Statistics

My account

Help

[Remove ads](#)

Class results

Test name: 日本語 Level 4 (previous L3)

If the 'Results' column reads 'In Progress', then the learner is either taking the test or has saved it to finish later.

[Jump down to export results](#) | [Jump down to delete results](#)

Ordered by first name | [Order by last name](#)

Date taken	%	Score	Duration	Results
Thu 3rd Jun 2010	86%	60/70	38m 3s	View results
Wed 19th May 2010	94%	66/70	26m 35s	View results
Wed 2nd Jun 2010	86%	60/70	24m 35s	View results
Wed 2nd Jun 2010	77%	54/70	26m 38s	View results

Example of lists of online test results

A.2.3 [JLPT](#) Level 2 mock test

We conducted a mock test of JLPT Level 2 on the students' return to the UK (October 2010). All 24 students participated. As the revised version of the JLPT was introduced in summer 2010, there were limited information and resources for the new version, but we managed to find a textbook with mock tests of a new version of JLPT (*U-CAN's JLPT N2 Mock tests*, published by U-CAN JLPT Research Group, 2010) and used one of these. All the questions are multiple choice, and this has CDs for the listening section. Unfortunately no marking guide was provided in the book, so we simply counted the number of correct answers without any complex weighting, and the average score of correct answers was 50.7%.

B. Workshops for first- and second-year students

We also conducted workshops in Edinburgh to familiarize first and second year students with the consoles as an e-learning tool prior to their year abroad ([Example Flipnote of feedback on students' work from the workshop for 2nd years](#)).

The activities for the first year students

We held DSi and Flipnote Studio sessions in Introductory Japanese 2 and Japanese 1. The former is a semester 2 course for non-language specialists and follows on from a beginners' course in semester 1, in which students develop knowledge of basic grammatical structures and a vocabulary of approximately 1000 high-frequency words and phrases including some basic *kanji*; it had 35 students in total. The latter is an integrated introduction to spoken and written Japanese and forms an obligatory part of the first-year curriculum for MA Honours in Japanese; it had 29 students in total.

In those classes, we used Flipnote Studio as well as [PictoChat](#), as the latter application allows multiple users to enter a chat room and to share drawings and texts instantly by built-in local wireless connection. The PictoChat application gave them a good introduction to multimedia learning within language education, especially in the classrooms without a DSi-compatible WiFi.



PictoChat

The activities for the second year students:

- Two-hour DSi and Flipnote Studio sessions in Japanese 2B (an intensive course in *kanji* writing with modern Japanese language texts and a required part of the second-year curriculum for MA Honours in Japanese, with 15 students in total).
- Extra workshops (3 hours in total) for the second year students who would be on the year abroad in Japan next year (number of students: 13 in total).

The extra workshops for the second year students were optional, but around 10 students came to the first one. The other sessions were conducted within normal teaching hours, and were well received by the majority of students.

4: Data collection and analysis

Students' survey and interviews

We conducted an online questionnaire using [Bristol Online Survey](#) to obtain student feedback on the project in April 2010, which was the beginning of the new academic year in Japan. 15 replied out of 24 (62.5 % response rate).

We also followed this up with individual interviews with the participants from summer 2010 (19 out of 22; 86.4%). We originally planned to conduct the interviews online by Skype, but due to staffing issues as well as the awkward timing for the students, who were finishing their exchange programmes then, most of the interviews were done in

person on their return to Edinburgh in autumn. Some of the content of those interviews was transcribed and analysed as evidence from student feedback during the autumn of 2010 (See the section, [‘What did you learn?’](#)).

Students’ blogs

No data collection from the students' reflective reports has been done, as students did not use the blog facility (See the section, [‘What did you learn?’](#)).

Facebook group and other communication

Due to low participation, we tried to engage with students' challenges while on the year abroad via e-mails and a Facebook group instead of blogs. Facebook has an online discussion facility, as well as the group walls which could be used to write study notes. However, despite the tutors' encouragement, low or non-participation was reported. This may have been caused by the staffing problem, which prevented us from addressing the low participation issue swiftly.

Numerous e-mails with instructions on Flipnote Studio, suggestions on WiFi spots, notices of newly uploaded tasks as well as the console handout instructions were sent to students, but some students never replied (See the section, [‘What did you learn?’](#)).

Language learning monitoring

We monitored the students' language achievement via [Flipnote Studio](#)'s language tutoring, online tests and the [JLPT](#) mock test on their return (See the section, [‘What did you learn?’](#)).

5: Evaluations and reports / Dissemination

Evaluation and reports

- [Interim Progress Report to JISC](#)
- [Project wiki](#) updated reports from time to time
- Tutors' reports on technical and pedagogical issues (see Appendix)
- Correlation between Flipnote tutoring and result of language tests (Online test Level 3 and JLPT Level 2 Mock test) (See '*What did you learn?*' and Appendix)
- Online survey result (See Appendix)
- Summary of interviews (See Appendix)

Dissemination

- Invited talk, "Mobile language learning using Game Consoles: Place, Space and Mobility", DiCE (Digital Cultures and Education) seminar series, the University of Edinburgh, February 2010, by Akiko Hemmi. (Target audience was learning technologists and e-learning practitioners of the University of Edinburgh and Edinburgh College of Art.)
- [Poster session](#) at the 13th BATJ (The British Association for Teaching Japanese as a Foreign Language) Annual Conference, Reading, September 2010, presented by Fumiko Narumi-Munro (Target audience was practitioners and researchers of teaching Japanese as a foreign language in UK).
- Presentation for Learning and Teaching Practice Experts Group Meeting: *Looking to the Future?*, Birmingham, 20th October 2010, presented by Helen Parker. (Target audience was the JISC community.)

- A paper entitled "[Global Mobile Learning with Games Consoles](#)" was prepared for the *mLearn* conference, October 2010, written by Akiko Hemmi (Target audience was international mobile learning practitioners.)
- Presentation entitled "The social embeddedness of mobile learning: Case studies of learning using mobile technology devices in higher education" for *The European Association for the Study of Science and Technology Conference* on 'Practising Science and Technology, Performing the Social', University of Trento, Italy, 2-4 September 2010, presented by Akiko Hemmi. (Target audience was international academics in the field of Science and Technology Studies.)
- Presentation for eLearning Professionals and Practitioners' Forum Show Case, the University of Edinburgh. "HaNABI: Handheld-device enhanced learning with Nintendo's Applications Beyond Institution and Country, November 2010, presented by Akiko Hemmi. (Target audience was internal university staff.)
- Presentation for [Innovative e-Learning 2010 JISC Online Conference's Have-a-Go](#), November 2010, presented by Fumiko Narumi-Munro/Yoko Takahashi. (Target audience was international e-Learning practitioners and researchers.)

There are some more dissemination plans for the near future (See ['Implications for the future'](#)), and these will cover the wider community as well as the internal one.

3.2 What did you learn?

This section consists of a reflection based on the findings and emerging lessons reported by the staff in meetings, tutors' reports and students' comments on their learning experience.

Information on the student's experiences and views on the project (24 on the course, 2 withdrawn from the project) is drawn from a survey of the activities they participated in (JLPT related tasks: 39.5% in average, collaborative task: 39.1% and presentation: 21.7%), the survey questionnaire administered from April to July 2010 (15 replies out of 23; 65.2 % response rate), and interviews with students on their return to UK (19 out of 22; 86.4%). Twelve of the interviews were transcribed: 3 in High participation group, 2 in Moderate 1 group, 3 in Moderate 2, 1 in Low, and 3 in No participation group (for the details of participation groups, see 3.2.4 *Online test and JLPT Level 2 Mock test result and online tutoring participation*).

