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Editorial

Curiosity

Donald G. Perrin

Curiosity is the desire to learn, a need-to-know. It is a natural instinct that is important for survival, growth, and development. It is facilitated by communication and language. A child learns best in a supportive environment. When curiosity is rewarded, we learn. Continued negative reinforcement can extinguish a behavior.

Curiosity continues to be an important learning tool throughout life. It is curiosity that leads to higher levels of learning such as problem solving, innovation, and invention. It is a distinguishing feature of great minds like Galileo, DaVinci, Mozart, and Einstein.

Throughout history, parent and teachers have employed different ways of answering the torrent of questions that begin with "Who? What? When? Where? Why? and How?" In today's world we might buy the child a telescope, a construction kit, a piano, or an encyclopedia to help them in their search for knowledge. For others, it is an opportunity for storytelling as illustrated by Rudyard Kipling's charming story about *The Elephant Child*. At the end of the story, Kipling added this poem that describes curiosity from the viewpoint of an adult and a small child.

I Keep six honest serving-men:
(They taught me all I knew)
Their names are What and Where and When
And How and Why and Who.
I send them over land and sea,
I send them east and west;
But after they have worked for me,
I give them all a rest.

I let them rest from nine till five.
For I am busy then,
As well as breakfast, lunch, and tea,
For they are hungry men:
But different folk have different views:
I know a person small--
She keeps ten million serving-men,
Who get no rest at all!
She sends 'em abroad on her own affairs,
From the second she opens her eyes--
One million Hows, two million Wheres,
And seven million Whys!

In an effort to educate children and adults, can we enhance learning by making fuller use of this great natural gift - curiosity?

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Editor's Note: As we break down classroom walls, technology can support the exploration and discovery process throughout the university, surrounding community and beyond. Web-based technologies can seamlessly support student learning - set goals, make choices, find access, perform tasks, receive grades, and provide feedback. Intelligent systems track progress as students use computers and mobile devices to gather data, solve problems and build solutions in real world environments. Here is a picture of the future. All of this is possible with today's technologies – now!

Academic Check-Ins:
Mobile Gamification for increasing motivation and engagement around the campus

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USA

Abstract

Location based services and social networks such as foursquare have increased in popularity in the past few years. Even though the concept of "checking into" a location is not new, it has recently gained greater acceptance among academics and non-academics alike. Campuses have used such services to increase the motivation for students, and potential students, to take campus tours, visit certain locations on campus, and to increase extracurricular engagement. Existing services, however, were not created with academia in mind, and were not created for multi-use venues, such as a student center, an academic building or a library. This paper puts forth a proposal for an academia specific social network that can be used for both academic and social engagement on campus. Functionality, use cases, and motivation theory behind such a service are discussed.

Introduction

Location based services (LBS) are nothing new, the concept has been around since the early 90s (Wikipedia, 2012), with patents for location based events dating back to the early 2000s (Hastings, McNeill, Glassey, Willett, 2002). In the early 2000s, when the bluetooth personal area network standard came built-in to many phones, marketers thought of ways to push information to your phone depending on where you were located.

The idea behind this was that information that could be useful to you would be sent to you, without any request or intervention on your part ("pushed" to you). This information would be based on your current location and could be pushed to your phone if you had chosen to receive such notices. Since Bluetooth range can be anywhere from 5 to 100 meters, phone users would, theoretically, be receiving valuable local information.

Over the years with more and more phones having GPS capability built-in, more and more services were conceived that took advantage of a user's location to not only inform the user's friends of the user's general location, but also provide the user with local information that the user could find useful. Motivating factors for using such services were many fold. On the one hand a user could find out about local coupons to save some money on their next latte; on the other hand it provided a venue to people to compare where they had been, their experiences, and to go to a down the street where the user's friends had just checked in so that semi-serendipitous meetings could be facilitated.

Other motivating factors include giving users badges for checking in on a certain day, checking in at a certain venue, receiving virtual passport stamps for visiting other counties and other states, and participating in virtual scavenger hunts. In addition to location-based services (LBS), there are also event-based services (EBS). These events can be coupled with a venue, such as going to see a movie at a specific theater; or they can just be seen as events in and of themselves.

In the past decade, with the incorporation of educational technologies and Web 2.0 technologies into the curriculum, there has been evidence of a desire to extend learning opportunities outside of the classroom (Koutropoulos, 2010; deTorres & Koutropoulos, 2012a, 2012b; Hallingworth, 2012). Campuses are a hotbed of intellectual activity outside of the classroom. More and more students coming to campus with GPS and WiFi enabled phones and computing devices like the iPad; couple this with LBS and EBS becoming more and more popular and this provides an opportunity for students to extend their learning, on campus, outside of the classroom.

This paper reviews major non-academic LBS and EBS services, and reviews the literature on student engagement, gamification and motivation. In the end, we posit use cases were an academic check-in service could offer value for both University student and the campus as a whole.

Check-in Services: A Primer

Before we delve into specific use cases of how check-ins could be implemented on campus to enhance learning and student engagement; and before we examine the factors of motivation and designs for gamification, it's worthwhile exploring several key examples of commercial check in services, both Location-Based and Event-Based. This will give us a basic understanding of the variety of features and innovations that academia can borrow from existing and defunct services.

One of the first LBS was a service called Dodgeball. Dodgeball started in 2000 as a simple mobile web-based search; eventually evolving to a service that was based on the phone's Short Message System capability (SMS or "text messaging") and on mapping software (Zin & Mulloth, 2006). At this point LBS did not rely on GPS to determine the user's location and the main driver for using this service was to share your location with friends. Google acquired dodgeball in 2005 and discontinued it in 2009.

The ideas and usage scenarios behind dodgeball currently live on in other services like Google Latitude, the successor to Dodgeball, a GPS and venue database-based service released in 2009, as well as Google+ ("Google plus") location check-ins and Facebook Places check-ins. The latter two services give users the additional ability to comment on your own check in as well as comment on your friends' check-ins. As an early LBS, Dodgeball's innovation in the field was allowing friends to find one another and to enable unplanned get-togethers. For those users who wished to document their day-to-day happenings, it was also an additional tool as a way to creating personal location based storytelling.

BriteKite started in 2007. The now defunct service, in addition to letting its users check-in and post comments about their location, also gave its users access features such as posting of photos, messaging, comments, tips about their current location, tiered rewards, and group chat capabilities (O'Dell, 2010). Whrrrl (pronounced "whirl") was a contemporary of BriteKite also starting in 2007, and it is also now defunct. Its major impact on LBS was the introduction of societies (O'Dell, 2010). These were a type of community of practice (Wegner, 1998). Users could be members of many societies, and if fellow society members took your recommendation on a specific venue, you got more points; points, in the end, totaled up to rewards. Even thought neither Whrrl nor BriteKite pioneered the use of badges as a motivational factor, at the tail end of the services' lives they also started offerings badges based on user accomplishments (Wauters, 2010).

Foursquare is perhaps the best known LBS. It has its beginnings in Dodgeball, having been founded by the founders of Dodgeball (Foursquare, 2011). Foursquare is still active today. Foursquare pioneered the gamification of LBS. Along these lines, foursquare has pioneered the concepts of "mayorships" and badges for various in-service achievements. Mayorships are won if a user has the highest amount of check-ins at a certain location within a certain number of days. If

these venues are businesses, they can choose to give the mayor of that venue a reward, like a discount on items bought that that store (Van Grove, 2010). Badges, as we've seen, have been copied by other services in the LBS sphere.

GoWalla, a now defunct service, purchased by Facebook in 2011, was a major competitor to foursquare, which was launched in 2009. GoWalla pioneered a number of interesting features in the LBS gamification and LBS usability field. GoWalla, like foursquare was based on GPS location check-ins. In addition to badges ("pins" in GoWalla lingo) that users could get for accomplishing certain tasks, GoWalla also had stamps. GoWalla was based around the idea of traveling and the passport. When users traveled to other states or other countries they received a digital stamp in their passport for those venues, states and countries.

This idea of "the trip" permeated GoWalla's user interface. Users could create trips, which were a chain of locations that other users could visit as well. Upon visiting locations in the predefined trips, a user could get a badge showing off that he had completed that trip. In addition to trips, GoWalla had a game mechanic that was reminiscent of a geocaching scavenger hunt. GoWalla, as well as sponsoring companies, created digital artifacts that users could bump into while they were checking into a location. These artifacts could be collected by users and seen in their passport. Artifacts could be dropped in other locations that the acquiring user has visited. Thus, a "Tablet 2" item, acquired by going to a Best Buy and making a comment like "I am going to buy an iPad 2 today!" could be "dropped" in a different location for other users to find. This passport feature is yet another step forward in the ability for users to create their own LBS digital stories.

SCVNGR (pronounced "scavenger") is an LBS that uses game mechanics and is popular in higher education (Kaya, 2010; Keller, 2011; SCVNGR, 2011). Users can earn badges and points for check-ins. Each location in SCVNGR contains a list of "challenges" and associated points. For example some of the challenges are that users can check-in, take (and upload) a photo and leave a comment. One of the pioneering features of SCVNGR is that users can also create their own challenges and pursuant points (O'Dell, 2010). This has been used in institutions of higher education to create scavenger hunts across campus, a popular use of which are getting to know the campus (Kaya, 2010; Keller, 2011; SCVNGR, 2011).

Finally, GetGlue is an example of an event-based service (EBS). GetGlue (and a similar service owned by Yahoo! called *IntoNow*) work on the premise that users are engaged in doing something: watching a TV show, a movie, playing a game, listening to music, reading a book, or thinking about a topic such as existentialism. Users can check into these events and earn achievements for these check-ins. For instance, if you watch a television show on the night of its original broadcast you can earn a badge for that episode (provided that the show owners reward their shows fans with this). If you go watch a movie on its premier date, again provided that the film owners reward fans in this fashion, people who check into this movie event can get a badge.

GetGlue works in conjunction with foursquare, so that you can both check into an event and check into a location. For instance, if I were going to see a new movie that came out, I can check into both the movie and the movie theater. In addition to pushing the envelope forward with the digital storytelling, now being based on more granular events as opposed to just locations, GetGlue provides, for free, physical versions of the badges that users have earned on their system. Thus digital realia become physical realia, something that users of the service can use to show off their interest in the real world without others needed to be a part of the service.

Gamification and motivation

Initial LBS were based on the premise of pushed advertising. Once a user of a mobile device came into a certain area they would receive notices on their screens of something special happening around them; assuming they had already opted into receiving LBS notifications.

Today's LBS are based around the concept of engaging the user of the mobile device through the concept of gamification, and by offering reward mechanisms – not "spamming" them with potentially useless information. Gamification, defined by Deterding, Sicart, Nacke, O'Hara & Dixon (2011), is the use of video game elements in non-gaming systems (in our case education) to improve user engagement. The idea is that by using principles of game design, and not necessarily fully-fledged games and simulations, you are able to make the activity more approachable and more engaging. Motivation is defined as the natural human capacity to direct energy in the pursuit of a goal. When students see that what they are learning is important, motivation emerges. (Wladkowski, 1999)

Game design, in the context of education processes, has been approached by several authors (Paras & Bizzocchi, 2005; Gee, 2003, 2004; Shaffer, Squire, Halverson, Gee, 2005). If we compare these game design principles with published principles of online course design and motivation (Dennen & Bonk, 2007), we notice a lot of cross over. In instructional design, the ARCS model of motivation design (Keller 1987, 2000) and the concept of flow (Csikszentmihalyi & Geirland, 1996) have been used to explain how games can lead to motivation, which leads to learning (Paras & Bizzocchi, 2005). We also see that gaming can transform the emotional experience of learning; and this emotional engagement in learning, through gaming, can also apply not just to procedural or factual knowledge but also to deeper levels of processing and understanding (Howard-Jones & Demetriou, 2008). Looking at it from a Bloom's Taxonomy perspective (Krathwohl, Bloom, Massia, 1973), gaming can span the entire range.

Shaffer et al. (2005) claim that games matter because they "present players with virtual worlds which, if well-constructed, are not just about fact or isolated skills, but embody particular social practices." While Shaffer et al. write about games, not specifically LBS, the concepts still can apply to LBS. For instance, there are alternative reality games that are based on LBS, such as World of Fourcraft[1], which is essentially a game of Risk[2] that uses Foursquare's location database to map game locations to real world locations. Also, just like games, LBS users develop reputations, cultivate audiences and can show off their achievements through badge systems. This construction of an identity can be seen as a motivating factor for participation in LBS.

There are many different types of game design, from games that take you many hours to complete, to games that are casual and you undertake in the few minutes where you are waiting at the super market checkout counter. LBS design would fall under the category of casual games. Gaming has several core dimensions; those being identify, structure, challenge, feedback, social and fun (Charles, Charles, McNeill, Bustard, Black, 2011). Even among casual games there are several different sub-genres that are all based on the design principles of acceptability, accessibility, simplicity and flexibility (Kultima, 2010). It makes sense that Academic Check-in LBS are based on casual game design principles because it lower the barrier to entry, and thus allows for higher chances of campus engagement and learning outside of the confines of the classroom.

The fact that many mobile devices these days come with cameras also opens up potential doors to augmented reality, where virtual objects can be seen through the camera's viewfinder overlaid in real world locations (Seppälä, 2010). This can, for example, enable campus scavenger hunts, among other types of engaging activities. Cameras can also be used to scan barcodes and QR codes which can check people into an event without much hassle and verify that the user has completed a certain task.

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[1] See here for more information: http://worldoffourcraft.com/

[2] Risk is a board game by Parker Brothers

Another aspect of gamification is the concept of achievements and badges. Newer game consoles (PS3, PSvita, Xbox 360), as well as portable devices (with services such as Apple's *GameCenter* and the cross-platform service called *OpenFeint*), have incorporated this idea into the video games that the systems support. This concept has found its way over to education with the Open Badge system (MacArthur Foundation, 2012, Mozilla.org, 2012), with a recent example being Massive Online Open Course (MOOC), offered by Blackboard[3] that rewards participants with a lifelong learning badge indicating their participation in the course.

Game achievements are a secondary reward mechanism in games (Sotomaa, 2010), the primary, presumably being the feeling of achievement having completed a game. Achievements, in games, are nothing new. The introduction of a high score in games was an important milestone in the development of achievements (Sotomaa, 2010); however not everyone sees achievements as important in a game or in an activity (Sotomma, 2010; Montola, Nummenmaa, Lucero, Bogerg, Korhonen, 2009). Perhaps this is indicative of the different types of games identified by Bartle (1996, cited in Sotomaa, 2010).

Achievements, in addition to acting as a motivational tool, can also act "like traffic cops, directing players toward new features they might not otherwise experience" (Irwin, 2009, in Sotomaa, 2010), they provide for a measurable means of comparison among participants in the same activity, and they make players' investment and skill acquisition visible in communicable ways (Sotomaa, 2010).

In games, there are different types of achievements[4]. For instance tutorial achievements reward players for completing the game's tutorial; collection achievements depend on the player collecting certain items during the game; completion achievements apply when a player completes a part of the game. Not all game achievement categories are directly applicable to an academic check-in system, however some do; such as the Veteran achievements, for accumulating a certain amount of hours or check-ins on the system; Curiosity achievements for going off the beaten path; Loyalty achievements, and Fandom achievements.

