

NATIONAL SOCIAL SCIENCE ASSOCIATION PROCEEDINGS

SAN ANTONIO - FALL CONFERENCE

OCTOBER 15-17, 2017



VOLUME 66



NATIONAL SOCIAL SCIENCE PROCEEDINGS

Volume #66

San Antonio, TX National Fall Professional Development Meeting 2017

Table of Contents

<i>Net Neutrality: Again?</i> Sue Burum, MSU, Mankato MN	1
<i>Framing 21st Century Research for Education: A Symposium Educator Awareness and Communication</i> Paul E. Carlson, Barba A. Patton, Diane E. Prince, University of Houston-Victoria	18
<i>If I Only Had a Brain.. You Do!!!</i> Lynda Cavazos, Barba Patton, University of Houston-Victoria	23
<i>An Integrated Model of Visitor Evaluation in Museum Settings</i> Ross J. Loomis, Colorado State University	28
<i>Love Me... Love Me Not: Use Manipulatives .. Use Manipulatives Not</i> Barba A. Patton, Lynda Cavazos, University of Houston-Victoria	36
<i>A Look at Many of the Factors Schools Can't Solve: A Symposium Educator Awareness and Communication</i> Barba A. Patton, Diane E. Prince, Paul E. Carlson, University of Houston-Victoria	39
<i>Churchill's Influence On Today's Language Development In The Mathematics Classroom</i> Barba Aldis Patton, Teresa LeSage Clements, University of Houston-Victoria	42
<i>Education in Action: A Symposium Educator Awareness and Communication</i> Diane E. Prince, Paul E. Carlson & Barba A. Patton, University of Houston-Victoria	46
<i>The Demands of the Demands: A Logical Redundancy The Student Teaching Clinical Experience</i> Judith Ruskamp, Peru State College	49
<i>A Qualitative Study of Influence of Mobile Devices in Elementary Education</i> Amy Tong, Daryl Ann Borel, Kay Abernathy, Lamar University	58
<i>Political Imagination and Human Society: A Freshman General Education HSI Seminar</i> Rex Wirth, Central Washington University	70

Net Neutrality: Again?

Sue Burum, MSU, Mankato MN

Introduction

“Let us not seek the Republican answer, or the Democratic answer, but the right answer. Let us not seek to fix the blame for the past. Let us accept our own responsibility for the future.”-John F. Kennedy (Rittle, 2016).

Everyone has an opinion on whether the Internet should be regulated and, if so, what that regulation should encompass (Hoffman, 2017). When issues of net-neutrality get wrapped up in partisan politics, peoples’ positions seem very extreme. To some people, the world will come to an end if the Internet is not regulated. To others, internet regulation is a solution in search of a problem. The Internet regulation debate heavily follows political lines, with Republicans looking to roll back regulation, and Democrats hoping to keep or even expanding the scope of new regulations. The resolution to this issue more than likely lies someplace in between. People seem to have strong opinions on net neutrality, but their opinions are not always based on facts and people do not always know the other side’s counter arguments. This paper will provide a historical outline of the issue as well as both sides’ arguments. This writer is less concerned on how this country decides to resolve this issue than the method the country uses to arrive at a solution. This writer advocates for Congress to hold hearings so citizens can hear both sides’ arguments to regulation. Then, it is hoped that Congress, in a bipartisan fashion, will provide a resolution to the issue. A congressional resolution is the only way to avoid the pendulum swing between Republican and Democrat executive order changes this country goes through when Congress does not act and leaves the other branches of government, along with the country’s administrative agencies and courts, to resolve issues. As Kennedy suggests, it is the only way to arrive at the right answer.

What is Net Neutrality?

Net neutrality is the idea that Internet service providers (ISPs), like Comcast, should not give preferential treatment to users. Three examples are often used when explaining the type of behavior net neutrality is supposed to end (Reardon, 2015). The first example is *blocking*. In this activity, some service provider blocks access to some content on the web. The second example would be when a service provider *throttles* some users. In this activity, some users’ access to the Internet is slowed down while other users’ access is sped up. Finally, net neutrality would not allow for *paid prioritization*. This means service providers cannot charge content providers (edge) websites fees in order to give them advantages over other websites. In 2005, in response to the above examples of problem behavior, the Federal Communications Commission (FCC) established four principles of an open Internet. First, consumers should have access to the lawful Internet content of their choice. Second, consumers should be able to run applications and use the services of their choice, subject to the needs of law enforcement. Third, consumers should be able to use the legal devices of their choice as long as those devices do not harm the network. And fourth, consumers should be able to choose their network providers, application and service providers, and content providers. In 2009, FCC Commissioner Julius Genachowski added the idea that service providers should not discriminate against legal content in any way.

A Fast History of Net Neutrality

Law Professor Tim Wu, the Isidor and Seville Sulzbacher Professor of Law at Columbia Law School, first used the phrase “net neutrality” in the 2003 law review

article entitled *Network Neutrality, Broadband Discrimination* (Wu, 2003). In the article, Wu considered network neutrality in terms of neutrality between applications, data, and the ability of a network to provide better, preferential service to some network traffic. Wu is considered the “father” of net neutrality, as he gave the subject a name, which focused the debate and popularized the concept.

The Communications Act of 1934 and the 1996 Amendment

A thorough history of net neutrality should start with the Communications Act of 1934. This act was signed into law by President Franklin D. Roosevelt. This act replaced the Federal Radio Commission (FRC) with the Federal Communications Commission (FCC). It also transferred regulation of interstate telephone service to the FCC. The first section of the act states its purpose:

For the purposes of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all people of the United States a rapid, efficient, nationwide, and worldwide wire and radio communication service with adequate facilities at reasonable charges, for the purpose of national defense, and for the purpose of securing a more effective execution of this policy by centralized authority... (Communications Act, 1934).

The Act of 1934 combined provisions of law from the Federal Radio Act of 1927 (Federal Radio Act, 1927) concerning radio licensing and the Mann-Elkins Act of 1910 (Mann-Elkins Act, 1910) relating to the telephone service. This act applied to the key communications of the age including telegraph communications. The goal was to have one agency regulate all the communication of the age just as the Interstate Commerce Commission regulated the railways and interstate commerce. The act was “technology biased,” which means whether something could be regulated depended on the specific technology used. This posed a problem for extending the act to new technologies like the Internet.

Title II of the Act discusses common carriers. A common carrier, under the common law, is a person or company that transports goods or people for any person or company and is responsible for any possible loss of the goods (Templeton, 2013). In the United States, the term also refers to telecommunications service providers and public utilities like a telephone company. A common carrier offers its service to the general public under license or authority provided by a regulatory body and the carrier may not refuse to provide its service to anyone. It needs to be accessible to any prospective customers. The regulatory body may create, interpret, and enforce its regulations upon the common carrier subject to judicial review (Dunn, 2017). For example, broadcasting can be regulated. The airways are a publically owned resource. The broadcasting stations do not own the airways; they are trustees of the frequencies. The government is entitled to ensure that the airways are used as a public service. A contract carrier is different from a common carrier. The contract carrier only transports goods for a specific, limited number of clients. It can refuse to do so for anyone else and it is not licensed to offer its services to the general public nor is it entrusted with publicly owned resources. It is not regulated to the same extent or in the same fashion as a

common carrier (Templeton, 2013). Net neutrality advocates would like to see common carrier system applied to the Internet so the FCC could easily regulate the Internet.

In 1996, Congress amended or repealed sections of the Communications Act of 1934 with the new Telecommunications Act of 1996 (Telecommunications Act, 1996). This was the first major overhaul of the 1934 Act. The FCC received its jurisdiction to facilitate the deployment of broadband to Americans in Section 706 of the 1996 Act. According to this section, the FCC is to: “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.” The goals of the act are to broaden the deployment of broadband technologies, define broadband to include any platform capable of transmitting high-bandwidth intensive services, ensure harmonized regulatory treatment of competing broadband services, and encourage an environment that stimulates investment and innovation in broadband technologies and services. The act was less technology based because it was not tied to things like wires, cable and radio. The act regulates by content. However, the act *exempted* the newly developing Internet from common carrier regulation. Under this section, “fast lanes” are allowed. Fast lanes are where a company can pay to have its services streamed faster than other companies and people can pay for faster speeds of service for things like video and gaming. Companies like Netflix, under a fast lane system, could be regulated and dealt with differently than companies that distribute email, which uses lower speeds. This did not change until 2015 when the FCC reclassified broadband ISPs as common carriers. Whether ISPs should be common carriers like utilities, and whether the FCC can reclassify them as such and regulate them, has been hotly debated in the net neutrality debate.

The Beginnings of FCC Regulation

On October 1, 2003, the FCC decided to treat digital subscriber line (DSL) Internet access differently from cable internet access for regulatory purposes. This is because DSL connects to the Internet using phone lines and cable internet access connects to the Internet through cable television infrastructure. The justification for this was that cable modem services were information services and not telecommunications services, which was considered different, by the FCC. Television, phone lines, and the radio are common carriers and more heavily regulated. Thus, local governments could not regulate cable modem services through franchising authority. This contributed to the growth of the industry, but resulted in many petitions to treat DSL and Internet through phone lines the same.

The FCC decided to regulate and fined a North Carolina ISP, Brand X, for preventing its followers from using a Voice over Internet Protocol (VoIP) service that uses the Internet to make phone calls because that service competed with its own voice calling service. This fine was challenged in court. In 2005, in *NCTA v. Brand X Internet*, the US Supreme Court (the Court), using the *Chevron Doctrine*, upheld the FCC’s ability to call a cable internet provider an information service (which is a type of contract carrier), and not a telecommunications service (which is a type of common carrier), under the Telecommunications Act of 1996 (NCTA, 2005). Brand X had argued that, under the Communications Act of 1934, the FCC must regulate cable internet providers as common carriers the same as ISPs like Brand X. Brand X wanted cable companies to unbundle their services for competitors’ use. The FCC classification of cable providers as information service providers enabled the FCC to conclude that ISPs, like

Brand X Internet, could not deny access to cable and phone wires by competing ISPs, but cable companies could.

Because Brand X lost, the case sets a precedent that the FCC can classify cable internet providers as information services. The *Chevron Doctrine* says courts should give deference to administrative agencies when they interpret the authority granted to them by Congress when the intent in Congress in the grant of authority is ambiguous and where the interpretation is reasonable or permissible (Chevron, 1984). The case also raised the question as to whether Congress should revise the Telecommunications Act of 1996 to ensure that communications, content, and applications could pass freely over the Internet. Some people suggested that Congress, through legislation, should deal with this issue. Many could see that internet services were provided by phone lines, cable, wireless phone networks, and even satellite. The FCC's distinction seemed very arbitrary. It also left the agency with less power to regulate since the agency did not label the ISP a common carrier.

In 2005, the FCC deregulated DSL after having already deregulated cable internet access. While many supported the deregulation, others voiced concerns that this deregulation removed some consumer protections for internet activity. The FCC, without any authority or guidance from Congress, then issued an Internet Policy Statement that set out pro-net neutrality rules for ISPs. In 2006, the Senate considered updating the Communications Act and including a statement favoring net neutrality. However, the Senate failed to pass the proposal.

A Light-Handed Approach to Regulation

The FCC began to police violations of net neutrality on a case-by-case basis, based on consumer complaints. In 2007, Comcast began to interfere with BitTorrent traffic on its network. BitTorrent is a program used for high volume applications like peer-sharing of music or video. The FCC responded in 2008 by punishing Comcast for violating the net neutrality rules set out in their Internet Policy Statement. Comcast had to disclose practices and stop discriminating against BitTorrent by making BitTorrent pay more for faster service. Net neutrality proponents did not like Comcast managing the Internet. Some anticipated internet providers managing the traffic on their systems based on whether they liked or disliked the content. Net neutrality opponents concluded that this argument ignored the reality that internet traffic is not all the same. Some traffic has greater needs for speed, like BitTorrent, companies that provide speed-dependent games, or those with video-streaming services like Netflix. Broadband networks could offer different levels of service. They could have fast and slow lanes of traffic. Net neutrality opponents argued that allowing some to pay for higher speeds could actually increase costs to users. For example, if newspapers could not charge advertisers for space, then the cost of the newspaper would be much higher for subscribers. All users have to subsidize the websites that need the greatest speeds whether they use those websites or not.

A Tougher Approach to Regulation and Struggle to Find Authority to Regulate

As a presidential candidate in 2008, Barack Obama weighed in on the dispute and pledged to support net neutrality. After becoming president, Obama requested the Federal Communications Commission (FCC) to pass "the strongest possible" rules to preserve net neutrality (White House, 2015). However, a president cannot force the agency to act as the FCC is an independent regulatory agency. Nevertheless, the

president's statement undoubtedly contributed to the FCC's desire to regulate. In February 2010, the FCC first passed net neutrality rules. The agency reclassified internet service providers as common carriers under Title II of the Telecommunications Act. This action treated the service providers like phone companies, public utilities. The change made the service providers more subject to regulation. The FCC said the change would "protect innovation and create a level playing field for the next generation of entrepreneurs" (Contract Reporter, 2015).

Later in 2010, in *Comcast Corp. v. FCC*, the Court of Appeals for the District of Columbia Circuit struck down these new FCC rules. The court concluded that the FCC did not have jurisdiction over Comcast's internet service under the language of Title I of the Communications Act of 1934. Since the FCC had already classified cable internet providers as information services, the court concluded the FCC could not censure Comcast's interference with traffic between their customers. Thus, the FCC did not have the power to enforce its net neutrality rules, and may not even have the power to make net neutrality rules in the first place (Comcast, 2010). The court's decision caused the FCC to establish new rules regarding internet regulations. The FCC response to the decision justified their authority to act through section 706 of the Communications Act of 1996 as well as through Titles II and VI of the 1934 Act. While addressing some of the concerns the court raised, it was not clear whether the new justifications for jurisdiction and the ability to act would be upheld by the Supreme Court.

A second attempt at tougher regulations came in December 2010. The FCC approved new net neutrality rules in the FCC Open Internet Order of 2010 (FCC, 2010). The new order is a set of regulations that move toward establishing net neutrality. Opponents of the new order argued that this internet regulation would inhibit innovation by preventing internet providers from capitalizing on their broadband investments. The new order would also cause internet providers to continue reinvesting money into higher quality services for consumers. Supporters of net neutrality countered that any content restrictions by network providers represented a threat to freedom of expression. It was hoped by many that an open internet would strike a balance between these two camps by creating a compromised set of regulations that would treat all internet traffic the same.

In 2011, Verizon sued the FCC. Verizon argued that the Open Internet Order of 2010 exceeded the FCC's authority as authorized by Congress, violated the company's constitutional rights, and created uncertainty for the communications industry (Selyukh & Ingram, 2014). In 2014, in *Verizon v. FCC*, the Court of Appeals for the District of Columbia Circuit decided that their job was not to assess the wisdom of the Open Internet Order of 2010, but instead to determine whether the FCC established that their regulations fell within the scope of its statutory grant of authority. The court concluded that section 706 of the Telecommunications Act of 1996 gave the FCC the authority to enact internet rules. However, the court struck down portions of the Open Internet Order of 2010, which the court determined could only be applied to common carriers, since the FCC had classified cable internet providers as information service providers. The court decided that, since the FCC had classified broadband providers under Title I of the Communications Act of 1934, the FCC relinquished its right to regulate them as common carriers under Title II of the Communications Act of 1934. The FCC Open Internet Order of 2010 only applies to common carriers. It does not apply to broadband

providers. Of the three orders that made up the FCC Open Internet Order of 2010, two were vacated by the court. The orders against blocking and no unreasonable discrimination in speed were struck down. The order requiring transparency was upheld as the court found this order was not contingent on a network operator being classified as a common carrier (Verizon, 2014). Following the decision, both Comcast and Verizon stated that the Internet will continue to work for consumers. Multiple news outlets considered the case to be a loss for net neutrality and a victory for cable providers.

Later in 2014, in response to the ruling and a petition campaign that urged the president to direct the FCC to reclassify ISPs as common carriers, the Obama administration stated that, while it supports a robust, free, and open Internet, a president could not direct the FCC to reclassify because the FCC is an independent agency. Obama did state that internet rules should be based in Title II authority. Responding to the decision in the case, the FCC issued a statement that the agency would not appeal the decision. However, the agency would establish new rules to require transparency and prohibit blocking and discrimination. Also, the FCC stated that it had the authority to promote competition over state and local telecommunications markets, and could regulate methods to remove barriers to infrastructure investment.

In January 2015, the Republicans in Congress introduced a discussion draft of a bill addressing the FCC's authority over net neutrality. Net neutrality supporters raised concerns with the bill when it was introduced during a Senate hearing. Supporters considered the draft to be net neutrality in name only. Many Republicans argued that market forces could safeguard online innovation without government involvement. Critics of this approach said that the FCC needed to declare broadband providers to be common carriers so that the FCC could regulate them. They believed regulation was the only thing that would ensure net neutrality. Large broadband providers and many Republicans objected to increased regulation because they believed it opened the door to regulations that went far beyond regulating for net neutrality. Some of the laws that regulated common carriers, like Title II, go back to the 1930's. These laws could lead to the FCC dictating the prices broadband carriers could charge and the laws could allow for the FCC to micromanage how internet providers connect to each other.

The Republicans want light-handed regulation, but not Title II regulation, which could evolve into excessive FCC regulation. Democrats saw the Republicans' proposals as protecting some of the most serious threats to net neutrality like blocking, where service providers block access to some content on the web and throttling, where some users' access to the Internet is slowed down while other users' access is sped up. Democrats also thought the Republican proposal would strip the FCC of potential Title II authority to deal with future problems. For example, some can anticipate that ISPs may charge customers different rates for content from Netflix but not Hulu. The ability to stop this type of activity might be stripped from the FCC under the Republican bill. Critics of the Republican plan also did not like the case-by-case approach, the light-handed approach, to policing net neutrality problems. Democrats had little reason to compromise, as they believed they had control over the debate.

A third attempt at tougher agency regulation came when FCC Chairman Tom Wheeler endorsed internet rules grounded in Title II use. In February 2015, the FCC passed Title II net neutrality rules that applied to both wired and wireless internet connections in the 2015 Open Internet Order. Broadband service was reclassified as a

telecommunications service and subject to common carrier regulation under Title II of the Communications Act (FCC, 2015). Thus, broadband service could be regulated much like telephone companies (Irwin, 2014). The FCC did not exercise its authority to forbear from applying many Title II provisions to broadband service and created rules to promote internet openness. Many broadband providers responded by petitioning the FCC to put on hold internet rules based in Title II. They argued that the FCC lacked the statutory authority to reclassify broadband as a telecommunication service without Congressional approval. The FCC denied this petition. In December 2015, in *U.S. Telecom Association v. FCC*, the U.S. Court of Appeals for the District of Columbia Circuit heard oral arguments concerning a challenge to the FCC's new authority to create net neutrality rules. In June 2016, the D.C. Circuit affirmed the FCC's 2015 Open Internet Order's net neutrality rules. The court concluded that the FCC could reclassify broadband services to telecommunications services subject to common carrier regulation under Title II of the Communications Act of 1934 (US Telecom, 2016).

A Return to a Light-Handed Approach to Regulation?