3.2.1 Project management

Monitoring the project progress

There were four Steering Group Meetings throughout the project, and four Progress Meetings in the months when no Steering Group Meetings were held, to ensure the smooth running of the project. There were numerous unofficial meetings to discuss various matters such as the tutorial content or technical problems.

Keeping the track of the budget and work allocation was the most difficult part in this category, due to the multiple changes in work allocation (staffing), and the lack of clarity as to who was in charge of our project's costing. The latter might not have occurred if we had taken better account of the need for clear definition of roles when we wrote the initial project plan.

Staffing

Increasingly strict visa regulations and immigration procedures required re-organization of work on several occasions as well as a great deal of flexibility from all participants. The project encountered a significant delay during the first few months due to the need to renew work permits for two non-EU project members, and we had to change our work plans and roles accordingly. When one member of staff was refused a visa extension our interim solution was to create an 'external consultant' role so that this person could carry on contributing as an online tutor and researcher for the project from outside the UK. The

nature of the original role and the individual's in-depth knowledge of the Edinburgh programme allowed for that change to be implemented, and for the tutoring activities to continue to be delivered. Hence it did not cause much difficulty apart from the console management and the delay caused by the long wait for the reply from the UKBA, which included a period of not being permitted to work. This type of difficulty is likely to persist given the desirability of involving tutors and researchers who are native speakers of Japanese with special skills and the relatively small pool of qualified individuals who already have the right to live and work in the UK. In the future, it will be important to keep track of changes in the rules and to develop strategies to adapt where practicable. It also seems worthwhile to highlight the nature of the problems encountered, to draw them to the attention of the Home Office and elected representatives and to participate in any relevant government consultations in the future.

Reaching students

E-mail remains the main way to communicate with the students in Japan (there was no face-to-face contact for the project, apart from the workshops in Japan), so it is sometimes very difficult to reach them. E-mail (via members' university accounts) is recognized as the primary official channel of communication for university business, and students are frequently reminded of this. For the purposes of the project, students specifically identified e-mail (either to their university or their private accounts) as their preferred method of communication with staff. Despite this, some students still tended not to read our e-mails, or to read them but not act on them, and a few who had had issues with enrolment and registration became unable to access their university accounts. This problem has been reported by our students for a long time. We will continue to address this issue by consulting our exchange partners with a view to ensuring that all our students have access to the Internet at the initial stages of their year abroad programme in Japan.

Facebook was often used to reach such students, and it was very useful for the staff (See 3.2.2). For the 2010-11 cohort of third-year students, we have, additionally, asked them to provide their mobile numbers and mobile e-mail addresses once they get a mobile phone in Japan, so that we can reach them more easily.

3.2.2 *Setting up online learning environment*

VLE and e-portfolio

It turned out that some of the systems we had envisaged combining with the DSi consoles and Flipnote Hatena to create the online learning environment, were not viable for use at this stage. WebCT was already active for the third-year courses before the project started, but as this did not work on [DSi's web browser](#), it was not possible to use it as planned. We considered incorporating use of the PebblePad e-portfolio to the 2009-10 Japanese 3 Year Abroad courses, but, taking into account student feedback, decided against this to avoid additional support issues. Additionally, PebblePad does not work on DSi's browser (see also 3.1.3, section 2). These experiences suggest that we should examine further how best to combine use of the DSi with other types of e-learning system.

Information on wiki for the students

We have used the project wiki mainly to provide instructions and information on Flipnote tasks to students. In the process, we discovered that Confluence does not support non-alphabetical characters such as Japanese. We have consulted Information Services at Edinburgh but as it could be quite time consuming to add multi-language packs on to the whole wiki community, we decided to stick to English and to use pictures when we needed certain Japanese words (e.g. Japanese words used for icons on DSi). In the future, we might consider using websites as they offer multilingual support. In the meantime, we will use the Japanese Language Study wiki to provide more information. One of the good things about Confluence is that you can edit on DSi browsers, so we may encourage students to share their ideas on that community wiki.

Blog

There are studies which show the pedagogical benefits of using blogs for students' reflective learning in distance learning settings (Lin, *et al.*, 2006). With this in mind, students were all shown how to access the blogging option on the [Hatena](#) site, and all set up their own blog spaces. However no-one made use of this facility. Either students

already had their own preferred blog space or they did not feel that blogging was an especially useful tool for keeping a reflective journal of their year abroad. Several who had not used it felt the blogging idea was worthwhile in principle:

“I actually think it's a really good idea. I think that blog site should have been a big success. I don't know ... the reason why I didn't do it is because I kept thinking that I would have to do everything on my DS so every time I'd want to write something I figured I would have to save it and then wait until I go to a DS thing and I found ... I made it more of a hassle than it actually was...”

“I think it's very helpful especially if it's in Japanese as well. And even one line every week or every couple of weeks or a month or whatever it's really good ... a good way of keeping up your own diary for a start and also yeah for the reflective report it's very good and practising diary writing in Japanese is a good way as well.”

Facebook

Similarly to the blog, the Facebook Group established to give students another communicative forum was only used by a very few.

“I think teachers using Facebook is a little inappropriate maybe.”

In contrast, staff perception of the Facebook group was rather positive even though there were only a few posts from the students, since it could sometimes be used as a casual online notice board as well as the last resort for contacting students who had not responded to e-mails.

3.2.3 Observations from the workshops in Japan

First workshop in Tokyo:

16 of the students who were studying in and around Tokyo came to this workshop, held at [BEO](#).

The workshop went well, as it covered most of the planned content with a DS-compatible WiFi set up by BEO, but it was a little difficult to give hands-on support to all the students: it might have been better to divide them into smaller groups.

Another problem concerned the consoles' batteries, which had not been charged as they were purchased just one day before - some of the students could not do all the tasks because their consoles needed recharging.

Some students also had a problem signing up for a Hatena account via Flipnote Studio Theatre on DSi consoles.

Second workshop in Kyoto:

This workshop was much smaller than the Tokyo workshop, as there were only five students participating: the reason for this was that the number of students attending universities in and around Kyoto was also smaller. [Doshisha University](#) provided a computing room so that each student had access to the Internet on a PC as well as DSi-compatible WiFi set up specially for us. It made all the tasks much easier, especially checking their Hatena accounts and their uploaded Flipnotes on the website. The smaller size of the group allowed the tutor to give more hands-on help to each student.

We had some extra time to spare, so we connected the consoles to Nintendo Shop to receive 1000 Nintendo points (worth 1000 yen, around £8) free, then downloaded a simple Japanese-English word puzzle (*Chūgaku Kihon Eitango Word Puzzle*, or Junior High School Basic English Words Puzzle) developed by IE Institute, worth 200 points) into each console. Even though this was not at all essential to the workshop, it could be viewed as a good addition for those who enjoy playing games and it seemed to help build motivation for students in this category.

“I think people maybe enjoy that and also ... I don't know if you can do that but I think those games, especially those little popping bubble games and things like that, if you introduced more of those and get people to get high scores, I don't know or things like that maybe people enjoy it more then say doing like ... I don't mind doing those like *fill in the blank things* but I think a lot of people find it really tedious.”

To avoid the flat battery problem we had in Tokyo, all the consoles were recharged the night before and the problem was neatly solved. All the students also succeeded in making their Hatena accounts, so this workshop was very successful.

78.6% of students who attended the workshops said that they were useful, but the gap between the workshops in December 2009 and starting the actual Flipnote tutoring in March 2010, which was due mainly to the staffing issues, may have contributed to the low participation, as some students frequently contacted staff regarding the technical and instructional problems during that period.