Despite the fact that in research we see that students show a preference for learning activities with game elements, which increases with exposure (Howard-Jones & Demetriou, 2008), we might have some resistance with badges, or reframed: giving rewards for performance. The common wisdom around pay for performance is rather negative; that is that if you have some sort of reward for performing a task, the intrinsic motivation of the learner will go down. This is, however, a simplistic view of intrinsic motivation and it has been disproven.

For example, some research points to payment for meeting stated performance objectives has had a positive effect on the student's self-determination and competence; students expressed that they enjoyed performing this task, and spent their free time performing this task (Eisenberg, Rhoades, Cameron, 1999). This is corroborated by Chan & Ahern (1999, in Paras & Bizzocchi, 2005) where they report that "when people are intrinsically motivated to learn, they not only learn more, they also have more positive experience." Harackiewicz (1984, in Eisenberg, Rhoades, Cameron, 1999) also found that performance contingent rewards produced grater intrinsic motivation than the same performance without reward.

[3] Course is titled "Instructional Ideas and Technology Tools for Online Success." Course can be accessed here: https://www.coursesites.com/s/_bonkopen2012

4 See Mantola, et al. (2009) for more on this

Enriching campus life and academics

The various LBS have created a number of innovations, both in location-based activities, but also in the user interface, gamification and motivation aspects of using these services. All of these services, however, were not designed with the campus, or higher education, in mind. Some of these LBS are used as tools for campus engagement (Keller, 2011; Kaya, 2010; SCVNGR, 2011). Other services, like foursquare, can be used with campuses for the commercial aspects of the campus, just as they are used off-campus (Van Grove, 2010). Still, others in the LBS and gamification space are looking to recruit schools and non-schools alike to give their audiences engagement perks by way of badges[5].

Since none of these services were designed for an academic environment, they aren't the best fits for a higher education campus. Using LBS and EBS as a blueprint, and utilizing technologies such as WiFi positioning systems (WPS), a new type of check-in service can be created that caters to the needs of campuses. The following are three examples of how an ALECS (academic location and event check-in service) can be employed on a campus, if of course such a service were to be created and offered.

The main technical hurdle behind current commercial LBS, putting aside that they weren't designed for academia, is that it depends on GPS for its location data. GPS does not work indoors, therefore the location data is quite broad. For instance, at the University of Massachusetts Boston campus, a user may be shown to be out at sea, when in fact they are indoors, in one of the academic buildings. WPS can help remedy this. WPS is based on mapping out the locations and signal strength of various WiFi hotspots, installed throughout campus, to triangulate an approximation of the user's location.

By using WPS in conjunction with GPS a user's location is further refined. A user can then check-in to an event (or a location) by selecting an event or location, from a master database that provides the user with time and date, and locations near them. To make things easier for the user, a QR-Code (a two-dimensional "barcode") can be employed to assist the user with checking into a specific location or event without the need to find it on a list of nearby locations and events.

Cultivating school spirit and campus exploration

One major use case for ALECS is something that we already see used in higher education: a way to engage students outside of the academic realm while they are on campus. Currently, the SVCNGR LBS is a popular on some campuses (Keller, 2011; Kaya, 2010; SCVNGR, 2011) because it allows for a series of places to be grouped together in a scavenger hunt; and it allows for campuses to create their own badges to award to those users. As mentioned previously, GPS doesn't work well indoors, which makes services like SVNGR act more like bunt instruments rather than precision instruments. By using an ALECS, which would rely on more than just GPS to determine location, students can be specific about where they check in on campus.

In addition to helping make scavenger hunts on campus more precise, this system allows for special events, like the annual UMass Boston event *Spring Enrichment and Engagement Days* (SEED), and *Fall Block Parties*, to have an ALECS component where students, faculty and staff can be rewarded for participating in these campus engagement events. There are, obviously, people who will participate in these social events regardless of ALECS, but the gamification aspects afforded by an ALECS can get more people engaged in these activities.

[5] One such company is Badgeville: http://www.badgeville.com/

In addition, the gamification affordances of ALECS can be applied to other school spirit events, such as attending sports events, both home and away, participating on campus community buildings events, such as events organized by various student clubs and organizations, and celebrating talent, such as UMass Boston's annual *TalentedU* talent showcase. This can also be used for events and conferences that take place on campus that are put on by external entities, but are, nevertheless, open to the campus community. Such events include *Ideas Boston* conference[6], the annual *Folk Festival* and *WordCamp Boston Unconference*, just to name a few.

By participating in such events, and checking-in on ALECS, students, staff and faculty of an institution of higher education can show off their school spirit, and get various extra perks, such as potential discounts at the campus bookstore or the food course, if such reward structures exist.

Extracurricular academics

Academic activities can also be enriched by incorporating ALECS into learning activities outside of the classroom session, and outside of the learning management system. One major example for this use case is the UMass Boston College of Management's *Management Achievement Program* (MAP). "MAP is an engaging and comprehensive program designed to develop and enhance each student's professional demeanor, build competencies for academic success, increase involvement in the College and local business communities, and allow the opportunity for students to personally synthesize their academic and professional goals and experiences" (UMass Boston College of Management, n.d.). For this type of use case, Trowler's framework of behavioral, emotional and cognitive engagement (2010) informs the usage of ALECS. The check-in aspect of ALECS falls under behavioral engagement, the gamification and reward aspects are the emotional engagement, and the extracurricular learning is part of the cognitive engagement.

The metaphor of the passport, seen exemplified in GoWalla for example, could work well with the MAP since the MAP is based on miles accrued. The events that are part of the MAP program can be part of ALECS. Students, and other campus community members, can then take part in all, or some, of the MAP events. People who go and participate in MAP events can accrue MAP's miles, but also accrue digital stamps for the events that they attend, and they can unlock badges for having completed a certain number of events.

For example, if you have been to five MAP events with a focus on Management Information Systems, you may unlock an "MIS Level 1 Guru" badge. The more MIS events you attend, the higher your level will rise[7]. This can also give people opportunities to earn limited release badges. For instance, if a small handful of students elect to go to a company field trip on a given day, they may be awarded a limited edition badge signifying their participation.

In addition to badges, and other gamification-based motivators, the ALECS system may also give participants opportunities for receiving real life bonuses for their participation. For example, if there were a famous author coming to campus to speak to the campus community, those individuals that check into the lecture can be entered for a drawing of this famous author's book. Another example would be a famous CEO coming to speak at a MAP event. Those who are checked in could win a day with the CEO for example.

Beyond the digital and physical rewards that students can get by attending campus events and checking in with ALECS, another great campus resource can be leveraged for learning: the library. Instructors could, when they are creating extracurricular academic events, point participants to an interesting book or academic article on the topic that the event centers on.

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[6] See here for more information on IDEAS: http://www.umb.edu/ideasboston

[7] This functionality is reminiscent of Whrrl's way of awarding level badges. Foursquare does something similar with a recent upgrade to their system.

Additionally, using wikis and LibGuides, event speakers and hosts can put together a mini bibliography of relevant resources on that given topic. Anyone who checks into the event can get a link automatically emailed to them so that they have access to those additional resources.

Of course, an instructor can put these on Blackboard, but then only students enrolled in the course can see the links; and this doesn't encourage the fostering of a transdisciplinary community. If participants of this event got the resources link after checking into ALECS, it would be a way for people not part of any particular course to have access to these lecture resources. A traditional special event may include handouts, but paper handouts can get lost, do cost money, and it's not as easy to retype a long hyperlink as it is to click on it. Paper handouts can be replaced by a virtual ALECS locker that users of ALECS can have on their account. Additionally, as we see in Paras & Bizzocchi (2005) games lead to play, which lead to flow (Csikszentmihalyi & Geirland, 1996), a state of being "in the zone"; flow in turn lead to motivation, which leads to learning. If additional articles are provided to learners via a game like mechanic, as opposed to a virtual repository, the theory is that learners would be motivated to engage with additional readings.

The MAP is, of course, only one example of an existing campus initiative. Other campus initiatives, such as MAP, or isolated special events, can gain much more of a following on campus, and they can be marketed better though a system like ALECS. In this instance ALECS encompasses not only a social network where classmates and friends can find each other; a way to put together a personal digital story of your campus activities; and a way to increase campus engagement; but also it allows for learning to happen outside of the confines of the classroom because it opens up the doors to non-classroom education events, for which students get some recognition for attending, and through the use of virtual and physical gifts and realia, students are encouraged to learn more about the subject on their own.

Potential hurdles

An academic check-in system does have definite advantages for extending learning outside the classroom, so that learners can take advantage of the rich academic life of the university, while at the same time receiving, and giving, recommendations to their friends and to their campus community. Academic check-ins also have the added benefits of being social while taking part in extracurricular activities such as campus sporting events, concerts, performances, or even while enjoying that cup of coffee in between courses.

Despite the fact that 60% of academic institutions already have some sort of mobile enabled portal (Dobbin, Dahlstrom, Arroway, Sheehan, 2011), there are a number of potential hurdles to overcome; hurdles that are social in nature, based on policy, campus politics and on existing frames of mind. When it comes to mobile learning (academic check-ins being a type of mobile learning), over the years campus policy makers and faculty have been reluctant to establish a service that not everyone has the privilege of accessing[8].

While it is true that not every student comes to our classrooms with a connected portable computing device, many students are. The most recent ECAR survey of undergraduate students indicates that 55% of undergraduate students come to campus with a smartphone in hand (Dahlstrom, de Boor, Grunwald, Vockley, 2011). Furthermore, even if some members of the campus community don't want to participate in academic check-in activities, it's not fair to penalize those that would. Facebook could be considered the parallel to this service. Not everyone wants to be on facebook; however that doesn't prevent others from joining and using the service, and using it for academic purposes.

[8] This has been my experience while interacting with individuals, at North East region Educause workshops and conferences, who've set up mobile learning initiatives on their own campuses

Two other issues that come up are security and user privacy, and the siloed nature of our enterprise academic computing. Most of academia's data is siloed and doesn't interoperate well with other systems without some sort of massaging. In order to create such an academic check-in system, data needs to be collected from a variety of sources, including calendaring and room reservation systems, open badge databases, student information systems, and perhaps learning management systems.

The providers of these campus services are not always under one roof so getting data from all of these systems to make our academic check-in service work could be challenging. Sometimes data and service providers hide behind the reason of privacy and security of student information. While privacy and security are really important, and while there are federal laws (like FERPA) protecting some types of student data, this is not a valid excuse for not having interoperability. The academic check-in service, like many other LBS and EBS services, would be voluntary, and users would have the ability to take their data with them if they sought to cease using the service. We see in Lederer, Mankoff and Day (2003) that users preferences on privacy are not situational, but rather individual based. The situation might change, but people still apply the same rubric to whether or not they share the information: they ask themselves "who's asking?" We should give our students the ability to reply and share the information they want to share on a person-to-person basis, rather than the current situational scenario of *being in school*.

An academic check-in service would have to be built from the ground up. In academic we have a rich history of taking the creations of other people, work not intended for our purposes, and finding ingenious ways to use it for our own purposes. While there are universities that do use existing services, such as SCVNGR (Keller, 2011; Kaya, 2010; SCVNGR, 2011), these services do lack the richness that could be attained by having a campus specific service that reflects campus life. This is something that one university could build for its own campus; or an integration company could create the shell of the service, and campus specific data could run it. There is interest (Desantis, 2012), but it would, cost to implement, and there is reluctance for individual academic institutions to go at it alone (Dobbin, Dahlstrom, Arroway, Sheehan, 2011).

Finally, there is the actual reward mechanism that needs to be determined. As we've seen in research, if low efforts is contiguously rewarded (in our case simple check-ins) but high effort is not rewarded at the same level as low effort (example: going to guest lectures outside your discipline) the reward itself (example: badges) will lose any previously established secondary reward properties and become more aversive. The net result of rewarding low effort would be the reduction of the general inclination to expend high (example: participate in learning and social activities outside of the participant's normal interactions with the campus. (Eisenberg, Armeli, Pretz, 1998). This means that reward mechanisms for this check-in system would need to adhere to the *Goldilocks principle* - not too low, but also not too high, so as to engage and motivate participants. It should be kept in mind that rewards only work well if the system is designed well. Rewards will not entice people to participate in a badly designed system (Montola, et al, 2009)

Conclusion

Even though mobile learning has been around for the last decade, it would appear that the environment is currently ripe with opportunities for using mobile learning to engage students and staff on campus outside of the confines of the classroom. More than 50% of incoming freshmen have access to a smartphone, and there is a desire for students to connect with others and make learning fun (Dobbin, Dahlstrom, Arroway, Sheehan, 2011). Social networking services are experimenting with location-based and event-based components to their services, and there are established mechanisms, like badges, to reward users for participating in both *established* venues and events, but also taking the path least traveled. Badges and achievements aren't things that you only get in games any longer; there is an interest in badges and other reward *and credentialing*

mechanism in higher education (Carey, 2012; Mozilla.org, 2012; MacArthur Foundation, 2012). Academic check-ins are a good *mobile learning* way to leverage this confluence of factor to enhance learning *and campus engagement* outside of the classroom.

The key thing to keep in mind is that a system for academic check-ins should not be a siloed enterprise. The data from such an academic check-in system could be useful when institutions undertake learning analytics methodologies (Siemens, 2012) to determine how to best extend learning outside of the classroom and use the learner's own check-in to enrich what happens in the classroom. This academic check-in service could work in tandem with learning analytics from Learning Management Systems, like Blackboard, and Social Research Management Systems (Koutropoulos, *forthcoming*) to enable learners to extend their own learning based on the actions that they've taken in the Academic check-in service. Thus, instead of having many different silos of information and services, the campus has an ecosystem that is adaptive and helps learners on their way to becoming lifelong learners.

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Appendix

Figure 1: An example of GoWalla on the iPhone. This screen shows an image of the virtual item found (reminiscent of Apple's iPad 2), the serial number of the item (some items only had a limited run) and the location in which the user found the item (in this case, a Best Buy)

Figure 2: An example of Foursquare on the iPhone. This is a view from just having checked into the *Friendship* (a sail ship, at the National Park Service in Salem, MA). In this case the user just received the *Boat* badge (for having been on boards). This view also tells the user how many check-ins away they are from winning the mayorship (2 day), how many points they've been awarded in the game. Finally, there is a reference to a pop-culture comedy song "I am on a boat" from the show *Saturday Night Live*.

