

**Translanguaging and Biliteracy in a Digital Context: A
study of BYOD in the Community College**

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Abstract

This study investigates how translanguaging and biliteracy operate in a digital context in the developmental English community college classroom by studying the effects of a mobile BYOD (Bring Your Own Device) environment. There has been much recent inquiry into this field from three disparate view-points: translanguaging and biliteracy studies; educational studies on BYOD implementation; and sociological studies of community colleges. There has yet to be a study on how these interdisciplinary sectors converge. All domains agree that the teaching of digital literacies is essential, but how to define and how to teach those literacies remain critical questions.

Theoretical perspectives

There has been much recent inquiry into this field from three disparate scholarly view-points: translanguaging and biliteracy studies; educational studies on the use of emerging mobile technologies; and sociological studies of the role of community colleges in the 21st Century.

Translanguaging and biliteracy

Linear and literal reading, one small dimension of literacy, are social constructs according to Ferreiro (2003) (p.13). Our definitions of what it means to read and write will continue to shift as new technologies present not only alternate

modes of communication, but as these technologies foster the emergence of increasingly hybrid languages. According to Mangen (2014) “Results show that print readers performed better than Kindle readers when they were asked to sort story events into chronological order” and that literal interpretations are best understood in a print context. Although the study was conducted on high school students in Norway, Mangen’s findings are relevant because the study seeks to distinguish the literacy tasks that best align with either digital or print texts. Where Mangen does not use translanguaging or biliteracy as a theoretical framework, the study lays the groundwork for further research across the K-12 and higher education continuum about when and how to integrate digital and print texts to align with literacy goals. Another popular research study on digital literacies suggests that students (and their teachers) need to develop a biliterate brain (Wolf, M., Ullman-Shade, C., & Gottwald, S., 2012) in order to extract deep and critical meaning from all texts, both linear and nonlinear. More recent research from Garcia (2014) seems to suggest that mobile technologies present the most sophisticated opportunities for translanguaging. Translanguaging emerges as we toggle among the applications built into our devices and between the virtual and actual spaces of our lives. This is most clearly seen in an iPhone example cited in Garcia and Wei (2014). They explain “For bilinguals, able to use their semiotic repertoire without constraints in texting, the language-switch function on the iPhone is useless” (p.22-23). This example of habitual translanguaging occurs on a mobile device. The choice of the user to operate within or beyond the auto-correct confines of a particular language in a mobile environment suggests that the era of Web 3.0 will present more opportunities for habitual translanguaging, nudging the superstructure towards an acceptance of more fluid language

practices. Thus this translanguaging turn indicates the existence of an active biliterate brain in need of new teaching methodologies.

Emerging mobile technologies

Hockley (2012), one of the early researchers of BYOD, proclaims that BYOD is more than just students using their phones or mobile devices to quickly search for and retrieve a fact. BYOD is an immersive experience whereby an institution explicitly marks a policy implementing the use of student purchased devices in the classroom that the institution then provides the necessary “support, infrastructure and evaluation to measure its efficacy” (p. 44). Educational discourse surrounding BYOD often results in a binary discussion of whether or not students should be permitted to use mobile technologies, specifically phones, in the classroom. According to Vasudevan (2014), “That focus misses the fact that youth already are using their phones creatively in nearly every area of their lives: to inquire, create and communicate as they produce texts, form communities, cultivate relationships and make themselves known.”

Where Hockley explains that there are numerous challenges to BYOD, including access to hardware, safety, and classroom management, Banks (2006) firmly argues that the dangers of digital divide are not about hardware, it is about the quality and access to digital instruction, particularly in schools that service large populations of educationally disadvantaged students, which he defines as ELL, students of color, and students with low socioeconomic status.

The best digital instruction is translanguaging and occurs for students as they switch within different registers of Puentedura’s (2014) model and between analog and digital

tasks, working toward this moment of educational innovation that is beyond what we ever perceived was possible.

