Going Paperless in the Classroom with Mobile Devices: Pitfalls and Benefits

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Technology continues to influence how English is taught and studied at universities in Japan with smartphones, offering an incredibly convenient way for language instructors to integrate digital technology into the study process. As smartphone technology has developed and ownership has increasingly become more widespread, these developments have altered an instructor's approach to teaching English. The last few years have seen a dramatic shift away from the traditional approach of excluding mobile-phones from the classrooms as instructors have adapted to incorporate the increasingly high numbers of students who own smartphones.

The aim of this paper is to firstly show the advantages and disadvantages of two smartphone centred one-semester English language courses designed and taught by the author. Secondly, the paper will reflect on the results of students' surveys conducted at Hiroshima University on how students in those smartphone-centred courses felt about their experiences and whether they benefited from such digitally-centric courses.

BACKGROUND

Mobile-Learning, or M-Learning, has a myriad of definitions, which can both be comforting in its flexibility or constrictive as to its vagueness. The most accepted definition of M-Learning is that it involves portable mobile devices, has no fixed point of access by the user and provides mobility of information and data though connection to the mobile Internet. (Selwood, 2012). Perhaps the best way to explain M-Learning is to adopt the following premise that concludes that "*mobile learning refers to learning via mediated handheld devices and is potentially available anytime and anywhere*" (Kukulska-Hume & Shield, 2008).

What are Smartphones?

The exact definition of what is a smartphone is surprisingly imprecise, which can lead to an understandable confusion. One online dictionary concisely defines a smartphone as "*a cellphone that includes additional software functions*" (Merriam Webster, 2014). Another online dictionary provides a far more detailed explanation by defining a smartphone as "*able to perform many of the functions of a computer, typically having a large screen and an operating system capable of running general-purpose applications*" (Oxford Dictionaries, 2014).

However, neither of these definitions accurately pinpoints what exactly is or is not a smartphone. Therefore, in attempting to provide a concrete definition in this paper, a smartphone has been described as a hand-held mobile device that also has a high-resolution touch-screen interface that performs many of the functions of a computer. Smartphones usually use WiFi connectivity, web browsing capabilities and the

ability to download and interact with sophisticated applications (Technopedia, 2014). The majority of smartphones use popular mobile operating systems such as iOS, Android or Symbian that allow the user to access the applications or 'apps' quickly and conveniently whenever and wherever they wish to do so.

Furthermore, the increased popularity of smartphones can be highlighted by the surge in their worldwide sales. In 2012 worldwide smartphone ownership went past the one billion mark whilst current statistics for 2014 indicate that 1.7 billion people — roughly one-in-five of the world's population — own a smartphone (Emarketer, 2014).

What are Apps?

An App, or application, is defined by Oxford Dictionaries as "*A self-contained program or piece of software designed to fulfil a particular purpose; an application, especially as downloaded by a user to a mobile device*" (Oxford Dictionaries, 2014). Apps can let your mobile-device, either a smartphone or tablet, do almost anything that software programmers can design. There is a wide-range of topics and prices regarding apps, which means they could be used to access recipes for Indian cooking, control a toy helicopter, or even study and improve English through podcast apps such as the Hirodai English App.

As of July 2014 smartphones with the Android operating system could access 1.3 million apps whilst Apple's iOS users had a choice of 1.2 million apps (Statista, 2014). The sheer number of apps available to download, both free of charge or fee-paying, shows just how popular smartphones have become globally and potentially how useful these mobile-devices can be as part of a language learning process. Of course caution must be adhered to when using apps as part of any language-learning process so as to ensure that the apps downloaded meet strict pedagogical parameters.

What are eBooks?

An electronic book, or ebook can be defined as "*An electronic* version of *a printed book which can be read on a computer or a specifically designed handheld device such as smartphone, tablet or reader.*" (Oxford Dictionaries, 2014). These 'digital books' are often sold as an electronic version of a printed, paper book although this is not always the case and many ebooks exist only in a paperless form. Ebooks can be read on almost any sophisticated electronic device that features a controllable viewing screen including computers, tablets and smartphones.

The immediate advantage of ebooks over a traditional paper book is storage as even a device with one of the lower memory capacities of 8 GB has the capatibility of storing approximately 6,000 books (Amazon, 2014). An additional benefit of an ebook is the ease in which multi-media elements such as audio and video can be included within a digital book format.