In April 2017, new FCC Chairman Ajit Pai, a vocal critic of net neutrality (Chaitin, 2017) appointed by President Donald Trump in January 2017, announced his plan to repeal the 2015 internet rules. "Nothing about the Internet was broken in 2015," he said. Referring to the FCC moving to regulate the Internet as a public utility, he stated that "It was all about politics" (Newcomb, 2017). Real control is more likely to come from increased competition (Steimle, 2014). In May 2017, the D.C. Circuit Court of Appeals for the District of Columbia Circuit denied petitions asking the court to reconsider its prior decision. In July, the U.S. Supreme Court gave the cable industry more time to appeal the net neutrality ruling from the D.C. Circuit Court of Appeals for the District of Columbia Circuit. Industry groups asked the Court for a 60-day extension, to September 28, to appeal the FCC's net neutrality rules. The groups asked for the extension because the FCC is currently moving to repeal the Obama-era rules. In March 2017, Trump indicated that he endorses the FCC's plan to replace the earlier net neutrality rules (Lohr, 2017). The FCC could soon consider adopting a Notice of Proposed Rulemaking that would replace the 2015 Open Internet Order (Sohn, 2017). If this happens, it is unlikely the Court will hear the case as the Court would be deciding on rules the FCC has already decided to replace. Of course, even if the FCC changes course on net neutrality, the next president and a new chairman of the FCC could easily change back to Obama-era net neutrality rules. The country does not have a consensus on the issue and the Supreme Court may not weigh in on the issue during the Trump presidency. Congress also does not seem in any hurry to review old communication acts.

Arguments

The current dispute over net neutrality does not really involve "open Internet" or free speech, as both sides agree to these goals. The issue is whether the government, through FCC rules, should be able to expand its power over the Internet by re-writing congressional laws (Spiwak, 2017). Some believe Congress should be the one to re-write their own laws, as FCC regulation, without congressional approval, could dictate internet products and costs. However, the FCC has said that it would not subject broadband providers to tariffs or other rates, unbundling, or other forms of utility regulation (Carroll, 2015).

Arguments in Favor of Net Neutrality

Groups in favor of net neutrality regulations are composed primarily of liberal, anti-corporate, activists, academics, think tanks, and self-proclaimed protectors of the public interest (Hoffman, 2017). These groups want regulation under Title II, despite these laws being very old and designed for utilities (John, 2017). Benefits that are supposed to come from net neutrality are the following: the stimulation of ISP competition, the promotion of the spread of ideas, the prevention of unfair pricing practices, the promotion of innovation, the promotion of the spread of ideas, the promotion of entrepreneurship, and the protection of freedom of speech. The threat to these ideas is explained below in the four arguments in favor of net neutrality laws.

Competition. These groups argue that ISPs, including cable companies which provide the internet access for homes along with satellite, phone lines, and mobile broadband over devices like cell phones, should be classified as common carriers. This would require these service providers to allow other ISPs free access to their cable and phone lines as well as their service towers. This will stimulate ISP competition. However, there cannot be competition if new ISPs are not able to develop a service with which to compete. If there are not enough companies to provide competition, many people would find that they have only one ISP. A lone ISP would likely be a monopoly and the company would be able to do whatever it pleases. There would be no competition from others to provide pressure for better service at the lowest prices. Common carriers are subject to FCC regulations, which keeps large ISPs from doing what they please at the expense of serving the people. Net neutrality advocates hope that the FCC will keep the ISP companies from becoming gatekeepers, in part by deciding if certain web sites will be accessible and at what speed. They do not want these companies to block access to other Internet phone company services. The Internet developed successfully because no authority controlled new content or new services. The Internet is undermined if broadband carriers can affect what people see and do online. Net neutrality is needed for competition and the prevention of unfair practices.

Free Expression. Net neutrality is necessary to safeguard free expression online. Net neutrality is supposed to preserve an open Internet and ensure that the Internet is not divided into different speed lanes. The fear is that media companies and other companies able to pay more for internet service would get faster connections and everyone else would get slower access. What content can be accessed often depends on speed. For example, faster speeds are required to watch video than to read text. Net neutrality rules are necessary so everyone has equal access to all of the content on the Internet. If everyone has equal access, the practice will foster free speech and lead to further democratic participation on the Internet and the spread of ideas.

Innovation. If ISPs have the ability to demand a fee for premium delivery of content, the practice will turn these companies into gatekeepers. People are used to fast speeds. If they find some websites that function slowly, they will be less likely to visit those slow sites. They are unlikely to wait for a slow video to load or watch a video that buffers. This impatience on the part of consumers will result in self-imposed avoidance of slower sites. Slower sites are often newer sites or those with less popular coverage of events and thus, these often have less money to spend. Charging websites for access will stifle innovation, as new websites will not be able to afford these fees.

Some companies, like ISPs, may want to stop competing services, like Brand X, from providing the same service that the ISP offers. Brand X will find that they are completely shut out. Unfair pricing practices restrict and stifle innovation. If everyone is on an equal footing, innovation will be able to thrive. If innovation can thrive, then competition can thrive as the best companies, including new content providers, will have an equal chance at competing with more established companies. If we do not do this, the Internet will move from innovation, where the quality of the website or service determines whether that business succeeds or fails, to the quality of one's deal-making. (Pogue, 2014).

Prevention of unfair pricing practices. If net neutrality is removed, it is unlikely that new investment will be made to create more infrastructure (Granados, 2017). Non-net neutrality practices mostly involve leveraging quality of service for acquiring payoffs for already existing service. These are simply payoffs to avoid being slowed down. In 2014, Netflix had to make payments to Comcast and Verizon to avoid having their video-streaming move at slower Internet speeds. The money did not result in greater infrastructure development on the part of ISPs because they did not want to develop cable and phone lines or satellites and towers that other companies could use for free (Hoffman, 2017). This is just one piece of evidence showing that removing net neutrality will not help spread high speed Internet to new areas.

Arguments Opposed to Net Neutrality

Groups opposed to heavy regulation are composed primarily of ISPs, cable and telephone companies, conservatives, free-market think tanks, and libertarians. They are not opposed to Open Internet principles per se, but they are very concerned about the effect of and unintended consequences of regulation. Using Title II and labeling ISPs as common carriers rather than as content providers results in ISPs becoming subject to more regulation. Those opposed would prefer a light touch to regulation by agencies. They would also prefer to follow Congressional mandates rather than an agency usurping authority through Title II interpretation and having to deal with the resulting mission-creep (John, 2017). Internet suppliers like Verizon, AT&T, and Comcast believe they are unfairly subject to utility style regulation. Obama-era rules place restrictions on Internet service suppliers, and not content providers. This picks winners and losers. Companies that are subject to regulation, like ISPs, will not achieve the same profit levels as companies that are labeled content providers and are not regulated. Telecommunications and cable companies do not want to be common carriers. This makes their companies subject to anti-blocking and anti-discrimination rules. The classification opened the door to government interference that would reduce incentives to invest, which would ultimately hurt consumers and result in higher prices.

Confusion and overreach from an agency mandate that is too old. Continued regulation by the FCC, without a new law and mandate from Congress, causes too much confusion and requires Congress to attack problems piecemeal. An example of this confusion happened when Congress, in March 2017, overturned a yet-to-take-effect regulation, enacted in 2016 by the FCC, which would have required ISPs to get customers' permission ("opt-in") before selling their data. ISPs collect data from websites people visit. This data can include personal information like medical and financial data. The FCC made privacy rules because the 2015 Open Internet Order basically defined the Internet as a public utility and the FCC put themselves in charge of

privacy regulations. Until 2015, the FTC held jurisdiction over ISPs and privacy regulation. This was considered a victory for ISPs like Comcast and Verizon, as it could have put those companies at a disadvantage compared to content providers like Google and Facebook. Google and Facebook are regulated by the FTC, which has less stringent privacy requirements. The FCC stripped the FTC of its authority over internet service providers. This was a loss to privacy advocates who preferred consumers have to opt-in before a company could sell gathered data. Those opposed to net neutrality argued that people can use a different search engine if they do not like Google's privacy rules, but people cannot always go to another internet provider, especially in rural areas. Others opposed argued the FCC overstepped their delegated powers to regulate and that it was up to the FTC to regulate privacy. Allowing both the FCC and the FTC to regulate the Internet causes confusion and can end up hurting consumers. Only Congress can set broad parameters in which the agencies can operate. One cohesive plan by Congress is better as it can set goals and settle what agencies operate in what areas, rather than reconfigure individual regulations. Sean Spicer, White House spokesperson, said President Trump will "continue to fight Washington red tape that stifles American innovation, job creation and economic growth" (Lohr, 2017). President Trump's position was seen as a prelude to further deregulation for broadband companies.

Congress should be the one making the rules. In July 2017, thousands of people participated in the Net Neutrality Day of Action. They were protesting the FCC's planned reversal of Obama-era Open Internet rules. They framed the issue as money-grubbing ISPs trying to penalize and shutout newer and smaller companies. BattleForTheNet.com sponsored a petition to stop Comcast, Verizon, and AT&T from ending net neutrality and controlling what people see and do online. Those companies want to gut FCC rules and then pass legislation that allows for extra fees, throttling, and censorship (Given, 2017). This is deceiving because ISPs already had the power to do these things under the 1934 Act. Under this act, ISPs were contract carriers not common carriers. While Obama-era Open Internet rules tried to change ISPs to common carriers, the 2016 appellate court decision, *U.S. Telecom Association v. FCC*, that upheld the FCC's ability to make the 2015 Open Internet Order, is not a Supreme Court case. Thus, the ruling can be overturned by the Supreme Court. The Court could conclude that the 2015 Open Internet Order provided no meaningful net neutrality protections if the FCC cannot make net neutrality regulations and enforce those regulations on ISPs as contract carriers. Is there even an urgent threat to a free Internet? There is no need for the FCC to make rules if there was no problem in the first place. Repealing the Obama-era rules would simply return the web to a time before 2015 when ISPs could block and throttle content. Did anti-net neutrality problems extensively develop that would justify comprehensive regulation? Every ISP at the time had de facto net neutrality without needing government regulation. However, if the public truly demands regulation for an Open Internet, then Congress needs to be the one to assess whether there even is a problem and what types of rules are needed to alleviate actual problems (Given, 2017).

Heavy-handed regulation does not help people. Net neutrality supporters are perceived as believing that ISPs are too big. They need to be broken up or they will become monopolies. To stay a monopoly, phone companies had to license use of their

infrastructure for free. The government could control what customers were charged. All this may sound good, but Pai said regulation is not working. He wants to go back to the rules created in 1996 under President Clinton and the Republican Congress (Newcomb, 2017). “The Internet is the greatest free market success in history,” Pai said. However, he believes the “heavy-handed” net neutrality rules were never needed, are not helping people, and are, in fact, doing the reverse” (Newcomb, 2017). He said the rules have led to reduced investment, which he said has cost 75,000 to 100,000 jobs such as laying cable and digging trenches to help bring high-speed internet access to rural and low income areas” (Newcomb, 2017). A heavy-handed framework will widen the digital divide as companies are avoiding rural and low income areas because they believe that it is not worth the time or money to invest there (Newcomb, 2017). This provider decision also reduces competition for those rural people (Kang, 2017).

All internet traffic is not the same. If the government reverses net neutrality, this would put consumers back in charge of how the Internet should operate, rather than five unelected government regulators in the FCC coming between consumers and ISPs. The fight over net neutrality is not about digital egalitarianism. Its purpose was to restrict consumers’ choices and prohibit paid prioritization. Paid prioritization is a technical term used to describe an agreement between a content provider and a network owner to allow the provider’s data to travel on less-congested routes in exchange for an agreed upon fee. When networks are congested with data during high-traffic times, prioritization agreements allow consumers to receive requested data faster. Netflix and other high-volume data providers, mostly video, are already negotiating these deals with ISPs to have their content delivered faster (McMillan, 2014). Video data is less tolerant of delays (Hathaway, 2017). It causes buffering, distortions, and other playback problems. Net neutrality requires treating all data the same. This ignores basic differences between things like email and video. As Pai noted in a 2014 memo when he was a commissioner, “Title II only authorizes the FCC to prohibit ‘unjust or unreasonable discrimination’ and both the Commission and the courts have consistently interpreted that provision to allow carriers to charge different prices for different services” (Hathaway, 2017). No one wants unfair practices or pricing, but solutions should be based on the reality of the workings of the Internet.

Heavy handed regulation lessens research and development. When the FCC uses more regulation and control, every general counsel of every firm will face many complaints resulting in regulatory investigations. CEOs will find they are spending more money on lobbyists, lawyers, and public relations firms than they spend on research, expansion, and innovation (Davis, 2015). Consumers will suffer most as they can expect higher broadband prices, reductions in broadband speeds, less expansion of broadband, less innovation, and fewer offerings from fewer companies.

Should video and game content providers be able to negotiate faster lanes for their content? Supporters of net neutrality argue that this could lead to a Balkanization of the Internet. Others argue that all consumers are then free to pay for the services they need and not support the video watchers or game players when all they want is shopping, web surfing, and email. Reasonable people can disagree over these arguments and how much regulation is needed. In order to achieve net neutrality, however, opponents to net neutrality argue that the FCC made an unreasonable power grab. This power grab could result in less competition, free expression, and innovation if

there is less money for new products and start-up companies from less access to satellites, lines, wires, and towers (Fung, 2016). Power grabs also often result in an agency going well beyond its grant of law making power from Congress.

Open congressional hearings are best. Just as Obama used executive orders in many other areas, he also set a precedent in 2008 of pressuring an independent regulatory agency into following his political orders (Davis, 2015). The resulting FCC net neutrality regulations were too secretive as the 317-page document that would govern the agency on net neutrality was not released for public comment until after the FCC vote. FCC Chairman at the time, Tom Wheeler, even refused to discuss the new regulatory rules before Congress. This was not the transparency Obama promised in government when elected. There also could be broad unintended consequences that could have been discovered and address in Congressional hearings had Congress passed an internet law. Wheeler promised a light touch in carrying out the new regulations, but the people need to hear both sides of the debate to understand the complexities. This should result in more informed decisions when there are trade-offs to be made from. Then Commissioner Pai, in his dissent to the adoption of the rules said the regulations give the FCC, “the power to micromanage virtually every aspect of how the Internet works...It allows the government to slap the ‘universal service fee’ that you now pay on your phone bill onto your broadband bill” (Davis, 2015). Congress should make these decisions after open hearings.

The bipartisan consensus reached between President Bill Clinton and the Republican Congress allowed the Internet to spontaneously grow and thrive. This is what ISPs would like in the Trump-era. In May 2017, the FCC voted along party lines to start the process of undoing the Obama-era net neutrality rules. The agency issued a Notice of Proposed Rulemaking. This notice starts the official period for public comment. The FCC will seek further public comment and then reply to comments before finalizing an order to undo the rules. They will probably vote again later this year to implement the new order. This will probably not be the end of the matter. Proponents of the Obama-era rules will probably challenge the new order in court (Dunn, 2017). However, those opposed to the Obama-era net neutrality rules hope that Congress will intervene and develop laws that will keep the Internet free while providing the light touch to avoid stifling existing companies and entrepreneurs.

Conclusion

What could happen with net neutrality? The FCC could revisit its earlier interpretations and take a more restrained approach to net neutrality regulations. The agency could even turn jurisdiction over privacy and broadband regulation back to the FTC (Downes, 2017). The FTC and state attorneys general have broad powers to protect consumers from harmful or deceptive practices. The Justice Department can assist and punish anti-competitive conduct (Forbes Contributors, 2017). This approach was used in the past. It was considered more of a light touch to regulation because it was done on more of a case-by-case basis as consumer complaints arose. It deters bad behavior as companies watch what practices result in legal troubles to other companies in their field. This was what Congress intended in 1996 when it declared that the Internet should remain “unfettered by Federal or State regulation,” yet it should not be lawless (Telecommunications Act, 1996).

It is time to resolve the net neutrality debate. Core concepts of net neutrality are not controversial. Pai does not oppose net neutrality. Pai opposes the broader powers the FCC commandeered in the disguise of enforcing net neutrality. An agency cannot put its net neutrality regulations on sound legal footing. This debate has been too polarized through interparty fighting. Only Congress can develop laws, through normal lawmaking procedure, that will have the legitimacy to survive different administrations.

This country has always swung between Republicans and Democrats. While Republicans hold both the Congress and the presidency, Democrats will regain power again in a future election. When this happens, there will be another chairman of the FCC and new agency mandates may be very different. The FCC could again invoke Title II, take a more activist role, and move the FCC back in control of ISPs. If the two parties insist on having net neutrality as some sort of political tool in elections, the issue will never settle and the country will keep swinging as if on a merry-go-round (Johnson, 2017).

Too many times this country turns to the Supreme Court to do what President Kennedy called “the right thing.” The Supreme Court could decide to hear a case on whether Title II gives the FCC the power to regulate the Internet, but opportunities to hear a case like this may not happen until the FCC again attempts to take control. The Supreme Court cannot act without a case. The Supreme Court could also grow weary of having to legislate and simply not take net neutrality cases.

Congress could stop this back and forth that has taken place for roughly 15 years. There needs to be bipartisan comprehensive legislation on net neutrality to answer questions like what agencies should regulate the Internet, in what areas there needs to be regulation, and how forcefully this regulation should be exercised by agencies. The ability to make regulations needs to be clearly delegated to agencies, and that law-making power needs to have clear parameters to avoid agency overreach. This would be “taking responsibility” and “doing what is right” for the future of the country with the problem of net neutrality.