They seemed to need more face-to-face, hands-on technical support. To solve this problem, in future years we plan to provide plenty of workshops before they go on their year abroad. One lesson learned here is not to overestimate the students' ability to master new technology or the technology's user-friendliness.

We have concluded that 3-hour workshops were not long enough for the students to master Flipnote Studios. However, this arrangement was exceptional in 2009-10 because the project did not start until after third-year students had already gone to Japan. With a view to addressing this issue for the next cohort, we gave a total of approx. seven hours of workshops to the students in their second year in 2009-10 before they went to Japan. We also plan to give more frequent sessions to those currently in their second year (in 2010-11) to allow them to familiarize themselves with the device.

3.2.4 Japanese Language Learning

This section will show that the project achieved its goal of improving students' Japanese language level, especially their hand-writing skills, and to understand the Japanese language level of the students as they progress through the year abroad in Japan.

Writing skills

One important aspect of using the Nintendo DSi for language learning is that users can handwrite directly onto its touch screen with the stylus provided with the console. Handwriting practice is very important for Japanese language learners especially when

learning [kanji](#). In principle, this function allows the user to write any script, which is difficult or impossible with other portable devices such as mobile phones.

We delivered a variety of tasks for the students on the year abroad in Japan during the project (see [3.1.3, W3.A2](#)). Some of the tasks required the students to write by hand with the [Flipnote Studio](#) application (see [3.1.3, W3.A2.1](#)), and others were web-based multiple choice tasks using [Classmarker](#) (see [3.1.3, W3.A2.2](#)) in which the students were asked to tick the box for the correct answer. We attempted to provide as many tasks as possible where students had to write their answers with the stylus on the DSi's screen, so that the students would be given regular opportunities to practise writing Japanese characters.

Five out of twelve students in the interview, and two out of ten who left comments in the online survey, mentioned in their feedback that they experienced difficulty in writing Japanese characters with the stylus, and especially in writing [Kanji](#).

“*Kanji* could be quite difficult, especially the ones with a lot of strokes because I'm not the neatest handwriter or even stylus holder in the world, so it was kind of difficult, especially for writing a long sentence and trying to fit it all in and make it look like a nice *kanji* or at least, you know, legible. So that's kind of difficult.”

“I have to say I found it quite...to write Japanese on the screen it was quite difficult to write neatly. If it was just ticking the box or filling in gaps in the sentences, that was okay, but there was the longer writing task which I'm afraid I didn't actually do but I think to write the longer pieces, long texts, I think that would be quite difficult on the Nintendo DSi screen.”

A tutor who is not a native writer also concurred that it was difficult to write on the touch screen, so we decided to use typing for some of the tasks for clearer presentation of target characters or grammar items. They used the camera function of Flipnote Studio to capture words typed on Flipnotes. We may enlarge the words on tasks (e.g. one word or character per page to practise), and make those sets shorter.

Toyoda (1995) found through her survey that intermediate level students find learning *kanji* to be most difficult as the lexical burden increases. The respondents' difficulty includes retention, multiple readings of a single character and visual similarity

and complexity. *Kanji* is defined as a morphographic or a logographic system of writing in which a unit of representation signifies a meaning or a word (Taylor and Taylor, 1995). In this sense, *kanji*-learning strategies can be equated to Japanese vocabulary learning strategies; therefore, *kanji*-learning is an influential factor in improving writing and reading skills. Although there are major word- or *kanji*-learning strategies, ‘repeated writing’ has been used the most for *kanji*. We tried to ensure a ‘quantitative increase’ of writing exercises for the students, to give them more opportunity to write Japanese characters, in particular the *kanji*.

On the other hand, the interviews show that we need more focus on the ‘qualitative aspect’ of writing exercises. Writing with a stylus on a small screen actually added to the difficulty in writing *kanji*. It may have affected students’ motivation in learning and writing *kanji*.

In Japanese characters, there are basic strokes such as a dot, a straight line, a hook, and stops. It would appear that because the students actively aimed to write the Japanese characters neatly, the stylus may not be an appropriate tool to use. On the other hand, writing with a stylus may be adequate practice to help students to memorize the shape of the *kanji*. This is because the students focus on smaller details through kinetic movements when writing Japanese characters with stylus. The repetitive process may enable students to learn and master the stroke order. Moreover, this continuous and repeated practice will be available wherever students go, since the DSi was designed to be carried around.

“But yes I made little flash cards and I’d sit on the train and go through my *kanji* flash cards and things on it. I did that quite a lot.”

“You could do them quite quickly almost, if you had a spare five minutes you could just have a go and carry on, leave where you left off and then carry on again a bit later, because it was just a continual testing. So I thought that was really good.”

As the above comments show, some of the motivation of participating students increased while they were using the DSi for Japanese language learning. Students construct their own learning environments by fitting the tutorial activities to their needs and circumstances. How the students use the DSi and how they learn from the tutorial activities are shaped by their specific use-situation populated with different action

resources, including motives, plans, other people and mobile technologies (Tamminen, *et al.*, 2004).

We tried to monitor students closely and assigned tasks to monitor the students' language achievement and also allow them to maintain their language level and motivation for learning Japanese. There were three types of tasks delivered, (i) the exercise type ([3.1.3, W3.A2.1](#)) and (ii) the creative type ([Seasons' greetings](#), [1-minute speech](#), [Collaborative task example](#)), both made using Flipnote Studio; and (iii) the web-based assessment type ([3.1.3, W3.A2.2](#)). In the exercise with the stylus we provided the target words, structures and grammar items so the students could practise and receive feedback from the tutor individually. The assessment type not only helped the tutor to grasp students' progress but also allowed the students to evaluate their own performance immediately, as the result was given to them instantly.

“I loved the *kanji* ones and the grammar ones were the best for me. I thought it was a really good idea linking them to JLPT because I took the JLPT2 (*Level 2*) and passed it.”

“I liked *Kanji* tests. I just like ticking if I knew them or writing *Kanji* was useful whereas grammar was a bit harder because I didn't always know what the answer should be - I couldn't guess sometimes. So I think it's good for *Kanji*”

“I think the main pro is probably you get to see what sort of level you are at as compared to other people in the class and as compared to what level you are expected to be at”

The exercise type task could be a heavy burden on students in terms of actual as well as psychological workload. However, it has its merits and some of the students made the most out of it, especially when it reflected closely the level of a certificate-type language test such as [JLPT](#). As Level 2 of the JLPT is also used as a guideline for their third-year language learning outcomes, the Flipnote tasks directly related to this level and the next level down (Level 3), which is the first step from their second year level, are still useful learning resources.

To address the issue regarding the difficulty in using a small touch screen and stylus to write Japanese characters, especially *kanji*, neatly, we may change the Flipnote tasks to more flashcard-type word lists, so that students can monitor their progress by

themselves, and reduce the amount of the handwriting part to only some of the examples for each set of vocabulary or grammar items, rather than one example sentence per one word or grammar item of 30.

Collaborative tasks

Recent studies have begun to explore the potential of writing using mobile technology devices for collaborative work. For example, Arrigo, *et al.* (2007) conducted a unique study to evaluate the use of hand-held devices for facilitating the construction of collaborative knowledge as well as for creating wiki hypertextual documents. However, there are almost no studies exploring the use of collaborative hand-writing activities using mobile devices. In this sense, this task has its own value. However, the collaborative writing exercise (relay writing) proved problematic because many of the students had difficulties in communicating with others in their groups. But those who participated, were enthusiastic about this exercise as being stimulating and different from others.