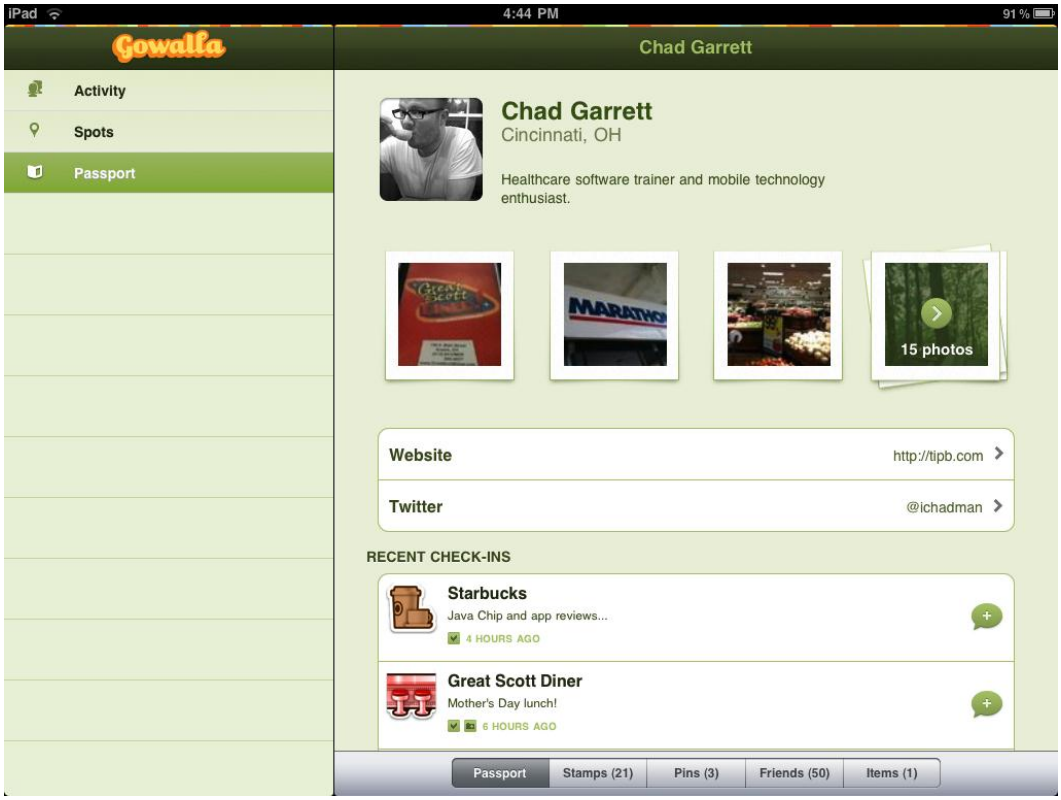

Figure 3: GoWalla screenshot from an iPad. This screen better shows off the *Passport* concept where users can see where they've checked in, how many items they've found (and what those items are), their pins (badge equivalents in foursquare and other services) and stamps (locations that the user has visited)

Image retrieved from: http://www.imore.com/2010/05/10/gowalla-ipad-app-review/passport/

Figure 4: An example of actual physical stick-on badges that GetGlue users can receive, for free, in the mail once they've collected at least 20 virtual badges.

Image retrieved from: http://snakesayan.blogspot.com/2011/04/get-glue-stickers.html

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Editor's Note: Individual tutoring is an effective way to learn, but it is beyond the resources of most learners to hire a tutor. The ideal way to learn a foreign language is to have a tutor who is native in that language. e-Tandems is a plan to pair native language speakers with different languages to help each other to learn their respective languages. There are social, cultural and learning advantages to this method of learning.

Negotiation of meaning in e-Tandems: Student perceptions of language acquisition during an intercultural exchange program

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Abstract

Computer Assisted Language Learning (CALL) is gaining popularity in the American foreign language (FL) classroom and Computer Mediated Communication (CMC) improves both written and oral skills in the target language (TL) (Blake, 2000; Payne & Ross, 2005; Warschauer, 1996). Following Long's (1983, 1991, 1996) Interaction Hypothesis and Swain's (1985, 1995) Output Hypothesis, instructors should create various options for students to actively interact and engage in negotiation of meaning (NoM). Due to the few opportunities for face-to-face interaction, in many cases, CMC provides the only possibility for foreign language (FL) learners to access native speakers (NSs) (Abrams, 2003). In this study, nine American and nine Argentinean students interacted via e-mail during eight weeks from their respective locations and later provided reflections on their experience. The study sought to contemplate written CMC to gather students' opinions regarding this type of communication and its effect on FL learning. Results suggest that students find this interaction fruitful not only for overall improvement of the TL but also for mutual intercultural enrichment.

Keywords: Spanish, English, CALL, FL, CMC, interaction hypothesis, output hypothesis, etandems, NoM, noticing, intercultural communication.

Introduction

With the rapidly growing use of new technologies in all aspects of everyday life, formal education has been experiencing changes ranging from the use of PowerPoint presentations to the development of hybrid and online courses. Computer-assisted language learning (CALL) has gained popularity in the foreign language (FL) classroom. Several studies (Abrams, 2003; Blake, 2000; Payne & Ross, 2005; Warschauer, 1996, 1997) support the idea of Computer Mediated Communication (CMC) as a beneficial way to improve language proficiency. In fact, it facilitates interaction in various ways: a) it provides greater equality due to reduced social cues related to race and gender, thus diminishing asymmetrical power relations; b) it allows for participants to interact at their own pace (Warschauer, 1996, 1997); c) it creates limitless, faster, and more convenient opportunities for language exchange in the target language (TL); d) it increases student motivation (Warschauer, 1996); e) it initiates more balanced interactions than face-to-face communication (Kern, 1995); f) it has become more accessible through several widely used programs (Smith, 2003). Moreover, as Sadler (2007) points out:

> CMC gives language learners access to more knowledgeable individuals, either native speakers of the target language or more advanced nonnative speakers, than they might be able to encounter in a face-to-face environment, thus increasing their potential ability to learn. Indeed, in some environments, CMC provides the only possibility for access to NSs (p. 12). A beneficial way of promoting native speaker (NS) - nonnative speaker (NNS) interaction via CMC is through tandem exchanges.

eTandems

In tandem exchanges, "individuals are studying each other's native language and, therefore, they play both the role of native speaker and of language learner" (Gonglewski, M., Meloni, C. & Brant, J, 2001), helping each other improve proficiency in the target language (TL) (Cziko, 2004). According to Brammerts (1996), two key features of tandem learning are reciprocity, which involves participants sharing similar language proficiency, and autonomy, in which participants are responsible for their own learning. In this way, peers interact without the intervention of a teacher and share a common goal of learning the TL and seeking feedback regarding linguistic and cultural issues that are interesting to them (Little, 2001). Considering this, CMC provides opportunities for student-centered interaction in which students direct their own learning and communication, avoiding a teacher-centered environment (Patrikis, 1995). O'Rourke (2005) explains some of the benefits of virtual tandem language learning, saying,

> Tandem learning can support a combination of explicit form-focused learning and meaningful communication which is, in addition, highly authentic since tandem partners should in principle be interested in one another as individuals and not just as sources of language input. It also facilitates an autonomous mode of learning since partners can negotiate the desired balance between topical and pedagogical communication and choose conversational and pedagogical topics according to their needs. (p. 434)

Such tandems are beneficial for FL students because the classroom is becoming an increasingly diverse setting in which there is a greater need for learner autonomy in response to more personalized learning approaches in the postmodern world (O'Dowd, 2010). In fact, in his discussion regarding the role of the language classroom in this postmodern setting, Graddol (2006) states that while it is an important learning context, limiting instruction to the classroom is not enough for the teaching of a global language (p. 91). Therefore, extending classroom interaction to the virtual mode provides unique opportunities for obtaining communicative competence as well as intercultural communicative competence. Such competence involves the acquisition of knowledge of social groups as well as their products and practices (Byram, 1997). Indeed, culture's place in language education has expanded along with technological advances that connect people in different parts of the planet, making electronic cross-cultural communication less difficult and more frequent (Thorne, 2006).

In order to provide students with more personalized, authentic and autonomous opportunities to develop language skills and intercultural communicative competence based on their own needs and interests, the present study sought to implement a distance etandem interaction. Although topics were suggested and interactions were structured to provoke fruitful cultural exchanges, autonomy and reciprocity were vital in the design of the project. To this end, participants were permitted to deviate from the suggested discussions when appropriate. Furthermore, considering that "tandem partners in many ways take on the role of peer tutors who correct their partners' errors and propose alternative formulations in the target language" (O'Dowd, 2010), we paired students based on proficiency level so that interactions would be more productive. In this way, student exchanges in etandems can be rich environments for receiving native input and producing output in the TL, negotiating meaning, and providing one another with corrective feedback.

Negotiation of meaning, feedback and noticing in CMC

As established by the Output Hypothesis (Swain, 1985, 1995), input alone is not sufficient to acquire a FL. Furthermore, output should not be considered a sign of acquisition that already took place, as the Monitor Theory (Krashen, 1977, 1980, 1981, 1982, 1985; Krashen & Terrell, 1988) claimed, but rather a necessary element for language acquisition. According to this Hypothesis, output is crucial for acquisition since it provides learners with the opportunity to utilize the TL in

a meaningful way, test hypotheses, and produce utterances to communicate an idea. When attempting to produce the TL, learners notice what they don't know, a mechanism termed "noticing the gap" by Schmidt and Frota (1986). The gap rarely becomes apparent to learners when receiving input, but when output is produced, the mismatch between their interlanguage and the TL is likely recognized. When noticing the gap, learners often seek help from others to mend it.

Interaction that requires output production provides numerous benefits (Kowal & Swain, 1994). For example, while engaging in interaction, communication breakdowns serve as opportunities for negotiation of meaning (NoM), which often results in gaining feedback and more comprehensible input (Long, 1996). During NoM learner attention is drawn to a given linguistic form and noticing, a requisite for acquisition, is stimulated (Schmidt, 1990). Most of these mechanisms target lexical items, which are most frequently negotiated (Brock et al., 1986; Pica, 1994; Sato, 1986), as opposed to grammatical items, which are generally not addressed since they are not crucial for understanding.

This pattern of negotiation occurs not only in face-to-face (F2F) interaction but also via CMC (Pellettieri, 1999), making e-mail and chat beneficial for FL instruction (Blake, 2000). In fact, asynchronous CMC (aCMC) creates an environment in which learners can still engage in NoM but with the advantage of in depth-analysis and critical reflection. It also allows for the production of more complex output through the possibility of drafting and re-drafting (Leahy, 2001; Warschauer, 1997).

A significant amount of research has investigated the effects of interaction, output, and corrective feedback in classroom settings (Doughty & Varela, 1998; Izumi et al., 1999; Lyster & Ranta, 1997; Mackey & Philip, 1998; Muranoi, 2000; Varonis & Gass, 1985) and recently this trend has taken a new direction: investigating the effects of these elements in virtual settings (Blake, 2000; Bower & Kawaguchi, 2011; Isawaki & Olvier, 2003; Lai & Zhao, 2006; O'Rourke, 2005; Pellettieri, 1999; Smith, 2003). Although most studies explore different forms of corrective feedback in SCMC, others show the advantages of aCMC (Kessler, 2009; Leahy, 2001; Vinagre & Maíllo, 2007; Warschauer, 1997; Ware & O'Dowd, 2008). However, to our knowledge, little research (Leahy, 2001; Vinagre & Muñoz, 2011; Ware & O'Dowd, 2008) has been conducted regarding learners' impressions concerning their involvement in e-exchanges and their perceptions about the effects virtual NoM might have on their interlanguage development and L2 acquisition. In addition, most studies that included surveys in their data collection did not quantitatively report their findings. Therefore, this paper seeks to expand the understanding of student perceptions in this particular area.

Research questions

The current study seeks to identify students' opinions about the use of CMC for communication in the TL and to gather students' impressions regarding their own acquisition process. The following questions guided this investigation:

- RQ1: Did participants identify CMC as a means for L2 improvement?
- RQ2: Did participants recognize their involvement in NoM (clarification requests, confirmation checks, repetition), noticing, feedback and metatalk?
- RQ3: Did participants consider CMC a beneficial tool for interacting with NSs?

Overall, it was expected that interacting via CMC with a NS would increase participants' opportunities for NoM and their likelihood of acquisition would be enhanced. In addition, participants were expected not only to increase their production in the TL but also to gain confidence since a) interacting with a NS would pose a greater challenge than classroom peer

interaction, b) textual interaction decreases vulnerability due to increased time and less pressure for immediate output production, c) oral interaction without visual interaction lowers the affective filter.

Methodology

A CMC exchange was established in which American students of Spanish were paired with Argentinean students of English to interact during an eight week period. The participants were to use electronic communication to practice the TL with a NS. Even though it has been proposed that NoM is elicited more through task-based communication (Pellettieri, 1999), specific tasks were not carried out in this project since etandem interactions should be based on autonomy and reciprocity. Moreover, since Argentineans had limited access to the Internet, organization of simultaneous task-based communication was not possible.

To promote fruitful interaction, instructions were provided and questions were specified according to who was to ask which questions and when to use each language so that students could spend equal time speaking both languages and learning about the target culture while moving at their own pace. Questions based on cultural topics were distributed to participants weekly to promote authentic intercultural communication, however, for the sake of learner autonomy, they were permitted to divert from the questions as necessary.

The e-exchange consisted of an information exchange task in which students provided their partners with information about their personal lives and aspects of their cultures (O'Dowd & Ware, 2008). The interaction was structured in two phases. Participants began by asking each other approximately six general questions about the week's topic, switching between English and Spanish without restrictions. The second phase was designed to guarantee equal employment of both L2s (Leahy, 2001). First, Americans asked Argentines three to six assigned questions in Spanish and Argentines were to answer in Spanish. Then, Argentines asked Americans three to six assigned questions in English, and Americans were to answer in English.

Participants filled out a pre-program background questionnaire which gathered information related to proficiency level and previous instruction in the L2. They also completed a post-program survey about preferred types of CMC and improvement rates due to the program. Most of the questions in the survey followed a five-point Likert scale design, while others were yes/no questions and open-ended questions. Records of participant interaction (mostly in the form of e-mails) were gathered, however, they were not analyzed in terms of language related episodes (LREs).

Participants

A total of 86 participants (43 from Argentina and 43 from the U.S.) signed up for the program, however, after eight weeks, 18 (nine from Argentina and nine from the U.S.) remained, and 14 completed the exit questionnaire. These participants belong to two different institutions in Argentina and two different institutions in the U.S. Participants in Argentina were either studying the TL as part of an English Teacher Training Program, taking an English course at a University, or studying English in a private language institute. Participants in the U.S. were majoring or minoring in Spanish or were high school Spanish teachers. Several participants were placed with a partner but did not maintain communication due to personal schedules and the two-hour time difference. Most participants opted to use e-mail to communicate because it allowed for writing and responding at any time and place.

Findings

Turning now to the central concern of this study, our first research question: "Did participants identify CMC as a means for L2 improvement?" was answered with data presented in Table 1 below.

Table 1
Improvement areas due to tandem program

	Barely/Not at All (%)	Somewhat (%)	Greatly (%)	Immensely (%)
Reading	1 (7.1)	8 (57.1)	5 (35.7)	0 (0)
Writing	2 (14.3)	5 (35.7)	7 (50.0)	0 (0)
Speaking	9 (64.3)	5 (35.7)	0 (0)	0 (0)
Understanding	1 (7.1)	5 (35.7)	7 (50.0)	1 (7.1)
Pronunciation	10 (71.4)	4 (28.6)	0 (0)	0 (0)

The results shown above reveal that participants indicated several aspects of their language abilities improved, especially in the areas of reading, writing, and understanding (in that order), due to their involvement in the e-exchange program. Since practice leads to higher levels of improvement (DeKeyser, 1997), based on participants' impressions of their progress, this study confirms that practice facilitates acquisition. Given that participants were not able to interact orally, speaking and pronunciation were not practiced and hence, did not greatly improve. Nevertheless, 28.6% of participants indicated that they somewhat improved pronunciation and 35.7% claimed to have somewhat improved their speaking abilities. Although it has been established that two skills such as comprehension and production are not transferable (DeKeyser, 1997), it has not been shown that one skill set (reading / writing) cannot be transferred to another (listening/speaking), which is what may have occurred in this case. However, just because participants perceived improvement in their oral abilities does not affirm they actually did so. Therefore, participants' reported oral improvement cannot be confirmed nor can it be attributed solely to the transfer of language skills.