References

- Carroll, L. (February 26, 2015). FCC approves Obama’s net neutrality proposal. *Politifact*. Retrieved from <http://www.politifact.com/truth-o-meter/promises/obameter/promise/510/support-network-neutrality-on-the-internet/>
- Chaitin, D. (May 18, 2017). FCC votes 2-1 to start dismantling Obama’s ‘net neutrality’ rule. *The Washington Examiner*. Retrieved from <http://www.washingtonexaminer.com/fcc-votes-2-1-to-start-dismantling-obamas-net-neutrality-rule/article/2623496>
- Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc. (June 25, 1984). 467 U.S. 837. Retrieved from <https://www.law.cornell.edu/supremecourt/text/467/837>
- Comcast Corp. v. FCC. (April 6, 2010). 600 F. 3d 642 (D.C. Cir.). Retrieved from https://www.eff.org/files/comcast_v_fcc_dc_cir_2010.pdf
- Communications Act 1934. (June 19, 1934). 47 U.S.C. Section 151. Retrieved from <https://transition.fcc.gov/Reports/1934new.pdf>
- Contract Reporter, (February 26, 2015). Regulators approve tougher rules for internet providers in landmark net neutrality vote. *Chicago Tribune*. Retrieved from

- <http://www.chicagotribune.com/bluesky/technology/chi-regulators-internet-net-neutrality-rules-20150226-story.html>
- Davis, M. (February 27, 2015). Sneaky, stealthy and serpentine. *U.S. News*. Retrieved from <https://www.usnews.com/opinion/blogs/mark-davis/2015/02/27/obama-net-neutrality-underhanded-power-grab-is-bad-for-the-internet>
- Downes, L. (March 31, 2017). The tangled web of net neutrality and regulation. *Harvard Business Review*. Retrieved from <https://hbr.org/2017/03/the-tangled-web-of-net-neutrality-and-regulation>
- Dunn, J. (May 18, 2017). The FCC just took the next step in reversing Obama's 'open internet' rules. *The Business Insider*. Retrieved from <http://www.businessinsider.com/fcc-vote-net-neutrality-rules-ajit-pai-2017-5>
- FCC Open Internet Order of 2010. (December 21, 2010). Retrieved from https://apps.fcc.gov/edocs_public/attachmatch/FCC-10-201A1.pdf
- FCC Open Internet Order of 2015. (February 26, 2015). Retrieved from https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1.pdf
- Federal Radio Act 1927. (February 23, 1927). Pub.L. 69-632, 44 Stat. 1162. Retrieved from <http://www.americanradiohistory.com/Archive-FCC/Federal%20Radio%20Act%201927.pdf>
- Forbes Contributors. (July 12, 2017). Bringing economics back into the net neutrality debate. *Forbes*. Retrieved from <https://www.forbes.com/sites/washingtonbytes/2017/07/12/bringing-economics-back-into-the-net-neutrality-debate/#148bdbb869da>
- Fung, B. (June 15, 2016). The net neutrality court decision, in plain English. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/the-switch/wp/2016/06/15/the-net-neutrality-court-decision-in-plain-english/?utm_term=.324496bdf749
- Given, C. (July 17, 2017). Obama-era open internet rules are not true net neutrality. *The Washington Examiner*. Retrieved from <http://www.washingtonexaminer.com/obama-era-open-internet-rules-are-not-true-net-neutrality/article/2628850>
- Granados, N. (May 31, 2017). The net neutrality debate: why there is no simple solution. *Forbes*. Retrieved from <https://www.forbes.com/sites/nelsongranados/2017/05/31/the-net-neutrality-debate-why-there-is-no-simple-solution/#4067326b5c67>
- Hathaway, J. (June 7, 2017). Reverse Obama's net-neutrality power grab. *The American Conservative*. Retrieved from <http://www.theamericanconservative.com/articles/reverse-obamas-net-neutrality-power-grab/>
- Hoffman, A. (May 15, 2017). There is a middle ground in the net neutrality debate. *The Hill*. Retrieved from <http://thehill.com/blogs/pundits-blog/technology/333353-there-is-a-middle-ground-in-the-net-neutrality-debate>
- Irwin, N. (November 10, 2014). A super-simple way to understand the net neutrality debate. *The Upshot*. Retrieved from <https://www.nytimes.com/2014/11/11/upshot/a-super-simple-way-to-understand-the-net-neutrality-debate.html>
- John, R. (July 10, 2017). The next net neutrality debate. *Bloomberg View*. Retrieved from <http://www.bloomberg.com/view/articles/2017-07-10/the-next-net-neutrality-debate>

Johnson, G. (September 11, 2017). Congress, don't let net neutrality debate fall victim to executive orders. *The Hill*. Retrieved from <http://thehill.com/blogs/pundits-blog/technology/350130-congress-dont-let-net-neutrality-debate-fall-victim-to>

Judicial Watch. (July 17, 2017). Judicial Watch joins Allied Educational Foundation in opposing FCC takeover of internet. *Judicial Watch*. Retrieved from <https://www.judicialwatch.org/press-room/press-releases/judicial-watch-joins-allied-educational-foundation-opposing-fcc-takeover-internet/>

Kang, C. (April 26, 2017). FCC chairman pushes sweeping changes to net neutrality rules. *The New York Times*. Retrieved from <https://www.nytimes.com/2017/04/26/technology/net-neutrality.html>

Lohr, S. (March 30, 2017). Net neutrality is Trump's next target, administration says. *The New York Times*. Retrieved from <https://www.nytimes.com/2017/03/30/technology/net-neutrality.html>

Mann-Elkins Act 1910. (June 18, 1910). 36 Stat. 539. Retrieved from https://archive.org/stream/jstor-1883490/1883490_djvu.txt

McMillan, R. (June 23, 2014). What everyone gets wrong in the debate over net neutrality. *Wired*. Retrieved from https://www.wired.com/2014/06/net_neutrality_missing/

NCTA v. Brand X Internet. (June 27, 2005). 545 U.S. 967. Retrieved from <https://supreme.justia.com/cases/federal/us/545/967/>

Newcomb, Alyssa. (April 26, 2017). FCC chairman Ajit Pai unveils plan to kill Obama-era net neutrality rules. *NBC News*. Retrieved from <https://www.nbcnews.com/tech/internet/fcc-chairman-ajit-pai-unveils-plan-kill-obama-era-net-n751486>

Pogue, D. (April 1, 2014). The net neutrality debate in 2 minutes or less. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/the-net-neutrality-debate-in-2-minutes-or-less/>

Reardon, M. (March 14, 2015). 13 things you need to know about the FCC's net neutrality regulation. *CNET*. Retrieved from <https://www.cnet.com/news/13-things-you-need-to-know-about-the-fccs-net-neutrality-regulation/>

Rittle, A. (June 20, 2016). 4 John F. Kennedy quotes that express the need for change. *Odyssey*. Retrieved from <https://www.theodysseyonline.com/4-john-kennedy-quotes-that-express-the-need-for-change>

Selyukh, A., Ingram, D. (January 14, 2014). US appeals court strikes down FCC net neutrality rules. *Reuters*. Retrieved from <https://www.reuters.com/article/us-usa-court-netneutrality/u-s-appeals-court-strikes-down-fcc-net-neutrality-rules-idUSBREA0D11420140114>

Sohn, G. (May 24, 2017). Breaking down the FCC's proposal to destroy net neutrality. *The Verge*. Retrieved from <https://www.theverge.com/2017/5/24/15685414/net-neutrality-fcc-nprm-explained>

Spiwak, L. (May 18, 2017). The ugly truth about Obama's "Net Neutrality". *Real Clear Policy*. Retrieved from http://www.realclearpolicy.com/articles/2017/05/18/the_ugly_truth_about_obamas_net_neutrality_110247.html

Steimle, Josh. (May 14, 2014). Am I the only techie against net neutrality? *Forbes*. Retrieved from <https://www.forbes.com/sites/joshsteimle/2014/05/14/am-i-the-only-techie-against-net-neutrality/#6fae8bc670d5>

Telecommunications Act of 1996. (February 8, 1996). 110 Stat. 56. Retrieved from

- <https://transition.fcc.gov/Reports/tcom1996.pdf>
- Templeton, R. (2013). Differences between common and contract authority? *Turnkey Authority*. Retrieved from <http://www.turnkeyauthority.com/whats-difference-common-contract-authority/>
- US Telecom Association v. FCC. (May 5, 2017). No. 15-1063 (D.C. Cir.) Retrieved from <https://www.cadc.uscourts.gov/internet/opinions.nsf/3F95E49183E6F8AF85257FD200505A3A/%24file/15-1063-1619173.pdf>
- Verizon Communications Inc. v. FCC. (January 14, 2014). 740 F. 3d 623 (D.C. Cir.) Retrieved from [https://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/\\$file/11-1355-1474943.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/$file/11-1355-1474943.pdf)
- White House, (February 4, 2015). Net neutrality: President Obama's plan for a free and open internet. *The White House*. Retrieved from <https://obamawhitehouse.archives.gov/node/323681>
- Wu, T. (June 5, 2003) Network neutrality, broadband discrimination. *Journal of Telecommunications and High Technology Law*. 2, 141. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=388863

**Framing 21st Century Research for Education: A Symposium
Educator Awareness and Communication**

**Paul E. Carlson, Barba A. Patton, & Diane E. Prince
University of Houston-Victoria**

When policy makers declared that public education was in crisis, in the late 20th century, they focused on the need to raise academic standards and much of the following research documented academic gaps. America's educational standards were being compared with those of other nations and the conclusion reached by the national-level commissions, such as the National Commission on Excellence in Education (NCEE) in 1983 was that we were "A Nation at Risk." In this symposium we will explain just a few of the issues the schools can do to help with the situation.

The focus of the Commissions was the low and declining academic performance on standardized achievement tests. For example:

--The scores on the Scholastic Aptitude Test (SAT) indicated a "virtually unbroken decline from the 1960s to the 1980s."

- Scores in math were alarming. (In 1991, 80 percent of 8th grade students were below grade level in math; only 14% of 12th grade students performed at grade level; only 2.6% were capable of advanced work in calculus or statistics.)

The NCEE recommended improving textbooks and other instructional materials, providing more rigorous courses; strengthening graduate requirements and raising college entrance requirements. The assumption was that low school performance was due to lack of instructional quality. The problem and the solution were to be found in public schools.

Since that time, social scientists and ethnographers have examined a number of factors which could help to explain academic gaps. Some of them have concluded that the most significant factors linked to school performance are found in students' homes, communities and with peers. The eminent educational psychologist David Berliner (2006), commented on the failure of proposed school reforms indicating: "Many of the families in...impoverished neighborhoods are so poorly equipped to raise healthy children that the schools those children attend would have a hard time educating them, even if they weren't so poorly organized and run."

Each of the four major social contexts: family, peers, communities, and schools are especially likely to conflict when certain factors are evident. The most intensely studied relationship is that between low income households and schools. Poverty tends to be associated with family instability and, often, with ethnicity. Moreover, family poverty is frequently connected to community socialization factors. Schools, by themselves, cannot effectively confront socialization when there is lack of cohesion between schools and families, especially when there is an aggregation of such factors.

The research on 'students at risk' in this century provided insights into differential socialization, a phenomenon that has always existed but which, in today's context, represents a major threat. Differential socialization represents divergences in ways in which children and youth are acquiring their identities and culture, including language, values, symbols, and beliefs.

The challenge becomes more dramatic when we observe the complexities in each of the venues: home, community, and peers. Here we will consider the challenge of linking schools and homes. While most educators recognize that parental support for children's education is crucial, the nature of households has been undergoing significant changes. Today it is virtually impossible to characterize "the American family." Consider the following from the Pew Research Center (December 2015):

--Two parent homes are on the decline

--The number of single-parent households is growing

--Less than half (46%) of children are living in households with two married parents in their first marriage.

--One fourth of children under age 18 now live with a single parent (up from 9% in 1960, 22% in 2000).

--71% of African American births are to women who are not married; approximately 53% of Hispanic births are to unmarried women; 29% of births to white women occur outside of marriage.

--There has been a dramatic decline in the share of mothers who are not stay-at-home moms....only approximately 29% of all mothers living with children younger than 18 are stay-at-home moms.

The above data provide only a glimpse of the challenges that schools face in working with families. In addition to considering how to relate to, for example, female-headed households, they need to understand the constraints and opportunities related to low-income, threats to family stability and neighborhood and peer factors. (Alexander et. al, 2014).

Moreover, educators will need to confront cultural factors. As ethnographers have long observed, families from different cultures define parental and childhood roles differently (Lancy, 2015, Cordoiva & Cervantes, 2014). Families who are in the process of adjusting to American society may experience segmented acculturation, variations in degrees of adaptation to American culture is a source of instability and stress in a significant number of families (Wright 2015). The stresses placed on families facing poverty, instability and cultural differences tend to reinforce socio-psychological

distances between homes and schools. In some cases, these are manifested in racial and ethnic socialization (Rivas-Drake & Witherspoon, 2013, Caughy, O'Campo, & Muntaner, 2004). Some families pre-arm their children, especially sons, to prepare them for discrimination in society. These can involve warnings that they will be treated unfairly in school and in the criminal justice system (Brown & Linver, 2010).

Ethnic socialization is sometimes distinguished from racial socialization (Banerjee et al 2011, Rivas-Drake & Witherspoon 2013). Whereas racial socialization is often perceived as consisting of overt warnings and preparations for discrimination, ethnic socialization involves parental efforts to instill pride in one's community and history. Most researchers find positive associations between ethnic socialization and educational attainment.

While poverty is a major factor in the social-psychological distance between home and school, ethnic divisions are evident across socioeconomic levels. Elliott & Aseltine (2012) have found that African American and Latino families living in upper income neighborhoods express concerns that their sons will be enticed into criminal activities and/or will face discrimination. Their primary concerns for their daughters are that they will be targeted sexually.

Social science researchers have found neighborhoods often have a deep impact on family life and on parenting practices (Elliot and Aseltine, 2012, Alexander, Entwistle & Olson, 2014, Caughy, O'Brien, Fanzini, Suisa, Dittus, Cuccaro, Elliott, & Schuster 2012)). Neighborhoods that have a high degree of social efficacy including interpersonal trust and interfamilial support tend to provide a stronger sense of security for families and for young people. But parents with children in low-income, unstable neighborhoods with low social efficacy are more apt to socialize their children defensively. One frequently reported response is "cocooning" the tendency to have their children remain safely inside rather than mix with others in the neighborhood. Yet, there is a general tendency for older children to find best friends in the neighborhood rather than in other settings such as their schools.

Social science researchers also chronicle the effects of neighborhood crime, segregation and poverty (Burdick-Will 2016; Massey and Denton, 2014). Prolonged exposure of school-aged children to neighborhood violence and crime appears to have a cumulative negative effect on academic performance. (Zimmerman, Messner, Steven & Rees, 2014). Moreover, the effects of prolonged segregation in an impoverished environment often yields "spirals of decline" (Massey & Denton 2014). The effects go beyond reproduction of poverty across generations. It appears to be linked to greater cultural distance. Massey and Denton observe the growing distance between the Black English used in highly segregated neighborhoods and standard American English and

these seem to have clear disadvantages for educational and labor market prospects for residents.

Ethnic and class differences strongly influence peer connections. Positive peer connections can provide a variety of protective factors leading to improved educational performance. Similarly, community networks involving recreational, faith-linked, and community organizations can promote prosocial peer connections and social skills (Smith, Gaulk, & Sizer 2016).

Peer influences appear to strongly influence value orientation. One's position within a peer network can matter. In some cases, peer social networks can also lead to delinquency and emotional depression (Reynolds & Crea, 2015). In some settings, peer popularity is linked to antisocial behavior. Moreover, some researchers have found adolescents embedded in dense peer networks with strong ties are less subject to peer influences. Popular adolescents seem to be more prone to depression. Researchers have found some peer networks to be protective while others provide a source for antisocial behavior. An often unreported observation: depression in some peer networks seems to develop into a group-related "depression contagion." Thus while friendships often have protective advantages against hostile and dangerous environments, they can also serve as a conduit for clinical internalizing symptoms.

Evidence from ethnographic and social science research since the turn of the Century provides clear evidence that education of children and youth must confront differential socialization. The powerful effects of family, neighborhood, peers and school must be considered by educational policy makers and educational researchers. The more traditional research, which was largely school-centric; assumes educational problems could be defined and corrected without consideration of the effects of non-school environments.

In the 21st Century, such factors as identity, language, values, and educational objectives will need to be observed against the social contexts in which children and youth are experiencing life. The recent research has important implications for policy makers and researchers as well as professional educators.

If I Only Had a Brain.. You Do!!!

Lynda Cavazos, Ph.D.

Barba Patton, Ed.D.

University of Houston-Victoria

Victoria, Texas USA

Executive Function

The premise of this presentation was to discuss the relevance of executive function in early childhood development, and how to continue to cultivate its development through adulthood. Executive function is a set of skills used to control behavior and direct it toward longer term goals; these cognitive skills help to regulate, recall, and plan a person's actions (Meuwissen, 2015; Penn State College of Agricultural Sciences, 2017). The researchers compare executive function to air traffic control at a busy airport. Some planes have to land and others have to take off at the same time, but there is only so much room on the ground and in the air. It's similar to an air traffic control mechanism because it regulates the flow of information, while focusing on tasks, creating mental priorities, and keeping the system flexible and on time (Kendall-Taylor, Erard, Davey, & Simon, 2010). There are three components of executive function:

- Working memory is the ability to retain and manipulate various pieces of information over short periods of time. Example: In an early childhood classroom, a child will follow step by step directions of washing hands;
- Mental flexibility assists in changing attention to different situations or to apply different rules in different settings. Example: The child understands that there are different rules in the classroom and the library; and
- Self-control is organizing priorities and resisting impulsive actions. Example: The child is putting away the blocks at the construction center, instead of playing with each block (Meuwissen, 2015; Center on the Developing Child at Harvard University, 2017).

Children are not born with executive function skills, but are born with the potential to develop them. If their executive function skill development is not nurtured, it can become delayed or impaired. Healthy relationships with adults such as family members, caregivers, and teachers, and the conditions of their environment are influential in their skill development. According to the Center on the Developing Child at Harvard University (n.d), the brain architecture can be disrupted and impair the development of the executive function. Therefore, it is the responsibility of family support, early care and education programs, to assist in the development of executive function skills. Scaffolding comes from growth-promoting environments, which helps in practicing the necessary executive function skills prior to the children performing them alone. In the child's executive function, adults can establish routines, model social behavior, and create and maintain supportive, reliable relationships.

Early Childhood Milestones

Dawson and Guare (2010) discussed early childhood milestones up to the age of nine that support the growth and development of executive function in early childhood.

- One year to two-years-old is the development of object permanence;
- Three years to six-years-old is the learning of conscious control of emotions; and
- Six-years to nine-years old is the development of the beginning stages of problem solving.

The milestones can benefit through play development and social connections that are critical in nurturing and developing executive function skills explains Penn State College of Agricultural Sciences (2017). Through pretend play, there are internal rules that a child follows such as the role of a mother making purchases at the grocery store. When children don't have enough exposure to play development, their interactions may not match with the dialogue and props. For example, a child is attempting to place dolls in drinking cups, so they can swim. To appropriately redirect the action, the teacher can say "I think the doll is hungry. What is she going to eat for lunch?"

Strategies: Questioning and Partnered Play

Guiding the child with questions builds language, and also supports the expansion of inquiry and play development. The Penn State College of Agricultural Sciences (2017) suggests the following questions for teachers during pretend play:

- Why do you think....?;
- What else could you try?;
- What do you notice about this?; and
- What made you think of doing that instead?

The questions serve as a form of scaffolding to provide value and inquiry thought processing, while exploring during play development. Connection also extends from scaffolding, which is talking about topics that interest them as they play, create, and discover. The questioning and discussion about what the children are observing, why they think it happened, and how they might solve a problem can extend the connection to experiences. Continued asking of what, why and how, will help construct thinking skills, and cognitive flexibility (Penn State College of Agricultural Sciences, 2017).

During pretend play, children may talk to themselves, which is common practice, and is referred as private speech. Private speech is an important factor for executive function or regulating children's own thinking (Penn State College of Agricultural Sciences, 2017). While children are socially interacting they are learning from each other with the sharing of ideas, and equal partnership of collaborating the learning objectives of the learning center. The private speech is a developmental sign that the child is internalizing learned guidance from adults with their own formulated patterns of behavior. Another advantage of private speech is the stimulation of problem solving and delayed gratification.

Partner play is a type of assigned shared play with two children during learning centers. The partner play technique is practiced through Better Kid Care (2015), and has resulted in the structure of rapport, trust, comfort, problem solving, and self-regulation during learning center time. Most importantly, executive function is further developing and practiced daily during the enrichment of hands on activities during learning stations. However, partner play is suggested for children at age five. At the age of five, they should have more developed maturity to socially engage with a peer (Better Kid Care, 2015).

Life Skills

In daily life, executive function skills are constant and ongoing. Such examples are calming yourself down instead of throwing things, continuing to do a project even when it feels frustrating and difficult, raising your hand during class as opposed to blurting out the response, and waiting to dessert after dinner. When children are exhibiting their executive function, they are more apt to learn because they have acquired a sense of focus and self-regulation (Meuwissen, 2015). Their executive function will also help build healthy social relationships because they will know how to understand another perspective or point of view. Meuwissen (2015) also points out that children with higher levels of executive function are more likely to attend college, get a good job, earn more money as an adult, and have better health.