“I thought that was the most interesting task and also I felt that it was most important that I do that one so that I wasn't letting down the other members of the group. I thought that was possibly the most interesting one because there was a chance to see other people's work and try to change your own way of thinking to follow on from them. I thought that had a lot of really interesting challenges in it.”

“I liked the group project, actually. I liked that because you got to see what everyone else's level was as well and how you rated amongst that. It was also good to keep in contact with everyone through that as well. That was the story one, I think it was.”

“Possibly with more of an emphasis on creative writing because I find that's the area that I fall down on most because I have a tendency to think in English and I seem to show my English speaking personality in Japanese, which doesn't work so well.”

“The cons are well I guess it’s just complicated trying to get onto the thing, it’s complicated, it can seem really intimidating. I guess, especially with the collaborative project that seemed really intimidating as well, because everyone’s judging each other, so if somebody sees yours, they go, ‘oh they’re not all that good, oh well’, it seems like oh I don’t want people to judge me, that kind of thing.”

If we are to retain this activity we shall ensure that students make contact within their groups at an early stage. It may be necessary to arrange group membership so that participation fits in with the host institution’s timetable and demands.

Speech

The other creative task was a one-minute speech recorded directly on a Flipnote. Even though they were instructed clearly to upload their work, only one student uploaded his work and the other four students who participated sent theirs directly to their tutors.

“I was slightly uncomfortable with the idea of the speech because I would have been embarrassed to think of other people listening to it ...”

This type of self-consciousness has been observed commonly in foreign language learning. Learners may feel very embarrassed when they make mistakes while speaking a target language, and it would be likely to exacerbate that feeling to have their work posted to a website to be seen or heard by others. But since it is a very easy way to receive students’ audio sent via WiFi because they do not have to use any other tools to record their voice, we may change the way we receive their speech Flipnotes, and will probably let students choose either to upload their work or to send it directly to their tutor by Flipnote Letter.

Web-based, computer-assisted assessment type test

This assessment type gave students a good opportunity to reflect on their language achievement and to set their own goals for future study. The disadvantage of this type of online test is the difficulty of testing handwriting as well as assessing their overall language level for communication.

The participation rate for the first [Classmaker](#) JLPT Level 3 test (83.3%) appears to indicate that this type of assessment is easier as it can be done on any device with a web browser. It is also probably more rewarding for the students as it can give their scores and correct answers instantly. The average result was 86% and even the lowest one was 73%, which shows that all the students achieve the midway goal after spending seven months in Japan.

However, the low participation in the second one (3 completed, 4 in progress: 29.2% participation) could be caused by various factors:

- the timing was rather late as most students were preparing their term-end exams at their host institutions, and one had already finished his exchange programme.
- the gap between the former Level 3 and 2 was considerable, and hence it was a significant step for learners to progress from level 3 to Level 2 (now this problem has been solved by the introduction of a new version of JLPT that has one more grade between those levels - for further information, see the resource link of [JLPT](#) in the glossary). This may be the reason why the four 'in-progress' students decided not to finish the test.

Even though the average score of this online test was not particularly high at 48%, the number of students attempting Level 2 or even the top level (Level 1) of the [JLPT](#) increased significantly in comparison with numbers in recent years: only one student passed Level 2 last year (2009), and at least four passed Level 2 in July 2010, while two others told us they participated and one took Level 2 in December 2010.

Motivation

Motivation in language learning is not only an intense desire for learning and acquiring knowledge of the target language, but also an inner cause that pushes students forward in language learning with enthusiasm and willingness. Students who have strong learning motivation take a positive attitude towards study and make great efforts to master the target language with clear goals and desire to learn. Consequently they gain better grades than those who have not acquired motivation and who tend to regard language learning as a heavy and boring burden. Research in this area has shown a positive relationship between computer-based learning and intrinsic motivation (Lepper et al., 1992; Shwabe and Göth, 2005). This is borne out in our findings: some students found the Flipnote tasks were useful to achieve their goals such as passing JLPT, but some participated only in the tasks they were interested in and thought beneficial for them. We will explore further what types of tasks are most likely to foster students' intrinsic motivation to master Japanese language.

An additional problem is how to manage the relatively low involvement from the students. As this was a pilot, exercises relating to the project did not form any part of the summative assessment for the year abroad course, and that definitely contributed to the low participation rate. In the interviews, quite a few students said that they would participate more if it were counted as a part of the assessment. Others, however, expressed reservations about, or opposition to, the inclusion of tasks of the types covered by the project in future assessment.

“If it became part of the assessment of the course I would have a go and I think anyone would because it’s an assessment, so...and I think it would be, it would be a good alternative as a way of like to evaluate over a distance, to have a continuous assessment even though they’re on the other side of the world. So yeah, I think that’s a good idea to incorporate that into the curriculum would be....probably be helpful.”

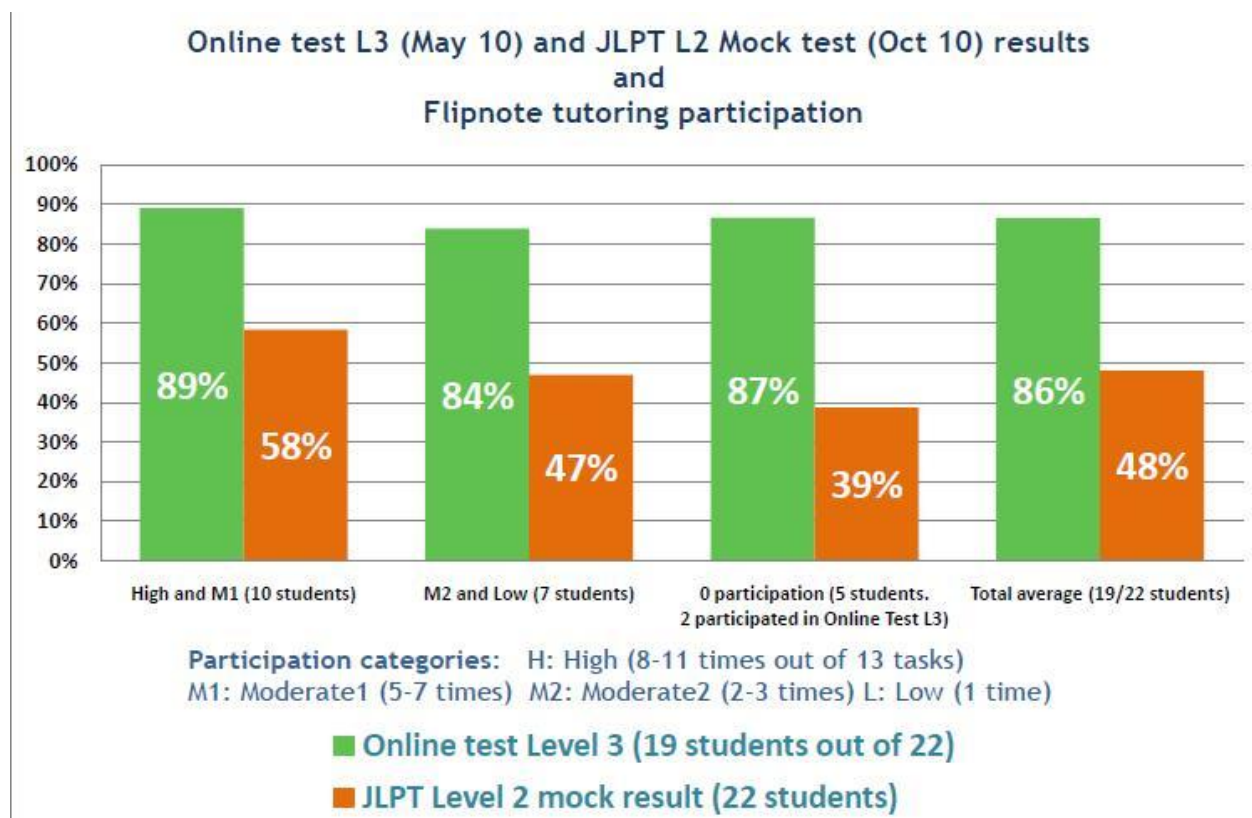
“Maybe if the actual tasks themselves weren’t tests but if you had revision tasks and other things like that and then maybe the participation if you do them could count towards something, the bonus marks...”

