

Effective Implementation of Internet Research in a Japanese CLIL Classroom

Vick L. SSALI and Luke P. BLOWER

Introduction

In a series of courses we run for undergraduates at Aichi Gakuin University in Aichi Prefecture, Japan, the subjects of American, British and British Commonwealth cultures are taught in English. The courses, Culture through English I, II and III, may not be fully-fledged Content and Language Integrated Learning (CLIL) courses per se (Blower et al, 2017). Nevertheless, challenges that have arisen in terms of how students access content within these courses have highlighted some issues that may have wider implications for teachers and instructors conducting CLIL courses.

The primary content in these courses is presented in textbook form. It is presented predominantly in the L2 (English) with some support (mainly in the form of a vocabulary glossary) for students presented in their L1 (Japanese). However, rather than focus on the provision of content through textbook material, this paper looks at another area. The main ‘language production’ component of these courses involves the students putting together and giving their own poster presentations. This task requires the students to do their own research, autonomously, both in class and outside of class, as they choose a topic for their presentation and then collate the content for it. Though there are no rules restricting how students source content for their presentations, the Internet immediately presents itself as the ‘go-to’ tool in this task. The students are also free to utilise their mobile devices to do so.

Seemingly, having Japanese learners in their late teens/early twenties utilise their mobile devices to conduct research for a presentation would not present too great a challenge. Seeing as Japan has a high mobile device usage and a high smartphone penetration rate, young people are generally well versed in handling their handheld devices. However, though the students’ capacity for completing this task is impacted on by individual variables such as English competency, complexity of the topic etc. some uniform issues do arise:

- students unable to or having great difficulty in finding suitable topics
- students unable to find relevant research material
- some cases of students having inaccurate information in their presentations
- a tendency for learners to arduously sift through many pages of text written in the L1 Japanese in search of specific information
- linked to the previous point—some learners becoming ‘overly dependent’ on translation devices
- resulting presentations containing lexical terms that neither the presenter nor the audience comprehend

It is not too far-reaching to hypothesise that these issues could be attributed to inadequacies in the learner’s skill levels in Internet research for academic purposes, both in the L2 and in their L1. This has important implications in the CLIL classroom when considering the importance placed on the ‘content’ aspect of this style of language learning.

This paper will look at how the presumption that learners in a developed society (with ready access to ‘modern’ facilities such as the Internet) will automatically be capable of effectively utilising those facilities as tools in the CLIL classroom is fallacious and potentially unproductive. It will look at the role ‘content’ and the provision of content play in the CLIL classroom. A survey was set up to ascertain students’ levels of experience of using the Internet for study, and if these levels impact on the students’ willingness to research online.

Content in the CLIL Classroom

CLIL is a relatively recent but not completely new approach to the teaching of content and foreign languages. Its attraction is clear. A dual-focused educational approach in which the learning and teaching of both content and language take place. (Coyle, Hood, Marsh, 2010). CLIL should contribute to the formation of an interrelationship between content (subject), communication (language), cognition (thinking) and culture (Costa and D’Angelo, 2011). This style of teaching can be seen as the simultaneous learning of a foreign language and other syllabus content (Navés & Muñoz, 2000, p. 2). The aim is to learn subject matter together with learning a language. As one of the distinguishing features of CLIL, authentic materials are used rather than using materials created for learning a new language (Ohmori, 2014). Consequently, particular issues are raised in conducting CLIL lessons, such as when unfamiliar vocabulary arises (Pérez-Cañado, 2012).

It is therefore natural to presume that the provision of this content and how students/learners are encouraged to access it will impact on a) the learners’ ability to absorb this content to become knowledge and b) how this aids the acquisition of the L2. The only thing that is rigid is the dual focus on the teaching of content and language. The teacher (or organisation that the teacher operates in) is free to choose how learners

are encouraged to access this content both inside and outside the classroom (Kavanagh, 2018).

There are also considerations of whether this content should be presented in the L1, or in the L2. If the teacher is to empower learners to access content (that is not graded to suit the linguistic competence of the learners) autonomously (through tools such as the Internet), then it is wise to consider to what extent the teacher should provide direct guidance for the learners in Internet research tasks.