In addition to the specific areas discussed above, Table 2 below summarizes data gathered related to practicing the language and interacting with NSs.

Table 2
Improvement opportunities due to etandem program

	Yes	Percent	No	Percent
Q14 Do you think that CMC is a good opportunity/way to practice your FL?	15	100.0	0	0
Q15 Did you find CMC with a native speaker more helpful than communicating in the TL with a NNS classmate?	14	93.3	1	6.7

As expressed in their responses, most participants found the program to be a fruitful way to connect with a NS, learn about a different culture, and practice the TL. Below are some comments retrieved from the open-ended questions of our survey regarding advantages of the program.

- "My partner is amazing! She truly wants to learn about the U.S. just as much as I want to learn about Argentina. :)" (Participant #14)
- "The opportunity of being able to "speak" to an American was awesome" (Participant #3)

Some participants commented specifically on the improvement of literacy skills as well as the intercultural exchange:

- "I like the experience because I improved my writing and reading and we shared things about our cultures" (Participant #8)

The notions of noticing and NoM have been widely investigated in studies involving CMC (Bower & Kawaguchi, 2011; Lai & Zhao, 2006; Leahy, 2001; Kessler, 2009; O'Rourke, 2005; Smith, 2004; Vinagre & Muñoz, 2011). In the current study, the aforementioned topics were explored in response to our second research question, "Did participants recognize their involvement in NoM (clarification requests, confirmation checks, repetition), noticing, and metatalk?". Findings are summarized below (see Table 3).

Table 3
Summary of Responses Regarding Language Outcomes

	Yes	Percent	No	Percent
Q2 Did you learn new vocabulary?	14	93.3	1	6.7
Q3 Did you ever notice that your partner was using a structure or phrase that was different from the way you had been using it and make adjustments accordingly	11	73.3	4	26.7
Q4 Did you and your partner ever check for understanding or requested clarification from each other?	13	86.7	2	13.3
Q5 Did your partner ever use words or further questions to help you modify your incorrect or incomplete sentences and produce the answer, structure, or word you were looking for?	10	66.7	5	33.3
Q7 Did you notice when you began writing something incorrectly, backspace, and fix it?	13	86.7	2	13.3
Q8 Did you and your partner ask each other questions about language such as when or where to use certain words or forms?	8	53.3	7	46.7
Q10 Did you have the chance to interact orally?	0	0	15	100.0

As seen above, the majority of participants reported learning new vocabulary, noticing the gap between their output and nativelike input, self-correcting, negotiating meaning, and engaging in metatalk, but none of them interacted orally.

In light of previous research, the nature of the task conducted during e-exchanges has an impact on the amount of NoM that takes place during the interaction (Bower & Kawaguchi, 2011; Pellettieri, 1999; Smith, 2003; Tudini, 2003). Working collaboratively on a task is thought to foster negotiation; however, in our study, participants engaged in guided casual conversation instead. Nonetheless, most participants (86.7%) reported that they were involved in clarification requests. E-mails exchanged among participants revealed that most requests were related to lexical misunderstandings or lack of vocabulary knowledge. This is consistent with Smith (2004), who found that learners engaged in NoM and successfully resolved communication breakdowns more often when they were related to lexical items. What follows are excerpts from participant interactions that demonstrate this tendency:

- "I don't get very well that thing about Major/Minor. Could you explain it a little bit?" (Participant #13)
- "okay primero voy a explicar el horario de mi escuela y los cambios que van a tomar lugar ("take place" jaja es asi en espanol??)." [*okay, first I'm going to explain my school schedule and the changes that will take place – "take place" haha is it that way in Spanish?*[9]] (Participant #2)

The notion of noticing has been treated differently in the various studies that have investigated it (Lai and Zhao, 2006; Schmidt, 1990, 1993, 1995; Schmidt & Frota, 1986). Regarding noticing one's errors, Lai and Zhao (2006) reported that non-prompted self-correction was more common in CMC than in F2F interaction. Even though we did not compare our results with a control group, the majority of our participants (73.3%) indicated that they were able to notice the gap and adjust their output in subsequent occasions. Similarly, 86.7% of our participants reported recalling episodes of self-correction without prompts or feedback. In sum, most of our participants recalled self-correction, error noticing, and clarification requests; but a smaller percentage indicated they engaged in metatalk (53.3%) and obtained feedback (66.7%).

Discussion and limitations

Overall, participants most improved in the areas of reading, writing and understanding, and they found the program to be fun, helpful, valuable for cultural connection and exchange with NSs, and beneficial for communication in the TL. Most participants negotiated meaning (86.7%) and identified episodes of self-correction (86.7%), non-prompted noticing (73.3%) and prompted noticing (66.7%). These results indicate that written (text-based) exchanges enhance noticing and self-correction, which may be due to extended time for processing and reflection (Bower & Kawaguchi, 2011; Lai & Zhao, 2006; Smith, 2004). When communicating via aCMC, participants have more time to process what they read, which facilitates the comprehension of input (Warschauer, 1997). Furthermore, participants have more time to consider what to include in their output, compare it with a modified version, and adapt it using feedback from their counterparts before sending it (Pellettieri, 1999). The present study did not, however, investigate whether the time factor influenced participants' ability to self-correct and notice the gap without being prompted to do so. Considering this, participant perceptions reveal that virtual asyn-chronous interaction facilitates focusing on form (Long, 1983, 1991, 1996), acquisition can be enhanced through negotiated e-exchange, and noticing is possible through CMC (Smith, 2004).

Still, there are many factors that provoke careful interpretation of the results of this study. First, since participants in Argentina completed pre and post-program surveys in English and their native language is Spanish, this could have skewed the interpretation of the results. In addition, although cross-cultural bi-national e-exchange programs have been successfully implemented,

[9] An English translation of the student's excerpt was included in brackets.

they still might result in "e-problems" if the different settings are not evaluated thoroughly prior to the exchange. For example, American schools and homes normally have computers and a reliable Internet connection. However, Argentinean participants indicated that they did not have readily available access to the Internet, which made regular communication with their counterparts difficult. In this way, intercultural communication programs are not only challenging due to technical difficulties and accessibility, but are also organizationally demanding for instructors and students alike.

Conclusions

The present study investigates etandem exchanges primarily via e-mail. In such exchanges reciprocity is important for ensuring participants can help each other effectively and autonomy is necessary since participants are responsible for their own learning and cultural exchange. Thus, student-centered peer interaction and intercultural communication is at the heart of the tandem experience. Due to the emphasis on student-centered interaction in the postmodern classroom, we maintain that etandem activities should not be a peripheral addition to foreign language classes but rather an integral backbone of course schedules (O'Dowd, 2010).

Despite the anxiety often prompted by communication with a NS, interaction via the Internet provides learners with a more comfortable and engaging environment for intercultural interaction. In this way, the virtual, asynchronous nature of aCMC not only provides participants with the opportunity to communicate with NSs they would not normally have contact with in a non-threatening environment but also allows time for them to reflect on input and output. Considering this, results of our study indicate that participants not only find etandem interactions beneficial for oral and written communication, but for overall improvement of the TL. Moreover, participants report noticing, using linguistic metatalk, and negotiating meaning during their interactions. They most frequently negotiated lexical items and reported higher acquisition of vocabulary in comparison to other aspects of the language.

Although this study was exploratory in nature and no gain was measured, it demonstrated the advantages of cross-cultural aCMC according to the participants involved. Moreover, student perceptions provided a unique perspective on the language learning process, which could help policy makers, administrators and instructors to more accurately identify student needs and interests and determine ways to incorporate them in instruction. In addition, recognizing the diversity of student opinions can lead to the pursuit of more effective and autonomous language learning, which, in turn, may engage students and provide them with more frequent and meaningful opportunities for language acquisition. This can be achieved through seeking and considering student conceptions in FL planning and instruction more often and integrating technology in order to incorporate more autonomous, authentic interactions in and out of the formal classroom, thus reflecting more globalized instruction in the postmodern world.

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Editor's Note: This study is shows how a rural school used online technologies to enhance their program offerings when faced with cuts in budget and staffing. Thoughtful planning and involvement of stakeholders avoided problems and ensured success.

Partnering for a broader, more expansive education: School librarian leadership in action

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Abstract

In rural disadvantaged school districts it is often difficult to provide expanded course offerings for students. How can schools compete in today's economic environment to ensure that high school students have a comprehensive education? Budgetary concerns are forcing deep cuts in staffing. Deficits in teaching staff create the need for alternative learning formats. School librarians, counselors, and administrators working together can be leading forces in redesigning access to education for the twenty-first century student. Through this example, we want to show the steps of a visionary school librarian implementing online learning at her secondary school and the implications for students, teacher and administrators.

Keywords: School librarian leadership, rural schools, distance education, online learning

Introduction

Access to education is a right we have long valued in the progressive world particularly in democracies which depend upon informed and independent thinking. As far distant as 1948, the United Nations (UN) General Assembly affirmed, as part of their *Universal Declaration of Human Rights* (UDHR) for all people and all nations, that everyone has the right to education (UN General Assembly, 1948). The transformative impact of a quality education is indispensable in shaping actions and deeds of future generations. Although this premise is publicly and politically accepted and supported in the United States, there is a growing concern as to the quality and equality of that education today (Darling-Hammond, 2007). The means to support education and the commitment for providing equal education across the country for all students is at issue.

Schools in many districts across the nation are experiencing difficulties in filling essential teaching positions, but none more so than those in rural disadvantaged areas (Hannum, Irvin, Banks, & Farmer, 2009). The economic downswing and decreasing budgets, have made it even more difficult to entice and retain quality teachers to serve in rural, remote, and often disadvantaged areas like the one under review for this article (Schwartzbeck, 2003). In the small rural school served and observed by authors of this work, the situation became critical as students were denied opportunities, choices, and education equitable to those in more highly funded schools. The question for educators was how to address this problem?

Alternative formats for teaching and learning presented a means to answer this question. Beginning with an exploration of issues facing economically challenged rural schools and the urgent need to provide courses to meet requirements for graduation, this case example describes how librarian leadership can help to expose students to a broader, more expansive educational program by increasing awareness of alternative educational formats and possibilities.

Teacher allocation and course offerings

Teacher shortages are increasing and becoming more severe in rural, disadvantaged areas (Hannum, Irvin, Banks, & Farmer, 2009; Schwartzbeck, 2003). It has become increasingly difficult to recruit teachers, and particularly so for special needs, counseling, foreign language, music, vocational education, and advanced science and mathematics curriculums (Williamson, 2010; Sullivan, 2000). Unfortunately, as teachers retired, districts have left positions unfilled. In some cases schools have combined responsibilities to reduce faculty (Hannum, Irvin, Banks, & Farmer, 2009; Schwartzbeck, 2003).

Budgeting and teacher allocations depend upon enrollment, thus as enrollment shrinks, those students remaining have fewer teachers and courses from which to take advantage (Hannum, Irvin, Banks, & Farmer, 2009; de la Varre, C., Keane, J., & Irvin, M.J., 2010). Districts are forced to employ creative manipulation of budget items to make best use of decreasing funds (Minchin, 2011). Rural districts across the country have sought ways to provide broader, more expansive educations for their students. (Manzo, 1999).

The wave of teacher shortages being felt across the country was indeed a harsh reality in the case example upon which this article is based. Students found it necessary to travel to alternative sites to take certain courses needed to meet graduation requirements of their colleges of choice, because certified teachers were not available at their school to teach these courses. Opportunities to learn foreign languages, advanced math, physics/chemistry, and honors courses were limited because certified teachers were not locally available.

With the urgent need for course offerings and faculty in evidence, an alternative means to provide quality education became increasingly crucial. Alternative methods include online learning opportunities for the high school student. Although common in many other school systems (Watson, Gemin, Ryan, & Weeks, 2009), online learning had not been actively pursued in this school. The time had come to revisit the use of technology to increase access to education for students in this school.

Promoting change: Librarian leadership

In library science graduate programs, students explore the multifaceted role of school librarians, the importance of leadership, vision, communication, advocacy, and other topics pertinent to the practice of librarianship in schools. Librarians may apply these key concepts effectively throughout their careers as needs present. Librarians advance student interests and serve their unique learning communities through visionary leadership and professional expertise, working within the schools broader instructional programs (AASL, 2009; Baule, 1999). Through their knowledge and use of technology (AASL, 2009), librarians may be key leaders in advancing the instructional programs of their schools. It is essential for school librarians to embody creative leadership in their roles to most effectively serve all stakeholders (Dotson & Jones, 2011).

The perspective from which a school librarian may view the school is broader than that of the classroom teacher, as they should have awareness of curriculum needs and plans across all departments and grade levels (Dotson & Dotson-Blake, 2010). With the opportunity to see the school program in its entirety, school librarians also have an opportunity to further identify stakeholder needs and propose answers to meet those needs through leadership, advocacy, and support. In the case example for this article, a clear need was identified by the school librarian. In keeping with AASL standards calling for the interpretation and use of data to identify ways to improve academic processes to support student achievement, the creative leadership of the school librarian was instrumental in advocating for nontraditional teaching and learning formats, and in developing a plan to provide access to needed courses.

Professional development

Professional development was a key factor in the solution to this school's problem. Teachers and school leaders, deeply entrenched in their work, may not recognize the explosive growth of online and blended learning in schools today. Exposure to the evolving formats through professional development is helpful in keeping educators abreast of new trends. Professional development enables educators to be more informed and effective leaders (Harvey, 2010). Arenas for professional development vary widely making new information more accessible than ever. More often school librarians are turning to listservs, blogs, webinars, wikis, and other evolving online resources (Brown, Dotson, Yontz, 2011) for professional development. Not surprisingly, it was the result of continuing professional development that led to a means to meet the glaring need for more certified teachers and broader course offerings through which to better serve the needs of students in this small school. After attending a state technology conference, the librarian, with a sharp awareness of technology and realizing the possibilities available through online education, initiated dialog with the counselor and school principal to begin a discussion focused on taking advantage of alternative formats for course offerings.

Virtual High School's and other progressive opportunities

The high school in this case example is a small, rural school of less than 500 students. Over the course of just a few years, it had become evident that fewer course offerings were being provided to help students meet requirements for graduation. Electives and Advanced Placement courses were severely limited. The problem had become critical, forcing students to travel to surrounding schools in order to have access to necessary courses. After attending conferences and professional development workshops addressing virtual high schools, and armed with a plan, the librarian approached the school's administration. Her purpose was to share information which might provide an answer to the mounting concerns about reduced course offerings. The ultimate goal of the librarian was to work collaboratively with other school faculty to construct a vision for use of technology to transform the way students in this school would experience learning. Online classes and virtual teaching offered a means to supplement the existing curriculum through student enrollment in online courses not typically available at their school site.