The Center on the Developing Child at Harvard University (n.d), contributes the findings of the preparation of life skills that evolves from the experienced opportunities of executive function. The preparation of life skills are school achievement, positive behaviors, good health, and being successful in the work environment. It will be a benefit for society if there is an educated population of meeting the challenges of the 21st century (Center on the Developing Child at Harvard University, n.d). Teamwork, leadership, decision making, working towards goals, and being aware of one's own emotions are indicators of stable and healthy positive behaviors. When individuals are selecting better health choices regarding nutrition and exercise, they are exhibiting coping skills in responding to stress. The potential for economic prosperity can occur when employees are being successful in the workplace by exhibiting organizational skills, effective planning, problem solving, and adjusting to changing circumstances.

Conclusion

In conclusion, executive function begins in early childhood and should be nurtured and cultivated throughout adulthood. Best practices for stimulating executive function skills in early childhood are through play development, partnered play and engaging and interactive learning environments. The more rich opportunities that promote language, problem solving, and critical thinking will scaffold executive function. Life skills are also factored in the success of an individual's executive function skills, which can also provide societal benefits.

References

- [Better Kid Care]. (2015, September 1). *Executive function skills foster with partner time play*. Retrieved from <https://www.youtube.com/watch?v=zQdw89rj2HM> .
- Center on the Developing Child Harvard University (n.d). *Executive function: Skills for life and learning*. Retrieved from <https://developingchild.harvard.edu/science/key-concepts/executive-function/>
- Dawson, P. & Guare, R. (2010), *Executive skills in children and adolescents*. New York, NY: Guilford Press.
- Kendall-Taylor, N., Erard, M., Darvey, L. & Simon, A. (2010). *Air traffic control for your brain: Translating the science of executive function using a simplifying model*. Washington, DC: Frame Works Institute.
- Meuwissen, A. (2015). *Strengthening executive function in children: Tips for parents and practioners*. [Parent Resources] Retrieved from <http://www.search-institute.org/downloadable/exec-function-feb-2015.pdf> .
- Penn State Extension (n.d). Building brain power: Executive function and young children.

An Integrated Model of Visitor Evaluation in Museum Settings

Ross J. Loomis Ph.D.
Emeritus Professor of Psychology
Colorado State University

Abstract

Social scientists have long assisted museum professionals in evaluating visitor experiences. Assessments have included how exhibits impact audiences. Early work focused on understanding visitor attention to exhibit environments. There has also been work on assessment of museum environmental factors such as size of exhibit space and placement of objects in displays. Before discussing museum evaluation studies, the broader problem of social science application to design and architectural work will be noted. A Process Evaluation model that parallels the design development process used for preparing exhibits and programs will be presented. More recently, museums have used a Logic Model to assess audience reactions. The Logic Model can aid with both planning and assessment. This model is also useful for helping museums reach out to communities. An Integrated Process Evaluation/Logic Model for helping museums assess their offerings is suggested. This integrated model captures the best features of both individual models.

Introduction

Social scientists have worked for some time with museums to understand visitor experiences. One historical line of work was done by the psychologists Edward Robinson (1928) and Arthur Melton (1933;1935). Robinson had studied the psychology of learning and was interested in alternative opportunities for learning. This interest brought him into work with museums (Robinson,1931). Using unobtrusive observation, they studied movement of visitors through exhibit spaces and how the installation of artifacts and the design of gallery spaces influenced patterns of exploration. As such, they identified visitor attention to changes in the exhibit architecture and display methods. In addition, they observed how visitor attended to interpretation materials such as exhibit labels and sounds. Years later, The Journal *Human Factors* recognized this early work as a primary example of evaluation of architectural spaces (Melton,1972). Today, research by Bitgood (2013) continues the earlier emphasis on visitor attention. His work not only builds on early observational studies of visitors, but suggests how modern explanations of attention add further understanding about visitors.

Beyond studying attention, this early museum visitor research was also an example of museum evaluation. Such research was done to assist museum professionals in planning for visitors. It is that emphasis that is the focus of this paper. Before presenting more about museum evaluation work, however, a more basic question will be discussed: Can social science research effectively be applied to architectural design creations and projects?

Bringing Architectural Design and Social Science Research Together

Studies like those mentioned above involve bringing different disciplines together. This cooperative work can be difficult. It can be also very rewarding. Specifically, it can increase the quality of experience for residents and users of different spaces. By the late 1960's behavioral science considerations were becoming part of design and architectural training. An example of such training was described by Gary T. Moore

(Moore,1979) at the University of Wisconsin School of Architecture. That emphasis linked behavior and architecture. John Zeisel (1975; 1984; 2006) in a pioneering work, *Inquiry by Design: Tools for Environment-Behavior Research*, brought design development together with evaluation research. Often, these fields of design and research travel in separate worlds. Designers may feel research is an imposition on their work, and researcher think designers fail to appreciate how research could help them better serve those who use and live in their designs. His work set up a strategy for bringing design and social science research together. (See Table 1; left side). He identified stages in production of architectural spaces: Programming, Design, Construction, Use, and Diagnostic Evaluation. Paralleling these steps moving to production were assessment stages he called Analysis, Synthesis, Realization, Reality Testing, and Review. The aim of this model was to develop and assess criteria and relate the assessments to outcomes of the final product. A wide range of research methods included observing both behavior and physical traces left in the environment, focused interviews, standardized questionnaires, and use of archival information. Fortunately, social science methodology was advancing at the same time with a widening array of specific data gathering tools. Interestingly, Zeisel also included work from neuroscience as a possible means of understanding reactions to different environments. Very important was that this work included a design cycle that would apply outcomes from one project to the next. This kind of model and integrating behavioral science in architectural training helped bring the different fields together.

Evaluation of Visitor Experiences in Museums

Much of the research on visitors has been of an evaluative or assessment nature designed to help curators, museum educators, interpreters, exhibit designers, and those who conduct visitor services understand how well their efforts are working. As such, this kind of research fits well into the scope of the American Evaluation Association (AEA), the Visitor Studies Association (VSA) and the Association for Science and Technology Center (ASTC). A strong emphasis is on outcomes and how such outcomes relate back to exhibit design and educational/interpretive programming. Initially this work focused on Summative Evaluation, that is, studying the final product. The product could be an exhibit or an interpretive program prepared for visitors. Over time, however, emphasis shifted more to evaluating during the process of preparing an exhibit or program. This emphasis also reflected the early work of Zeisel mentioned above and applied the emphasis to museums and any exhibit based environment such as zoos, parks, and historical sites.

Screven Evaluation Process Model

One example of evaluation of visitor experiences is Chandler Screven's Process Model applied to exhibit interpretation (Screven, 1990). He developed different evaluation stages to accompany the preparation stages of creating exhibits (See Table1, right side). At first, his emphasis was on summative evaluation that assessed outcomes. This could include patterns of visitor attention, how they interacted with exhibit features, and

what they learned. Observation, interviews, and surveys were typical assessment methods used. In addition, he emphasized Formative evaluation that tested early examples of exhibit content. Formative also included creating mockups of exhibit content such as label style, interactive features, and exhibit case design. Summative and Formative assessments have a strong history coming out of educational evaluation. Screven also realized the importance of very early assessments of visitor interest and understanding of proposed exhibit content...what would come to be called Front-End evaluation. Finally, the complex nature of exhibit preparation called for Remedial evaluation once the exhibit was complete or nearly finished. There were bound to be some problems or errors to be corrected. Observations or short interviews could help detect these problems and suggest remedies. Visitor comments in gallery logs could also suggest problems. As an alternative, an expert reviewer could be brought in to examine the exhibit. By 1990 Screven had developed the Evaluation Process model highlighted in the right side of Table 1. Similar to Zeisel's Cyclic model, also shown in Table 1, assessment parallels production and can be repeated over different projects. While the emphasis was on exhibits, the Evaluation Process model could also be used for assessing programs. For museums, parks, zoos, nature centers, and similar places the model became very popular as reported by Bitgood & Loomis (2012) in their review of Screven's life and work.

The Logic Evaluation Model

More recent evaluation emphasis has been on showing outcomes from programs and exhibit interpretation. Some readers may be aware of the popularity of the Logic Model for doing both planning and evaluation. A common source about this approach is the University of Wisconsin Extension Program Development and Evaluation site (<https://fyi.uwex.edu/programdevelopment/logic-models>). This site provides several prototypes for doing Logic analyses. The Kellogg Foundation (2001) also offers a thorough discussion of this approach to planning and evaluation. As an evaluation tool for museum audiences, this model is broader in scope than the Process Model just described. Typically, planning or assessment includes looking at the situation the project is in, accounting for what resources or inputs exist, noting what outputs both in activities and participation occur, and looking for important short and long term outcomes (See Figure 1).

In an exhibit example, Friedman (2008) used a Logic model to assess informal science learning. In this example, assessment was for integrating podcasts into an exhibit about developing hybrid engines. The work also included testing for how well a training seminar worked for using the podcasts with the exhibit.

Toward an Integrated Model of Evaluation

The primary emphasis of this paper is evaluation research for museums with the suggestion of combining two popular models for guiding studies. Figure 1 displays an integrated model including Logic and Process models discussed above. Planning for a community science center is used as an example. The different items mentioned in the example are only a sample of items to be done to develop a museum.

Note the Logic Model portion of Figure 1 emphasizes different stages of planning. Planning includes understanding the situation the science museum would be part of such as potential competition and possible sources of support. Situational analysis includes looking at both working assumptions and identifying important external factors, such as a national support organization like the Association of Science and Technology Centers (ASTC). Analysis of inputs is very important and includes both science development and participation opportunities. Science development includes staffing and, of course, exhibit and program preparations. Offering memberships and setting up school tours can be part of creating participation outputs.

Once inputs are underway analysis moves to output activities and evidence of visitor participation. Outputs are organized in this Logic model example to include both individual and group participation. Planning for hours open and assessing transportation access helps with attracting individual visitors and offering eLearning group experiences is consistent with museums working to reach beyond the onsite visit. Participation includes similar factors for both individual and group visitors like repeat visits and having both science and non-science background participants.

Process Evaluation is also present at the bottom in Figure 1. It can be used in all stages of Logic planning. While not shown, some aspects of situation analyses can be worked into Front-End studies. Included here could be assessments of community interest and interviews with community leaders and school officials about having a local science museum. Note that the stages of evaluation parallel those of planning. For example, exhibit or program development can use evaluation to develop inputs (Front-End) and test outputs as activities are developed (Formative) and correct problems as participation begins (Remedial). Summative Evaluation can be used short term, such as right after an exhibit or museum is opened. Or, consistent with long-term outcomes, an annual visitor survey used over several years can ask visitors to assess exhibits and programs.

Conclusion

Application of social science research to architectural design, including museum environments, has gone on for some time. Over this time social scientists have developed a large array of methods to study and evaluate designs and architectural projects. Visitor studies and assessment of museum exhibits and programs has also developed over time and used two evaluation models. The Evaluation Process Model has helped assess exhibits and programs as they move through stages of development. This effort is consistent with a more general inquiry model developed by social scientists to assess architectural spaces. Both have stages of project development and parallel stages of assessment to guide the project with user (visitor) feedback. A second more general and popular strategy is the Logic Model that emphasizes outcomes and analyses of stages of planning that include situation, inputs, and outputs that lead to the short term and long term outcomes. It is suggested that the two models be used together for assessment in museums. The Logic Model is strong for planning and could

include evaluation with any number of social science methods. However, the Evaluation Process Model has worked very well for developing specific projects, such museum exhibits, from start to finish. The summative evaluation stage can assess both short and long term outcomes. Together, these two models provide good options for evaluating museum environments and visitor experiences.

References

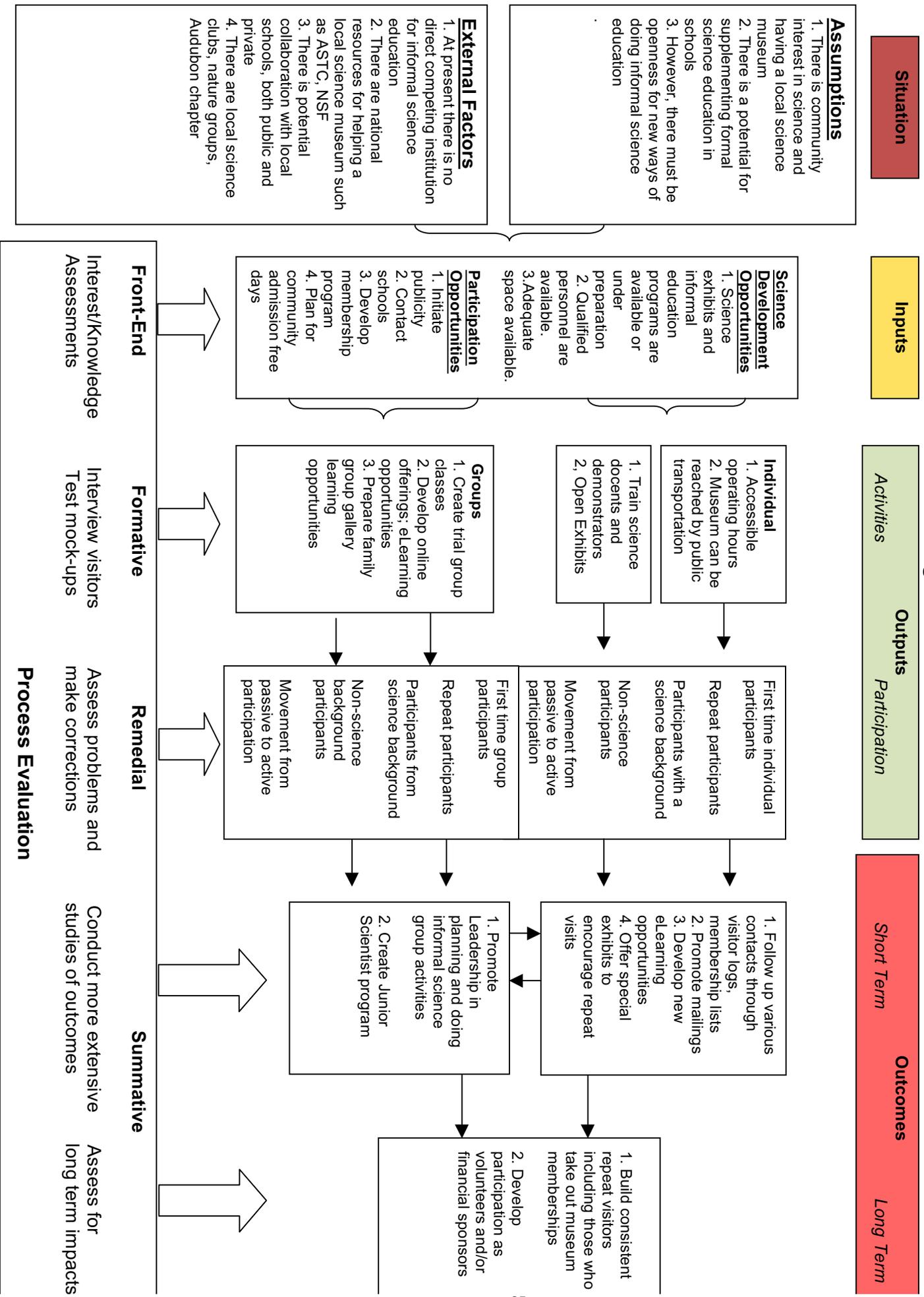
- American Evaluation Association (AEA), <http://www.eval.org>
- Association of Science and Technology Centers (ASTC), <http://www.astc.org>
- Bitgood, S. (2013). *Attention and Value*. Walnut Creek, CA: Left Coast Press
- Bitgood, S. & Loomis, R. J. (2012). Chan Screven's contributions to visitor studies. *Curator: The Museum Journal*. **55**(2), 107-111.
- Friedman, A. J., Editor. (2008). *Framework for Evaluating Impacts of Informal Science Education Project: Report from the National Science Foundation Workshop*. Washington, DC: The National Science Foundation.
- Kellogg Foundation. (2001). *Logic model development guide: Logic models to bring together planning, evaluation & action*. Battle Creek, MI: W.K. Kellogg Foundation.
- Melton, A. (1933). Studies of installation at the Pennsylvania Museum of Art. *Museum News*, **10**(14), 5-8.
- Melton, A. (1935). Problems of installation in museums of art. (New Series No. 14). Washington, DC: American Association of Museums.
- Melton, A. (1972). Visitor Behavior in Museums: Some early research in environmental design. *Human Factors*, **14**(5), 393-403.
- Moore, G. T. (September, 1979). Architecture and human behavior: The place of environment-behavior studies in architecture. *Wisconsin Architect*, 18-21.
- Robinson, E. (1928). The behavior of the museum visitor. (New Series No. 5). Washington, DC: American Association of Museums.
- Robinson, E. (1931). Exit the typical visitor. *Journal of Adult Education*, **3**(4), 418-423.
- Screven, C G. (1990). Uses of evaluation before, during and after exhibit design. *ILVS Review: A Journal of Visitor Behavior*, **1**(2), 36-67.
- University of Wisconsin Extension Program Development and Evaluation: Logic Models, <https://fyi.uwex.edu/programdevelopment/logic-models>
- Visitor Studies Association (VSA), <http://www.visitorstudies.org>
- Zeisel, J. (1975). The Design Cycle: Sociology and Architectural Design. *Social Science Frontiers*. No. 6. New York: Russell Sage Foundation
- Zeisel, J. (1984; revised 2006). *Inquiry by Design*. New York: W.W. Norton & Company

Table 1: Comparison Design Cycle Model (Zeisel) with Evaluation Process Model (Screven)

<i>Zeisel Design Cycle (1975)</i>		<i>Screven Evaluation Process (1990)</i>	
Design Cycle Components		Production	Evaluation
Programming	(Analysis)	Planning Stage Evaluation	(Front End)
Design	(Synthesis)	Design Stage Evaluation	(Formative)
Construction	(Realization)	Construction/Installation Stage	
Use	(Reality Testing)	Occupancy Stage Evaluation ¹	(Remedial)
Diagnostic Evaluation	(Review)	Post Occupancy Evaluation	(Summative)
Work can be done as a cycle from Programming to Diagnostic Evaluation		Stages can be done as a cycle from Planning to Remedial	

¹ Some of these evaluation stages appeared in a different order in the original Screven paper.

Figure 2. A Combined Logic and Process Evaluation Model for Evaluating Development of a Local Science Museum



**Love Me... Love Me Not: Use Manipulatives .. Use
Manipulatives Not**

Barba A. Patton and Lynda Cavazos

University of Houston-Victoria

The purpose of the presentation was to present ways to 1) make mathematics more concrete, 2) help with math anxiety, and 3) allow students to play with the manipulatives while they experience and develop for themselves, the principles, relationships and ideas. Manipulative materials have emerged in mathematics instruction as a means to add variety to lessons while giving students a concrete and visual representation of the problems being solved. Manipulatives are an essential element for the effective teaching of mathematics. Manipulative materials document back to Maria Montessori's work.

Some of the reasons about the value of manipulatives and the points which could make them more difficult to include in your lessons are:

Pros

- Makes math meaningful (especially helpful to the student who memorizes easily)
- Students love the hands-on
- Students remember longer
- Cheap or even free
- Students are able to transfer learning
- Benefits the special needs students
- Ease to understand and helps the students understand
- Students seem to be more 'at ease' so the teacher is able to learn more about how and why they are or are not learning.