Digital Literacy and Internet Research in Japanese Education

Digital literacy means having the skills you need to live, learn, and work in a society where communication and access to information is increasingly through digital technologies such as Internet platforms, social media, and mobile devices (Lynch, 2017). Computer-assisted language learning (CALL) addresses the use of computers for language teaching and learning. Mobile Assisted Language Learning (MALL), refers to using mobile devices, such as mobile phones, PDAs, tablet PCs and iPods to assist language acquisition. The effectiveness of the MALL/CALL systems has been made obvious by various researchers. The specific benefits of Internet use in language learning are equally well documented: First, the English language learner may have a direct contact with native speakers. Second, there are various English teaching/learning materials that can be obtained from the Internet such as communication games, grammar exercises, newspapers, and magazines (Suryani, 2005). These benefits would appear particularly pertinent in regard to the accessing of authentic content in the CLIL context.

It is, of course, important to underline reported drawbacks in the use of the Internet in conjunction with language learning. Four major drawbacks of the use of the Internet have been reported by teachers, viz. students’ cheating, unreliable information, technical problems, and

students' extracurricular activities during lessons (Brändström, 2011). This possibly adds further to the need for teacher guidance for learners. There are also potential Japanese learner-specific issues to be addressed. There are reported poor levels of digital literacy among Japanese freshman students (see Lockley, 2011; Murray & Blyth, 2011), for example, and the researchers in this current study were attempting to determine if this wider trend also applied to students at their university in Aichi Prefecture in central Japan. This could then inform us in the provision of CALL and MALL (particularly for accessing Internet content) in the CLIL classroom.

The situation that may be facing young people in modern Japan is that there is a dichotomy of sorts in their levels of digital literacy. That is, they have extensive experience in technological use in daily life. However, in educational institutions, there is every indication that the movement towards widespread use of information technology is slow (Funamori, M., 2017). This could mean a lagging behind in terms of the use of CALL/MALL in everyday educational situations. This in turn could result in a situation where even though mobile devices such as laptops, personal digital assistants, and mobile phones have become a learning tool with great potential in both in-class and out-of-class learning (Sung, Chang, & Liu, 2015), in the Japanese classroom there may be lack of experience and familiarity in utilising such tools for academic purposes.

Given these underlying issues around how digital devices are utilised by learners, is it then safe to presume that students should be intentionally taught where to find primary sources and how to use them for academic research (Kubota, 2014)?

Internet Research: L1, L2 and Translation Machines

A recent totem of using digital devices in language learning is the use of translation software. For a teacher they present a particular challenge

in terms of how much a learner should be utilising them in their research and study. Certainly, there were some students in our courses who were relying on translation software to a) understand the material for their research b) produce the content for their presentations. This raises issues in terms using L1 or L2 in language learning.

It can be argued that exposing learners to L2 only is the appropriate teaching method for most learners and in many contexts. Regardless of a learner's purpose for learning English, to have it as a life skill, for example, and regardless of the context of learning and teaching, the exposure to L2 only in the classroom makes learning profitable, enjoyable and a fulfilling experience for learners to express their thoughts in a new language (Almoayidi, 2018). However, studies have confirmed that some essential functions are served by learner usage of L1 in L2 classes. Such functions include: (a) Task management: students gain a joint understanding of the task requirements in order to complete them (particularly of novel or complex tasks); (b) Deliberations over vocabulary: they help students to understand word meaning and therefore facilitate learning. Macaro (2009) also examined the relationship between code-switching and vocabulary acquisition, and his data illustrated that making ties to L1 vocabulary may stimulate deeper processing. Other functions detected in the aforementioned studies (Guk & Kellogg, 2007; Storch & Aldosari, 2010; Swain & Lapkin, 2000) include the following three: (c) Provide each other with assistance when negotiating metalinguistic knowledge and understanding the meaning of a text; (d) Initiate and maintain interrelationships to establish goals and achieve them; and (e) Vocalize their thoughts. All these results indicate that banning using the L1 in the L2 class should be avoided, as it denies students a very useful tool. Previous studies also point out that students tend to use the L1 judiciously, and it helps them to complete the tasks carried out in class in a more effective way (Lasagabaster,

2013).