Beginning the process

The first step for this school librarian demanded competencies important to librarians. The ability to communicate information with key stakeholders and effectively advocate for the growth of an online education program in this small rural high school was critical to the success of this initiative. The librarian created a spreadsheet using information provided by the school counselor to demonstrate the availability of course offerings and the lapse of time in offering key courses such as foreign language and mathematics. She also shared a schedule of rotating teachers and a wish-list of course requests from students provided by the counselor. It was imperative for the principal to appreciate the need for additional courses and the change in roles and responsibilities that an online program may require, given that principals have significant, and in cases, sole impact upon alignment and coherence between policy and practice (Davis, 2010). The support of the administration was crucial to the success of this new initiative for support of both teachers in evolving roles and students in their new format of learning (Di Pietro, M., Ferdig, R., Black, E., & Preston, M. (2008).

Initially, after gaining support of the administration, the school librarian formed a partnership with the school counselor and together they began exploring online opportunities that could possibly increase the educational opportunities for students. Supported in this initiative by the administration, they both attended additional professional development opportunities sponsored by the North Carolina Department of Public Instruction (NCDPI) to gain information and to begin

development of a plan to meet the specific needs of their students. NCDPI's professional development was based upon research supporting online student learning nation-wide.

Education online

Through continuing dialog a number of potential resources to serve as course providers were reviewed. The local community college offered possibilities for a limited number of courses online, and this source carried the advantage of free college credit for students who could successfully complete the work. These courses would count towards a future college degree at no cost to students or parents. The United Star Distance Learning Consortium (USDLC), a multi-state educational consortium that offered courses through a range of technological options, was considered. The USDLC later transitioned into North Carolina Virtual Public School (NCVPS) under the auspices of the North Carolina State Board of Education. These sources met with the approval of the local Board of Education, when approached by the principal, and so plans were made to begin the process of implementing distance education for students in this school.

The local community college and NCVPS were selected as the best possible providers for online courses for this particular school setting. Courses were paid for by the North Carolina Department of Public Instruction for all students who were taking courses not provided face-to-face at their local schools. The courses were taught by highly qualified teachers meeting the criteria set by the Department of Public Education (DPI). Textbooks were ordered and paid for by the same source. Students were enrolled, and as student's online coursework was completed NCVPS or the community college would transfer course credit earned by individual students to the local schools for inclusion on student's transcripts.

This arrangement, which opened courses across the state to students, provided fair and equitable accessibility to all who wanted to pursue education through this format. Further parents and students would have the assurance that courses were taught by qualified and certified teachers. Online course offerings effectively provided the means to quality and equality of education for students in this school. Students would now be able to take any courses future colleges and universities might require as well as courses in which they had a personal interest even if teachers were not available to teach these courses in the local schools.

Administrative and faculty support: Developing guidelines

The school librarian/counselor partnership called for the librarian to advocate for and facilitate the program while the school counselor would provide further information on student course needs and actually enroll students. This partnership led to the development of guidelines by which to screen prospective online students. These guidelines were developed by a team of teachers along with the school librarian and school counselor. A student questionnaire designed by Virtual High School Global Consortium (VHS) was used to develop guidelines for student participation in online coursework. VHS Consortium was among the first proponents of online learning for the high school student and had identified questions most likely to arise.

A school-based assessment team was organized to review and recommend students for participation in the pilot program. It was important to the faculty to screen prospective online students. All students may not have skills to be successful in online learning (Harrell, 2008). The traditional means by which students relate to teachers and the class dynamics they have depended upon in face-to-face classes greatly differ when in the online environment (Van Tryon & Bishop, 2009). Therefore criteria, to determine a student's readiness to participate in online leaning were developed by a school assessment team of six faculty members. Identified criteria for student participation included the following: student should be goal oriented; dependable; motivated to learn; comfortable with use of technology; able to work independently; proficient in

communication skills; and have an average or above average grade point average. A student's past performance and learning style were also factors in the determination of the student's readiness for online coursework.

The school-based assessment team and counselor used, and continue to use, these criteria to make final decisions about placing students in online courses in the program. Initially, the school librarian scheduled several open meetings to share the concept and possibilities with parents and to let them know what would be expected of the students.

Impact and growth

Blackboard's Learning Management System was used for instruction, which was predominantly asynchronous. Although this was a new experience for most of these students, only minimal guidance was needed for students to begin work and the school librarian provided this guidance. The rising enrollment in online classes in this small school, from six students initially, to seventy-eight during the 4th semester online classes were offered, attests to the rapid acceptance by students of online courses. Students readily adapted to and embraced this format for learning.

The exponential growth resulted in more students than available computers. The librarian moved computers from other locations to the library and also arranged a schedule so students could share space and take full advantage of the technology. It became difficult for students to use the computer for a continuous, non-interrupted 90 minutes, the allotted time for each course period in the school day. Consequently a process of alternating computer usage, with time engaging with the course text or other materials, emerged. Students would log in to the computer, complete assignments and then move to a table so that another student could have access to the computer for their assignments. The counselor and teacher librarian found that sharing and day-to-day cooperation among the students resulted. This unexpected and added benefit was good practice for students as they prepared for the future work force or further education that would call for collaboration, sharing, and team work assignments. This was also significant to the school librarian in support of American Association of School Librarians (AASL) Standards for the 21stCentury Learner (AASL, 2009).

The impact upon available curriculum was significant. Online courses taken by the students included SAT Prep, English, I, II, Journalism, Music Appreciation, Spanish I and Spanish II, Latin, History/Civics, Principles of Business, Psychology, Sociology, Medical Terminology I and II, Cosmetology, Auto Mechanics, African American Studies, *Bible*, Principals of Accounting, other required courses and a variety of technology related courses.

Student perceptions

A short survey was designed for use at the end of each semester to gather student perceptions of their online learning experience. Students reported a variety of reasons for taking courses online. One of the students in the first group to participate chose Latin. He hoped to pursue a degree in Pharmacology, and realized the basic information he would learn in this course would be helpful to him later. Another student could not get Spanish II for second semester in this school because the Spanish teacher was at the school only one semester during the school year. This student would have had to wait until the next year to follow with Spanish II. This reality posed a potential problem for a struggling student, as he would lose too much of the foundation in Spanish that he had gained during Spanish I if he had to wait a full year for Spanish II. In the online arena, Spanish II could follow immediately behind Spanish I, offering the best possible scenario.

Students who wanted to take journalism and music appreciation could find these courses online although they were not offered at all in this high school. Personality conflicts between some

students and teachers left no options in the face-to-face setting, as only one teacher was available, but access to online classes could offer choices to satisfy graduation requirements.

Many students wanted the courses from the community college because of the college credit. Students were able to get a step ahead in their college career goals and save money at the same time, as these classes were free for high school students,. One student had considered early graduation because she already had all the high school credits necessary to graduate. Upon reflection, however, she realized the opportunity to take online community college classes while still in high school would help her obtain college credits without costs to her parents. Another student especially liked the idea that he could work anywhere and have control over his own education. Students appreciated this facet of online classes because it became possible to work at one's own pace, time, and place.

An important consideration for schools in the NCVHS program was the aspect of Recovery Classes. NCVHS offered "recovery" classes for students that passed the End of Course test but did not pass the class coursework. This provided a likely opportunity for educational success for the student who was able to proceed at his or her own pace with success. Students could finish requirements in 2 weeks or 9 weeks. They would be tested on areas and could skip assignments that they had mastered. This initiative permitted students to master areas they did not master during the past semester.

Teachers in the school noticed that online classes seemed to make students have a better work ethic because the student was pushing himself/herself. The students understood that the responsibility for their learning rested in their own hands. Offering online learning opportunities provided many unexpected benefits to the students, faculty and institution.

Student and teacher concerns

In addition to the benefits, there were also some concerns about potential issues and challenges that might arise from offering online courses to students. Initially, consultations with teachers were held to discuss any concerns. There were concerns about students being separated and isolated from peers taking courses offered in the typical face-to-face classroom setting. This fear influenced some students initially to not take advantage of online courses. Subsequent reflections from students enrolled in online courses, however, provided a different, more positive perspective to some of those who had not previously taken the opportunity.

A concern that students enrolled in online high school courses might not have enough assistance from teachers was also expressed. Contrary to that, there was equitable support in the online environment as in the physical classroom, with effective communication between students and faculty of the online courses along with helpful assistance from the school librarian as site facilitator of the courses.

Students did experience some frustration when they could not get immediate answers from their online instructors. The students knew they could call or email, but usually had to wait a day or several hours for an answer, (very different from the immediate response in the face-to-face classroom). However, this became less of a concern as students got used to the difference with face-to-face and online classes. To alleviate this frustration, the librarian, as facilitator, planned ahead for questions with the online classes. She would make efforts to look over assignments when possible and get clarification about assignments that were not clear. There was often a delay in getting answers and in this way she could be proactive and prepared to better assist students. Observations here supported findings in the literature that some students may not be ready to self-direct their learning (Bolstad & Lin, 2009) and, subsequently, these students were discouraged from taking additional online courses.

Another area of concern to the librarian serving as facilitator was the level of preparedness of students in terms of technology issues. Students involved in group projects could experience difficulty interacting with others in the group due to limitations with technology. This highlights the need for strong technology skills, perhaps greater comfort with Googledocs, Voice Thread, Skype, Wiggio, and other technology that is available. As technology preparedness issues arose, the online teacher, the school counselor, the teacher/librarian, and peers would work with students to resolve concerns. Students proved helpful to each other if they were taking the same class. Technical problems or questions and answers from the professors were shared and usually resulted in increased awareness of technology by multiple students and teachers, serving as a positive all-around learning experience.

In a couple of cases, teachers initially felt that the students might choose to take something to satisfy a credit instead of the course that they were teaching. This was a very real concern, as one teacher, out of concern for her own teaching position, stated, "I don't want him taking a foreign language (Latin) on line when I am teaching Spanish next semester." The point was, this student hoped to be a pharmacist one day, and Latin would ultimately be more helpful to him. It was necessary to get this teacher to understand that the online course was not a threat to her professional position or her program, rather just an expansion of the overall program to better meet individual student needs.

In some cases, teachers questioned whether the courses would help a student graduate. Especially in the case of students who had previously struggled academically, teachers sometimes doubted that students could flourish in an online environment. However, in most of the situations under question, students were permitted to enroll and the majority proved to be successful.

Challenges and benefits

Preparing high school students to move into post-secondary education includes the impetus that students must become more responsible for their own learning. The online format encouraged more independent and active learning on the part of students. To be successful in online courses, learners must commit to the process. The online experience provided an unexpected opportunity for students to grow in maturity and thus, be better prepared for college. In some cases, less committed students found it difficult to keep full attention on the online lecture or on notes that should be read. These students found they could quickly fall behind if they did not carefully monitor their own progress. The librarian facilitator observed that, in some cases, students did not listen to the entire lesson, rather selecting portions they felt most important. Students had to fully understand the importance of attention to the process. Teachers would not pressure students to commit; the student had to monitor himself. In this example teachers and observers found that vigilant attention to student work habits and skills was essential to ensure students had adequate support and counseling. Research supports this finding as students present different needs and skills when acclimating to the online environment (DiPietro et al., 2008).

Resources or class materials were clearly identified prior to the start date of courses assuring a smooth transition into the coursework. Students were able to access their course from any location and at any time if they had access to the Internet, giving them freedom to work on their own schedules. This made the learning process efficient and provided students greater access to educational opportunities. One student stated in the exit survey that "I could study online at home if I couldn't finish in school or if I want to move ahead." Also, students who are chronically late for school may be well served by online courses, which can be attended at the student's choice of time. Samantha, always tardy for class (and subject to fail as a result), found success through this avenue. She happily informed one of her teachers, "I'm never late for on-line!" Students can be successful in this environment as they do not have to set an alarm in order to get to class on time.

A significant challenge presented as a result of dealing with the filters required in a public school setting. Public schools in the district in which the school was located have agreed to filter sites and content in order to secure reduced service fees from Internet service providers. Often classes required students to access blogs or areas that could contain content and material blocked by the filters. When this happened, students would contact the teacher/librarian and in turn the system tech person would unblock the site. In any case this meant a delay and caused some frustrations. Observers noted, in this case example, that the librarian took steps to solve related technical issues as often as possible for the students herself as there was no precedent upon which to rely. This observation reflects similar findings in the literature (Davis, 2010).

In spite of the delays and challenges, offering the online courses opened many doors for students in the small, rural high school of focus. The greatest success of the online program in this school may be that the online classes clearly helped some students to meet high school requirements who would not otherwise have done so. This format also allowed students to progress at a pace that was comfortable to them. This alternative way to take classes, for these students, hugely increased the possibility to graduate.

Conclusions and recommendations

To begin with, it is important to ensure that all stakeholders are a part of the initial process, as much as they choose to be and that full support of the administration is available. The process of offering online courses in a high school setting is very different from face-to-face classes but is also very manageable. Students should be aware that both high school graduation units and college credit may be available to them through the online format. They must also understand the need for strong literacy skills. Students are responsible for their own education in an online environment in a way that is different in the face-to-face setting.

Online coursework allows small schools to continue to function as small community schools, while at the same time providing a rich and diverse curriculum opening the world to students. Thoughtful planning and the full support of all stakeholders, including the faculty that teach and facilitate courses, students that take courses, and professional staff that facilitate courses, is necessary for success. When these critical components are in place, online learning programs such as the one presented in this case example have excellent potential to positively impact the education of students.

For the understaffed and under-funded school, online education opportunities provide an excellent way to pursue academic resources to supplement the existing curriculum. The accessibility of a broad range of online courses taught by certified teachers opens doors to students and serves to equalize educational opportunities across the nation. Access to master teachers, schedules uniquely suited to each student, increased flexibility, and greater self-direction are benefits students may enjoy through the online high school program.

For this school, the librarian's professional development played a significant part. School librarians who continue personal growth through ongoing exposure to conferences, readings, presentations, and membership in professional organizations are better able to identify and meet the needs of their stakeholders and to serve as leaders in their schools. This case example exemplifies the importance of applicable lifelong learning for professional educators in addition to the successful use of technological innovations to meet the academic needs of contemporary students.

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Editor's Note: The overhead projector revolutionized classroom teaching because teachers could use (and reuse) pre-prepared materials, face and maintain eye contact with students, and project a large bright image in a normally lit room. The digital projector extended the range of media to include video and interactive multimedia. The interactive whiteboard integrates the advantages of the traditional white-board, used like a chalkboard, with all of the electronic and computer based media. Its versatility offers many advantages for language teaching.

Implementing interactive whiteboards in teaching Arabic Language in Jordan

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Jordan and USA

Keywords: Implementing technology tools, use of Interactive Whiteboards, teaching methods, Arabic language teaching methods, teachers' perspectives, supervisors' perspectives toward technology.

Introduction

Currently, one of the biggest challenges in the field of teaching is the ability to discover effective methods of teaching and to design the interactive educational environment that meets learners' needs and encourages them to engage in the process of learning. The availability and variety of modern technological tools offers flexible options to use such tools in education. Implementing technological tools such as the Internet achieves many advantages and provides further opportunities for learning and communication.