“I think having the DS as part of the marked assessment would be sort of difficult maybe because you never know, people are going to have many problems with you know, workload at their own universities, finding wireless points and knowing how to use the DS. All these sort of problems, I just think it would make it a lot more difficult and people making lots of excuses and things like that.”

Online test and JLPT Level 2 Mock test result and online tutoring participation

There were six students in the High participation category (8-11 times out of 13 tasks), four in Moderate 1 group (7-5 times), four in Moderate 2 (3-2 times), three in the Low group (1 time), and five in the No participation group. Two out of twenty-four students, one in the Low and the other in the No Participation groups, have withdrawn from the project, so they are not included in this data.

As shown in the chart below, there was only a slight difference among those groups in Online test Level 3 conducted in May 2010. In contrast, the result of JLPT Level 2 mock test on their return to Edinburgh shows a significant difference (maximum 19%) between the eager participant groups (High and Moderate 1) and the others.



Academic benefit

Our conclusion on this project's multimedia distant Japanese language learning is that it has contributed to the students' language learning within the context of a year abroad in which they also benefit from other input such as formal classes at the host institutions and linguistic as well as cultural immersion. In the specific area of mobile learning, it would be better to provide a greater mix of various types of exercises, tasks, and assessments. We plan to emphasise and develop those activities which have been most popular and useful to students, refining the handwriting tasks to suit the needs of more students. It is also evident that students' motivation was affected because tutorial activities were formative rather than summative. To address this, we plan to integrate DSi console-based learning into summative assessment in the longer term, perhaps on a participation basis.

3.2.5 Choice of console

Portability

The most notable aspect of the DSi console is its portability. Some students indicated that they found the consoles convenient and easy to have to hand.

“Definitely the size of the console I think lends itself to being able to just be tucked into a bag or a pocket or something and then if you've got a spare few minutes, just do something quickly, it would be a good idea.”

Flipnote Studio as electronic flash cards

One student used [Flipnote Studio](#) for taking notes in class.

“For the writing thing I used it in class quite a few times for making *kanji* notes and things, it was quite good for doing this for flash cards for *kanji* or on the next page, doing readings.... I used to sit out in class doing my *kanji* notes. It was easier for *kanji* notes rather than grammar notes.”

This is also observed in Edinburgh both among the students who have returned from Japan after participating in the project, and in the pre-Honours years: some students bring their own consoles to class and are taking notes and making their own *kanji* or vocabulary flash cards for self study.

Game-based learning / learning software on DS

Some took advantage of the loan of the console for other educational usage.

“... in English we have a variety of games on the DS which are learning based and just the same as in Japan, they have like those kind of learning based ones. My own one that I have is like ‘Kakitori-kun’ (*kanji learning DS software*) or something like that, ...and that was kind of useful in that way.”

“The DS is however for me a great learning tool - not so much with the use of networking, but I have a Homebrew software application that is designed for the use of flashcards, so I can create my own databases using CSV files and practise *kanji* etc. on the train or wherever. Also various *kanji* related games, and that ‘Genius dictionary’ program (*Japanese-English dictionary software on DS²*) are pretty handy.”

This could be an additional way of delivering multimedia Japanese language learning, and it should be quite easy to introduce some learning software on the market in Japan as a supplemental learning resource: reliable *kanji*-learning software costs about £10 second-hand in Japan, which would be cheaper than ordinary Japanese language textbooks.

Some of the students noted that playing their favourite DS games with stories and scripts such as ‘Pokemon’ (role-playing game series) or ‘Ace Attorney’ series (*Gyakuten Saiban*, an adventure type of game series) in those games’ original language (Japanese) also helped them to improve reading skills and build up their vocabulary and grammar knowledge, as well as to learn several different speech styles in Japanese. This is not quite ‘*game-based learning*’ but rather ‘playing games in the target language.’ However, we have observed that this type of activity has a positive effect on students’ motivation

² <http://www.nintendo.co.jp/ds/arjj/>

for learning, especially when their interest in gaming has contributed somewhat towards their choice of degree programme (i.e. Japanese).

“I felt my reading skills definitely improved playing that (*game*) as well.”

In Japanese 4 Oral classes in October 2010, the fourth year students played the *kanji* puzzle game of the Japanese version of ‘*More Brain Training*³,’ which allows multiple players on up to four DS consoles, followed by a PictoChat *kanji* quiz-show type activity in groups, and they all responded favourably.

We also intend to look into other DSi functions to be used for language learning, such as music player functions⁴, which have the ability to change the playback speed without changing the pitch (very useful for listening practice); or posting photos (with a handwritten comment over it) taken by DSi directly to Facebook to share with classmates; as well as possibly exploring the ‘Live Caster’⁵ function (a video chat system via WiFi) on the latest Pokemon game on DS.

Unfamiliarity

Some students mentioned that they felt uncomfortable using the DSi because they were unused to the device.

“I am unfamiliar with how to use a Nintendo DSi and would have preferred to do it during the orientation session.”

“I found it quite confusing the first time but the step by step tutorials ... were really helpful. At first I attempted to do it just by myself, just tried to explore around but I got completely confused but when I referred to the lists of instructions it was fine.”

³http://www.nintendo.co.uk/NOE/en_GB/games/nds/dr_kawashimas_brain_training_how_old_is_your_brain_3234.html

⁴It plays AAC format files saved in SD card, as well as up to 18 of directly recorded sounds by DSi which are saved in the console’s system memory.

⁵*Pokemon Black* or *White* released in September 2010 in Japan has an in-game Live Caster item, which allows the users to link up to friends with the game and talk to each other with the video on DSi consoles, via local wireless connections or WiFi (<http://www.pokemon-sp.jp/series/bw/#/connection/connection04-02.html>).

Recent higher education practices have entered new digital domains and the relationship between “unfamiliarity”/“uncanniness” and “learning” has been studied (Bayne, 2009). With this in mind, we will take steps to ensure the students can gain the greatest benefit from the new learning environment using DSi and Hatena website by providing them with appropriate support before they leave the UK.

Students’ preference for other devices and their perception of the DSi as a child’s toy

Some students also mentioned their preference for other mobile communication devices and the view of the DSi as childish was also mentioned.

“...it is a child's gaming system and having to access it in academic buildings is embarrassing.”

“I think they’re mainly just there for gaming. That is the DS’s main purpose really; it’s a game console. It’s a Gameboy.”

All technological artefacts have social implications. Students may hold negative views towards hand-held game consoles and therefore may not accept the use of the technology for learning. It is important to clarify the goals (preferably multiple goals and multiple pathways (Pintrich, 2000)) at the beginning of the year abroad programme, to engage as many students as possible in the whole range of activities.

Many of the key reasons for selecting the DSi consoles for this project - their size, portability, price, ease of connectivity, multi-media options and shared platform for the community - also created some challenges. So in addition to the issues raised above about WiFi connections and lack of familiarity with the consoles and the Hatena applications, there were issues about having yet another set of tools and spaces to check for communications and activities.