- Helps to reduce math anxiety (sometimes for the teacher as well as the students.)

Cons

- Teacher must be prepared and not try to 'wing it'
- Many concepts too abstract
- Often teacher does not understand the concept
- Time consuming to prepare
- Time consuming for students
- Costly
- Classroom management may suffer
- messy

Of course, each teacher can and will find their own pros and cons. It really comes down to the point manipulatives are the teacher's choice. As we all know, when that classroom door is closed, the teacher teaches his/her way. Texas purchased manipulatives for every classroom in the state. After a year or so, if one checked the closets, you found one of two things. One the manipulatives were used and worn or the

manipulatives were collecting dust. This was especially difficult for the students who had had a teacher the previous year who used the manipulatives and the students benefited greatly.

There are three models for implementing manipulatives. The introductory starts with the student being introduced to the have general experiences through experimentation with manipulatives, then concept development through verbal instruction led by the teacher then to be followed by traditional evaluation. This is often thought of as a discovery type method. The second model is the Tertiary Model. It starts with the Focus being provided through oral presentation made by teacher, then moving to formal oral development of specific mathematical principles and the third step is the applications and extensions through formal or informal manipulatives. The third type is the Integrative Model. It begins with the introduction with simple manipulatives, next there is concept development via teacher guided activities with increasingly more complex manipulatives and last formal or informal evaluation structure. All of the models would conclude with evaluation, test, review and possibly re-teaching with manipulatives.

Some manipulatives which are the of the most useful and easy for both the teacher and students to use are manipulatives such as cubes, wooden building blocks, pan balance scales, counters, strings, and teacher made cards. These seem to be best for the elementary grades however; grids are extremely good for students of all ages. Paper models on grids and scissors make models of the algebraic models come to life and put meaning to middle and high school students. You can even use models to illustration the difference of squares which has been a concept students were to just put into their memory and accept. Manipulatives do not need to be demeaning to students who might feel concepts are being 'dumbed down'. If a teacher has a good relationship with the students of all age, manipulatives can be used and be positive. It has even been reported that math manipulatives have been used with positive results.

**A Look at Many of the Factors Schools Can't Solve: A
Symposium**

Educator Awareness and Communication

Barba A. Patton, Diane E. Prince & Paul E. Carlson

University of Houston-Victoria

Victoria, Tx USA

This is the second section of the symposium that had the overall purpose of exploring what schools can and cannot do in the terms of closing the educational gaps. In this we will explore just a few of the many factors which a school faces and yet as much as they have the desire, there is nothing they can do. As much as schools would like to help the students many times the school's hands are tied. Regrettably it is simply the school can't get involved in many issues even if it is creating conflicts with the student's academic progress. The student and his/her school have little to no control over many over the family factors which affect his/her academic progress.

The number of students living in a single parent household gets larger each day. Schools can do nothing to help reduce the number of divorces which occur each year. Therefore educators need to be able to communicate with the student's school family, his/her home needs or his/her home emotional needs. Educators know who is left to suffer as a result of this lack of communication is the student him/her alone but the student. Where is the student's school family in this time of need? They are really nowhere to be found. The student is again in the middle and his family relations and his blood family is not anywhere to be found. No wonder the student is afraid and scared to come forward to seek help. There are not very many numbers left to document the many. Classroom teachers might be able to listen to some of the fears this student is experiencing however, he/she much try to function on his her own.

Single parents come by the status in several ways. Some have children out of wedlock and the partner is never in the picture, others are in the position due to 'inheriting' the child/ children due to the parent being in prison or parent no longer living together, the parent who left after the other parent is killed or passed away due to illness. Unfortunately whatever the reason, the student is often alone and must try to solve problems on his/her own. Single parents have a difficult time raising their children and trying to maintain a helpful component in their educational endeavors. The school family may want to help but on most of the areas which need to be addressed or considered 'off limits'. Thus the school family's hands are tied and they can't do anything.

Another factor which creates many problems for the student is 'poverty'. The number of children living in 'poverty' is astounding. Again the school family can do little to help. They can help the parent fill out forms in order that the student can eat meals. The school family can't make positions appear so the parent can have a job.

Violence is a factor that often affects a student's academic work. If the violence is outside the campus then the school is not able to do anything. Violence can be caused by many factors one of those factors may be poverty. If a student tells a person in the employment of the school about some abuse, that person is required by most states to report it to the States Children's Services. This is also true if the school personnel suspects some type of abuse such as the student has bruises.

Bullying is a factor which causes children to not trust adults. Children often seek help and the school can only address the acts if they take place on the campus.

As much as the academic faculty would love to have parent involvement, it just does not seem to happen with many parents. Although some parent can't come for reasons beyond their control, many just do not come.

A student's health is an additional problem which school can do little help. The school nurse can do things such as check eyes and hearing but that is about the end of

what they can do. The student's parents and/or guardians must take the responsibility. The schools might be able to direct them to various programs.

Pregnancy and teenage sex are problems in many schools which take from the academic process. However, the schools can do little about it. The students can be told dangers in their health and biology classes but the school can't require the students to obey its morals.

This is just a small sampling of the problems schools face on a daily basis and the sad thing is that schools have no way to solve them.

Churchill's Influence On Today's Language Development In The Mathematics Classroom

**Barba Aldis Patton,
Teresa LeSage Clements
University of Houston-Victoria
Victoria, Tx USA**

Abstract: Today, it is absolutely essential students be taught to have the knowledge and power of words. Students in nearly any state in the US face accountability tests.

Introduction:

Sir Winston Leonard Spencer-Churchill, KG, OM, CH, TD, PCc, DL, FRS, RA was a British statesman, army officer, and writer. He served as Prime Minister of the United Kingdom from 1940 to 1945 and again from 1951 to 1955. Sir Winston was born on Nov 30, 1874 and died January 24, 1965. Mr. Churchill was famous for being a leader in politics during the wars however, he was quite a man of words. He was given credit for many quotes both humorous and meaningful. But he needs to be recognized as a leader of words. Mr. Churchill was highly educated and loved to write and speak with great elegance. He was known to use the third and fourth definition of words in many of his speeches or writings. Churchill should be a role model for students to learn and use language.

Some of the quotes he has been given credit for are:

- “Personally I’m always ready to learn, although I do not always like being taught.”
- “Success is the ability to go from one failure to another with no loss of enthusiasm.”
- “Everyone has his day, and some days last longer than others.”
- “You have enemies? Good. It means you’ve stood up for something, sometime in your life.”
- “The price of greatness is responsibility.”
- “Attitude is a little thing that makes a BIG difference.”
- “There is only one duty, only one safe course, and that is to try to be right and not to fear to do or say what you believe to be right.”
- “There are a terrible lot of lies going about the world, and the worst of it is that half of them are true.”
- “To build may have to be the slow and laborious task of years. To destroy can be the thoughtless act of a single day.”
- “To improve is to change, so to be perfect is to change often.”
- “What is adequacy? Adequacy is no standard at all.”

Vocabulary is one of the greatest challenges facing students and teachers alike in today’s classroom. The classrooms are facing even greater challenges than in the past with the number of limited English or Standard English learners increasing almost daily. (Khisty, 1995, 2001; Khisty & Chval 2002). Some fifty or so years ago, students were taught to read and examine for context clues. Today is not any different; due to words have multi meanings students have to read context clues but also try to put into perspective where the focus of the topic is.

Words have multi-definitions. Students do not master vocabulary by just memorizing a simple definition for a word (Braselton & Decker (1994), Lucas & Goerss (2007). This might have been true when things were simpler but today words must be put be in context. Students who are working with a second language, have a low economic background (lack of experiences) are faced with these challenges each and every day. Although students have been expected to learn to use context to gain meanings many students are not able to do this task. Some educators, who are actively in the field such as S. Trowbridge, see this as a lack of experiences while others advocate it as being a development. The fact that the student can’t detect meaning from

context whatever is the reason faces challenges which are even greater than their peers who are able to use context clues (Patton, 2015)

National Council of Teachers of Mathematics states that in order for a student to be proficient in problem solving (word problems) the student absolutely must be able to read. The Curriculum and Evaluation Standards for School Mathematics (NCTM) states: "The development of a student's power to use mathematics involves learning the signs, symbols, and terms of mathematics". This is best accomplished in problem-solving situations in which students have an opportunity to read, write, and discuss ideas in which the use of the language of mathematics becomes natural.

While mathematics has been referred to the 'universal language' the pendulum has swung to the other side and one would have difficulties calling it an universal language today. Universal language would imply anyone regardless of their native language could be able to solve the mathematical problems. Basic computation, today might be considered the universal language however, the study of mathematics in general can't be. Mathematics is a discipline which has broadened its focus as we entered the twenty-first century. Mathematics is no longer just computation. Today's mathematics classes strive to help the students learn to solve real-life situations thus making the use of mathematics more functional and valuable for the average person. Basic computation may be understood in many languages but this is where the line is drawn, many of the tasks a learner faces in definitely not language 'free' (Barwell, 2012).

As we look and think about the road to mathematical literacy we must start at the beginning. Mathematical literacy begins with communication and that oral communication begins at birth. Within a few seconds of birth, a new baby is hearing sounds. These sounds all have meaning. As the child grows he/she is able to comprehend the meaning of the sounds. The young child is able to communicate she/he is hungry or desires a drink of water. This early communication is an ordinary language (maybe English or French)(Woodward & Hoyne (1999). This ordinary language is very important but it is not a formal or academic language which is needed to be more technical or precise in the academic environment. While both types of languages are important to the person, each language has its own place and value. As much as one would like, many times the two differ greatly and in fact one can even create confusion. One would think that a student in the eleventh grade in a typical US school would be very versed in both languages yet the giant question facing the academic world is how we are able to help the student gain literacy in both environments in a relatively short period of time] (Woodward & Markman, 1998). Using the assumption that each discipline is unique with its own language but recognizing that mathematics and science have many similarities, we find Holliday's finding rather profound and scary when we are attempting to help students gain academic literacy. Holliday (1991) found that in chemistry textbooks there are approximately 3000 new words for the student to master in a few months' timeframe. Students who are studying a new language aren't expected to master that many. Patton (2014) found that upon an analysis of released state mathematics tests for third, fourth, and fifth grades there were approximately 250 words which needed teacher explanations in order for the student to be fluent to be able to solve the problem. These released state tests generally had a

two to four brief sentence situational problem followed by four possible responses. Most of the tests had between 40-50 problems.

Now let's go back to the teaching of mathematics vocabulary. If we say 'add' mental pictures of a symbol of an addition sign (+) comes into one's mind. If one really thinks about it, mathematics is like speaking two languages at one time. You have the verbal word and a symbol. If you are not a person who has English as your first language, you are first translating the verbal word back into your first language to retrieve the meaning and then a symbol pops into the vision. All this must take place in order for the person to have the 'full' cognition of that single word. This is a spin-off of the Vygotskian notion that of a mathematical sign is necessary for and a productive of mathematical meaning-making. Berger advocates that the functional use of a mathematical sign entails activities such as imitation, association, template-matching and manipulation.

Conclusions

Students from the elementary grades to the university levels often have difficulties with state tests. It is believed that much of the problem lies in the lack of vocabulary. In this work, the authors are going to try to point out some of the many factors today which make it imperative that students learn several types of vocabulary. Some of the types but not limited to are: 1) formal, 2) professional, 3) content, 4) multi uses for the words, and 5) even informal or regional. Teachers must have a great command of language in order to be able to guide his/her students to have knowledge or power of words to be successful in today's society and world. Vocabulary is part of communication and is everywhere. Students are faced with vocabulary or communication (the hearing and the seeing of words) not only hour after hour in the classroom but every waking hour of their day. Vocabulary is not something for tomorrow or a thing of the past. It is for now and if we as educator strive for the education of the future generations we must be open to what the research is trying to convey.

**Education in Action: A Symposium
Educator Awareness and Communication**

**Diane E. Prince, Paul E. Carlson & Barba A. Patton
University of Houston-Victoria
Victoria, Tx USA**

This presentation was the third in a symposium that had the overall purpose of exploring what schools can and cannot do in terms of closing the educational gaps. Research was discussed in the first two presentations that basically pointed out elements outside of the school walls and its classrooms that have an impact on student learning. It was evident from the research that there are three important elements which influence student learning outside of schools. These include society at large (technology, media, values of the larger group or communities, etc.), families (the immediate individuals the child/youth live with daily), and peer groups.

In the analysis of the research on the four elements: society, families, peers, and schools that influence the success of our children and youth, we see that schools are but one. Thus, it is evident that educators must be diligent in understanding these research findings and act on the information if possible, or, no matter how the schools most assiduous actions are, they will not noticeably increase student success. A major recommendation from the presenters in this symposium is that Educator programs of study be enhanced to include study of this research. It is relevant content for school leaders, counselors, curriculum directors and teachers. These university programs should have approaches imbedded that focus on taking action to go beyond the school walls. Educators should be able to critically analyze the research and be able to generate approaches that produce solutions. Educators should study ways in which the four elements (society, families, peer groups, schools) can work together to bring about student success.

Leadership programs must include scrutiny of the relevant research on the factors distracting or blocking students from success. Recommendations for these programs may include utilizing case studies, critical-thinking or problem solving. In using case studies, it would be extremely valuable to use current, identified school problems faced by area school districts or current local leaders if available. Often, local schools have publicized problems that could be analyzed. Future leaders may have already participated in school based problem solving without success. The leadership programs would be excellent laboratories to explore these as case studies.

For problem solving activities, programs might look at research conclusions to find topics. Take as an example Carlson's statement, "Children's educational achievement is strongly related to family factors." (Carlson, 2017). This statement provides a launching point for future leaders to brainstorm ways in which a school might organize or act to consider the definition of "family" and ways schools might work with them for closing educational gaps. This may give future leaders insights into what schools can do and what they cannot do in working with families. They should realize resources are required and that new innovative family/school programs must be developed. Completing the analysis, these educators might find successful programs taken by other schools in the nation to copy with adjustments for their unique schools.

The same approaches should be taken in School Counseling Programs and Teacher Education Programs. Professional development programs within schools, regional service centers or state organized programs might bring the most current research to educators for examination in the same way.

As the presenters noted, our educator programs, such as in Texas, have become more specifically aimed at subject matter methodology and taken steps to eliminate coursework that looks at schools holistically. Thus, studies that are related to student

success are secondary to more utilitarian courses of study. Student success is treated as a school issue only. Outside factors are rarely investigated.

Often, expectations for schools to provide all of the solutions for closing educational gaps leave school professionals without explanations for failure. When, in fact, they should be on the offensive in all venues explaining how the issues might be resolved. This may be pointing out or explaining some of the financial needs, offering solutions that involve parents, or organizing community responses or support. Without recognition of the limitations of educational institutions, educators may be weighted down with guilt, give up on attempting solution finding, or discount research findings.

Educators might keep in mind Wayne Dyer's observation, "(i)f you change the way you look at things, the things you look at change."

Carlson, Paul, lead presenter "Educational Gaps: What Schools Can and Cannot Do," National social Science Association: National Fall Professional Development Meeting, San Antonio, Texas, October 17, 2017.

The Demands of the Demands:
A Logical Redundancy
The Student Teaching Clinical Experience

Judith Ruskamp, Ed.D.
Peru State College

Part One: Introduction: A View from the Inside, Out

After a quiet moment, Mrs. Smith, Carol's cooperating teacher, suggests that she make a trip to the Special Education teacher's room for a discussion about Nathan and his classroom work. Carol agrees and makes a trip that is two doors down and a hallway entrance away from Carol's classroom. The special education instructor is a young blonde-haired woman wearing a red sweater, jean skirt, and low heeled shoes.

"Do you need to talk to me?" the special education teacher asked.

"If you have a minute," Carol replied.

"Sure, what do you need?"

"I need your advice about what to do about Nathan and this assignment," said Carol. "I've read his IEP," she continued, "but it was last year's, so I'm not sure about any changes that have been made, I know we could consider allowing him to use a word processor for assignments."

The conversation between the two continued about the student's very poor penmanship and then a comical moment of two teachers trying to decipher the writing on the paper.

"I have his updated IEP, I can give you a copy of that," said the SPED teacher getting up from the chair and moving to a file cabinet to pull a file. She returned to the table with a blue file thick with multiple paper clipped papers. "He only qualifies for services because of his written expression," the SPED teacher said. "I know Mrs. Stuhr will require that he use a word processor for everything that he does for her."

"So, I can let him use a word processor for his assignments, can I read the test to him?" Carol asked.

The SPED teacher remarked that he could come "down and I can read it to him." This comment was followed by the challenges presented to this student with the study of personal economics. "You could try a study guide or an open book test," she continued. This comment transitioned into a look at the data associated with this student's IQ.

At that point, the other unidentified female adult in the room came over and was asked by the special education instructor about what this student is "capable of."

"Lay it on the line with him," the special education instructor interjected firmly. He is capable of legibility, he can use the word processor—he can choose."

Carol then shared her concerns with the SPED teacher about the test itself remarking that "This test will kill some of these kids."

"Maybe the study guide is the way to go," the SPED teacher replied, "or you can modify the test." Talk continued revolving around what other teachers are doing with this student. The SPED teacher said, "This student has capabilities. He is just lazy. He needs to be pushed. Call him on it."

This comment was followed by discussion about his current grade. Carol mentioned that it was fine at this point due to discussion opportunities, but "this grade will hurt his grade." she finished.

The SPED teacher finished, "He says he is capable of doing better; we can schedule an IEP meeting earlier than originally planned and call Mom and Dad in." No response from Carol. "I will get you copies of the most recent IEP," the SPED teacher said. "I will be sharing a three page list of SPED students with all of you tomorrow at the faculty meeting."

Carol is a student teacher in the midst of the first few weeks of her student teaching field experience. She has allowed me to enter her world for one purpose: to see it from the inside, out; observe and delve into what her existence as a student teacher completing a student teaching field experience is like. The vignette is one moment in time that begins to help shape that world, a world that is filled with the dilemmas, issues, and expectations (mundane and otherwise) that consume this student teacher as she inches her way through her student teaching field experience.

Her world is a blur of activity associated with critical decision-making from the moment I walk into this classroom until I leave, and a significant part of her description of her current world and how she finds a way to exist successfully in it. Carol goes about her day, making every effort to project an image of control and confidence, while inside she may feel that she is crumbling away around the edges from time to time. Her sense of self as a teacher suffers some setbacks, but she perseveres in her effort to hold herself together and find her way as a teacher.

The “demand of the demands” is a logical redundancy when one considers what Carol is experiencing as a student teacher. This study indicates that the demand of the demands of the student teaching experience are sometimes overwhelming, sometimes frustrating, sometimes challenging, and sometimes rewarding as these are all hurdles that must be overcome. These demands build character, spawn success, and result in valuable preparation; the experience itself is a catalyst for the aforementioned results.

The purpose of this study is to explore what student teachers experience while transitioning from teacher candidates in the college classroom completing coursework to teacher candidates as student teachers completing a field experience. The rationale for this study is based on the experiences and concerns the School of Education at Peru State College has about facilitation of a successful transition of student teachers from the coursework classroom to the student teaching field experience.

This study is a focus on the key demands of the student teaching field experience: details, struggles, and initiative. The experiences and insights shared by this particular student teacher shed some light on the question: What is it like for a teacher candidate to transition from the college coursework classroom to the student teaching field experience?