Language is a tool of thinking. It is a vehicle for gaining knowledge across the disciplines. When students master language skills, they are able to learn and acquire new knowledge. According to Pearson et al (2005), the findings of analyzing 20 studies regarding the effect of technology on reading skills in middle school classes reveal that technology tools have a positive effect on reading proficiency. With the same line of thought, when students have difficulty in learning language skills in the primary grades (K-3rd), the problem will extend in following years (Edyburn, 2007). This issue causes students who cannot read to believe that they cannot learn (Sorrells & Britton, 1998).

One of the modern technology tools that is beginning to be implemented in education is Interactive Whiteboards or Smart Boards. This tool consists of four components: the computer, the Data Show, the board, and software. There are two kinds of Interactive Whiteboard: (a) one that can be used in the virtual classrooms where students can see what their teachers or colleagues, who are not in the same place, write or draw and (b) the other kind can be used in the conference halls or in the data-sharing systems (Brown, 2002). The second kind can be used as a show board, a traditional board, a big computer desktop screen where the user can use it by touch without a need for using the mouse or the computer keyboard. Currently, this kind of board can be found in different brands in the marketplace (Adams, 2010).

The use of the interactive Whiteboard has many advantages and challenges, especially in the professional development and training of teachers (Beauchamp,2004). Some teachers point out that such technology has significant characteristics that support their teaching (Kennewell & Morgan, 2003). Teachers should be prepared and trained before using these Interactive Whiteboards. It is better to start this kind of training with a large number of teachers and to give them sufficient time to practice the required skills. In this way, teachers will be more confident and implement the features of Interactive Whiteboards more effectively. This confidence will give teachers the motivation to engage students positively and this will also help them become effective learners as well. Cooperation between teachers in the training will build a common understanding of the way to prepare and present content to primary grades (Beauchamp,2004).

Using Interactive Whiteboards can develop teachers' ability to organize and manage information, content, and classroom presentations effectively (Moss, et al, 2007). According to Higgins et al (2007) the skills and the professional knowledge of teachers are crucial to make effective use of Interactive Whiteboards. Studies that discuss introducing Interactive Whiteboards to classrooms point out it is not just using the board and the software. It is also important to focus on teacher roles in integrating this technology with their teaching objectives and learning outcomes, and using it to increase the interaction between them and their students (Armstronga et al, 2005).

Research questions

This research aims at investigating the implementations of interactive whiteboards in teaching Arabic language for primary grades (1-3) in Jordan. Specifically, it discusses the advantages of using interactive boards, the new roles of teachers and students who use this tool, and the obstacles of implementing such tool. Research questions are:

1. *How do classroom teachers implement interactive whiteboards to teach Arabic language skills?*
2. *What are the new roles of teachers and students when they utilize the interactive boards?*
3. *What are the difficulties and obstacles that face classroom teachers when they implement interactive boards?*

Research limitations

The study focused on describing the implementations of interactive whiteboards.

The study was conducted in two private schools in Amman/Jordan

Research methodology:

To answer research questions the study followed the descriptive approach. The utilized methods of collecting data are:

Interviews with two school supervisors (one from each participating school).

Observations in each of the schools by attending an Arabic Language lesson in the first grade at one of the schools and another lesson in third grade in the other school. Both classrooms use an interactive board as a teaching tool to achieve the lesson objectives.

A questionnaire: the researchers designed a questionnaire based on the research questions and distributed it to the schools' supervisors and all of the classroom teachers (1^{st}-3^{rd}) grade teachers in both of the schools.

Research significance:

This study highlights efforts to implement technology tools to teach Arabic languages in Jordan. This topic needs attention to inform other schools about advantages of implementing technology tools in their classrooms. Many teachers and schools in Jordan do not benefit from technology tools, and therefore this study can provide information that may encourage other schools in Jordan to further investigate the field of learning technology. In addition, this study describes the experience of Arabic language teachers with using technology so that other teachers can benefit from their colleagues' experiences.

Research key words:

The definition of the Interactive whiteboards as stated in Wikipedia is

> … a large interactive display that connects to a computer and projector. A projector projects the computer's desktop onto the board's surface where users control the

computer using a pen, finger, stylus, or other device. The board is typically mounted to a wall or floor stand. They are used in a variety of settings, including classrooms at all levels of education, in corporate board rooms and work groups, in training rooms for professional sports coaching, in broadcasting studios and others." (http://en.wikipedia.org/wiki/Interactive_whiteboard)

Results and discussion:

The data collected from observations, interviews with teachers and supervisors and distributed questionnaire revealed the following findings:

First: The teachers' way of implementing the interactive whiteboard in their classrooms

The findings of the interviews with teachers and supervisors reveal that the majority of the teachers prepare the electronic content of the lesson previously. They review their work before they present the pre-designed material to students via the interactive whiteboard. Throughout the preparation process, teachers plan carefully for effective time management. They plan for a suitable time for presenting each Arabic language skills. Also, they choose the best teaching method(s) to achieve the objectives of the lesson. Supervisors report that teachers utilize the interactive whiteboard to present the Conversation Sheet, which is one of the important materials that Arabic language teachers need in teaching Arabic language conversation skills for 1st grade. This method can increase students' attention and the interaction between the teacher and her students because the sheet will be presented in front of students, so they do not need to look at their textbooks.

In addition, teachers can clearly show the Arabic lesson's challenging words on the interactive whiteboard. By doing so, she can discuss the meaning of each word in an informative way. In doing so, students can see these words clearly and put them in new sentences or rewrite them on the board. Presenting the difficult words in the Arabic lesson can be more interesting through the interactive whiteboard where teachers can present the meanings of such words in different ways, such as providing synonyms or pictures or movie maker examples that reflect the meaning. Furthermore, using the interactive whiteboard is productive in teaching dictation, language exercises, and Arabic handwriting for young learners.

Second: The advantages of implementing Interactive Whiteboards:

- Saving teacher's time: Instead of writing the lesson sentences or drawing some pictures, the teacher can simply display these prepared items through the interactive whiteboard.
- The quality of the displayed sentences and drawings is better since the teachers plan and prepare them carefully before the actual time of the lesson
- Using the interactive whiteboard is a suitable tool for the whole approach in teaching Arabic language for young learners.
- Capturing the attention of the students and limiting the interruption throughout the lesson by using interactive whiteboard features that gain student attention of and keep them on task.
- Creating an interesting learning environment where students find new experience that is different from the traditional classroom environment.
- Reducing the effort of teachers in facilitating the presentation of new concepts.
- Increasing the interaction of students during the lesson where students can speak up and share their experiences actively with their peers.

- The clear presentation of Arabic language lesson's words. To do so the teachers can simply choose the font size that suites student Individual needs. In this way, all of the students can see the words clearly and read them easily.
- Increasing students' motivation toward learning.
- Supporting students' different abilities and variety of learning styles.
- Encouraging students to participate effectively in preparing some lessons and presenting them in front of their peers.
- Enhancing the opportunity of implementing authentic assessment.

Third: Questionnaire results

The responses of teachers and supervisors on questionnaire questions highlight the method that the majority of teachers use when they teach the following Arabic language skills:

Conversation skills

When it comes to teaching conversation skills in Arabic language lesson, the teacher shows the whole picture sheet on the interactive whiteboard. The presented picture is big and clear, so the students can notice the small details in it. In this way, the teacher can capture the students' attention to the topic of the lesson. This encourages in-depth conversation between the teacher and students.

Reading skills

Accurate reading and understanding

Through the interactive whiteboard, the teacher shows lessons sentences in a clear font with pictures. The teacher focuses on specific short vowels by highlighting them in different colors, so students can give attention to the correct way of reading-out-loud the specific short vowel that makes reading easier and more accurate.

As a role model, the teacher starts the idea reading in front of the students. Then, fluent students begin reading specific paragraphs. After that, the teacher presents the sentences without pictures. The students start reading them. The teacher may change the sequence of these sentences to make sure that the student can read the words not memorize the previous reading of the sentences. When the students master the skill of reading the teacher moves on and starts to present the exercises of the lesson in an interactive way by using the interactive whiteboard. In this way, student can participate positively in these activities.

Teaching Arabic letters

Due to the characteristics of Arabic language teaching its letters should be presented differently. Each letter of the Arabic alphabet has different shapes due to its position of the word. So, using the interactive whiteboard can play an important role that helps the teacher in introducing a new letter. To do this, the teacher designs a PowerPoint presentation. The first few slides show the sentences that include the words that consist of different shapes of the intended letter. After that, the students read those sentences. The following slides of the PowerPoint presentation present the specific letter in a different color to guide the students to focus on this new letter and its shapes at the beginning of the word, in the middle, and at the end of some words. To make sure that the students can distinguish this specific letter the teacher shows new slides that include other letters that may have some similarity with the intended letter and ask the student to go to the interactive whiteboard and point at the required new letter or circle the correct letter by using the interactive whiteboard pen.

Analysis and synthesis

The first step in Analysis skills is to read the required words. Then the students stand up in front of his peers and start the process of analysis vocally. In addition, students can write the letters of each word separately by using the interactive whiteboard. The teacher and the students can benefit from the features of the PowerPoint program especially in the presentation of analysis skill procedures. The teacher uses attractive colors of the separated letters and gives the students the opportunity to synthesize new words.

Learning new vocabulary

By highlighting the meanings of the difficult words the teacher can guide the students to click on one of those words then its meaning will immediately appear in front of the class or a related picture or video can be presented to explain the meaning of a specific word.

Learning new linguistics patterns

The teacher presents the pattern through PowerPoint program. The students read the pattern loudly. Then the teacher hides some words from the pattern and gives students an opportunity to compose new similar patterns.

Verbal expression skill (I talk): The teacher shows a big picture on the interactive whiteboard. Then, the students look at the picture and think about its topic. After that an open conversation between the teacher and the students begin. The students start to discuss as many ideas as they can to describe the picture. Meanwhile, the teacher can present a story about the picture and the students listen to her. Some of the important characteristics of the presented picture are the clarity of the picture and its attractive features.

Writing skill (I write): The teacher shows the correct way of writing a specific letter to the whole class by using the interactive whiteboard. At the same time, she shows them the proper way of writing Arabic letters from right to left. After that, the students write the same words and the teacher provides the feedback immediately to help students to correct their mistakes.

Listening skill: The students listen to the recorded lesson or story. Then the teacher asks them some questions about the recorded piece. She can use the questions at the end of the lesson and discuss the students' responses. Also, she can compare the students' responses with pre-prepared answers.

Songs: The teacher presents the written song on the interactive whiteboard. At the same time a recorded song can be presented. In this way the students listen to the song and recognize the written words. This encourages the students to understand and memorize the songs easily. Then the teacher gives an opportunity for students to repeat the songs individually, in small groups or as the whole class.

Moreover, some teachers teach songs differently. They write the each sentence of the song separately. The students listen to that part of the song and repeat it immediately. Then they repeat the same steps for the rest of the song and in each new sentence they combined it with the previous sentences.

Third: New roles after implementing the Interactive Whiteboards

Teachers' new roles:

- Design electronic lessons and materials before presenting the lesson.
- Guide students during the presentation and observe their behaviors.
- Facilitate the process of using the interactive whiteboard.

- Implement and integrate new technology tools in the teaching process to keep professional development up to date.
- Respond to individual differences among learners using interactive whiteboard. Reduce teaching time, to give more attention to individual students, give them immediate feedback, and provide challenging activities to good learners.
- Provide different teaching and assessment strategies.
- Search through the internet continuously to find new information to facilitate learning process.

Students' new roles

- Discuss and negotiate the presented content.
- Listen and watch carefully and effectively.
- Participate and communicate effectively.
- Have high confidence regarding their own learning. They understand the information completely because they are presented in variety of ways.
- Focus more than before due to the features of the interactive whiteboard.
- Use new technology tools that help the learning process and effectively match their learning styles.
- Use Internet sites to enhance understanding of new concepts.

Fourth: Obstacles to using Interactive Whiteboards

- Preparation of electronic lessons due to the lack of experience.
- Lack of training on the best ways of using and implementing the interactive whiteboards.
- Technical issues during presentation.
- The sensitivity of the Whiteboard, so it may stop working during the presentation.
- Lack of charge of the Interactive whiteboard.

Conclusions and recommendations

The experience of using Interactive Whiteboard in the Jordanian private schools is a productive experience because it follows the contemporary trends in teaching Arabic Language skills. The findings of this research highlight many advantages of implementing this tool such as: saving time, the good quality of presented pictures and words, the suitable clear font size, the increased interaction between learners, and the high motivation toward learning Arabic language skills.

In addition this research focused on how Interactive Whiteboard can be implemented effectively in teaching all of the Arabic language skills: comprehension, analysis and synthesis, reading, conversation, language patterns, verbal expressions, listening and teaching songs.

The study revealed that using new technology tools required new roles for both teachers and Students. When it comes to teachers the new roles include: A good designer, a guide for the students, facilitator, and a researcher. The roles of students include the learner's ability to discuss, listen, participate, communicate, and use modern technology tools effectively for learning.

On the other hand, some difficulties faced teachers when they started the process of implementing the Interactive Whiteboard due to the lack of training, difficulty in electronic lessons' planning, and technical obstacles. As a result, more efforts should be invested to overcome such issues. Further research in this area is recommended.

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Editor's Note: This is a perceptive analysis of the needs of different language learners, and the opportunity to use a variety of approaches to achieve the learning goals. A historical review of methods used in English as a Foreign Language (EFL) and English as a Second Language (ESL) explains the purpose and relative values for different learning goals, teaching-learning environments, and student characteristics.

Communicative Language Teaching: Is it appropriate for Indonesian context?

Sugeng Susilo Adi
Indonesia

Abstract

With the development of English as a Foreign Language (EFL) teaching in Indonesia, we have become more aware that the use of the communicative language teaching (CLT) does not suit all English teaching situations. Teachers have discovered that there is no single teaching method that deals with everything that concerns the form, the use, and the content of English. The approach is in many ways a commitment to eclecticism in practice. English teaching should be, in part, communicatively oriented, so students can acquaint themselves with appropriate language usage. This article tries to search for the appropriate teaching model for the Indonesian context. Although the CLT has been applied in some public schools in Indonesia, barriers are often found in its implementation. Eclecticism is an alternative that could be tried.

Introduction

The general debate regarding how education is conceptualized, and the question of whether learning is a process of mastering abilities and knowledge "acquired" from the previous generation, is reflected in contemporary thinking in second language learning. The communicative approach or what is known as CLT (Communicative Language Teaching), learner-centered instruction, and task-based teaching, are three concepts that have been influential in second language learning over the past two decades. The three concepts are part of the interpretative view of education. This viewpoint conflicts with another that assumes that learning is a process of acquiring abilities and knowledge transmitted from teacher to student. The interpretative tradition, which is strongly rooted in the humanistic psychology tradition, argues that in order to allow learning to occur, students must reconstruct abilities and knowledge for themselves, the two of which are not easily obtained from external sources.