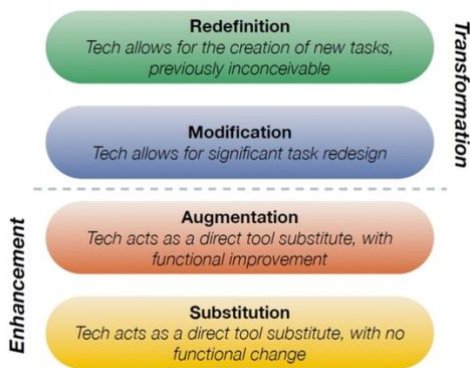


Figure 1. The SAMR Model. Puentedura (2014)

This institutional assumption that language modalities are disparate silos limits a student’s ability to fully think in any language and to communicate those thoughts with others. Translingual practice requires a high level of cognition and a “communicative competence” whereby new meanings are constructed through specific situational contexts (Canagarajah 2013, p. 3). Engaging at the level of redefinition requires a translingual dexterity that moves beyond pen and paper.

Where K-12 educators need explicit support to engage in BYOD and immerse in the SAMR model, tenured college instructors have the academic freedom and curricular license to create more immersive environments. The majority of research on BYOD centers on the secondary school space where teachers have significantly less autonomy over a decision to implement BYOD. At the college level, instructors can decide whether or not to implement this policy and to what degree they want to immerse in Puentedura’s SAMR model (2014) of technological integration.

Moreover in a short span of time, BYOD is becoming more and more acceptable and regarded as a pedagogically sound practice. In Hockley's article she discusses the infamous New York City Department of Education's (NYC DOE) ban on BYOD and mobile phones. This ban was recently lifted in November 2014 because the NYC DOE now acknowledges that mobile technologies are a crucial part of emerging digital literacies. Vasudevan (2014) explains, "Cell phones can afford young people the chance to be seen and engaged as actors with a repertoire of literate practices and a sense of agency and ownership about exploring and expressing ideas. Understood in that light – as pathways of participation rather than sources of distraction – cell phones can serve as powerful resources in reconfiguring the educational landscape, with and for students and teachers, one small moment at a time." Warner (2014) confirms these findings and notes that teens harness the capabilities of their phones to "access information to achieve moment-to-moment goals; to compose multi-modally with photography, video and linguistic text; to compose collaboratively and inter-textually; and to learn about the world through exploring online spaces and making connections."

Where the content composed and consumed is read in new ways, students are not yet fully immersed in a digital academic environment. Formal papers are still required. Print texts remain the central locus of knowledge and students in the most educationally disadvantaged situations are required to demonstrate mastery within the confines of a monoliterate print world (as opposed to biliterate or digital/print hybrid).

Sociological perspective of Community Colleges in the 21st C.

This topic is timely and significant because the White House has identified Community Colleges as the most potentially innovative space in higher education and “the Obama Administration has called for an additional 5 million graduates from community colleges by 2020. Working in partnership with states and communities, community colleges are well suited to promote the dual goal of academic and on-the-job preparedness for the next generation of American workers”(Higher Education, 2014). Much of the President’s vision for revolutionizing the community college system rests on technological implementation and infrastructure. Although he has allocated \$500 million in funds this year for career-readiness proficiencies (which include digital literacies) and has earmarked almost \$1.5 billion for future initiatives, these investments don’t translate into direct acquisition of the necessary technological hardware or connectivity pipeline. Therefore community colleges, which are already underfunded, must find a cost-effective solution, like mobile BYOD, to drive improved outcomes for student retention and rates of graduation. Schudde, L., & Goldrick-Rab, S. (2014) explain that the increased shift toward college readiness has led more students to enroll in community colleges, but retention remains the most significant challenge. Students in developmental or remedial coursework are at the highest risk for attrition. With a heightened emphasis on digital citizenship and proficiency in digital literacies as a means of both college and career success, it is important to inquire how students, educators, and institutions will meet these challenges.

Research and methodology Contexts and participants

There has yet to be a study on how the interdisciplinary sectors of translanguaging, mobile technologies and

community colleges converge. All three domains agree that the teaching of digital literacies is essential, but how to define and how to teach those literacies remain critical questions, particularly to community college students, many of whom are multilingual, and in the case of the Basic Education cohort, struggling readers and writers of English.

Students at Nassau Community College enter the Basic Education program based on their scores on the WritePlacer and AccuPlacer assessments developed by the College Board and administered by open admissions colleges such as Nassau Community College. Students selected for Basic Education do not earn any college credits for these courses. Many students are first generation college students, qualify for IEPs, are multilingual, and/or qualified for free and reduced lunch when they were high school students.