Yet problems do exist regarding the use of ebooks within a course structure, and the biggest needing to be overcome is that some ebooks are not available to download to all of the different tablet devices available to buy. Other potential problems related to ebooks are glare and eyestrain through reading digital print. Another current problem is that whilst a paper book can be written on and notes made, the technology to do this on a smartphone can often be cumbersome and time-consuming.

However, the popularity of ebooks is growing with ebook sales accounting for 30% of all books sold in 2014 on Amazon.com the world's largest online book store (Bercovici, 2014). Yet less than 5% of ebook

sales are educational textbooks (Fiegerman, 2013), so despite the big increase of smartphones sales, especially amongst students, there is currently a lack of available textbooks on an ebook platform.

What is a Podcast?

A podcast is usually defined as as an audio broadcast similar to a radio programme, distributed and accessed via the Internet (Selwood, 2013). A dictionary definition of a podcast is "*A digital audio file made available on the Internet for downloading to a computer or portable media player, typically available as a series, new instalments of which can be received by subscribers automatically.*" (Oxford Dictionaries, 2014).

Importantly, to be classified as a podcast the material contained within each podcast programme must have a central theme whilst also being available over a regular period of time, such as weekly or monthly (Deal, 2007). As with apps and ebooks pedagogical diligence is required when accessing the usefulness of any one podcast and whether it matches the requirements of the learner or course. Yet the potential effectiveness of language-learning podcasts is that they can provide authentic materials. At the same time giving control to learners and instructors as to how and when they choose to access the materials so as to be beneficial within a course structure (Selwood, 2012).

M-LEARNING WITH SMARTPHONES

A Smartphone World?

The reality that faces instructors and educational institutions, particularly in Japan, is that university students own and use smartphones on a daily basis. Therefore, there is an opportunity that exists to integrate mass student smartphone ownership whilst using pedagogically sound parameters so as to best exploit smartphone technology. The release of the first mass-selling smartphone, Apple's 1st Generation iPhone in 2007, in combination with advances in wireless technology, has provided educational institutions with a further opportunity to exploit the high numbers of smartphone ownership by their students.

A Smartphone Classroom?

Although the last two years in particular have seen a sizeable increase in smartphone ownership worldwide, the statistics for ownership amongst university students is even higher. Surveys conducted by the author at Hiroshima University since 2011 have shown the explosion of smartphone ownership in Japan appears higher within the study body. In 2011 only 31% (87/285) of students surveyed owned a smartphone (Selwood, 2012), but this number had trebled by 2014 to 98% (257/262) ownership.

Perhaps worryingly, however, is that despite incredibly high numbers of students who own smartphones there appears to be a lack of opportunity for these students to use their mobile devices in the classroom and as part of their learning process. In the 2014 survey conducted by the author 16.5% (43/262) responded that none of their teachers banned any use of smartphones or mobile-phones in classroom, whilst 80.5% (211/262) replied that only one to three teachers during a typical semester allowed them to use their smartphones in class. Perhaps most dishearteningly, only 1.5% (4/262) of students replied that they were allowed to use their smartphones in more than four of their weekly classes or connect to the mobile Internet despite the classroom being WiFi enabled (Table A).

TABLE A

How many classes are you allowed your smartphones in?				
No smartphone	*0 Classes*	*1-3 Classes*	*4-6 Classes*	*7+ Classes*
1.5%	16.5%	80.5%	1.5%	0%
4/262	43/262	21/262	4/262	0/262

A Mobile Internet World?

Tied in with the huge leap over the last few years in smartphone ownership is the increasing number of people who access the Internet via their hand-held devices. In 2011 Japan had 98.6 million mobile Internet subscribers, 78% of the population; but by 2013 this figure had increased to 115 million, 88% of the population (MobiThinking, 2013).

Yet, two ongoing demographic factors will have a detrimental effect on how Japan accesses the Internet in the future. Firstly, Japan's population is predicted to decrease by 3% to 5% by 2020, and decline by a further 15% to 20% by 2050. The second factor is that as the population declines, the percentage of Japanese people aged over 65 will increase to around 30 million approximately 30% of the population (IPSS, 2014).

These two demographic factors will instigate a decrease in the percentage of the population having mobile Internet subscriptions, as by 2018 the total will be down to 63%. Economically developed Asian-Pacific competitors such as South Korea and Australia will be at 76% and 72% respectively. Meanwhile, China and Indonesia are developing at such a speed that they are predicted to have surpassed Japanese mobile Internet subscribers by 2025 (Emarketer, 2014).

A Mobile Internet Classroom?