The teacher should judge what the balance between L1 and L2 should be. The challenge presented by increased use of the Internet is how the teacher controls this balance. In the traditional classroom, the teacher can observe and regulate the use of L1 in the classroom. Once the learners are given the autonomy to go on the Internet, this control is largely lost. Considering this, expecting students to use the Internet totally in the L2 is unnecessary and potentially damaging to their language learning. However, well-conducted guidance in how to use the Internet for research by an expert teacher could have numerous benefits. The learner will be more confident to tackle the CLIL content in the L1. The positive benefits of this are a) exposure to language and vocabulary in its 'authentic' form which potentially aids in acquiring the correct pronunciation and spelling b) potentially a wider range of content and c) potentially higher efficacy in the location of relevant content.

The use of translation tools also represents a challenge for students in producing good language. Though constantly improving, the quality of performance of available translation tools can be called into question. Aiken and Balan (2011) studied Google Translate (GT) use and compared the accuracy of GT translations of 2,550 language-pair combinations. Their study showed that translations involving European languages are usually more accurate, compared to those involving Asian languages. (Paramaswari, Hamzah, & Subramaniam, 2014). Translation tools represent an attractive option for language learners (especially for undergraduate students looking to get their work done as quickly and as easily as possible). It could be argued that focussed support in Internet research could give learners greater confidence and means to move away from using translation devices as anything more than a form of support.

The main issue here is how learners can access information on the Internet accurately and

with efficacy. Relating back to our CLIL-style courses mentioned earlier, it is apparent that some students spend lengthy periods of their time reading whole pages of Wikipedia in search of specific information in their L1. Once they have located the sought for information, they then attempt to translate the information to the L2. Due to some of the previously mentioned issues, this could (and indeed does) lead to problems.

To better inform any attempts to provide learners with specific guidance on Internet research it was decided that a survey could give a deeper understanding of the situation. This would look at students' previous experiences in using the Internet in academic situations, as well as the specific instruction, if any, they have received in using the Internet for research. It also collated information on to what extent students utilised L1, L2, and translation applications in the research.

Method

The survey was purposely held back until the second semester of the year. This way the students have had an opportunity to research at least three presentations (in the case of 2nd and 3rd years) or four in the case of first year students. It was broken into two main parts: the first section focusing on students' general experience using the Internet for study, the second section focusing on issues pertaining to their use of the Internet in their presentation research.

For the most part, the questions in this survey employed a Likert scale as we were looking to assess students' attitudes. With this style of questions comes the usual limitations, namely that the gaps between each level on the scale are not exactly equal, and that students may have tailored their answers to make themselves look more favourable (McLeod, 2019). Though we attempted to remedy this by making the survey completely anonymous on Google Forms and specifically advising the students that their answers had no impact on their final grading, it may be that some

participants felt their answers should be modified to reflect on themselves more positively. The final figures were then collated and processed using Google Sheets.

Results

Internet for study experience

One issue that has arisen with this course has been a lack of competency in using the Internet as a research tool. Though elementary schools are increasingly giving explicit instruction in Internet use for research, it may be that university students around the 2018–20 period have not benefited from this.

The first question simply asked the students if they had had specific instruction in how to use the Internet. There will be some potential reporting issues here: students may have forgotten their past studies and they may not recognise previous instruction in Internet research as such.

Fig. 1: Previous Instruction in Internet Use in Study

	Have experience ある	No experience ない
First year 一年生	54	44
Second year 二年生	56	36
Third year 三年生	56	22

In Fig. 1, the students' responses were broken down into their year groups. This was to see if students in later years are receiving specific instruction in utilising the Internet for their studies. It can be seen that the first column (have been instructed in using the Internet) is higher than the 'have nots' in the second column. Interestingly there is a difference across the years. 44 out of 98 first-year students surveyed (45%) claim to have had no Internet instruction; for the second years it is 36 out of 92 students (39%); the third years have it much lower, with 22 out of 78 students surveyed (28%) claiming to have had no Internet instruction. This would suggest that the students are getting guidance in researching on the Internet at university, or indeed junior and senior high school. One cannot help thinking that

this number should be much lower though (closer to zero).

Internet instruction experience and Internet use

The next results chart we put together looked at how implicit Internet instruction reflected on how much the students used the Internet for their presentations. Column from 1—did not use the Internet, to 5—used it a lot. Top row shows people who have had Internet instruction, bottom row shows those who have not.