For this study, I focused on one section of BEP 091 Basic English, a course that is known within the community as the writing or composition course. Students are required to demonstrate mastery on the Semi Final or Final Exam of a coherent and logical essay written in Standard American English in order to qualify for credit coursework. Essays for the Semi Final or Final are graded holistically using the following scale:

4	3	2	1
Effectively addresses assigned question or topic	Adequately addresses assigned question or topic	Attempts, but fails, to address the assigned question or topic	Often does not address the topic

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<p>Has a central idea or thesis and is well-organized</p> <p>Major points are developed logically and are supported with specific examples</p>	<p>Has thesis and 2-3 paragraphs (preferably more) of support</p> <p>Paragraphs may be somewhat unevenly developed, with a few digressions or areas of unclear support</p>	<p>Thesis may be weak or unclear, and supporting information is rudimentary</p> <p>Has the basics of an essay, but significant problems with organization</p> <p>Ideas may not be clearly connected to the topic, and language is often repetitive.</p>	<p>Ideas may be disjointed or “unconsciousness”</p>
<p>Few errors, but sentence structure, grammar, diction, and punctuation are generally in control</p>	<p>Some errors in sentence structure, grammar, diction, but can be understood.</p>	<p>Consistent errors in sentence structure, verb agreement and tense, and/or word endings</p>	<p>Difficult to understand due to errors with sentence boundaries.</p>
<p>Between 300-400 words</p>	<p>Between 250-300 words</p>	<p>Usually too short to support points or answer question; longer essays can be rambling and disorganized</p>	<p>Often much shorter than 2 paragraphs presented as one paragraph</p>
<p><i>This grade on Final places student in</i></p>	<p><i>This grade on Final places student in English 001, the</i></p>	<p><i>This grade on Final requires that students</i></p>	<p><i>This grade on Final indicates that the student has not been an appropriate choice for this time</i></p>

<i>English 101 if reading placement score is high enough</i>	<i>next level of non-credit</i>	<i>repeat BEP 091</i>	
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Figure 2. Holistic Grading Rubric for 091 Basic Education English at Nassau Community College, 2014.

All summative assessments (the Semi Final and Final) are graded through a double blind peer review; instructors do not grade their own students. Data on how many BEP students across all sections earn scores of a 4, 3, 2, or 1 each semester is not readily available and would require a longer study to document.

Methods

For the purposes of this study, I focused on my BEP 091K section of the Basic English course. Courses in BEP are capped at 17 students and the dataset for this study includes 17 students. I set up my course as a BYOD environment where mobile technologies like phones and tablets are integrated into the daily reading and writing activities of the course. Each course is enrolled in Remind, an app that has the capacity to increase retention and assignment submission by scheduling text message alerts to students when syllabus items are due or when there are changes to the class schedule (ex: Meet in CCB Auditorium for Ernest Cline lecture). The 091 course is managed through a Wordpress blog that students have saved as an app shortcut on the home screen of their devices. The blog contains all of the course readings, assignment details, and opportunity for students to share responses to the readings. This allows us to quickly and seamlessly share student writing produced in class for workshop and discussion. I've filmed key

concepts essential to the course (thesis statements, organization alignment, claim-making) as short videos with Adobe Voice to flip the classroom and allow students to review important concepts at their own pace. In our study of grammatical concepts students develop their own review exercise that we collaboratively gamify, so students can practice grammar games on their phones when they are between classes or waiting for the bus, etc. In each of these examples, we have only just begun so my library of resources is not yet as deep as I would like.

Comparison of quantitative data from midterm to semi final and final assessments

Although direct instruction, workshopping and collaboration in my classroom are often digital, students practice writing in a biliterate environment using both paper and digital mediums. The benchmark assessments, the midterm, semi final and final exams are all administered as monolingual assessments requiring the use of paper and pen. Only students with an IEP requiring access to a computer are allowed to compose digitally and this accommodation is only a means of substitution (Puentedura, 2014). For the purposes of this study, I am comparing the midterm to the semi final and final exam scores. Students need to receive a 3 or 4 on either the semi final or final exam to pass the course. A score of 4 will send a student straight to credit classes in the following semester.