Part Two: Method: Student Teacher as Informant

In order to learn more about this transition experience, I selected as my informant a Spring 05 Peru State College student teacher candidate currently completing a student teaching field experience. The site for this study was a high school business education classroom in the Johnson-Brock Public Schools, a small rural school district in Southeast Nebraska.

My research included the following data collection methods:

- A. Four sets of Field Notes/Analysis – Coding and Memoing
- B. Two Interviews – Domain Analysis

Field Notes: I completed four observations of my informant, two in the month of February and two in the month of March, for a time period of approximately one hour at the end of each of these teaching days. These observations provided an opportunity to shadow my informant for the hour that immediately followed the end of her teaching

day. I followed her wherever she went; I was present for all conversations, professional and otherwise, that took place at the end of her school day; and I observed her interaction with students and faculty and staff at the school. These observations resulted in four sets of field notes, including asides, commentary, and an in-process memo to conclude each set of field notes.

Interviews: I conducted my initial interview in the month of February, sandwiched in-between the first two observations. I prepared a set of thirteen questions to ask my informant, using structural questions. I was prepared to allow for question modifications and/or new questions as the interview progressed. My follow-up interview took place in the middle of the month of March.

Part Three: Descriptions: Three Themes

Details

Carol is talking with her cooperating teacher about how she is nervous about the lesson out of the Occupational Outlook Handbook. "This is the lesson I am planning to teach when my supervising teacher comes to observe me.

This conversation involves time and student-management issues. Carol is concerned about whether they will have enough to do during the period.

"I would be letting those who are ready to move on, move on," says Mrs. Smith.

"Yes, they could go ahead and get started on their projects," responds Carol.

This vignette offers one small view from the inside looking out at Carol's world and begins to shape the understanding of the world of the student teacher in relation to the expectations associated with the student teaching field experience. The significant "demand of the demands" of the management of the instructional planning and the students who are the recipients of it is one of Carol's issues as a student teacher. From unit and lesson planning for classes to management of high and low ability learners to accessing and getting familiar with supplemental resources to the simple management of details such as making copies and running last minute errands, the time I spend with Carol is a whirlwind of activity surrounding details associated with teaching. She shares her feelings about this with me when she says: "I really find myself struggling to be organized in class, lots of little details that crop up that I just forget, didn't think about, just tiny details. For instance, I am going to have a test coming up on Monday. On the way into work, I'm thinking I have got to do something special for the IEP student on that test, and a lot of things like that, little details, I miss them, or just barely remember them, just at the last second. So you know, I'm really struggling with details, being organized."

Struggles

"Did you get some ideas?" asked the cooperating teacher of Carol.

Carol proceeded to reiterate the earlier conversation with the SPED teacher listing accommodations such as study guide, open book tests, and use of a word processor. "She said we could threaten him with an early IEP meeting too." Carol hesitated, "I don't really want to do that."

Mrs. Smith agreed saying that she probably needed to meet with the student. Carol followed up with multiple questions about when to talk to him, before school, after school, study hall. There was discussion about being careful about how it is handled.

“Don’t embarrass him,” said Mrs. Smith. Talk continued with a focus on friends, peers, and the student’s efforts to continually try to fit in.

Carol finished this episode with the following comment: “I will try again with him.”

Dilemmas reverberate throughout the student teaching field experience for my informant. She is insecure about her content area knowledge, is struggling to find balance in personal and pre-professional life, is failing to arrive to work on time periodically, is not getting everything done as needed because she is easily distracted, and has “foggy ideas” about what to cover, to assign, to try to get through. She is constantly struggling with making critical decisions that are so critical to her because they impact the student. For instance, Carol recounts the following:

“ . . . the bell activity for one thing, you know the girl shut down completely, thought it was stupid, that she’ll never use the stuff. So that was kind of discouraging to me, so I thought okay, she has no concept of what we are doing, even though I worked through it yesterday, I thought I explained it, she doesn’t get it, she doesn’t like it, plus, then I kind of reviewed before the lesson started on the things that we had talked about the day before, and they all just, it was blank looks on their faces, so that was challenging with the fact that twelve of the sixteen didn’t have any of their assignments done for the last four or five days, whereas the other four, they’re done, looking for work to do, and I struggle with the fact that I hate to give them more work, they’re going to see that as punishment, I think, so how do you keep them interested or how do you find something fun for them to do without giving them extra work without making it seem like punishment, or extra work?”

The demand of the demands of decision-making in the student teaching experience create on-going struggles for her as she makes her way through her teaching days, but never more so than with the dilemmas surrounding the students themselves. The ethical issues associated with the dilemmas she faces and decisions she must make create challenging struggles for Carol. She talks about the “new spin on things” that she gains from these experiences:

“Yesterday, the SPED teacher showed me a note that a student had written, and she is in my second hour Computer Apps. class, and they are supposed to write something on voice, and she wrote on her dad and how disappointed she was that he was on drugs. I am just curious now, what do you do as a teacher now, is she asking for help? You know, I assume she is getting some sort of help, I don’t know, I don’t know enough about it. You know it is not like they asked her to write about a problem, she could write about anything she wanted to write about, and she ended up writing about her dad. She felt like she couldn’t trust anyone, and you know that just put a whole other spin on things when you have her in class. And I am just wondering, you know this will probably happen to me, and I am wondering what a teacher is supposed to do. Are they asking for help, you know, are they, what’s appropriate when they do that? I don’t know.

When I understand what perspective the student is coming from and they walk in in the morning, and they are tired and they are not in the mood to do computer stuff, knowing

what she might have gone through the night before, now I can understand that better. I'm not sure how it's going to help me help them with computers, it seems trivial at that point, you know what I am saying? Just knowing those things, you know, the fact that Dad's at home and on drugs and Diane can't read. I try to put myself in their shoes and I try to be sympathetic or empathetic, I guess that is what I meant by spin, yah, that when she walks into class, that is all on her mind. She is weighted down by all that, why would she care about a function key on the keyboard!?"

Initiative

Carol begins, "Well, I found this last night," handing the cooperating teacher an collection of papers stapled together. "It's about gross domestic product."

The cooperating teacher replied "The material that I am currently using for this topic is pretty weak, so this may be helpful."

Carol says, "I'm not sure whether I should save this for the end . . . maybe you could take a closer look on the computer."

The cooperating teacher moves to her left to Carol's computer. "Let's look at the website."

"I wonder if this would be a good lesson?" Carol asks, "I did not actually go in and try out all of the links yet, not sure how easy it is to get around."

"This looks interesting," the cooperating teacher replies.

"Yes, it is very well organized," Carol responds.

"I think you should go ahead and explore this further," says the cooperating teacher.

"Yes, it has some cooperative learning activities that sound really great!" Carol says, "it has lots of ideas we can use."

The cooperating teacher responds by saying, "Well, you wouldn't need to do everything, that's why I want you to look at it before you decide what to use."

"This looks like something excellent to use for your unit," Mrs. Smith concludes. "Just make sure you review everything you want to use, we don't have to use this all, you may want to change some things, the quizzes they have developed could be used as study guides."

"Ok," Carol says, "I just wanted to know what you thought before I went ahead and worked with it."

Initiative is critical if a student teacher is going to have any success in the student teaching experience. Carol talks about that issue when she discusses her relationship with her cooperating teacher. "Everyone is very supportive, asking how things are going. I don't hesitate in going to my cooperating teacher for help with a question or if I have a problem and I trust her, I think she is pretty honest with me, I appreciate that."

This student teacher has demonstrated the high value she has placed on taking the initiative as a student teacher in this school system. Carol has now entered another arena of the teaching experience as a student teacher. She describes aspects of the student teaching experience that require initiative, as she values making an effort to figure things out, facilitating exploration for the purposes of doing something special in

her instructional planning, helping the students individually, talking with mentors and heeding advice, getting to know the needs of her students, and taking time to do something well. Similarly, Carol acknowledges the initiative required to recognize when it is time to back up and explain, to ask for help, to try something again or to accept that something hasn't worked and to try something else.

Part Four: Analysis: Sense of Self

My initial research question was as follows: *What is it like for a teacher candidate to transition from the coursework classroom to the student teaching field experience classroom?*

As a result of an overall consideration of the data to-date, I am seeing the development of some possible insights regarding this question. The “demand of the demands” for the student teacher is to be conscious of and anticipate the numerous unanticipated details that comprise the teaching days, to recognize the reality of the various struggles that will exist and be associated with decision-making that impacts students, and to acknowledge how critical it is to take the initiative required to be successful in the student teaching field experience. These three themes surface as dilemmas, issues, and expectations that exist as significant aspects of the student teaching experience.

With that analysis, I have reached another plateau in my quest for answers to what it is like for the student teacher to transition from college coursework to the student teaching field experience. I see these dilemmas, issues, and expectations such as details, struggles, and initiative as stages that a student teacher needs to go through on his or her way to establishing a sense of self as a classroom teacher. Carol talks about feeling comfortable in front of the classroom, experiencing moments of discouragement and frustration, trying to “work through it,” wondering what she is supposed to do, and even questioning her own competence. She says that she is “wondering if I have what it takes to cut it. . . . You know there is nothing at school that can prepare you for that. You know they can say, ‘You know, you are going to be busy,’ but. . . .”

Therefore, this study leads me to draw some conclusions based on this analysis: The preparation this teacher candidate was immersed in prior to the student teaching field experience successfully prepared her for the “nuts and bolts” of teaching. The art and the science of teaching were explored, analyzed, and simulated via the coursework expectations of utilizing the study of theory to compliment practice. It is, however, the “demand of the demands” of the dilemmas, the issues, and the expectations associated with the unanticipated and minute details, the struggles unique to the specific field experience student teachers find themselves in, and the initiative with its multi-faceted opportunities that are all a significant part of the student teaching experience. And each of these demands are critical stages that this student teacher is destined to encounter in her student teaching field experience on her way toward discovering her sense of self as an effective classroom teacher.

Part Five: Summary and Implications: Reflective Practice to Discover a Sense of Self— A Teacher Education Program Initiative

I completed my fieldwork and interviews at the end of March and my data analysis by the end of the first week in April. The data I gathered and analyzed left me with some

valuable new insights on the teacher candidates' transition to the student teaching field experience and how to better prepare them.

In an extended effort to gain insights for effecting change in educational practices associated with the education of prospective teachers at Peru State College, I also considered a literature review on two pieces of scholarly research on teacher education program initiatives.

"Teacher Candidates Talk: Listen to the Unsteady Beat of Learning to Teach," by Andrea Mueller and Keith Skamp (2003), is a longitudinal study based on the insights of pre-service teachers in relation to their learning across a 2-year teacher education program. In listening to the voice of the prospective teacher, the teacher educator examines the pre-service teachers' experiences learning to teach and the role of the teacher educator in that learning. A particular emphasis of this study is the importance of "reflective practice" being carried out in two ways: modeling of the reflective practice by the teacher educator and creation of time and space in teacher education programs for teacher candidate discussion and practice for reflection. The "symbiotic" relationship between pre-service teachers' learning and the learning as a teacher educator is emphasized with a goal of enhancing teacher education to better meet the needs of future teachers.

A 2004 nontraditional research study of four teacher educators called "Washing our Students Clean: Internal Conflicts in Response to Pre-Service Teachers' Beliefs and Practices" by Cathy Toll, Susan Nierstheimer, Susan Lenski, and Penny Kolloff also addresses teacher education program initiatives. In relation to the teacher educator's influence on pre-service teachers in terms of modeling reflective practice and creating time and space for pre-service teachers

to do the same, this research goes one step further to explore, discuss, and conclude on ways in which teacher educators do actually influence pre-service teachers' beliefs and practices and the complexities associated with that. Unique to this research told as four "stories" is the identification of three conflicts that exist for teacher educators: "the extensive struggle between telling students what to do and nurturing their own instincts and experiences, the conflict between the value of experiences in the actual classroom field experience and the value of university classroom experiences, and the conflict between the belief that teachers always know the best way to teach and that teachers develop meaningful teaching in relation to each context." Facilitating "habits of thought" that are reflective, collaborative, and inquiry-oriented in nature will benefit both prospective teacher and teacher educator to create an even more effective teacher education program.

In the "Washing Our Students Clean" article, these teacher educators speak of "developing our own sense of the kind of teachers we wish to be." I have determined that it is critical to provide for exploration of meaningful learning experiences for our teacher candidates that are associated with those unanticipated and minute details in student teaching, those potential struggles unique to the specific field experience student teachers might find themselves in, and the possibilities where initiative is concerned with its multi-faceted opportunities for the teacher candidates. Our classrooms should be focused on

development of habits of the mind, via on-going and consistent reflective practice on these experiences, so as to facilitate those meaningful learning experiences that can be

a catalyst for teacher candidate's working on establishment of some sense of self as the kind of teacher he/she wishes to be prior to the student teaching field experience. That becomes our challenge and my initiative for change beginning with my own classroom.

I spent a moment in time looking from the inside out. This fresh perspective on the cultural environment that one student teacher found herself immersed in proved to be very advantageous to me as a teacher of prospective teachers. Have I found THE "answer"? Certainly not, but it was an opportunity to make sense of an environment that I found to be ironically foreign to me in many respects. Interestingly enough, I too, have developed more of a sense of self as a teacher of prospective teachers, having been there to look from the inside out at the "demand of the demands" of the student teaching experience and understand it as a logical and valuable redundancy, not to be ignored. Therefore, I will continue with reflective practice of my own on my preparation focus for teacher candidates about to embark on this journey as student teachers, trying to find their own sense of the teacher they some day wish to be.

References

- Mueller, A., & Skamp, K. (2003). Teacher candidates talk: listen to the unsteady beat of learning. *Journal of Teacher Education*, 54(5), 428-440.
- Toll, C. A. ., Nierstheimer S. L. ., Davis Lenski S., and Britton Kolloff, P.(2004). Washing our students clean: internal conflicts in response to preservice teachers' beliefs and practices. *Journal of Teacher Education*,55(2), 164-176.



COLLEGE OF EDUCATION & HUMAN DEVELOPMENT

LAMAR UNIVERSITY[®]

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM™



**A QUALITATIVE STUDY OF THE INFLUENCE
OF MOBILE DEVICES IN ELEMENTARY EDUCATION**

Dr. Amy Tong
Dr. Daryl Ann Borel
Dr. Kay Abernathy

Department of Educational Leadership
Lamar University
October 16, 2017

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

ITEMS FOR DISCUSSION

- Introduction and Background
- Purpose of Study and Research Question
- Review of Literature
- Participants
- Methodology
- Findings and Results
- Conclusions and Recommendations
- Questions and Responses



INTRODUCTION & BACKGROUND



- Founded in 1923
- Enrollment: about 15,000 students from 58 countries
- Location: Beaumont, TX about 90 miles east of Houston and about 25 miles west of Louisiana
- More than 100 programs of study at the undergraduate, masters, and doctoral level

3



LAMAR UNIVERSITY

INTRODUCTION

- As the popularity of mobile devices such as smart phones and tablet computers has increased, so has their role in education (Murphy, 2015).
- The high degree of mobility and ease of use of mobile devices allows for educators to readily integrate technology into the instruction at a more rapid pace than previous options such as stand-alone computers (Franklin, 2011).

4



LAMAR UNIVERSITY

BACKGROUND OF THE PROBLEM

- Districts need evidence to support adding technology and new classroom experiences.
- Students have an expectation of technology existing everywhere in their world.
- Many educators prefer to control how and when information is delivered (Sheninger, 2014); digital learners enjoy quickly accessing information.
- Integrating mobile devices into learning is much more than putting iPads in a classroom. Teachers must adjust how they teach with this new technology.



PURPOSE OF STUDY

- The purpose of this study was to learn the perceptions of teachers regarding benefits of mobile devices in the classroom and teacher attitudes toward changing teaching and learning.



RESEARCH QUESTIONS

- How did teachers perceive student benefits of implementing mobile devices in the classroom?
- How did teachers perceive changes in teaching?
- How did teachers perceive changes in student engagement in learning?
- How did teachers perceive professional development opportunities for new learning?



REVIEW OF RELATED LITERATURE

Student Engagement

- Student engagement in the classroom was greatly increased by the use of mobile technologies to replace standard books or worksheets. (Long, 2013; McClanahan, Williams, Kennedy, & Tate, 2012)

Student Success

- Shih, Chu, Hwang, and Kinshuk (2011) found that the increase in enjoyment for the students and the ability for digital technology to enhance real life observations helped students maximize meeting the learning objectives.

Educator Feelings on Integration

- If a teacher is not comfortable with technology, he or she will not teach well with it (Miranda & Russell, 2011).



METHODOLOGY

- This phenomenological study focused on the influence of mobile devices in fourth grade classrooms at two North Texas elementary schools.
- Students in those classrooms were given iPads for learning across the curriculum.
- The teachers all had three or more years teaching experience.
- A guided protocol was used in each teacher interview.



METHODOLOGY CONTINUED

- Interview transcriptions were analyzed for teacher comments regarding how instruction has changed with mobile devices, academic changes for students since the implementation, student engagement, and overall teacher feelings towards utilizing the device.
- Results of the study were validated by member checking to ensure the findings were accurate.



ANALYSIS AND FINDINGS

1. What are the academic benefits of mobile devices?

- Positive academic changes were noted.
- Positive changes in behavior and attendance.
- Little to no cognitive load burden reported by teachers.

11



LAMAR UNIVERSITY

ANALYSIS AND FINDINGS

2. What is the influence of mobile devices on student engagement?

- Teachers saw increased student engagement.
- Positive influence of devices on student engagement. Students were excited to use the devices for lessons not possible without the devices.

12



LAMAR UNIVERSITY

ANALYSIS AND FINDINGS

3. What are the teacher attitudes regarding the utilization of mobile devices in the classroom?

- Teacher roles have changed with mobile devices.
- Teachers reported that professional development and support were key for successful implementation.
- Teachers stated that campus professional learning communities (PLC), peer collaboration, and instructional technology specialist support allowed them to become comfortable with the devices and gain confidence in the integration.
- Teachers preferred one-to-one devices in the classroom



IMPLICATIONS FOR PRACTICE

- Professional development for teachers at the time of implementing mobile devices to the classrooms is vital for a successful mobile device initiative.
- Initial professional development should be offered prior to students receiving the devices and should continue frequently with monthly face-to-face learning opportunities such as Professional Learning Communities.
- The addition of ongoing technology support and additional support staff for the campus to continue professional development and maintain the devices will help the teachers to continue integration of the mobile devices and discover new methods for utilization over time.



IMPLICATIONS FOR PRACTICE

- Campus and district administrators should be clear with teachers regarding the vision for iPads in the classroom and their expectations of usage.
- Teachers should be encouraged to initially make small changes in their instruction to include the devices.
- The SAMR model can be utilized to help teachers make curriculum additions.



IMPLICATIONS FOR PRACTICE

- Teachers need time to collaborate with peers to find applications for the devices that will lead to academic skill improvements and not become classroom distractions.
- Once appropriate apps are regularly utilized, students should chart their own academic growth to gain excitement and increase engagement.
- When implementing a mobile device initiative, one-to-one device adoption is preferred by teachers because all students can be utilizing the devices simultaneously.
- This deployment also leads to fewer classroom disruptions and greater opportunities for engagement.



RECOMMENDATIONS FOR FURTHER RESEARCH

- Future qualitative study to include a larger number of teachers from multiple grade levels.
- A study of teachers with one to three years of experience could be insightful in regards to the perception of new teachers being more comfortable with technology.
- A study of one specific subject area with an analysis of which apps are academically the most beneficial.



