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JOURNAL FOR THE  
**LIBERAL ARTS**  
AND  
**SCIENCES**  
VOLUME 16, ISSUE 1

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## EDITOR'S COMMENTS

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The fall 2011 issue of the *JLAS* offers articles focusing upon a variety of education interests. One of the articles featured in this issue is that of Dr. Brenda Graham, an Oakland City University faculty member who passed away on October 5, 2011. While the university deeply mourns her unexpected passing, we at *JLAS* feel both proud and privileged to be able to share some of the extensive research Dr. Graham carried out while a doctoral student at Indiana University.

Other articles in the fall edition explore a wide range of topics in education such as problem-based learning, strategies for teaching English language learners social studies, social studies teachers' perceptions of technology, teaching Tai Chi, classroom activities for teaching ISLLC standards, teacher disposition, and teachers' perceptions of mixed-ability classrooms. Standing out perhaps in its unusualness among all these selections is an article that explores how one aspect of professional baseball might inform English language classrooms.

A final note—beginning with this issue, the *Journal for the Liberal Arts and Sciences* will be published twice a year with a fall and spring edition.

Randy Mills, Editor  
*Journal for the Liberal Arts and Sciences*

# When Problem-Based Learning is Misunderstood: The Downfall of A Problem-Based Learning School/Community Partnership Initiative with Good Intentions

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Jennifer M. Conner-Zachocki  
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*Indiana University-Purdue University Columbus*

*This study examines five school/business partnerships that were developed as part of the Community Partnership Project (CPP). CPP pairs middle schools and local businesses with the goal of creating the conditions that will support authentic problem-based learning (PBL). Once partnerships are made, CPP intends for partnerships to engage students in PBL projects that focus on real problems that emerge from the businesses themselves. This paper considers the extent to which five CPP partnerships share CPP's goal of engaging students in PBL and seeks to determine how partnerships understand PBL. While all schools' partners seem to share the goal of engaging students in something they are calling "problem-based learning," they struggle to explain what this means to them and how this will be enacted. Business partners, on the other hand, while referring to PBL, are, across the board, most concerned with the goal of improving and enhancing their reputation in the community. Researchers surmise that partnerships were talking heavily about problem-based learning because of the emphasis that CPP put on it, at least in name. However, it is concluded that CPP was not able to provide the support that partnerships needed in order to truly support PBL.*

## Introduction

Problem-based learning (PBL) has emerged as a widely advocated approach for engaging K through 12 learners in meaningful problem-solving tasks (Glasgow, 1997; Kain, 2003; Krynoch & Robb, 1999; Lambros, 2004). This approach, which is anchored in a constructivist perspective of learning (Koschmann, Kelson, Feltovich, & Barrows, 1996; Savery & Duffy, 1995), has been described as a way to engage students in an “iterative process of assessing what they know, identifying what they need to know, gathering information, and collaborating on the evaluation of hypotheses in light of the data they have collected” (Stepien & Gallagher, 1992, 25). PBL has gained a great deal of attention, due in large part to its ability to support students in developing a complex skill set that they will need to be successful in today’s world, skills that classroom approaches used in the past have failed to develop (Duch, Groh, & Allen, 2001).

Given the growing interest in PBL, more and more programs and initiatives are capitalizing on the approach. One such initiative is the Community Partnership Project. This project identifies middle schools and local businesses interested in partnering with one another in order to support middle school students with PBL. Science teachers at the middle school and representatives from the partnership business support students with PBL projects that focus on some aspect of the industry of the business. CPP’s primary role is to bring partners together. Once a partnership is made, a start-up meeting takes place at the beginning of the school year involving a CPP representative and one or more representatives from both the school and business involved in the partnership. At this meeting, the CPP representative gives a representative from both the school and business a copy of a book entitled, *The Power of Problem-Based Learning* (Duch, Groh, & Allen, 2001). However, due to time constraints and the need to discuss key logistics (e.g., timelines and how the business partners will communicate with students in the school), the book is rarely discussed in depth. Participants are simply encouraged to read it. Beyond this initial meeting, CPP is not actively involved in the partnerships. It simply does

not have the resources to do so. CPP does, however, maintain a web-site that includes PBL resources for partnerships.

This paper examines five CPP partnerships during the 2006/2007 school year. The project was designed to determine the extent to which supporting students with PBL actually motivated schools and businesses to enter their partnerships. We also sought to determine how partnership participants understood PBL.

### **Review of Literature**

According to research, students engaged in PBL process information at higher levels, leading to deeper understandings (Perkins, 1992), self-direction (McCombs, 1991), and better retention and transfer of skills to novel situations (Bransford, Brown, and Cocking, 2000; Marzano, 2003; Marzano, Pickering, & Pollock, 2001). Unfortunately, PBL can be difficult to implement (Dolmans, Wolfhagen, van der Vleuten, and Wijnen, 2001; Margetson, 1997). The role of the teacher in PBL differs significantly from the traditional teacher-as-disseminator-of-knowledge role that teachers have played. In PBL, “teachers act as coaches and tutors: probing findings, hypotheses, and conclusions; sharing their thinking when students need a model; and attending to metacognitive growth by way of ‘time out’ discussions on how thinking is progressing” (Stepien & Gallagher, 1993, p. 25-26). Effective PBL depends on the teacher having acquired a mastery of the content as well as teaching methods (David, 2008; Hmelo-Silver & Barrows, 2006) and project management skills (Mergendoller, Markham, Ravitz, & Larmer, 2006).