“I think probably sticking to the computer would be the best option. I’m not entirely sure what other devices there would be available that could be used but I think by now most people are familiar with how to use a computer and Internet, whereas if you haven’t used a particular console or if you’ve used something

different, then ...for example if someone has a PSP (*PlayStation Portable*) but hadn't used a Nintendo DSi, it might prove a bit difficult.”

We concluded that we should provide more instruction in using the consoles and develop students' confidence in using the console as an e-learning tool before they leave for their year abroad and have already begun this with first and second year students in 2009-10. We will explore the possibility of introducing some of the learning software available on the market. This might be limited to making recommendations to students, as software management could be very difficult.

3.2.6 Relations with host universities' curriculum

Timetable

Some of the activities and timetabling determined by the project timetable dictated a sequence of activities which did not fit well with the external timetables for the students. Lessons learned from this have been implemented for the subsequent year, using opportunities to prepare students while they were still in Edinburgh.

Workload

Four out of fifteen students mentioned in the online survey, and two out of twelve mentioned in the interviews, that they lacked sufficient time to devote to console-based learning due to the heavy workload at their host universities and their busy life in Japan:

“I think honestly it would be a bit hard to do, to have to think about doing it on top of everything else I don't think... it wouldn't have been priority because the main thing was the language learning, handing in homework, doing class work, essays and everything else. So then I think it would become a bit stressful if I didn't manage to stay on top of it, because ... well I suppose it would be a priority if it was made to be assessment.”

We will address this by taking further account of socio-cultural differences between Japan and the UK such as academic calendars, expectations of host institutions, etc., and by reassessing the level and kinds of pedagogical intervention that are useful.

3.2.7 Technical issues

Wi-Fi connections: accessing a connection in Japan in order to participate in language learning exercises was more difficult than expected. Since the usual WiFi-enabled software on DSi consoles is not compatible with certain types of WiFi (e.g. those that require a login process or acceptance of a user agreement to connect⁶, as is often the case at educational institutions or fee-paying hotspots⁷), students had to look for certain WiFi spots⁸ compatible with Flipnote Studio and DSi consoles.⁹

WiFi access problem

Almost all of the students interviewed cited difficulty in finding WiFi access points for the consoles as a major barrier to their participation. Even where there was WiFi access in the home, some had difficulty establishing a connection. Because participation was voluntary, many did not persevere to overcome technical problems, or found it too expensive and inconvenient to find a WiFi access point.

“I think it could potentially work but I think if you go to xxx [*a host institution*] then you're really busy so having Edinburgh work as well would be a little bit of a pain but I didn't mind doing the tasks but I knew they weren't assessed so it was fine. I think third year is maybe enough for most people without assessments.”

⁶DSi's web browser is exceptional- you could go through some of those login processes. It worked on Edinburgh's unsecured wireless network via its web-based login process (tested by a project member).

⁷ http://www.nintendo.com/consumer/systems/dsi/en_na/usb/atHotspot.jsp

⁸See '[Nintendo WiFi Connection](#)' in the glossary.

⁹Some of those hotspots such as McDonalds's WiFi can be connected with those software or applications that require WiFi connection, but not DSi Web browser (tested in Japan by a project member).

“... (to get to a WiFi spot) I always had to go out of my way (*home*) to a McDonalds which cost me money on transportation which tended to be kind of something that I couldn't actually afford a lot of times because my finances weren't like that.”

Manual adjustment and password setting in Edinburgh also created an unforeseen administrative burden.

The constant queries about WiFi access from the students during the tutorial sessions show that either the assumptions on WiFi accessibility in Japan were not accurate, or we did not give enough information on how to find WiFi spots for them. To solve this problem, as there are still quite a few DS compatible hotspots as well as DS Stations and Nintendo Zone that provide a WiFi service for DS consoles in Japan,¹⁰ we will devise more detailed information on WiFi spots as well as recommendations on some WiFi USB adaptors which can create a wireless network from a laptop which has an Internet connection, etc., as an alternative solution.

Restrictions in the functionality of Flipnote Letter

[Flipnote Letter](#) system is great to send and receive private [Flipnotes](#) but these cannot be downloaded onto students' or tutors' own consoles. Not only does it not allow the users to download it, or to flick through pages, but it only plays at a certain speed on the [DSi](#). It has therefore been difficult to read students' answers on the DSi. This system gave the tutors extra work, especially when tasks had many pages. However, it is possible to view Flipnote Letters once one is logged into [Flipnote Hatena](#) on a web browser, then pause those letters once viewed, although it is still not possible to download them.

Tutors reported that giving feedback to the exercise type and creative type tasks takes a lot of time: for a long task such as writing an example sentence using each of the vocabulary items, it took 2-3 hours per student, mainly due to the way Flipnote Letter functions.

One of the solutions to shorten the time for feedback is to have all the answers from students posted on Flipnote Hatena. Even though all the posted Flipnotes are in principle available to anyone online, the same as unlisted Youtube videos, those posted

¹⁰There are approximately 1000 of DS Stations, 7774 of FreeSpots, and 3200 of McDonalds restaurants with Nintendo Zone in Japan currently (December 2010). See '[Nintendo WiFi Connection](#)' in the glossary for details of those types of WiFi spots.

items are not easy to find. However, it might still not work, judging from the low participation on those uploading tasks. There are quite a few general users of Flipnote who have requested Hatena to allow them to download Flipnote Letters, so this function might be added in the not too distant future. In the meantime, a compromise solution will be that tutors check students' private work sent as Flipnote Letters on the Flipnote Hatena website so that they can pause those letters. We may also shorten the length of the tasks.

Another issue with Flipnote Letter is that some students never read any of the tutor's feedback Flipnotes sent directly to them as a Flipnote Letter. These stay in their inbox for only thirty days with a basic Hatena account, so if a student cannot go to a WiFi spot for a month, tutors' feedback will not reach the student. This has also led us to re-think how we deliver our feedback: it could be better to have all the original work and feedback uploaded so that they are stored permanently and students can have access to them even on other devices. Another option could be to use e-mails to send private feedback as for other courses. One tutor reported that when they were asked how they would like to receive feedback for their speeches in their Japanese 4 Oral class in November 2010, students chose e-mail.

Region locks

During the project, we discovered that the DSi's regional lock may cause a problem in the future. The regional lock does not allow users to have access to [Flipnotes](#) made with different-region models of [DSi](#) consoles.¹¹ They cannot be viewed on different-region consoles, so they cannot be downloaded to different-region consoles either. This will be a major problem if we expand this project to other subjects, as it restricts users to models with the same regional settings. We have approached both Nintendo and Hatena, but they said that they could not consider changing the regional lock settings.

We purchased two British models and experimented on both Japanese and British models, and it seems fine to send Flipnotes from a Japanese model to a British one through a local wireless connection (a built-in function on all DS series consoles) and vice versa. In the future, we may use both models to make sure we can reach more students

¹¹Older models of DS consoles such as DS Lite don't have a region lock, and most DS software works on any regional models.

with their own consoles, but it still does not solve the problem with student-to-student interaction when different regional models are being used.

3.2.8 Console management

The University's Information Services, who provide support for eLearning projects as well as technical support, learned more about the functionalities of DSi consoles. Issues such as password provision for accessing the University's wireless network were speedily resolved but would not be a scalable solution. Similarly the administrative overheads of tracking and managing loaned consoles might prove difficult to carry out on a larger scale.