These fears of Japan being surpassed and then left behind by its neighbours are concerning for the long-term economic health of the nation. Yet one area where Japan seemingly is prominent is in the number of university students who own smartphones. Results from a survey conducted by the author at Hiroshima University in 2014 show that 95% (249/262) owned a smartphone. Meanwhile, 84% (208/249) of students replied that they accessed the mobile Internet at least once-a-day. Additionally, 89% (184/208) of those students had some type of mobile Internet subscription package (Table B).

TABLE B

Do you own a smartphone?			
YES	95% (249/262)	NO	5% (13/262)
Do you access the mobile Internet more than once-a-day via your smartphone?			
YES	84% (208/249)	NO	16% (41/249)
Do you have a mobile Internet subscription package?			
YES	89% (184/208)	NO	11% (24/208)
How do you usually access the Internet?			
More Smartphone	More Computer Port	About the Same	Don't Know
79% (198/249)	6% (15/249)	11% (27/249)	4% (9/249)

Therefore, these figures show that for the purpose of analyses, the incredibly high numbers of students who owned smartphones meant that such a project could at least pass the first obstacle: students did own the necessary mobile-devices. This project benefited further when additional survey data suggested that of the 95% (249/262) of students who owned smartphones, 79% (198/249) answered they accessed the Internet far more via their smartphones than from stationary Internet access portals such as personal computer points (Table B).

THE DIGITAL COURSE

The idea behind the project to gauge the successfulness of a smartphone-centred course was based on the following question: How successful could a digital English language course be in harnessing smartphone apps and ebook technology for both the students and the language instructor?

To discover the answer to the question the author chose a one-semester English language course at Hiroshima University. The class, Class Digital, consisted of 22* 1st year non-English faculty students from the Faculty of Integrated Arts and Sciences. The course was an English communication class that focused mainly on speaking and conversation skills.

Course Details

The aim of this course was to see how effective a 100% digital course could be when using an eTextbook and free smartphone apps, while avoiding the use of pens and paper when at all possible. Students' final grades were decided by a combination of the following factors: attendance, attitude, classroom assignments and homework.

All of the students starting this course owned a smartphone. Apple's iOS operating system was the most popular at 57% (12/21) of students with Android OS making up the rest with 43% (9/21). For students who accessed the mobile Internet via their smartphones, 81% (17/21) of respondents replied that they did so at least 'once a day'. This figure was only 3% less than the average across all of the students surveyed (Table C).

TABLE C

What O.S (operating system) does your smartphone use?			
Apple i.O.S.	57% (12/21*)	Android	43% (9/21*)
How often do you access the mobile Internet each day?			
Once a day+	Only once a day	Not every day	Never
81% (17/21*)	14% (3/21*)	5% (1/21*)	0% (0/21*)

*One student failed to complete the survey; hence the data shows the results from only 21 students.

The course was designed so that the eTextbook, written by the author, could be downloaded free of charge to the students' smartphones regardless of the smartphone operating system. The first limitation that this imposed on the students was that they were unable to directly make any notes or comments within the eTextbook itself. They were allowed to make notes on paper or through audio/writing apps on their smartphone.

Smartphones

Each student began the course by downloading both the eTextbook and the SoundCloud App to their smartphones. The eTextbook, *English Speak,* contained 12 units with one unit being used for only one class in the semester. A typical lesson required students to use their smartphones for reading the eTextboook activities, listening and reviewing the previous lesson's activities as well as accessing the mobile Internet for research purposes.

The author believes strongly that dialogues in language textbooks should be used as purely a guide and not as something to be learnt word by word. Therefore, after any dialogue practice the students would close their eTextbooks and practice any oral communication activities without constantly looking at the details in their smartphones. Of course if needed for review the eTextbook could be re-opened — but only after a particular oral activity had been completed. This applied to the students' use of dictionaries or other English language-learning apps.

Students were also encouraged to not use pens and paper to make notes in English or their native language, although they were not prohibited from doing so. Instead, students were encouraged to use note taking apps, usually already installed on their smartphones with purchase, or use their SoundCloud app to record any longer observations, again in either English or their native language.

Apps

The students also had to download one free-of-charge app, called SoundCloud, which is an audio distribution platform that enables users to record, upload and share audio content. As of July 2013, SoundCloud had 40 million registered users worldwide (Wikipedia, 2014). The purpose behind this was to allow the students to record their oral communication activities so that they could review their own work and record homework assignments.

eTextbook

The eTextbook was a modified digital version of an English language text written and developed by the author. The book is titled ***English Speak*** and contains 12 units, each unit requiring one week for completion. The biggest alteration from the paper version was the removal of any written assignments. Students were told to complete these activities, usually focusing on vocabulary or grammar topics of the units, by recording the assignments and then uploading them onto their SoundCloud accounts. This homework was then monitored with feedback and grading provided by the author.