Instructor's qualitative observation of students over the course of a semester

These are my reflections based upon my observations teaching three sections of BEP 091 during the Fall 2014 semester. The holistic grading of midterms, for new faculty, is

done in conjunction with a mentor; therefore, my midterm grades are based on my mentor's direction. Semi final and final exams for all faculty are graded in a double blind peer review. The data sets comparing midterm and semi final assessments are not my exclusive interpretation of student strengths and weaknesses.

A survey was administered to the BEP 091K students to self-evaluate their experiences with BYOD and how that impacted their attendance and engagement in the course. The survey was created using Google forms and allowed students to rate their experiences as well as offer open-ended written feedback.

Findings

At midterm, 82.4% of my students were not passing the class because they could not demonstrate mastery of a clearly organized essay in Standard American English. The BYOD environment between the midterm and semi final focused on close attention to Aristotle's enthymeme and logical thesis building through activities on Google forms and student publishing/sharing of short responses aligned to expository prompts. This work was completed using only mobile devices. In addition to mobile coursework, students practiced quick-lining (quick outlines) by hand and on paper, applying the Aristotelian concepts learned in the mobile environment. By the semi final, 70.6% of my students were passing and 11.8% of those passing qualified for credit coursework. When the final exam was administered, 89.6% of my students were passing and 18.8% of students qualified for credit coursework. Where the initial findings appear quite positive, further research is necessary to determine the exact factors that pushed students toward passing. This analysis needs to focus on the ways in which technology does or does not foster habits of

academic socialization. For example, which specific aspects of BYOD can be attributed to academic engagement and success.

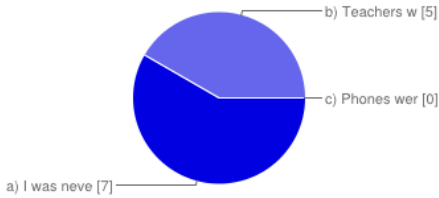


Figure 3. Student scores from BEP091K Midterm, Semi Final, and Final Exam, Fall 2014.

Upon examining the students' assessments from midterm to the semi final and final exams, students who made the shift from not-passing to passing improved not just the organizational structure of their essays, but the structure of their sentences. One student moved from a 2 on the midterm to a 4 on the semi final because she uncovered that the placement of subject and verbs was different in Punjabi, the language in which she is most confident. Through practice with sample student writing on the blog and discussion of these posts in both the virtual and actual classroom spaces she understood how to reorganize her sentences for the summative assessments. Students reflected that the opportunity to crowdsource thesis statements on their phones helped them to identify the correct way to structure their logic and their alignment of subject and verb.

According to survey results 100% of respondents identified BEP 091K as their first BYOD class, using Hockley's (2012) definition of BYOD. Students reflected

1) Before BEP 091, which choice best describes your experience with BYOD?

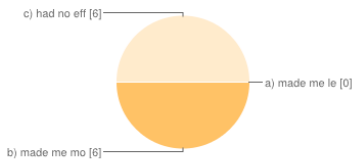


a) I was never allowed to use my phone in class	7	58%
b) Teachers would sometimes let us look up a fact, but we never used the phone for other purposes	5	42%
c) Phones were a major part of the classroom experience	0	0%

Figure 4. Students' responses to their experience with BYOD, 2014.

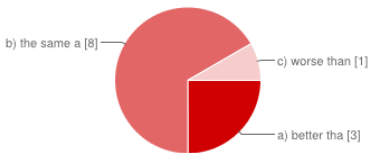
that the use of BYOD made them 50% more likely to attend class and 25% of those students said that their attendance was better for BEP 091K than their reading or math classes.

2) Using phones in class



a) made me less likely to come to class	0	0%
b) made me more likely to come to class	6	50%
c) had no effect on my attendance	6	50%

3) My attendance for 091 was



a) better than my other classes	3	25%
b) the same as my other classes	8	67%
c) worse than my other classes	1	8%

Figure 5. Students' responses to the effect of BYOD on attendance, 2014.

One of these students explained that he stopped going to his reading class altogether because he couldn't relate to the teacher and that the mobile technologies made him feel more at home. The one student who said her attendance was worse explained that our 12:15pm course was her first class of the day and she often slept in too late to arrive on time. Many of my students have the reverse schedule where 091K was their last class of the day, so they were already on campus by the start of class; it's more a matter of showing up, then waking up.