3.2.9 Evaluation activities

Due to staffing issues, these took much longer than we originally planned. We wanted to do more evaluation and analysis of the data but within this project it was kept to a minimum. We need to set fixed timings for evaluations such as the survey circulated to the students during their year abroad and the other once they come back to Edinburgh. It could be also useful to introduce a pre-departure survey.

3.2.10 Sustainability

Use of consoles

Thirty Japanese models and two British consoles purchased for the project can continue to be used. One British model has been on display in [The Exploratory](#) (a place where one can try out new technology gadgets, particularly those which might be useful in supporting teaching and learning activities) at the Main Library of Edinburgh University, to show how the console can be used for educational purposes. Use of the consoles and tutorials should become more integrated into the programme, especially during the second year, in

preparation for the year abroad, so that students know what to expect. Some technical issues in making the DSi consoles easier to use in Japan must be resolved. The tutorial activities can be adapted for other platforms, and the range of activities could be broadened, enabling their use in other contexts. However, other mobile devices currently available are less easy to use in some crucial ways (portability, cost, language-specific features, etc).

Use of consoles with different system: [Nintendo DS Kyooshitsu](#) (Nintendo DS Classroom)

This e-Learning system was developed by Sharp and Nintendo in 2010, and consists of a set of laptop, wireless router and DSi XL (a larger version of the DSi) consoles, all of them customized for the system. They also sell the contents for each subject such as Japanese, maths or English, taught at schools (primary, junior high and high) in Japan, which could be adapted to Japanese language teaching and learning, as the system also allows one to create original contents. A project member who was in Japan in July 2010 made contact with Sharp to ask them if the system would be on sale in the UK and other countries, but at the moment it is available only in Japan. It may come to the UK in the future, enabling us to start exploring other ways of teaching and learning with Nintendo DS consoles.

Tutoring activities beyond the life of the project

Even though there are tasks that can be rolled over from the ones made during the project, there is still much work to be done in refining the tasks as well as adding more to match the new JLPT levels. To maintain the actual tutoring work, sufficient staffing is a must. Tutors reported that giving feedback to the exercise type and creative type tasks takes a great deal of time: for a long task such as writing an example sentence using each of 30 vocabulary items, it took two to three hours per student, mainly due to the nature of Flipnote Letter's functions (see the Technical part in this section). One of the solutions to shorten the time for feedback is to have all the answers from students posted on Flipnote Hatena: even though all the posted Flipnotes are technically available to anyone online, in practice they are not easily found.

Relationship of console-based learning activities to the final year of the programme

Currently, the fourth year students and the second year students have a joint class and the roles of the fourth year students are to give group presentations about Japanese culture and society for the second-years as well as to give support and hands-on help for year abroad preparation. In addition to the extensive DSi and year abroad workshops for the second year students during the second semester from January, we plan to introduce some DSi sessions in that joint class and the fourth year students will help the second years master how to use the consoles.

Scalability

The level of technical, tutorial and administrative support required successfully to integrate and implement the use of DSi consoles suggests that benefit to non-language programmes may be limited. However, lessons learned about maintaining contact with students on their year abroad through regular, small, task-based tutorials may be applicable more widely.

3.3 Impact

- Both students and staff have more awareness of the potential for using mobile learning on the programme and have developed their knowledge of the uses of the consoles for teaching and learning
- Students perceive the year abroad experience more positively, as reflected in significantly improved feedback for this aspect of the programme on student surveys
- Staff have been stimulated to experiment with other e-learning and mobile learning related activities elsewhere on the programme, and to consider how online distance activities can be integrated within the programme.

- The resources developed and the findings from the project can inform other similar undergraduate programmes in Japanese in the UK and beyond
- Project findings can also inform other non-European language programmes in which handwriting practice is essential, and some aspects have implications for non-language programmes as well.

4) Conclusions and Recommendations

- The project has enhanced learning for many students during the third year and has also enhanced their experience of the year in Japan: ease of providing both written and audio feedback, speed of response and ease of exchange are significant factors.
- There are several examples of technical or organizational issues that have been identified and solutions found: e.g. WiFi access at host universities, increase in preparation for console-based learning before the third year
- Areas for further consideration: assessment of console-based learning in year abroad course; variety of student preferences for mobile learning tools and methods; how to relate new or increased input from tutors based in Edinburgh to that of partner institutions.

5) Implications for the future

Below is a summary of what will be continued, what will be changed and how.

HANABI related

New development work: creation of additional tutorial materials; adaptation and renewal of materials produced; finalizing the details of a new assessment framework. These new

developments will be linked with continuing evaluation, although on a smaller scale than during the project. We will be able to continue to gather feedback from the students in 2010-11 and thereafter via the survey tool used in the project and some face-to-face follow-up when the students return to the UK.

We have identified the following points to consider regarding sustainability:

- Learning to date about staff input and options (staff time required, staff experience built up to help with taking activities forward; cost-effectiveness)
- "Weighting" or "front-loading" of activity provided by project, how we can build on this for future years

Since the programme was initiated there have been significant changes in the technologies and tools available to support multi-modal communications, but as yet nothing has appeared which provides the option for handwriting along with the low cost and portability of the consoles. Nevertheless students suggested that online activities not tied to the use of DSi consoles may be preferred for some activities.

“Possibly for me I might be more motivated to participate in some kind of assessment that's just done through a computer because I would already know how to work it and I wouldn't be intimidated by the knowledge that I would have to find out how to use certain tools on a new console. Also I use the computer often and so there would more opportunities for me to think, *arr, right I've got a spare half hour here I'll start on this assessment.* I don't think changing the actual tutorials is essential to create motivation because I think they were quite good.”

It should also be possible to encourage the students to make more use of the multi-media options available through using the consoles, by combining the picture, sound recording and handwriting and typing options into more imaginative presentations for a journal or blog.

In addition to developing new tutorials and tasks, it should be possible to consider adapting some of them for different platforms. The introduction of the University's ePortfolio system (PebblePad) into other parts of the programme may provide an opportunity to use the techniques and pedagogies developed through this project with different tools.

The University, in common with many others, is exploring the provision of a range of services for mobile devices of different types. This may widen the range of functions the DSi consoles could be used for. Conversely it is possible that other platforms, such as smart phones or ultra-portable devices, will develop suitable functionality for activities of this kind. Tasks and tutorials may be adapted to function effectively on other mobile devices as well as online on computers.

Plans for further dissemination:

- elearn@ed conference Spring 2011 on the theme of "breaking the mould", i.e. innovation, looking especially at assessments and feedback
- Plan to present the project as a case study for applicable forums.
- We also plan to participate in next year's mLearn event.

Beyond HANABI

As a pilot of e-learning/m-learning in Japanese Studies, the project may form the basis for further development in this context, possibly in collaboration with other Asian language programmes such as Chinese Studies. E-assessment, including consideration of how to assess "digitally handwritten" texts or "digitally converted handwritten texts" has been flagged as an area of interest. This expansion is useful to see how findings can be adapted to another non-alphabetical character language.