Fig. 2: Have Internet Instruction Experience vs Used the Internet in their Presentation Preparation

	1	2	3	4	5
ある	3	0	9	16	140
ない	4	1	10	6	82

83% of people who have had Internet instruction used the Internet a lot; 79% of people with no Internet instruction used it a lot. Clearly there is not a lot of difference here. It would appear that generally students feel similar levels of confidence in using the Internet as a study tool, whether they have been given explicit training or not. From this we can see that though students should be given more training in Internet research, it may not impact on their willingness to use it. This is important for teachers' considerations on whether to and to what level Internet instruction should be administered.

Class level and Internet use

These courses are graded by language competency. But does the general English competency of a students impact on his/her use of the Internet in terms of preference for using the L1 or L2?

Fig. 3: Class Level vs Using the Internet in English for Presentation

	1	2	3	4	5
A	2	4	9	21	23
B	9	8	15	16	22
C	10	5	14	16	13
D	1	5	11	6	14
E	7	6	12	7	15

Here is a breakdown of these results in terms of percentage. Class A: 74% in categories 4 and 5, Class B: 63% in categories 4 and 5, Class C: 50% in categories 4 and 5, Class D: 52% in categories 4 and 5, Class E: 46% in categories 4 and 5. There is a definite trend as the class level moves from A towards E. The numbers of students reporting usage of the Internet in the L2 clearly decreases. This would suggest a higher competency in the L2 leads to greater confidence and/or willingness to employ the L2 when researching on the Internet. Interestingly, C and B classes show a higher level of students reporting a low usage of the Internet in English which rather breaks this trend.

On the benefits of using the Internet in English

This question was looking at students’ perception of the benefits of using the Internet in English. We would perhaps expect a rise in the overall use of the Internet in English as the student feels some extrinsic value in doing so.

Fig. 4: Perceived Benefits of Using the Internet in English (down) vs Used Internet in English in their Presentation Research (across)

	1	2	3	4	5
1	3	0	0	0	1
2	1	2	1	0	0
3	7	8	17	9	7
4	7	12	11	25	17
5	11	6	32	31	62

It is noticeable that a majority of students appear to feel some benefit of using the Internet in English with 214 of the 270 participants scoring 4 or 5 for the benefits of using the Internet in English. The pattern shown here appears to indicate a correlation in the perceived benefit and use of the Internet in English (125–1–3 of benefits).

Confidence in using the Internet

The use of translation devices, as we discussed earlier is a potential issue for teachers. If teachers raise students’ confidence in using the Internet, is it possible to lower dependence on translation tools?

Fig. 5: Confidence in Using the Internet in English (down) vs Used Translation Device in their Presentation Preparation (across)

	1	2	3	4	5
1	7	2	3	4	9
2	11	5	19	16	14
3	20	9	36	28	21
4	8	7	12	9	8
5	3	1	1	2	16

Firstly, it is noticeable that students err towards a lack of confidence in using the Internet in English. 204 of 269 students stated that they felt between a 1–3 level of confidence. The pattern between use of translation and perceived lack of confidence is less clear. The group that claimed the highest level of confidence in English usage on the Internet actually had a high usage of translation devices (16 of 23 respondents chose 5). Also, people choosing 1–3 levels of confidence had a very even spread of translation usage. 38 of 204 said they had used the Internet very little but 44 stated they had used it ‘a lot’. There are some potential self-reporting problems here. Students may consider using translation machines as using English, as the process of translating the L1 Japanese to the L2 English does indeed involve some interaction with the L2.

Conclusion

We have seen that when a teacher passes over some responsibility of accessing content on the Internet to the learners, there is a complex array of factors to be considered. It is important to consider the overall experience of students in using the Internet for study purposes. The language competency level of the students should colour the teacher’s considerations on how much to give direct instruction on Internet usage. All these factors can impact students’ levels of confidence when using the Internet in English.

Clarifying the benefits of using the Internet in English can have a positive impact on students using the Internet in their L2. This can be coupled with some direct instruction on how best to use

Internet research tools such as search engines. This way learners can strike a good balance between using their L1 to support their studies, but still processing sufficient levels of the L2 to aid progress in their language acquisition.

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