Student Feedback

At the end of the course, the students in Course Digital were surveyed by the author to gauge their reaction to the course and to analyse feedback that would be useful in tailoring any future digital courses. Pleasingly, the reaction to the course was generally positive with 57% (12/21) describing the course as 'Interesting'. This was followed by 'OK' with 29% (6/21), 'Great' with 9.5% (2/21) and finally 'Not Good' with 5% (1/21). No student chose 'Boring' or 'Terrible' as an option.

When asked what students enjoyed most about Course Digital, the most popular response was using the SoundCloud app. Specifically 47.5% (10/21) replied this was their favourite activity among the five

choices. When asked to provide further details to this answer students answered they had enjoyed recording their homework, uploading it, and then listening to it. Perhaps this can be explained as 'novelty value', as this was the first time students had engaged in this type of activity. But nonetheless, it is encouraging that nearly 50% of the class enjoyed a new, previously untried digital aspect to their learning.

The biggest problems surrounding Class Digital focused on a common problem amongst smartphone owners: battery life. 24% (5/21) of respondents said that their biggest issue was that their smartphone battery would either run low or would need charging during the lesson, which could add complications.

Smartphone screen size and their small input keyboards are often highlighted as significant failings of lengthy usage within a course structure (Stockwell, 2010). However neither of these issues were raised by students as causing a significant hindrance to their enjoyment of the eTextbook or the course. Only 5% (1/21) of students replied they found the reading on a smartphone screen 'Very Difficult'. The most popular responses were both positive, 33% (7/21) describing it as 'Easy' and 57% (12/21) replying that reading on a smartphone was 'OK'.

Although a tablet was not used by any student during the course (even though it was not prohibited), when given the choice between a digital course using a smartphone or a tablet, 57% (12/21) of students preferred a smartphone. An overwhelming majority of students, 86% (18/21) also responded that they believed that using a smartphone during a course would help improve their English skills. The significance of these figures can be shown when compared to the same question that was asked at the beginning of the course. In the beginning 62% (13/21) of students answered that their English would be assisted by using a smartphone. This was an improvement of about a quarter of the class.

Perhaps the most important question inquired whether students would be comfortable to participate in another digital course; 76% (16/21) replied that they would be happy to do so, with 19% (4/21) saying they would prefer not to, and 5% (1/21) replying they could not decide.

Finally, students were given a choice of three hypothetical options as to which textbook choice they preferred when participating in a university English course.

TABLE D

Option 1	Option 2	Option 3
eTextbook on a smartphone	eTextbook on a tablet	Traditional paper textbook
¥500	¥1,000	¥2,000
67% (14/21)	33% (7/21)	0% (0/21)

*The eTextbook used by the author during the course was free for all the students.

The most popular preference was having an eTextbook on a smartphone, which was the type of course the students surveyed had just completed. One third of all students preferred using a tablet, whilst no students chose the paper textbook option.

These results from the survey and the feedback given by the students who undertook and completed Course Digital provide a positive path for the future of smartphone-centred courses. Perhaps the most important detail is the data from Table D, which suggests economics is the driving force behind the popularity of the digital course. The cheapest option appears to be a big motivating factor in the responses that students gave. It seems an important message for instructors, education institutions and publishers to acknowledge and respond to.

DISCUSSION

The aim of Course Digital and this paper was not to argue for the eradication of paper textbooks, as that is plainly a nonsensical argument as paper textbooks will not suddenly disappear. What was hoped would be discovered was the practical results of how well, or even how badly, a widely-owned product such as a smartphone could be integrated into an English language course at the university level.

With any use of data, especially surveys of students, there is an obvious need to accept that even though the surveys were completed privately and anonymously, the reality is that some students may answer not on their own beliefs but on what they will think will please their teacher. Another fact that cannot be shied away from is the small number of students providing data for Course Digital. There were only 22 students in total, which is 0.194% (22/11,322) of the total undergraduate number at Hiroshima University. Yet, this does not mean that these results are irrelevant or should be dismissed, as all feedback can be of use if analysed correctly.