No students reported that 091class participation was worse than other classes, 50% believed that their participation was better, and the other 50% believed that it was the same.

4) My class participation (answering questions in class, turning in assignments, doing classwork and any homework) was



5) How often did you text, game, or check social media during 091?

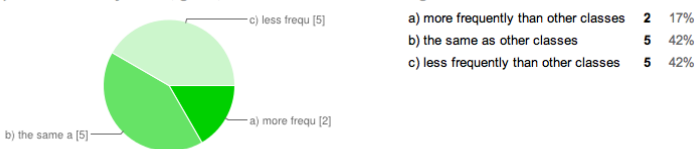


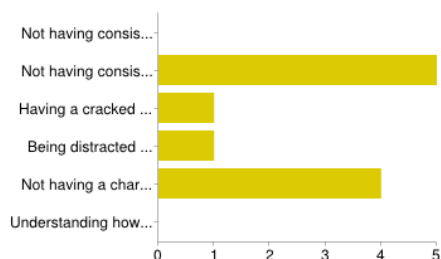
Figure 6. Students' responses to the effect of BYOD on class participation, 2014.

When prompted to explain why participation was better, students cited that although they did use their phones inappropriately during the 091K class, their phones were less distracting than during other classes because they had to use it for coursework. By using their phones for coursework, they had to turn off push

notifications or other distractions that would slow down their mobile device if run simultaneously with the app they were instructed to use for coursework. This forced them to focus on course materials rather than answer texts. Moreover students were surprised to learn that some of the behaviors they believed to be deviant (using translation apps, thesaurus apps, spell check) were actually welcome in the BYOD classroom.

Interestingly, students' biggest concerns and challenges with BYOD had to do with connectivity, an issue that relates more to the college than the purchasing power of the student. In the same sense, battery charging was also an issue because there are not enough public outlets for students to charge their devices while on campus. Students take their courses in blocks that sometimes require them to be on campus for four or five hour blocks and phone batteries can easily lose charge during that time frame.

7) What were the biggest challenges with BYOD? Check all that apply.



Not having consistent access to a phone
 Not having consistent access to Wifi, 3G or 4G networks
 Having a cracked screen on my phone made it difficult to read the texts
 Being distracted by texts, push message alerts, and other non-class related apps on your phone
 Not having a charged phone
 Understanding how to use the apps

Figure 7. Students' responses to BYOD challenges, 2014

Despite the initial positive results of this study, we must be cautious in our approach to the promises and possibilities of technology. Although Ferreiro (2003) has openly asserted her “enormous distrust of the purely ideological proclamation of the democracy of the internet”(p.50), it is in Nieto that we come to understand that the internet is not so much a thing or a tool as it is a language and a culture. Nieto affirms that all “culture needs to be thought of in an unsentimental way” (p.48) because a “culture is neither ‘good’ nor ‘bad’ in general, but rather embodies values that have grown out of historical and social considerations and necessities”(p.58). The Internet as a culture is dialectical. We must contemplate the vast and alarming educational inequities that exist both between and among nations. Despite the great

potential for the Internet to bolster an embrace of multilingualism, there are still critical literacies and competences that one must possess in a digital world that are not accessible to all students. Moreover not all teachers and professors have access to the tools and professional development that will enable the creation of an effective BYOD classroom.

Further research is necessary to discern how the inclusion of BYOD mobile technologies fosters pathways to academic socialization in the areas of persistence and perseverance. This is the site upon which the interdisciplinary sectors of translanguaging and biliteracy studies, educational studies of BYOD, and sociological studies of community colleges converge . One of the biggest challenges facing community college students is the successful completion of their degree. Although passing BEP091 sets them up on the pathway to degree completion, the road ahead is still long and students need to be able to transfer the digital literacy skills they learned in this class to their future coursework. Under best practices, BYOD is an organizational tool, a social connector for commuting students, a cost-effective word processor, and a toolkit of web-based applications for academic skill development. If students are taught how to reconceptualize their mobile devices as school supplies, both instructor initiated and student driven translanguaging will occur in the classroom. As this research study evolves, translanguaging practices that best support a biliterate brain will need to be investigated.

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