A second, quite significant paradigm shift in language teaching occurred in the 1970s when language and language-teaching experts adopted a new viewpoint regarding language itself. In the previous era (the 1960s) language was seen as a set of systems of rules and the main goal of language learners were to approximate the native speakers of the language they were taught. The priority for a language learner was to master the language structure, and in the learning process, emphasis on the language meaning itself was seen as a lesser goal. In that era language teaching emphasized syntax and grammar, ignoring or at least minimizing vocabulary development and semantics. However, in the 1970s, the conceptualization of language teaching became richer with the appearance of new ideas based on humanistic and experiential psychology. Linguists saw language more as a system of meaning expression rather than an abstract system of syntax rules.

The Indonesian Context

There are three important issues related to the context of English teaching in Indonesian public schools: the role of English in the people, the national curriculum of English language classes, and the practice of English language teaching in public schools.

The context of English language teaching in Indonesia is inescapable from its role, considered more as a foreign language rather than a second language. In a setting where English is a foreign language, students usually learn with low intrinsic motivation; English may be deemed irrelevant to students' needs because the language is not part of their everyday life. In this setting students usually learn in one large class consisting of 40-50 students with a limited number of meetings. On the other hand, in a setting where English is a second language, students have high intrinsic motivation because the language is a part of everyday life. By living in a second language environment, students have a greater chance to use the language whether to communicate with others or for professional needs, as in searching for a job. Even though the use of English in Indonesia – whether written or spoken – is increasing as evidenced by print and electronic media, the language still has not shifted its position from being a foreign language to becoming a second language.

Meanwhile, the curriculum for English classes in Indonesia has undergone many changes over the years. It started with grammar-translation (1945), followed by oral (1968), audio-lingual (1975), communicative (1984), and finally meaning-based (1994). In 2004, the government published a new curriculum – the 2004 Curriculum – also known as the Competence-Based Curriculum (Kurikulum Berbasis Kompetensi – KBK). Within two years of the implementation of the curriculum, in 2006 the government published another curriculum, the Unified Education Curriculum (Kurikulum Tingkat Satuan Pendidikan – KTSP), by Ministry of Education Regulations number 22, 23, and 24 of 2006, each regarding content standards for elementary and middle education units (Regulation 22, 2006), passing competence standards for elementary and middle education units (Regulation 23, 2006), and the execution of said regulations (Regulation 24, 2006). As an example, for a middle school-level English class, in contrast to the 2004 curriculum which sets standards for competence, indicators, and core materials, the 2006 curriculum only sets competence standards with the intent to give teachers the freedom to develop lessons using their own creativity instead of being tied down to the curriculum.

No empirical research has yet been conducted to evaluate the effectiveness of changing curriculums on student learning or measure the increase in teachers' competence or performance. In the meantime, despite the lack of empirical research that compares the effectiveness of learning English in courses and formal schooling, it has become a public understanding that learning English in courses is believed to be more effective and beneficial to students than learning through formal schooling. English language courses have expanded quite significantly, from those that are managed by official foreign country representatives such as The British Council, Indonesian Australia Language Foundation-IALF, English First-EF, and others, to private ones managed by individuals. While schools still struggle with teaching grammar and committing language rules to memory, courses instead stress speaking skills, with more meetings compared to classes in schools. Some courses even go as far as to advertise claims of "fluent speaking in three months" to draw consumers. Not only that, some courses utilize native-speaking teachers to accelerate speaking skills. Usually, programs with such teachers are offered at a steeper price compared to ones with local teachers, even though native speakers may not be any more competent. More often, the people appreciate inexperienced or even unskilled English native speaker teachers than local instructors who are fluent in English, experienced, and skilled in this field.

The praxis of English language teaching in Indonesia varies from schools that teach English well to those that lack such a quality. Generally, these schools can be divided into three groups.

First are the public and private schools in major cities which are able to teach English effectively. Schools in this group have advanced English laboratories, teaching materials on par with the international standard, quality teachers, communicative teaching methods, students learning in ideal but not-too-large groups, and even the use of English as a teaching language in other

classes. Students in these schools tend to have good communicative competence, so the national exams do not become a problem for them and the school. Most of the students in this group of schools also take English courses outside of their schools. Quite often, these schools require a certain TOEFL score as part of their standards for passing.

Second are the public and private schools that do have adequate language laboratories, sufficient teaching materials, and quality English teachers, but are hindered by the government policy regarding the national exams so that the only purpose for English classes is to help students answer the questions on the exam, especially for students of the last grade. The communication aspect of the students' learning of English in this group is often ignored. Moreover, schools in this group have very high numbers of students in a single classroom, between 40-50. Only a small portion of students also take English courses.

Third are the schools that do not have a language laboratory, have many students in a single classroom, do not have sufficient teaching materials, have low-quality English teachers, and use ineffective teaching methods. Students learning in this group of schools usually have low learning motivation and low starting competence, which they may carry even up to graduation. Schools that fall into this group are private schools in the outskirts of towns or public and private schools in villages, rural areas, and remote locations.

The majority of schools in Indonesia fall into the second and third groups. Teaching English in these schools are not effective for a variety of reasons including lack of facilities, unavailability of materials, low-quality teachers, many students in a single class, non-communicative teaching methods, and stiff and exam question-answering-oriented curriculums, among others.

The factor of Indonesian culture as part of Asian culture is often considered as a barrier in creating a communicative form of English learning. In this context, "culture" means the relationship between teacher and student, viewpoints on learning, and communication patterns. The formal relationship between teacher and student where the teacher is assumed to be a superior, omniscient figure while the students are a group of individuals who must obey and receive the teacher's explanations as they are clearly will not create a communicative learning environment. The high-considerateness nature of Asian communicative patterns where students are not encouraged to interrupt, must respond positively, and speak in a flat intonation, also make it less likely for communicative interactions to occur in language learning. Coleman (1996) sees that the learning process in an Indonesian class is highly related to two Javanese local cultural products: shadow puppets and the greeting at a wedding reception or other celebrations. According to Coleman, the classroom English learning process is not unlike that of the shadow puppet show. The teacher is analogous to the actively-talking puppeteer (dalang) and the students are analogous to the large audience that freely relaxes, eats, drinks, and even sleeps, only to awaken and pay attention during the funny and active parts. Such is also the case with the wedding reception greeting: not much of the audience pays attention. For Coleman, English language classes in Indonesia are just rituals. What is interesting is that when Coleman interviewed several English language curriculum experts in Indonesia, including Sadtono, the experts do not consider such classroom behavior as to be a problem.

The Communicative approach: Between concept and reality

This method is also called Communicative Language Teaching (CLT). The goal of teaching with this method is to use the language as a medium of communication. Learning stresses interaction, conversation, and language use rather than "about" language. Topics discussed in class usually consist of general ones familiar to students, such as TV programs, daily activities, or newspaper ads; topics could also relate to other classes a student has, such as mathematics, history, or

literature. However, the topics are only used as discussion materials to practice using language as a medium of communication, not to study them.

CLT was recognized in the early 1960s and into the 70s. This learning model surfaced as a reaction to what could be called a failure of previous teaching models, namely the structural situational and audiolingual methods. This period was a period where second language teaching practitioners spoke about the "going communicative" jargon, where language teaching must be stressed on the communicative competence aspect. Additionally, CLT appeared as a response to developments in linguistics in the 70s, and at the same time a response to the need for a new method in second language teaching, expressed by a group of European linguists who were a part of the Council of Europe (Richards, 2001:37).

CLT stresses that language teaching is more than just knowing about grammar, vocabulary, and phonetics. Language learning needs to develop the communicative competence, which is the ability to use the language being learned in social interactions. Communicative competence does not mean setting aside the role of grammar, but instead it is a combining of several competencies, among them grammatical competence (covering language structure), sociolinguistic competence (covering the ability to understand the social context where the language is used, including the goal of communication), discourse competence (covering the ability to understand the message presented in the language), and strategic competence (covering the ability to create good communicative tactics to begin, respond, and end conversations).

In the teaching praxis, CLT requires several conditions: content focused on language knowledge relevant to students' needs, a cyclical (not step-by-step) content order, division of content into several activities and tasks requiring communicative interaction, a relationship between said activities and tasks, and learning goals chosen by negotiation between students and the teacher. CLT can occur if communicative activities happen while working in pairs and groups, language input is authentic language used in everyday life, students are compelled to dare to produce genuine language and meaningful communication, and classroom tasks are oriented to prepare the student to be able to use the language outside of the classroom.

Conceptually, CLT seems to be the ideal learning model, especially if the target of foreign language teaching is to use the language. However, CLT is more suited for teaching English as a second language rather than as a foreign language. The application of the communicative approach (and thus CLT) in teaching English as a foreign language is often criticized by language teaching experts, mainly because CLT was first developed in western, English-speaking countries, which when applied in a developing country, the method becomes inappropriate for the local context. The problem encountered in the application of CLT in developing countries, specifically Asian ones, is that the method conflicts with the social, cultural, and economic conditions of the subject country. The difference in eastern and western communication style and the difference in classroom conditions, teaching facilities, and teacher quality are some examples of the particular problems faced.

Some cases of the application of CLT can be found in Asian countries. The following are such cases, including the problems:

- Deckert (2004) found that the failure of the application of CLT in the United Arab Emirates was caused by excessive teacher talk and teacher and student perceptions about effective English teaching. Observations showed that excessive teacher talk in explaining to and correcting students causes them to miss opportunities to actively participate using English in communication.
- A research by Gahin &Mayhill (2001) showed two roadblocks in the application of CLT in Egypt. First are extrinsic barriers covering economic factors which include low wages, lack of resources, and large classes without adequate facilities; pressure from parents,

students, principals, and supervisors cause teachers to sacrifice an ideal CLT syllabus. Second are intrinsic barriers covering cultural factors which include passive-student traditions, negative-to-group-work attitudes, and influences of colleagues in other, teacher-dominated subjects. Furthermore, the ability of teachers, in particular 41% of English teachers of which are non-specialists lacking in pedagogical performance and speaking, as well as inconsistencies between syllabus and exams also contribute to the intrinsic barriers.

- Zhang (2004) in *CLT in China: Frustrations, Misconceptions, and Clarifications*, mentions a few cultural barriers in applying CLT across mainland China, such as the unsupportive environment where English usage lacks, the inability of teachers to communicate using English, and the examination system which still focuses on grammar. Even though China has now economically shifted to liberal capitalism, the remnants of communism can still be found in education, like in permanent and unchangeable class seating, which does not allow group work to happen – a requirement for CLT to occur.
- Liao (2004) adds that the Chinese local cultural context, as agreed upon by other researchers, is Confucianism, which assumes the teacher as the central figure that must be honored and that students must passively listen to the teacher. This general Asian culture prevents genuine communication from happening in class, making it a hindrance in the application of CLT.
- Miller (2000) in "Student Teachers' Perceptions about Communicative Language Teaching Methods", *RELC Journal,* Vol. 31, No. 1, concludes that the perceptions of students of English teaching academies in Taiwan regarding CLT are influenced by several factors such as their experience as student teachers, their Chinese culture, and their learning experience as language learners. Their perceptions vary, from those that view CLT positively, to those that see it negatively. Those with positive perceptions are optimistic that CLT will increase the English communicative competence of Hong Kong students because students will learn English more actively, CLT is appropriate to the goal of language learning which is as a medium of communication, CLT makes the learning atmosphere more fun, and teachers will increase students' interest in learning English, among other reasons. On the other hand, those with negative perceptions are pessimistic that CLT is hard to apply in the Hong Kong context because classrooms are small while the number of students are large, grammar is hard to teach with CLT, CLT slows down the learning process, CLT needs preparation and teachers do not have the time, examinations do not support CLT, and students have low communication skills, among other reasons.

Eclecticism: From method to principle

The failure of the application of CLT in some Asian countries because of such context incompatibilities has brought up the idea that CLT has to be modified to suit the Asian, and especially Indonesian, context. As a method, some of the principles of CLT need to be modified so that it can be applied in our socio-cultural context, like small classrooms with students of various skill levels, the position of English as a foreign language, the custom of students learning in a traditional class, the custom of teachers using traditional teaching methods, the lack of quality teaching materials, and the low quality of teachers in English or English teaching skills.

What is needed to be applied in Indonesia right now is an eclectic teaching method. Gone is the era where learning is tied to only one stiff teaching method. Methods were criticized because of their claim of universality with no consideration of the uniqueness of certain groups so that they lose their context. The CLT method that is needed is one that adopts good foreign language teaching principles that result from research and observation.

Methods have been criticized for claiming universality of application as well as uniqueness in their individual properties and particular insights. … [M]ethodology should comprise putting into practice certain general principles of good language teaching derived from research and observation. (Rodgers, 2004: 2-12)

Foreign language teaching methods in classes should not be tied to just one method, but instead teachers can apply different methods at one time to adjust with their students. When a teacher wants to apply a foreign language teaching method, what matters is that they apply the principles of that method, not the method itself. Even the Grammar Translation Method sometimes needs to be applied in certain class contexts.

The following are foreign language teaching principles that teachers, writers of teaching media and materials, and even developers of foreign language curriculums can expand upon (Vale *et.al*. 1991).

- Students will learn a foreign language best if they are treated as individuals with their own needs and interests, they are given a chance to participate in communication by using the language in various activities, the communicative activities given to them are comprehensible and relevant to their needs and interests, they focus on various language forms and skills, as well as various learning strategies to support language acquisition, they are aware of the role, function, and nature of that language, they are given appropriate feedback regarding their achievement.
- Students will learn a foreign language well if they are given a chance to arrange their own conversations.
- Students will learn a foreign language well if they practice using the language in the cultural context of that foreign language.

By applying the above principles, teachers are challenged to apply CLT which is appropriate to our context. For example, to treat students as individuals in a large classroom consisting of 40-50 students is not an easy task. However, teachers can group them into several groups based on their English proficiency level. What was applied to Vietnam (Pham, 2005) can also be applied in the Indonesian context. Considering that one of the requirements of CLT is “real communication”, Pham thus required conditions like directing real communication to answer the teacher in an “oral symphony”, knowing that the students preferred to converse as a single large classroom instead of doing group work. Similarly, in China (Liao, 2000), the CLT model was complemented with innovations such as task-based exercises that stress teacher-assisted exercises which then impacted communicative competence. Liao adds that teaching can be started with listening exercises. This being the case, there is a need to increase usage of learning media such as audio, video, and pictures.

Conclusion

The communicative approach to language learning (CLT) is needed for teaching English in the Indonesian context, mainly because the approach stresses the importance of the communicative aspect of the language. However, research has shown that there are a few barriers in the implementation of the approach in several Asian countries, such that it brings up the idea that CLT should be modified to suit the local context. For the Indonesian socio-cultural context, teachers are challenged to be able to apply CLT so that it can be used within our socio-cultural context like large classrooms, the position of English as a foreign language, the custom of students learning in a traditional class, the custom of teachers using traditional teaching methods, the lack of quality teaching materials, changing curriculums, and the demands of a national examination.

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Editor's Note: Social interaction plays a significant role in motivation, engagement and commitment of the learner. This paper shows how social interaction plays a crucial role in the success of online and other forms of distance learning.