The huge ownership numbers of smartphones amongst university students provides instructors and educational institutions with an opportunity to capitalise on the technology offered by these mobile-devices without needing to buy any new hardware, unlike a traditional CALL classroom. Students are turning up for the start of university courses already owning smartphones and already understanding how to use them. What is required from both instructors and educational institutions is a response to this student ownership that best exploits the pedagogical benefits of smartphones.

Clearly there are still limitations to smartphones due to technology and a poor understanding by instructors and educational institutions as to how best to integrate smartphones into a language-learning process. Perhaps the biggest hurdle will come from smartphones themselves, or to be more accurate, the companies that make them. Most apps cannot be run on multiple operating system platforms, and even those that do work less well on one platform if they were created with a different O.S.

The lack of eTextbooks is another hurdle that needs to be overcome, as is the technology that will allow for users to easily make notations within eBooks. The paper textbook will never disappear, but the possibilities for eTextbooks at the university level does present many diverse opportunities that need to be exploited. Dictionary apps are already replacing expensive electronic dictionaries which replaced paper dictionaries. Students adapted, as did instructors and educational institutions because it became easier and more convenient to use the latest adaptation.

The immediate future of smartphones would suggest that they are used in harness with a paper textbook. Audio CDs or DVDs, once the staple of language-learning textbooks, are being phased out and replaced by audio or visual content that can be accessed via a smartphone and usually through an app created by the publisher and linked to the textbook content.

CONLUSION

The longer-term future of a course such as Course Digital would perhaps be centred around tablets, as they provide a bigger screen size and keyboard. They would obviously make reading an eTextbook less problematic as the print size could be easily altered. Yet the reality is that students do not own tablets in anywhere near the same numbers as smartphones. On Course Digital, only two students owned a tablet, less than 10% (2/21 - 9.5%) of the class student body. Until tablet numbers can match smartphone ownership levels, instructors, publishers and educational institutions should be developing courses and materials to best

exploit smartphone ownership.

However, perhaps the most intriguing facet in the survey conducted with the Course Digital students was their response to the final question on the survey. When asked which option of textbook they preferred from three different prices including and excluding eTextbooks they chose the cheaper options. The cheaper options were mobile-device based, and as always it seems economics will help lead the argument as to how widespread eTextbooks, smartphones and apps will be in the forthcoming years. Clearly, more research is required to provide a more detailed analysis as to the success of future smartphone-centred courses.

APPENDIX

General Student Survey Results | Hiroshima University

In the survey questions five, six, eight and nine had multiple answers. All the other questions on the survey required the students to choose the most appropriate answer.

General Student Data					
Student Total		262	Male 64%		Female 36%
[1] What faculty do you belong to?					
Engineering	Letters	Economics	Science	Dentistry	Medicine
22.5%	4.2%	5.3%	18%	9.5%	40.5%
[2] What brand of smartphone do you own?					
Apple	Samsung	Sony	LG	Nokia	None
52.3%	3.1%	33.6%	5.3%	0.7%	5%
[3] What brand of tablet do you own?					
None		Apple	Samsung		Other Brand
93.5%		3.4%	0.4%		2.7%
[4] How often do you access the mobile Internet via your smartphone?					
Once-a-day+		Only once-a-day	Not every day		Never
84% [208/249]		13% [32/249]	2% [6/249]		1% [3/249]
[5] Do you have Facebook & Twitter Accounts?					
Facebook	30.5%	Twitter	43%	No	26.5%
[6] Do you use your smartphones to access Facebook & Twitter?					
Facebook	28.5%	Twitter	42.5%	No	29%
[7] How many teachers allow you to use your smartphone in class?					
No smartphone	O Classes	1-3 Classes	4-6 Classes		7+
1.5%	16.5%	80.5%	1.5%		0%
[8] What do you usually use your smartphone IN class for?					
Internet	Dictionary	Writing	Reading		Listening Audio
70% (173/249)	63% (156/249)	4% (9/249)	7% (18/249)		15% (37/249)
Podcasts	Recording Audio	Watching Video	Recording Video		Other
5% (12/249)	2% (4/249)	1% (3/249)	0.8% (2/249)		4% (9/249)
[9] What do you usually use your smartphone OUT of class for?					
Emails/SMS	Phone Calls	Internet	Games		Dictionary
91% (228/249)	73% (183/249)	83% (206/249)	49% (123/249)		42% (106/249)
Research	Listening to Music	Listening to Podcasts	Watching Video		Recording Audio
25% (63/249)	50% (124/249)	7% (17/249)	20% (51/249)		6% (15/249)