RECOMMENDATIONS FOR FURTHER RESEARCH CONTINUED

- A study examining a campus as it begins the transition to incorporating mobile devices could provide findings that would assist other school district with their implementation.
- A study regarding the influence of Professional Learning Communities (PLC) on teacher professional development.
- A quantitative study on school benchmark grades and standardized test scores showing growth, decline, or stagnation from the implementation of mobile devices would provide useful data for schools to show the impact of mobile devices.



REFERENCES

- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design*, 3rd Ed. Los Angeles: Sage.
- Dietrich, T. & Balli, S. J. (2014). Digital natives: fifth-grade students' authentic and ritualistic engagement with technology. *International Journal of Instruction*, 7(2), 21-34.
- Efaw, J. (2005). No teacher left behind: how to teach with technology. *Educause Quarterly*, 4, 26-32. Retrieved from <http://www.educause.edu/ero/article/no-teacher-left-behind-how-teach-technology>.
- Franklin, T. (2011). Mobile learning: at the tipping point. *The Turkish Online Journal of Educational Technology*, 10(4), 261-275. Retrieved from <http://connection.ebscohost.com/c/articles/71342763/mobile-learning-tipping-point>.
- Gecer, A., & Ozel, R. (2012). Elementary science and technology teachers' views on problems encountered in the instructional process. *Educational Sciences: Theory & Practice*, 12(3), 2256-2261. Retrieved from <http://www.edam.com.tr/estp>
- Great Schools Partnership. (2014, April 28). *Student Engagement*. Retrieved from <http://edglossary.org/student-engagement/>
- Jakopovic, P. (2010). Teacher attitudes on integrating technology in elementary curriculum (Master's thesis). University of Nebraska-Lincoln, Omaha, NE. Retrieved from http://scimath.unl.edu/MIM/files/research/Jakopovic_AR_FinalLA.pdf



REFERENCES

- Levin, B. B., & Schrum, L. (2013). Using systems thinking to leverage technology for school improvement: Lessons learned from award-winning secondary school/districts. *Journal of Research on Technology in Education*, 46(1), 29-51.
- Long, J. (2013). Math: Core connections. *Children's Technology & Engineering*, 17(3), 14-17.
- Marin, V., Lopez, M., & Maldonado, G. (2015). Can gamification be introduced within primary classes? *Digital Education Review*, 27, 55-68.
- McClanahan, B., Williams, K., Kennedy, E., & Tate, S. (2012). A breakthrough for Josh: How use of an iPad facilitated reading improvement. *TechTrends: Linking Research & Practice to Improve Learning*, 56(3), 20-28. doi: 10.1007/s11528-012-0572-6
- Miranda, H. P., & Russell, M. (2012). Understanding factors associated with teacher-directed student use of technology in elementary classrooms: A structural equation modeling approach. *British Journal of Educational Technology*, 43(4), 652-666. doi: 10.1111/j.1467-8535.2011.01228.x
- Murphy, M. (2015). As market surges, schools struggle to find the best tech products. *Hechinger Report*. Retrieved from hechingerreport.org/as-market-surges-schools-struggle-to-find-the-best-tech-products/
- Rhor, M. (2013). iPads expand time and space. *District Administration*, 49(9), 84-87
- Rosen, L. (2011). Teaching the iGeneration. *Educational Leadership*, 68(5), 10-15.



REFERENCES

- Schlechty, P. C. (2011). *Engaging students: The next level of working on the work*. San Francisco: Josey Bass.
- Sheninger, E. (2014). *Digital leadership: Changing paradigms for changing times*. Thousand Oaks, California: Corwin.
- Shih, J.-L., Chu, H.-C., Hwang, G.-J., & Kinshuk. (2011). An investigation of attitudes of students and teachers about participating in a context-aware ubiquitous learning activity. *British Journal of Education Technology*, 42(3), 373-394. doi: 10.1111/j.1467-8535.2009.01020.
- Shih, J. L., Chuang, C. W., & Hwang, G. J. (2010). An Inquiry-based mobile learning approach to enhancing social science learning effectiveness. *Journal of Educational Technology & Society*, 13(4), 50-62. Retrieved from http://www.ifets.info/journals/13_4/6.pdf
- Voke, H. (2002). Motivating students to learn. *ASCD Info Brief*, 2(28). Retrieved from <http://www.ascd.org/publications/newsletters/policy-priorities/feb02/num28/toc.aspx>



CONCLUDING REMARKS

Questions, Responses, and Audience Interaction



CONTACT INFORMATION

Dr. Amy Tong

atong@azleisd.net

Dr. Daryl Ann Borel

daborel@lamar.edu

Dr. L. Kay Abernathy

lkabernathy@lamar.edu

Please feel free to email the presenters if you
have any questions about this study.

Thank you



Political Imagination and Human Society: A Freshman General
Education HSI Seminar

Rex Wirth
Central Washington University

When the Introduction to Politics course, which has been offered in the General Education Program for the past thirty years, was evaluated as part of an ESCLA training to ascertain its potential for reaching and facilitating the success of Hispanic students at Central Washington University, an emerging Hispanic Serving Institution (HSI); it proved to be very successful with scores close to parity for Hispanic and general populations across all offerings for an academic year. In the course selected for this study, because it had the same proportion of Hispanic students as the university at large, the Hispanic students actually did better.

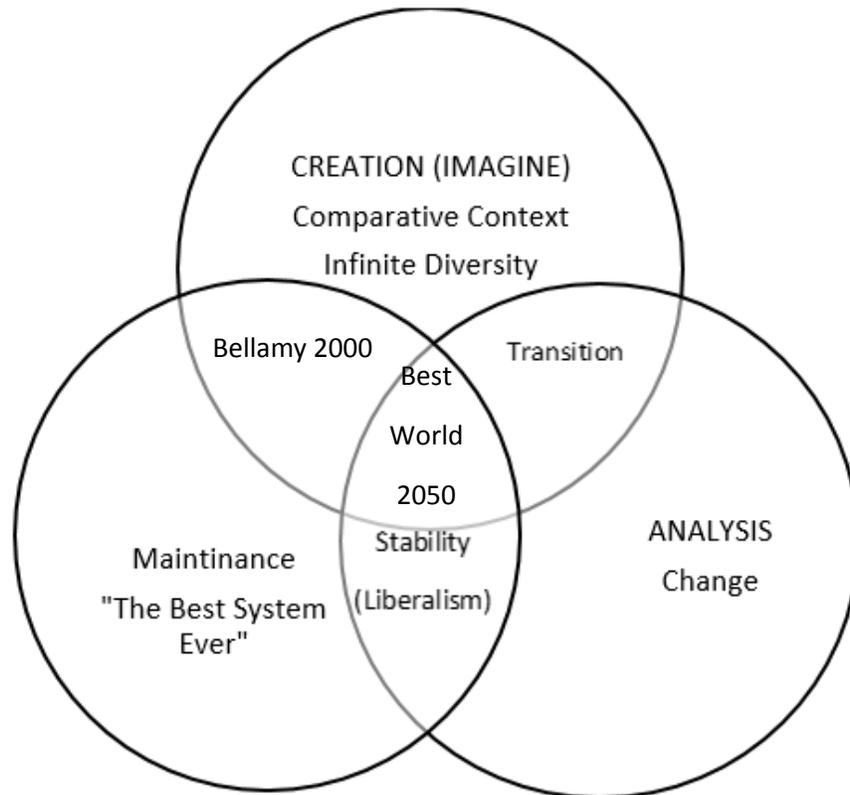
The purpose of this study is twofold: (1) to better understand Hispanic serving dynamics and (2) to develop a new HSI course since the present course will be eliminated from the new university General Education Program and from the department curriculum.

The Course: Introduction to Politics

The course was built around two core texts and two required books. The introductory reading is Marvin Harris' *Cows, Pigs, Wars and Witches*. This classic is used to introduce students to the infinite variety of workable arrangements that humans, doing politics, have created throughout history and around the world. Following Harris' global tour solving the riddles of cultures across time that provides students with a comparative context, David Schuman's *A Preface to Politics* is used to force students to confront the riddles of American culture. The *Preface* exercise is the meat of the course in which students write reaction papers responding to each of the topical chapters that deal with the dimensions of their culture and discuss each others work online in small randomly selected groups. Consequently, they are part of a different group for each of nine reaction paper/discussion exercises. The *Preface* exercise concludes with a "My Way" essay that deals with the impact of the preface on how students do or want to do life. It is strictly an individual (micro-level) exercise that provides the ground work for the first half of the final: The Imagine section where they have to show how life is lived at the societal (macro) level in their best world in the year 2050. The last portion of the course is devoted to analysis of contemporary cultures using William Stewart's concept of Prismatic Society and the comparative framework from his text *Understanding Politics*. After studying the frame work, students read Edward Bellamy's classic of American political thought, *Looking Backward*, and analyze it using the Stewart framework. This gives them experience using Stewart's tool on new material and prepares them for the last section of the final in which they compare their best world to contemporary reality using Stewart's cultures framework.

Figure 1 is a Venn diagram showing how the different aspects of the course relate to one another and the cultural dynamics of students.

Figure 1: Cultural Dynamics of Introduction to Politics



The top circle represents imagination or as Harris would say individuals doing art. The course seeks to overcome the barrier of ignorance which prevents individuals inside established cultures (The American Culture) from seeing other combinations and renders them unable to imagine new ones. Once students have been exposed to the infinite variety of workable cultures that humans individually doing art and collectively doing politics have created, they are equipped to confront "The Story" or the "Truth" of their own culture. Although not all cultures think or can think in terms of systems those that do always assert that their system is the "Best System Ever" this is particularly true of the United States where the idea plays a central maintenance role. Although it didn't happen as hoped, Bellamy showed how the creative adoption and adaptation of competing truths can improve conditions by making the system better while keeping

“The Story” that glues the culture together. When the course is successful students begin to play around in the creative space and as it moves on with prodding from the preface they begin to question “The Story”. They might stay American as Bellamy did and create a new cultural synthesis within “The Story” or they might move into the transitional space where their art pulls them into the realm of other stories at which point Stewart’s tools for comparative analysis become a means of relating what is to what ought to be and can be. For those who escape the gravity exerted by the system the course will end with a new “Best World 2050” that creatively blends what is with the attractive elements of other stories into a vision of what would/will be the best place to live. Some cannot escape; seeing only “The Story” they remain true to “The Best System Ever” and it remains their Best World 2050. Many, maybe most are caught up in conflicts and take refuge in the “issues” that the system relies upon to manage dissonance. Unfortunately, the issues also stifle creativity. Others move out into the creative and transitional realms only to be pulled back into the orbit of stability though reliance upon established analytical techniques that put a premium on equilibrium and force them in the name of objectivity to reject their own best hopes.

The Analysis

The point of departure didn’t have to be discovered the ESCALA exercise marked it clearly. The course had not been designed with Hispanic or any other particular segment of the student population in mind, but clearly it had a different impact upon these students than what is expected in normal courses. So, why was this the case? This is a question that had never arisen in 35 years and could not have arisen without a significant Hispanic student population. An HSI is defined as an institution that is at least 25% Hispanic. Central Washington University is an emerging HIS with 17% which made it eligible to participate the federally funded ESCALA training of which this project is a part.

The good luck of finding a course that mirrored university provided the rationale for using the single course and reduced the number of cases to a manageable level. A fortuitous artifact of information technology is that all of the written work for the course was saved and all 900 pages (30 pages per student) could be down loaded from Canvas in Zip files. If the material were being evaluated as the course progressed, it would be possible to code each of the 13 exercises while grading them and chart the entire path of each student as they progressed; but with a completed course and given the short timeframe for analysis a simple pre-test/post-test approach seemed adequate and, therefore, best.

Pre-test: The first written exercise in the course is “A Response to Introductory Readings” that is uploaded as an assignment for the instructor at the very beginning of the course, before reading Harris and not subject to group discussion. Since the introductory readings for the last edition of the Preface were changed into a set of short

hard hitting pieces that are intended to have the same kinds of impact as the chapters that follow, these short responses provided an excellent means of determining students' cultural orientation at the beginning of the course.

Post-test: The first half of the final for the course, which is submitted in exactly the same manner, required each student to imagine his/her best world, that it had come into being in 2050 and to show life being lived there in five written pages or some other medium w/explanation. These culminating exercises were evaluated to determine cultural orientations at the end of the course.

The student responses were evaluated using two dimensions that were then combined into a four cell matrix. The first dimension gauges the type and to a certain extent the level of engagement with Americanism. A TED talk by Chimamanda Ngozi Adichie shown during the training about the danger of a single story brought into sharp focus the dynamics of cultural development and how students change that underpin the engagement scale.

Engagement Dimension (Vertical):

Reads everything as "The Story" * Open to other/all stories
*[https://www.ted.com/talks/chimamanda adichie the danger of a single story](https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story)

The second dimension is about learning—the purpose of education and the class. It is built around the different approaches to learning that can occur as students confront challenges to their story and move through the course.

Learning Dimension (Horizontal):

Synthesis Accommodation Confrontation Opposition

Evaluation of Writing Sample and placement in Engagement/Learning Matrix.

Evaluation centers on Cell One of Figure 2 and The Story of the Land of the Free: Free people competing freely with one another in a rational universe where continuing effort leads to success and talent rises to the top. Status and wealth are the measure of both personal merit and contribution to the nation and those that earned a position at the top are the motors of innovation and progress that create national wealth and happiness for everyone.

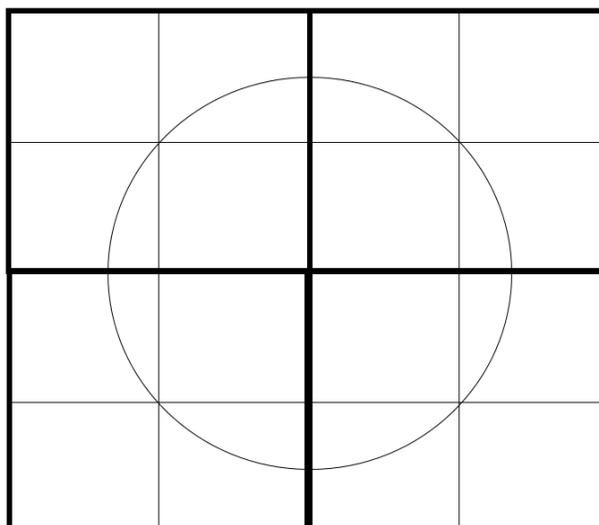
The two dimensions were combined to form a four cell matrix in which, on the basis of a careful and focused reading of initial and final papers, students were placed relative to each other in the space.

Figure 2: Analytical Typology

True Believer (Engaged Patriot)	Devil's Advocate
Engaging Citizen	Defender of the Faith

Placement was facilitated by dividing each quadrant into four more precisely defined sectors and enclosing the area of transition, the issues area, with a circle (Figure 3).

Figure 3: Coding Format



Everyone in the Story cell is a true believer, but only the outermost section is undisturbed by the issues. Democrats and Republicans; followers of Bernie Sanders, Hillary Clinton, Barack Obama, John McCain, Donald Trump, The Klan, Ralph Nader even Occupy, Code Pink and Black Lives Matter can be found here—such things make no difference. It's a melting pot, the same truth in many flavors. The common thread is that they hear, see and read everything as the Story—their cultural screens are perfect. Since the Story is driven by competition and debate, the debatable issues that define public opinion are a means of confronting and assimilating other stories. The miracle of the issues is that each has two sides, both sides support the Story and issues are not related to each other so that consistency across issues is not an issue. When the *Preface* forces a student to confront such contradictions, to the extent that they begin to bother the student, they are drawn out of the realm of true belief into one of the interior issue cells.

Those drawn toward the devil's advocate cell see professors, authors and pundits as assuming a devil's advocate position on one of the conflicting positions and are reconciled. When this strategy fails, they become involved in internal conflict which I characterize in comments to students as "fighting with yourself". Movement to the Defenders cell from here results in blaming and demonizing the other stories, the former devil's advocates and all tellers and followers of those stories. Moving back in the other direction from here or directly from the Story quadrant leads to the positive accommodation of other stories that can lead to new and personal syntheses as the engaging citizen becomes involved with the search for truth rather than for the truth or a new synthesis that provides a new truth.

Those with new stories are found in the space outside the circle in the mixed cells that house possible new stories/replacements for or modifications of Cell One as students find/create a new Story for themselves.

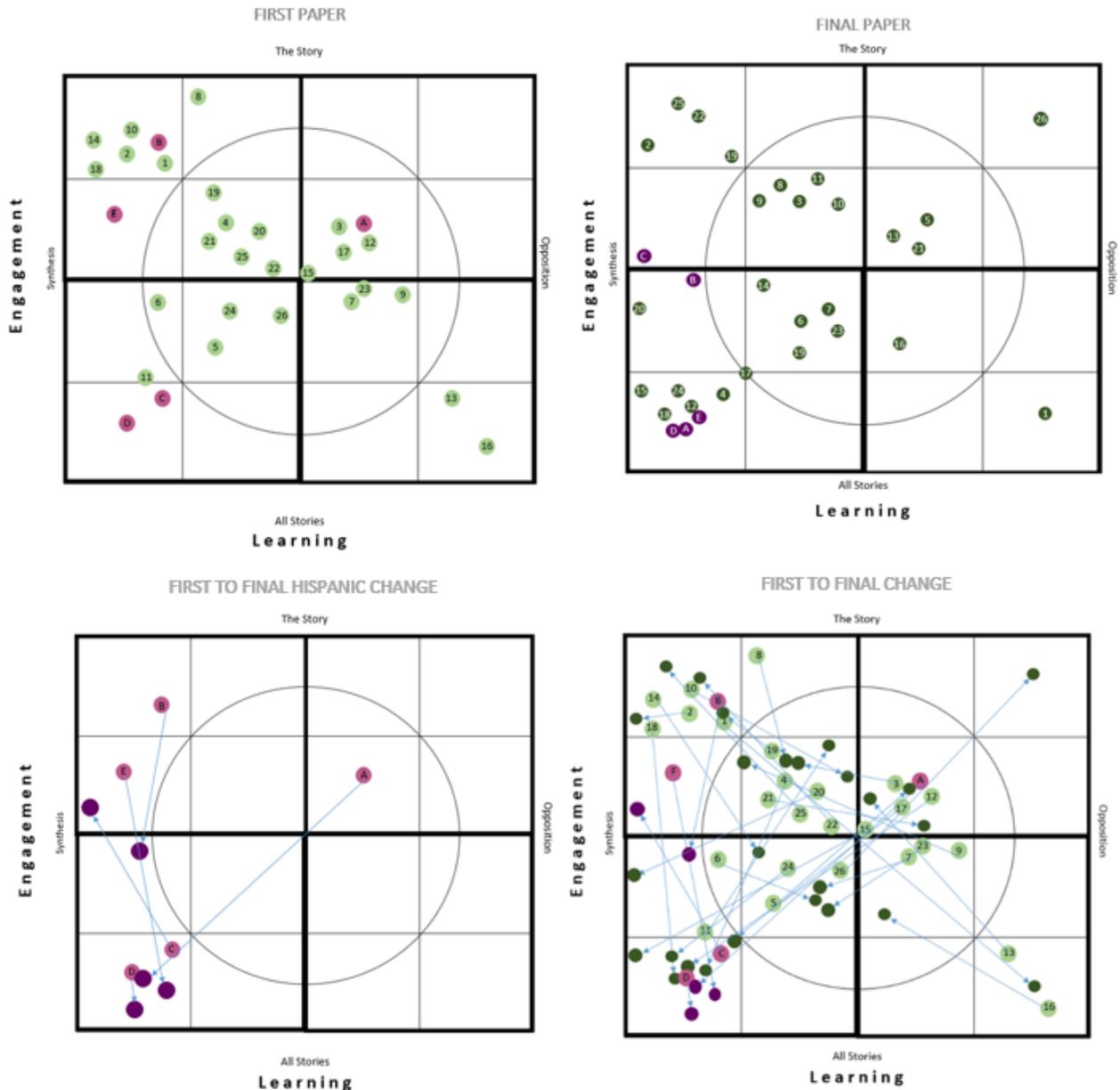
Pre-Test: Results for Response to Introductory Readings

Since the question of the course's impact on Hispanic students had never arisen, there were no presuppositions about it in relation to Hispanic students, no pre-existing hypotheses about a treatment or the results. Consequently, answers to the first research question depend completely on the patterns that emerged from the evaluation of the writing samples. Although never formalized, much less systematically subjected to a pre/post-test analysis, a great deal of thought, based on concerns and observations about the impacts of its content, went into the development of the course over three decades. Consequently, there is nothing unexpected in the results for the class on the First Paper.