Social Interaction as a contributor to significant learning outcomes in online instruction

Tara Newman, Mary Olle, Carol Bradley
USA

Keywords: academic engagement, engaged community, constructivism, learning outcomes, online learning, effective online instruction, methodologies, recommended practices, distance education, interaction, facilitator, collaborative learning, technology, retention, flexibility, feedback, family science, feedback, student to student interaction

Introduction

There has been a dramatic increase in online coursework in higher education over the past decade. According to Allen and Seaman (2010), there was a 17% growth in online enrollments between 2007 and 2008. While many institutions offer only single courses online, others offer entire degrees, Students at all educational levels, from primary school through graduate school, participate in courses through a distance format, including hybrid and fully online options.

Several reasons are cited as contributors to this rapid growth. Principally, recent economic shifts have increased a demand for more flexible options to achieve the continuing education credits, certifications, and/or degrees necessary to retain current positions, seek advancement, or acquire new employment. Indeed, 87% of public institutions surveyed attributed economic concerns as a contributing factor to the increased demand for online courses and programs (Allen & Seaman, 2010; Young, 2006). Not only are economic concerns motivating learners to seek online offerings, but institutions are finding that by offering courses online, they can utilize their declining resources more effectively. For example, a reduction in photocopies results in financial savings both in materials and employee time.

In addition to the economic motivators for online coursework, some authors assert that the flexibility offered when teaching online courses is especially appealing to faculty (Li & Irby, 2008; Young, 2006). Instructors who gravitate toward teaching in the online environment may do so primarily for the flexibility it provides to address professional responsibilities outside of teaching, such as research and service, as well as personal obligations. Furthermore, because all course-related information (i.e. class rosters, student correspondence, grades, submitted assignments) is contained and compartmentalized within the learning management system, faculty are not restricted to an office or classroom to meet their students' needs.

It is well documented that online offerings also permit students the flexibility to manage their daily work and personal responsibilities with the demands of higher education (Li & Irby, 2008; Park & Choi, 2009). Moreover, by participating in online courses, they are able to save money on the extra expenses associated with attending face-to-face classes, such as travel, hard copies of materials, and care for family members in their absence.

Each of the aforementioned factors contributes to the increase in online course enrollment. It is apparent that online course work is a benefit to institutions, faculty, and learners alike and will likely continue as a major component of higher education (Dawley, 2007). Therefore, it is critical to understand the elements of high quality online instruction, particularly in programs that are preparing emerging professionals to enhance the lives of individuals, families, and communities.

Theoretical and philosophical foundation

Effective online teaching requires a commitment to developing caring relationships in the virtual world. In the face-to-face classroom, students who are emotionally present tend to engage in spontaneous informal discussions about the content of the course before and after class, during breaks, and even in other settings (Picciano, 2002). Emotional presence also contributes to informal content-based interactions in the online environment; although, unlike the face-to-face setting, the instructor designs the environment to intentionally stimulate these informal interactions.

The principal concept supporting this intentional design is rooted in a dialectical constructivist philosophy. Incorporating research-based practices that have been demonstrated to generate engaged community fosters increased social interaction in the online setting, and it is these meaningful interactions that later lead to significant learning outcomes. These authors suggest the following model to demonstrate this process.

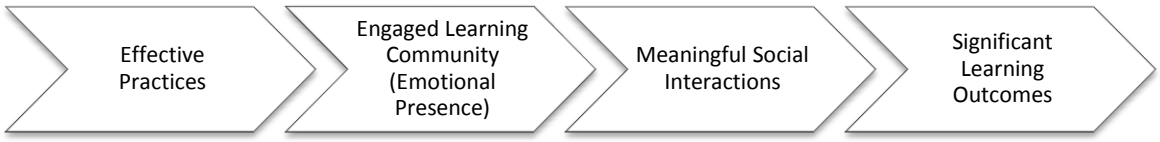

Figure 1. **The process leading to significant learning.**

At the heart of dialectical constructivism are the following ideas:

> knowledge is constructed by the learner;
>
> construction of knowledge is socially mediated;
>
> knowledge is meaningful only in the context in which it is received; and
>
> new knowledge is built upon the prior knowledge of the learner.
> (Bruning, Schraw, & Norby, 2011)

Therefore, the online environment should be designed in such a way that students have opportunities to construct appropriate knowledge with others in situations where the content is woven into a meaningful context and intentionally builds upon what learners already know (Yang, Yeh, & Wong, 2010).

Experiences such as those previously described are seen in both high-quality online and face-to-face classrooms; however, Bruning, Schraw, & Norby (2011) assert that well-developed computer-based environments can foster deeper learning (including metacognition and self-regulation skills) then what typically develop in traditional classrooms. One must remember, though, it is not the technology itself that induces these advanced outcomes, but rather how the technology is used (Bruning, Schraw, & Norby, 2011).

The idea of utilizing certain methodologies in the teaching process is a fundamental component of the field of education. When discussing effective online instruction, one must realize that there is an overarching philosophy involved, not only a set of strategies. It is one's philosophy that guides the educator in his/her teaching methodology, not merely the desire to implement new strategies (Brooks & Brooks, 1999; DeVries, Zan, Hildebrandt, Edmiaston & Sales, 2002; Fosnot, 2005; Noddings, 2002).

With that in mind, educators who are interested in enhancing student learning outcomes realize that with the expectation that students develop as problem solvers, critical thinkers, and effective communicators, a simple set of strategies is insufficient (Cagnon & Collay, 2001). Therefore, the focus shifts from regurgitation of information to actual learning. Indeed, Fosnot and Perry (2005) state that the focus moves toward cognitive development and deep understanding, rather than a superficial demonstration of factual knowledge. When learners reach that level of achievement, they are then demonstrating that not only can they access the information they seek but they can also apply that information – two very important objectives of the educative process (Cagnon & Collay, 2001).

In a constructivist environment, these objectives, both for knowledge as well as skills and processes, are formatively assessed. This can clearly be seen in the face-to-face classroom where a teacher serves as a facilitator of knowledge while the learner is its constructor. It is similarly demonstrated in the online environment when the instructor is skilled in the art of facilitating constructive learning online, resulting in a sense of community and social interaction which, in turn, lead to desired student learning outcomes. An effective online educator understands the perspective of his/her students thereby allowing for enhanced interaction with the content through the use of discussion and elaboration of the learners' ideas (DeVries et al., 2002; Dewey, 1985; Marlowe & Page, 1998).

The following recommended practices hold their origins in the philosophical and theoretical framework as presented in this section. The reader should note the emphasis on community development, participant engagement, and student learning outcomes as facilitated by interaction with peers, academic content, and instructors.

Recommended practices

In this section, a variety of recommended practices are presented that reflect the philosophy outlined above. In addition, the authors share personal experiences about the implementation of these practices in both graduate and undergraduate courses in several areas of family science. Intentionally planning for both formal and informal interactions is a critical component of effective online instruction. These authors recommend focusing on the triangular strategy of facilitating meaningful interactions among peers, content, and instructor.

Interactions with peers

Social constructivists expect the learning process to involve interaction with other people and/or environments (Huang, 2002). Successful peer-to-peer interaction contributes to a greater sense of community, increased learner motivation and enthusiasm (Dawley, 2007; Huang, 2002; Robin Smith, 2008). In addition, peer-to-peer interactions contribute to strengthened critical thinking and problem solving skills as outcomes. Peer collaborations facilitate the co-construction of new knowledge (Regina Smith, 2008), which is the primary goal in education.

Interactions with content

A key element of a constructivist philosophy is "the way in which students interact with, come to learn, and come to understand content" (Marlowe & Page, 1998, p. 65). Teachers who practice through a constructivist lens select content that is challenging to the learner. They adhere to the principal that it is important to connect academic content with real-world problems (Huang, 2002).

The degree to which students interact with the content depends upon the course design (Swan, 2003). Developing content that is readily accessible enables students to take ownership of their learning. Students can revisit content as needed. In other words, they can spend more time on concepts that they find difficult and less time on those that they deem less challenging.

Content presented using meaningful examples helps students make important connections. While content itself is important, it is the instructor who creates the bridge between the content and the learner. (Robin Smith, 2008).

Interactions with Instructors

The role of the instructor in the online environment is that of a facilitator. Instructors lead students through the content rather than dispense knowledge. As they serve as models of good communication, they eliminate isolation and foster both social and academic engagement (Dawley, 2007). Highly interactive instructors strive to address the social need of learners, as well as their academic needs. They empower them to pursue the information they need (Cercone, 2008; Dawley, 2007) to be successful in both arenas.

Without the scaffolded interaction a skilled instructor can provide, the online class risks being a digital correspondence course (Conrad & Donaldson, 2004) that may result in an ineffective acquisition of content.

To fully benefit from the opportunities afforded by online instruction, the trio of interactions - among peers, content, and instructors - must be employed. Through the use of effective practices, engaged learners spontaneously connect socially, resulting in significant learning outcomes. In the following section, the authors share their experiences with incorporating these practices into their own classes.

Incorporating effective practices

Small groupings of students are encouraged to promote a deepened sense of community among all class members in which a co-construction of knowledge can occur. Furthermore, social interaction has a positive effect on the amount of information retained as well as on the length of retention. Learning that occurs through small groups frequently mimics real life tasks and problem solving (Dawley, 2007).

Collaborative learning through small groupings has successfully been incorporated into online courses through intentionally and/or randomly generated learning teams; asynchronous discussions; and scenario analysis activities. These practices are further explained in this section.

Learning teams

In some courses, instructors find that high enrollment numbers create a sense of loneliness within the online environment. The spontaneous connectedness that seems to develop in face-to-face classes needs to be intentionally fostered. When not provided with meaningful opportunities to interact with fellow learners in an online class, students can feel isolated. In order to decrease this feeling – and increase a sense of community - some instructors elect to form classes within a class by creating learning teams (LT). These LT are the basis for semester-long engagement in the course. A majority of the content-based interactions are with the same LT members, which contributes to strengthened relationships over the course of the semester and/or program. These relationships allow for a degree of trust that permits students to freely share ideas and questions without fearing judgment. The rapport that develops among the learning teams persists beyond individual courses and even into the professional realm.

Learning teams can be formed by intentional or random grouping methods. There are benefits to both methods and the decision to choose one or the other depends on the course content, class enrollment, and philosophy of the instructor. These authors have experience using both forms of grouping and share the following insights.

Randomly generated learning teams. Most learning management systems have a feature that randomly generates groups. Utilization of these tools is an easy way to organize students.

Random grouping simulates "real life" where professionals are required to work with people that may be very different than themselves. When learners have the opportunity to interact with diverse perspectives, they are also provided the opportunity to develop advanced professional communication skills.

Intentionally generated learning teams. While more time-intensive, intentionally-generated learning teams can also be beneficial to student learning. For example, in a survey or foundations course, where a variety of majors are enrolled in the same class, teams can be formed by discipline to facilitate connections among emerging professionals in the same field. Learners can expand on the theories or concepts being studied in the class by applying them to their specific area of study. The similar backgrounds of those in the same field enable students to examine content through a common lens resulting in both personal and professional connections.

Asynchronous discussions

Using asynchronous discussions for learning teams to interact about content is one strategy used to foster an engaged learning community. The process of "type, post, wait, and read before responding" encourages students to stay focused longer on one topic (Dawley, 2007, p. 127) and stimulates open dialogue that bonds learners to content and one another.

Small group discussions are a structured way for students to interact. It is during these structured conversations that an engaged learning community evolves, leading to the spontaneous social interactions that are essential to significant student learning (see Figure 1 at the beginning of this paper)).

To create the engaged learning community desired, it is imperative for instructors to use effective practices. As Robin Smith (2008) explains, "good discussion questions elicit discussion" (p.89). A good question should be open ended, allow for expression of individual perspectives, and be directly connected to the content. As students maneuver through difficult conversations, they build relationships that transition from obligatory classroom discussions to spontaneous and social interactions involving the content.

Scenarios

Presenting students with a scenario to analyze as a group is a valid option for use in the asynchronous (discussion board) *or* synchronous (chat). By asking students to apply the course content to a real-life situation, they synthesize a variety of perspectives to produce appropriate solutions or responses. Offering a scenario as the focus of a group discussion can promote critical thinking among the members of a group and "…mimics today's specialized work environments where employees are often required to work as a part of a team toward achievement of a larger goal" (Dawley, 2007, p. 100).

Both randomly and intentionally formed learning teams benefit from scenario analysis activities. Intentionally-formed groups, linked by a similar background, may share overlapping perspectives on issues presented in the scenario whereas a random combination of varying backgrounds may generate a wider variety of responses and perspectives. Regardless of the group composition, a sense of camaraderie can arise as students ponder possible responses to a situation which further contributes to significant learning outcomes.

Open Forum

It is imperative to use effective practices that lead to structured interaction with peers, content, and instructors. The use of directed asynchronous discussions and scenario analysis activities provide such opportunities. Once students have engaged with the learning community, they may find themselves seeking an outlet for social interactions with their peers. One way to mimic the side conversations students have in the face-to-face environment is to create places online that are specifically designed for non-graded social interactions.

The use of an "open forum" in the asynchronous discussion board is one strategy used to further facilitate social interaction. In the open forum, students can post questions for one another (related to content or not), share information deemed of possible interest to others, and/or engage in general chitchat. This informal environment can be less intimidating to students, increasing participation through casual social discussions and contributing to a greater sense of belonging. Because they can openly discuss topics of their choosing, interdependence and cohesion develop among the students, further contributing to emotional presence within the course. Students who interact in the open forum are not only cognitively and emotionally stimulated, but are socially fed, as well (Dawley, 2007).

Implications

Since the growth in online coursework does not appear to be declining in the near future, it is imperative for faculty in higher education to increase their effectiveness in electronic delivery of academic content. The philosophy and strategies discussed in this paper have numerous implications for the field of higher education.

By offering student-centered instruction through electronic means, educators are preparing future professionals to function in the workforce in ways that might not be possible in the face-to-face classroom. Because students are essentially forced to complete assignments using electronic methods, they gain experience with those tools that will enhance their work in their future careers. These professionals will be better equipped to serve their prospective employers and clients, who will expect communication in various electronic formats (webpages, e-mails, social networking sites, e-newsletters, etc). It is imperative that we prepare the emerging workforce to face the challenges of communicating in the digital age.

Students are learning how to function in the modern work environment in additional ways. The modern work environment frequently expects employees to collaborate to achieve a common goal (Dawley, 2007). Interpersonal skills acquired in the virtual classroom are transferrable from the online academic setting to a variety of work environments.

Due to the lack of informal social connect frequently found in distance learning, student retention is lower for online than face-to-face courses (Allen & Seaman, 2010; Picciano, 2002). The need to develop meaningful virtual interactions is intensified by the strong connection between student engagement and retention. These interactions are the key to learners' desire to persist (Kemp, 2002), which results in significant learning outcomes. Additionally, an institution's retention and graduation rate is directly related to their budget, which is especially critical in the current economic condition.

Conclusion

The rapid growth of distance education makes it clear that those in higher education need to pay attention to the needs of online learners to a greater degree. The tenets outlined in this paper exemplify effective online pedagogy. By incorporating strategies that lead to an engaged learning community, learners are more likely to exhibit informal social behavior. These authors maintain that it is these informal interactions that contribute to the construction of significant learning outcomes.

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