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DS consoles used as e-Learning tool for English language learning at a higher education in Japan: http://www.osakac.ac.jp/ecip/ds/alc_netacademy.html

How to access WiFi at hotspot:

http://www.nintendo.co.uk/NOE/en_GB/support/nintendo_wifi_connection_12495_12508.html ;

http://www.nintendo.co.uk/NOE/en_GB/support/nintendo_wifi_connection_12495_16836.html;

http://www.nintendo.com/consumer/systems/dsi/en_na/usb/atHotspot.jsp

7) Appendices (optional)

1. Glossary

word	definition in this report	reference
Classmarker	This is a free web-based online quiz maker that marks tests and quizzes automatically.	http://www.classmarker.com/
Flipnote (Japanese: うごメモ Ugomemo)	This is a set of pages of digital notes, to be written or drawn on it by hand, on Nintendo's Flipnote Studio .	http://www.nintendo.com/flipnote-studio.jsp
Flipnote Hatena (Japanese: うごメモはてな Ugomemo Hatena)	This is a website run by Japanese Web service provider Hatena Co. Ltd , which the Flipnote Studio users can upload and download Flipnotes as well as web browser users can watch uploaded Flipnotes.	http://www.nintendo.com/flipnote-studio-hatena.jsp http://flipnote.hatena.com/
Flipnote Letter (Japanese: うごレター Ugo Letter)	This allows the users to send a Flipnote via WiFi to only a recipient that isn't shared by others. The Flipnote Letters are stored on Flipnote Hatena and can be viewed on either DSi or a web browser.	http://d.hatena.net/jp/ugomemohatena/20091214/1260780318
Flipnote Studio (Japanese: うごくメモ帳 Ugoku Memocho, abbreviation: Ugomemo)	This is a free downloadable application for the Nintendo DSi 's DSiWare digital distribution service. Developed by Nintendo, it allows the user to create both word and picture-based notes with the stylus, add sound, and put them together to create frame-by-frame flipbook-style animations. It was released in December 2008 in Japan, and in August 2009 in North America, Europe and Australia.	http://www.nintendo.com/flipnote-studio.jsp

<p>Hatena Co. Ltd (Japanese: はてな株式会社 Hatena Kabushiki Gaisha, referred as Hatena in this report)</p>	<p>This is a Japanese Web service provider, hosting blogs, bookmarks, online photo management etc. Flipnote Hatena is one of their services.</p>	<p>http://www.hatena.com/</p>
<p>Japanese Language Proficiency Test (Japanese: 日本語能力試験 Nihongo Noryoku Shiken, referred as JLPT in this report)</p>	<p>This is offered by the Japan Foundation and Japan Educational Exchanges and Services (formerly Association of International Education, Japan) as a reliable means of evaluating and certifying the Japanese proficiency of non-native speakers, and it is recognised as the largest-scale Japanese-language test in the world.</p>	<p>http://www.jlpt.jp/e/about/index.html</p>
<p>Kanji (Japanese: 漢字)</p>	<p>One of the character sets used in Japanese writing that are originally from Chinese language.</p>	
<p>Nintendo DS series (Japanese: ニンテンドーDSシリーズ)</p>	<p>The Nintendo DS is a handheld game console made by Nintendo, and was released in 2004. The console has two LCD screens inside—with the bottom one being a touchscreen, and supports Wireless network and Wi-Fi that allows players to interact with each other within short range (10-30 m, depending on conditions) or online with the Nintendo Wi-Fi Connection service.</p>	<p>http://www.nintendods.com/</p>
<p>Nintendo DSi (Japanese: ニンテンドーDSi)</p>	<p>This is the third upgraded DS series handheld game system created by Nintendo, released in late 2008. The new features are two built-in cameras, a SD card slot, and connect to an online store to download games and applications via WiFi.</p>	<p>http://www.nintendods.com/meet-dsi.jsp</p>

<p>Nintendo DSi Browser (Japanese: ニンテンドーDSiブラウザ)</p>	<p>This is a free web browser (Opera 9.5) for use on the Nintendo DSi, developed by Opera Software and Nintendo. It supports Java script, but no Flash supported (no videos streamings).</p>	<p>http://www.nintendo.com/games/detail/JAradEBWIIZzprAROkFTgptzEmcdKPwk</p>
<p>Nintendo WiFi Connection (Japanese: ニンテンドーWiFiコネクション)</p>	<p>This is an online multiplayer gaming service run by Nintendo to provide free online play in compatible Nintendo DS and Wii games. It can be accessed via wireless network either set up at home or at a compatible WiFi hotspot. In Japan, there are 3 types of venues offering WiFi service for DS consoles: 1) Nintendo DS Station (free WiFi service for DS consoles, including free demo download services), 2) FreeSpot (a general WiFi hotspot compatible with DS consoles) and 3) Nintendo Zone (it offers free WiFi access to DS consoles as well as their original contents / services). Majority of McDonalds restaurants have Nintendo Zone service called 'Mac de DS'.</p>	<p>http://www.nintendo.com/games/wifi 1) http://www.nintendo.co.jp/ds/ds_station/ 2) http://www.freepot.com/ 3) http://www.nintendo.co.jp/ds/nintendozone/index.html !</p>
<p>Optical Mark Recognition (OMR)</p>	<p>OMR is a technology which uses hardware to detect the presence or absence of marks. This process is entirely automated, although it requires the use of specialist answer sheets, each of which is capable of holding 75 answers.</p> <p>The most common use of optical mark recognition is to process student responses to a multiple choice exam, or responses to a questionnaire or feedback form.</p> <p>Typically the questions are provided on paper, and students mark their responses onto special pre-printed forms. These forms are then read automatically.</p>	<p>http://www.ed.ac.uk/schools-departments/information-services/services/learning-technology/assessment/optical-mark-recognition/introduction</p>

PictoChat (Japanese: ピクトチャット)	This is a communication utility that comes pre-installed on the Nintendo DS console. Up to sixteen people can paint chat with each other using it, connected wirelessly through a system-to-system wireless connection. It allows for simple input of keyboard text and written text / drawings.	http://www.nintendo.com/ds/systems/lite
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2. Workshop agenda:

<https://www.wiki.ed.ac.uk/display/JISC/Workshop+for+Japanese+3+students-+how+to+use+Nintendo+DSi>

3. Detailed Flipnote tasks schedule and participation

Delivery of Materials/ Tutoring Activities for the third year students (out of 24, one withdrawn from the project in April so the number changed to 23):

1. 21 January: New Year's Card Task. Creative task. Participation: 10 out of 24 (41.7%)
2. 5 March: JLPT Level 3 Vol.1- Vocabulary. Participation: 11 out of 24 (45.8%)
3. 31 March: JLPT Level 3 Vol. 2- Kanji Reading. Participation: 13 out of 24 (54.1%)
31 March: JLPT Level 3 Vol.3- Kanji Writing. Participation: 13 out of 24 (54.1%)
4. 13 April: 1-minute speech. Uploaded: 1, Sent to tutors: 4
5. 24 April: JLPT Level 3 Vol. 4- Grammar. Participation: 6 out of 23 (26.1%)
6. 1 June: JLPT Level 2 Vol. 1- Kanji Reading. participation: 8 out of 23 (34.8%)
1 June: JLPT Level 2 Vol. 2- Kanji writing. Participation: 8 out of 23 (34.8%)
1 June: JLPT Level 2 Vol. 3- Vocabulary. Participation: 7 out of 23 (30.4%)
1 June: JLPT Level 2 Vol. 4- Grammar. Participation: 6 out of 23 (26.1%)
7. 19 June: Group work (relay writing in group of 3). Participation: Flipnote: 6 (1 group completed, 1 of 3 did in a group, and 2 of 3 did in another group), Email: 3 (1 group completed)
8. 21 June: Dictation tasks- JLPT Level 3 and 2. One participation each out of 22 (same student, 4.5%)

All submitted works have been given feedback by tutors.

4. Outputs

Tutors' reports on technical and pedagogical issues *(some parts have already been used in this report. the full version will be published on project wiki soon)*

Summarised and detailed charts of the correlation between Flipnote tutoring and result of language tests (Online test Level 3 and JLPT Level 2 Mock test) *(Attached separately)*

Online survey result *(Attached separately)*

Summary of interviews and interview questions *(Attached separately)*