The results for the Hispanic students are a very different story that may even have implications for the overall pattern. Figure 4 shows the placement for all students on the written exercises with Hispanic students indicated by red dots. With the exception of the one true believer, Hispanic students are located in the extreme positions on the respective dimensions. The true believer is assimilated (Americanized). The Hispanic student in the mixed true believer space would have developed a new variant of the Story creating a hybrid American/Other story that was seen as the truth. The outlying devil's advocate is tending toward the extreme myth-maker cell in which the truth of the Story is creatively adjusted to changing realities through opposition to

and elimination of elements that have become untenable. Finally, the only two engaging citizens at the beginning of the class are Hispanics.

Figure 4: Results



This pattern shows two things: (1) Hispanics are less likely to be caught up in the issues and (2) they are more likely to know about other stories and to deal with them in creative ways.

This is both good and bad news. Since the purpose of the course is, in effect, to make students conscious of these things and to get them to develop their uniqueness by creatively engaging with newly discovered stories, the work may already be done

when it comes to Hispanic students. The question now becomes: What effect did the course of instruction (the treatment) have on Hispanic students?

Figure 4 results for the Final Paper, the Imagine 2050 exercise, were unexpected. It may be that this class is an aberration. It may even be that a critical mass of Hispanic students alter the learning dynamics for the general population, but first: What can be said about the effect of instruction on these Hispanic students?

To answer this question the plots for the pre and post tests were combined and the two positions were connected with an arrow to indicate the general direction of each student's learning path (See Figure 4, First to Final Hispanic Change). The two outliers, the emerging myth-maker and the only new story both took a path that turned them into engaging citizens—effective treatment. The true believer found or created a new story outside of cell one as one of the initial engaging citizens found his new truth on the true believer side of the mixed space. Overall one of the two Hispanic students who started out as an engaging citizen became even more engaging while the other found a new truth and became a modified true believer. The two outliers both moved into the engaging citizen cell and the initial true believer found a new truth centered on a different story. All but one moved toward the pure engaging citizen cell and 3 of 5 ended up there. The engaging citizen who joined or rejoined the true believers is headed for Law School which pretty well explains his trajectory.

Conclusions:

Hispanic students start the course aware of other stories and experienced in dealing, at least coping, with the kinds of dilemmas the course is intended to raise.

Hispanic students respond to course material in creative ways that match course objectives—all of them end up in search of synthesis and two of them settle on a new one that matches their way of doing life.

Although the type, direction and nature of interactions/changes a student might experience has nothing to do with the grade, an orientation that facilitates a positive response to course material probably results in a more positive attitude that might contribute indirectly.

Overall Patterns

The comparison through careful reading of initial and final submissions uncovered a serious problem with the course that had grown up over time and an opportunity to improve the course that should be beneficial to both Hispanic and general populations, but most particularly, to the general population in classes with a critical mass of Hispanic students.

Although the specific dimensions examined in the reading did not lead to the discovery of the problem with the current course or its remedy, a full understanding of the course and what these patterns reveal is essential to understand the problem and the efficacy of proposed changes.

Figure 5: Paths of Change

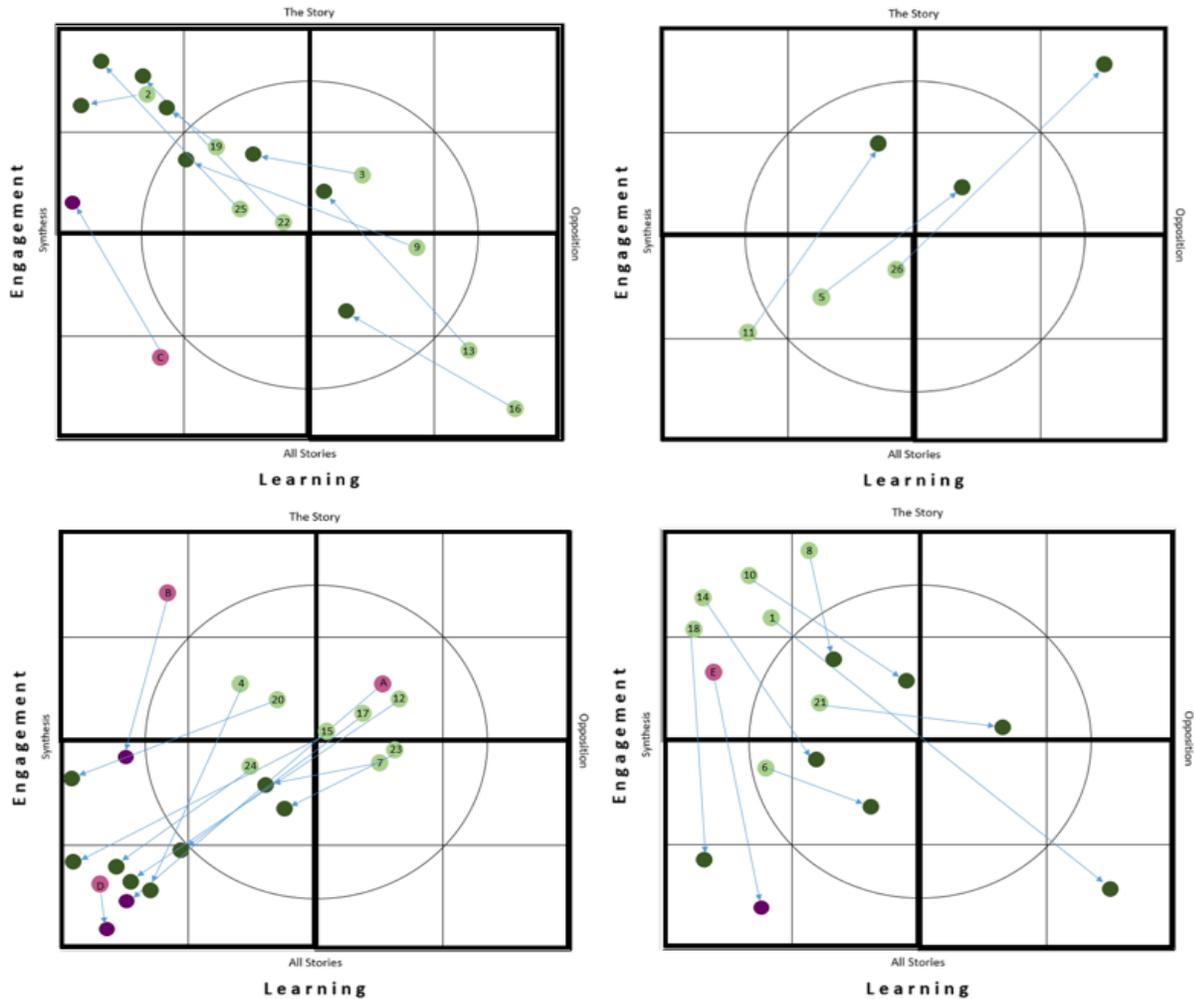


Figure 5 can be seen a single four cell matrix with the outermost quadrants of the cells representing more or less ideal types.

The first diagram on the top row shows those whose path sees them synthesizing the issues and emerging with a personal understanding of the story, others moving in that direction and defenders of the faith questioning their stereotypes. In the course the truth, the story, is presented using David Apter's Enlightenment paradigm as represented by Madison in Federalist 10 and Jefferson in the Declaration. Its basic relationships are: The ruled have RIGHTS that they protect through SUPPORT (Votes & Taxes) for rulers. This gives the rulers POWER that they use to create the ORDER and STABILTY that the ruled need to rationally use their rights to pursue happiness. The objective of treatment/the course of instruction is not to eliminate true believers, but rather to get those who have never thought about their truths to do so. Since the treatment resulted in all but one (4 wo/the Hispanic student) of the initial true believers moving out of the ideal type quadrant and nearly as many (3) successfully confronting

the issues and arriving at their own syntheses for the story, on this dimension the course appears to work.

The first diagram on the second row shows those who became engaging citizens seeking truth rather than the truth or a truth. Their path leads them down from the issue conflicts in the realm of the story into the realm of other stories where confrontations between stories in the context of issues causes them to adopt a synthesizing approach that opens them up to all stories. Students are introduced to this cell through Apter's paradigmatic understanding of Aristotle's ideal polity where the MIXED COSTITUTION produces HAPPINESS for the Polis (people as a whole) because each citizen finds and shares his/her best hopes and contributes to the societal pool of PRACTICAL WISDOM as, after deliberation, CHOICES presented by individuals are accepted and incorporated into the CONSTITUTION (Each choice creates real happiness for all—no need to chase it). This transforms politics from the lowest form of human activity as portrayed in the Story to Aristotle's highest form of human activity. Although acceptance of this new view of politics is the best hope for the course, it cannot be an objective. Any attempt of force a choice upon any student violates the spirit of the texts and the course. Once again, the course seems to fully realize the moving/questioning, confronting and finally synthesizing intended, as well as, the author's and instructor's best hopes with eight (8) students joining the one Hispanic student who remained from the initial placement, five (5) moving in from starting points in the issue space, and two (2) starting as true believers and becoming engaged citizens as they progressed through the thirteen course assignments.

If an operating hypotheses had been framed at the beginning of the analysis, it would have been that the most students would end up in the second cell on row two or that Defenders of the Faith would dominate in the Trump era. According to this hypothesis the one student moving from True Believer to Defender of the Faith would have been the modal type rather than the sole exception. With only six students on this path, it falls to the third most traveled, but only two students were on a trajectory likely to end in the pure defender space with the other two more likely to become engaging citizens.

I am relatively certain that this pattern was heavily influenced by the critical mass of Hispanic students and I would anticipate that a higher percentage of Hispanic students up to somewhere in the 30-35% range would be increasingly beneficial, however, I also suspect that there is a threshold beyond which further increase would become counterproductive. In effect, what appears to be happening is that it is the Hispanic students who are serving to further the objectives of the course (Hispanics Serving the Institution).

Finally, the road least travelled by, the Myth-maker, who adjusts the truth of the Story creatively to changing realities through opposition to and elimination of elements that have become untenable. Prominent examples from the course of study are Edward Bellamy, Adam Smith and John Maynard Keynes. Other recent examples might be

William F. Buckley Jr. and Ayn Rand. The creative/disruptive thought of the Myth-makers creates stories in the mixed space that draw followers, contend with and sometimes replace the story, but they keep looking for and opposing contradictions always trying to make the counterproductive obsolete.

Course Adaptation: The HSI Freshman Seminar

The analysis raises a new question. One that is most difficult to deal with. How to get and keep a balanced mix with a critical mass of Hispanic students to serve the course? But, that is work for the administration so on with the new course.

The problem revealed by this analysis was redundancy. In the course analyzed the same thing was done twice, eating up too much time, especially on a quarter system, and eliminating readily available new material that would better contribute to the course objectives, eliminate confusion for students, better synthesize the three parts of the course at the end and more adequately prepare students for the final.

Both *Cows, Pigs, Wars and Witches* and *Understanding Politics* introduce students to a wide variety of different cultures and their ways of doing politics and governing. Keeping the first after the second, which did the same job, was adopted resulted in overkill and probably the perception of repetition at the point in the course at which interest needed to be peaking. Blame Marvin Harris, I love the book and simply couldn't imagine that students could do without it. In fact, they can't! But, they only need to read and internalize three of the seven short pages from the Preface and the Prologue that provide the foundation for the course. It is a solid foundation that can support Stewart just as it supported Marvin. So, it's good bye "Mother Cow" hello "A Multicultural History of the United States"—the two new chapters of Stewart's later editions that had to be omitted for lack of time.

With a mean lean format of one book and two texts the new seminar will launch straight into the Preface where after submitting their response to the introductory readings students will be pummeled by the real issues—the contradictions in their lives—and be forced to face them by writing and sharing their reactions with their peers. This is where ESCALA training comes in. I thought that I had it down, especially since Canvas made it possible for me to easily organize students into different randomly selected groups for each of nine discussion exercises. I like to bemoan the loss of real personal contact and my increasing inability to get to know the students. Of course, I blamed it on the penetration of technology into the classroom, but the ESCALA training showed me that the technology can really create greater opportunities for such things. So, here's the new plan. For each chapter in the Preface students will be required to write a two page reaction, the class will be sorted into randomly selected groups of five, students will read the reactions and respond to the other four members of their group. The online exercise will culminate with further discussion as desired. Following the closing of the online discussion the next day students will go to areas in the classroom

designated as the meeting place of each group and half of the class period will be devoted to face to face discussion; I will visit groups for some personal interaction of my own. It's a seminar so the summing up will happen as it happens—the students really will be in charge. With the random selection every student will meet and work with every other student over the course of the Preface exercises. As always the overall Preface exercise will conclude with the “My Way” paper where students draw lessons from the Preface that will serve as the basis for imagining their Best World 2050 in the final.

The new format divides the course into two equal segments (See Appendix). With five full weeks left for really Understanding Politics, as opposed to the present two plus, there will be plenty of time to work through what is now covered, devote more time to consideration and analysis of Looking Backward; and still have a full week to read and discuss Stewart's two chapter multi-cultural history of the United States while students write their “Imagine” papers, and ask questions about how to use the Stewart's framework to analyze their 2050 papers. My hope is that it will be possible to complete the finals for the last day of class so that the final period can be used not only for the presentation of my 2050, but for discussion of theirs after they have my written feedback.

Conclusion

During the initial ESCALA training we were asked to assemble and evaluate the grades for a course in terms of differentials in the outcome for the general population and our Hispanic students. Since I had offered four sections of Introduction to Politics the year before, I assembled the grade data for the combined set (136 general population and 12 Hispanic). I had planned to use one large class with no Hispanics and the all twelve Hispanic students as my sample until I noticed the model course. I hypothesize that if this pre/post-test analysis were replicated the Defenders of the Faith would dominate the course devoid of Hispanic students and fully validate the conclusions drawn from the preceding analysis that: (1) Hispanics do well in the course because they live multiple stories and have to confront the kinds of dilemmas the course poses for the general population from an early age, and (2) a critical mass of Hispanic students changes the dynamics of the course and has a very positive effect both in terms of course objectives and normative concerns.

References

- David Apter, *Introduction to Political Analysis*, Winthrop (1977)
Edward Bellamy, *Looking Backward*, Ticknor (1888)
Marvin Harris, *Cows, Pigs, Wars and Witches: The Riddles of Culture*, Vintage (1974)
David Schuman and Rex Wirth, *A Preface to Politics*, National Social Science Press (2014)

William Stewart, *Understanding Politics: The Cultures of Societies and the Structures of Governments*, National Social Science Press (2012)

APPENDIX 1

Syllabus: Political Imagination and Human Society: A Freshman General Education HSI Seminar

Aristotle thought of politics as “the highest form of human activity” in keeping with this tradition the course is a general examination of politics, not as a specific set of behaviors within a culture, but as the human activity through which cultures are created.

TEXTS:

Schuman & Wirth. *A PREFACE TO POLITICS*

Stewart. *UNDERSTANDING POLITICS*

Bellamy. *LOOKING BACKWARD*

EXPECTATIONS: Normal (2hrs outside work for every class hour = 15 hrs.)

Although attendance is not mandatory, **students are responsible for everything that happens during class sessions.**

ASSIGNMENTS: FIRST HALF COURSE GRADE

Module 1:

Marvin Harris, *Cows, Pigs, Wars and Witches*: Preface and Prologue

Political Compass <https://www.politicalcompass.org/>

Module 2: THE REAL ISSUES

Schuman & Wirth. *A Preface to Politics*:

Response to Introductory Readings (4pts)

Preface Exercise

Nine Reaction Papers on chapters 1-9 of the *Preface*. (4pts each)

"My Way" paper (10 pts)

SECOND HALF COURSE GRADE

Module 3:

Stewart. *UNDERSTANDING POLITICS*
Bellamy. *LOOKING BACKWARD*

Bellamy Assignment

A Refection: The Art of Being There (2pts)

As you read *Looking Backward* observe how the time traveler is there in the year 2000 and what that means for the truths he lived by/his understanding of human nature in 1880. Then write a short (1 page) reflection on how Bellamy did it and what you've learned about being in and writing as part of a different future of your own creation.

Stewart Charts for Bellamy's Boston 2000 (5 pts)

Use the template in Module 3 to prepare a set of Stewart charts.

Dead Scribbler quizzes (3 pts)

FINAL PROJECT: Nearly half of Course Grade

"For at least another hundred years, we must pretend to ourselves and to everyone that fair and foul and foul is fair; for foul is useful and fair is not. Avarice and usury and precaution must be our gods for a little longer still. For only they can lead us out of the economic necessity into daylight."

- John Maynard Keynes

LOOKING BACKWARD 2050: Final Paper (15 pages) **40pts**

The final paper is the capstone of the course in which you should accomplish two tasks:

A. **20 points:** Imagine! Go to sleep and wake up in your Best World 2050. Show me (tell me a story) what life will be like if we meet Lord Keynes' schedule? Deal with the culture as Bellamy did. **Don't go for the technological fix.**

B. **20 points:** Analysis of your 2050: Do an analysis of your best world using Stewart's Cultures/Structures framework. (Each chapter in the text illustrates how this is done and provides you with the format and a model. However, since you have imagined a better world, you will not be able to copy any of the coding from the text because it represents current or past situations.) Remember the purpose of this half of the final is to demonstrate that you have mastered the mechanics of Stewart's framework by using it to explain your own original material.

LEARNING OUTCOMES

The purpose of the Freshman Seminar is to expand the student's understanding of the scope of the human activity called Politics by placing it in a broader historical and comparative cultural context.

Students will understand that cultures define the scope and nature of the political differently, will be aware of the truncated nature of "politics" in the United States, and will be able to see and explain how their cultural understandings both positive and the negative produce what is referred to as the "best system ever".

Students will know the difference between a system and a community.

Students will understand that societies change over time and they will be equipped with a conceptual framework which will allow them to deal effectively with cultural change and to compare different political cultures.

Students will be introduced to a cross section of the seminal thinkers who have given us our understanding of politics and they will be able to match the individuals with their ideas and show how they contribute to the establishment and maintenance of different cultures.