[10] Do you think smartphones will make studying English easier?			
Yes	88% (230/262)	No	12% (53/262)
[11] Do you think tablets will be easier to study with than smartphones?			
Yes	79% (207/262)	No	21% (55/262)

Class Digital Survey Results | Class Digital

Class Digital Data					
Student Total	22 (21 Respondents)		Male 67%		Female 33%
[1] What brand of smartphone do you own?					
Apple	Samsung	Sony	LG	Nokia	Other
57%	5%	19%	0%	5%	14%
[2] What brand of tablet do you own?					
None		Apple	Samsung		Other Brand
76%		21%	3%		0%
[3] How often do you access the mobile Internet via your smartphone?					
Once-a-day+		Only Once-a-day	Not every day		Never
81%		5%	9%		5%
[4] How many teachers allow you to use your smartphone in class?					
No smartphone	O Classes	1-3 Classes	4-6 Classes		7+
---	0%	90.5%	9.5%		0%
[5] What do you usually use your smartphone IN class for?					
Internet	Dictionary	Research	Listening		Other
29%	52.5%	10%	17%		3.2%
[6] What do you usually use your smartphone OUT of class for?					
Emails/SMS	Phone Calls	Internet	Games		Dictionary
67%	66%	86%	66%		43%
Research	Listening Music	Listening Podcasts	Watching Video		Recording Audio
11%	52%	10%	43%		0%
[7] What was your opinion of CLASS DIGITAL course?					
Interesting		OK			Great
57%		29%			9.5%
Not Good	Boring		Terrible		Complicated
5%	0%		0%		0%
[8] What did you most enjoy about the COURSE DIGITAL course?					
Sound Cloud	Recordings	No Paper Textbook	Free Textbook		Conversation
47.5%	28%	6%	8%		10.5%
[9] What did you least enjoy about the COURSE DIGITAL course?					
Battery Life	Making Notes	Writing	Old Smartphone		Nothing
24%	19%	16%	12%		29%
[10] What is your opinion about reading a textbook on a smartphone?					
Very Easy	Easy	OK	Difficult		Very Difficult
5%	33%	57%	5%		0%

[11] If you studied another English course, what would you prefer?				
Paper Textbook		Digital Textbook		Paper & Digital Textbook
14%		38%		48%
[12] If you studied another English course, what would be easier?				
Smartphone	57%		Tablet	43%
[13] What is your opinion of the SoundCloud App?				
Very Easy	Easy	OK	Difficult	Very Difficult
9.5%	33%	33%	14%	9.5%
[14] Was recording homework on smartphones more interesting than writing in a paper textbook?				
Yes	48%		No	52%
[15] Would you be happy to participate in another digital course?				
Yes		No		Don't Know
76%		19%		5%
[16] Do you think smartphones will make studying English?				
Yes	85%		No	15%
[17] Do you think tablets will be easier to study with than smartphones?				
Yes	81%		No	19%
[15] Which of the following would you prefer for a future English course?				
eTextbook - Smartphone		eTextbook - Tablet		Paper Textbook
¥500		¥1,000		¥2,000
67%		33%		0%

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USEFUL LINKS

Hiroshima University English News Weekly Podcast
http://pod.flare.hiroshima-u.ac.jp/cms/enw.php
Hiroshima University English News Weekly Facebook Page
https://www.facebook.com/ENW1975
Hiroshima University English News Weekly iTunes
https://itunes.apple.com/jp/podcast/english-news-weekly/id514166563?mt=2

ALSO AVAILABLE

Hirodai English App
Free to download to your smartphone.

要　約

携帯端末を用いたペーパーレスな授業実践：その利点と注意点

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スマートフォンの普及に伴い，日本の大学における英語教育や英語学習での，携帯端末やデジタル化された教材の影響は増していると言える。英語教育の現場では，教員がデジタル化された教材を授業に取り入れることが容易となり，授業のデザインや運営にも変化が見られるようになった。英語の授業で観察される劇的な変化の一つは，学生の間でのスマートフォンの高い普及率のために，かつては禁止されていた教室内での携帯端末の使用が，近年では授業でのスマートフォン等の使用を受け入れ，語学教育に活用する流れになったことであろう。

本稿では，筆者がスマートフォンの活用を中心に据えてデザインした半期完結の英語の授業について，2 クラス分の実践を踏まえた上で，その利点と問題点について述べる。また，スマートフォンを活用した英語の授業について，広島大学の学生を対象に実施した調査の結果をまとめる。