In order to effectively implement PBL in the classroom, teachers and schools must first contend with what Windschitl (2002) describes as a series of “dilemmas” that emerge as teachers and schools begin to embrace a constructivist perspective:

1. Conceptual dilemmas challenge educators to confront the philosophical and epistemological underpinnings of constructivism.

2. Pedagogical dilemmas arise when designing curriculum based on a constructivist epistemology. Teaching and learning look and sound very different in a constructivist classroom and designing PBL learning experiences can be challenging.
3. Cultural dilemmas happen between teachers and students during the “radical reorientation” (Windschitl, 2002, p.132) of roles and expectations in constructivist classrooms.
4. Political dilemmas emerge between schools and communities when schools begin to reorient themselves to a more constructivist perspective, thus upsetting the status quo and disrupting institutional norms.

We use the work of Windschitl and others to help us understand why, despite commendable motivations, the partnerships seemed to be unsuccessful in using PBL in ways that resonate with the characteristics of a constructivist-based reform.

### **Methods and Data Sources**

Our research focused on five CPP school/ business partnerships in a Midwestern state during the 2006/2007 school year. Data sources include the following:

1. *Surveys*. In order to learn more about the extent to which engaging students in PBL motivated schools and businesses become part of CPP, surveys were sent to those individuals at each school and business that were identified by CPP as partnership coordinators. Four business partners identified a single person as the coordinator, and the fifth identified two. Surveys were returned by all business partners but one. All schools identified at least one person and as many as four as partnership coordinators, all of whom returned their surveys. Surveys was designed, in part, to determine what the coordinators thought were the long-term goals of their CPP partnership and how they were

achieving those goals. The survey included four open-ended items and 13 Likert-scale items.

2. *Interviews.* Nine semi-structured interviews were conducted with representatives from partnership schools and businesses. At least one coordinator from each business and school partnership was interviewed with the exception of one school and one business where no interviews were conducted, despite repeated attempts to contact them. Questions were included in the interview that were designed to identify each partner's reasons for joining the partnership, what they have gained from the partnership, and what they hoped to gain from the partnership. Interviews were audio-taped.
3. *Classroom observations.* Two CPP middle school science class meetings at one partnership school were observed in order to identify whether or not they exhibited characteristics of PBL. These were fifty minutes class periods during which students were supported in identifying the questions that were to drive their projects.
4. *Focus Group.* Three teachers from the partnership school where classrooms were observed participated. Teachers were asked to talk openly about their involvement in CPP.

With the following questions guiding our initial analyses, researchers analyzed the multiple data in accordance with coding procedures and processes in grounded theory (Strauss, 1987; Strauss & Corbin, 1990):

1. What motivated schools/businesses to become involved in CPP partnerships?
2. How do school/business partnerships understand PBL?

For each question, researchers independently started the analysis with an open coding approach that rendered many emerging themes and concepts in our multiple sets of data. Our coding process took an in vivo



code (Strauss, 1987; Strauss & Corbin, 1990) to grasp different meanings of each discourse in the particular context. During and after our coding process, we had frequent discussions around the categories/themes each individual researcher had identified and compared those in terms of their similarities and differences. We found more similarities than differences, and discussed in greater detail the common categories/themes across the data that were identified through the initial open coding. We continued axial coding around each category/theme more intensively and identified the relationships between them (Strauss, 1987). Eventually we identified a list of nine categories describing the goals of businesses and/or schools for entering their partnerships and two themes that identified ways in which partnerships understood PBL.

**Results**

*Question 1: What motivated schools/businesses to become involved in CPP partnerships?*

Nine categories describing the goals of businesses and/or schools for entering their partnerships emerged, with six categories shared by both schools and businesses. (See Table 1.)

**Table 1.** Goals of Schools and Business Partners for their CPP Partnership and the Order in which they Placed Importance on Each Goal

Goals	Number of School Partners Identifying Goal (n=5)	Rank for Schools	Number of Business Partners Identifying Goal (n=5)	Rank for Businesses
1. Engage students in problem-based learning.	5	1	4	4
2. Put schoolwork in a more authentic context.	5	2	3	5

3.	Improve students' group work skills.	5	3	0	--
4.	Improve students' math and science skills.	4	4	3	6
5.	Improve students' technology skills.	3	5	2	7
6.	Increase students' awareness of career opportunities.	2	6	3	3
7.	Make learning more fun.	2	7	1	8
8.	Improve/enhance business reputation in the community.	0	--	5	1
9.	Prepare upcoming workforce for the business partner.	0	--	4	2

Two researchers independently ranked the order in which the school partners and the business partners considered the goals. Decisions were based on the number of schools and businesses identifying each goal as important, as well as the emphasis that they placed on each goal in their surveys and interviews. After initial rankings, researchers agreed that the schools saw these three goals as being the most important, in this order:

1. Engage students in problem-based learning.
2. Put schoolwork in a more authentic context.
3. Improve students' group work skills (a goal that was not shared by any business partner).

Researchers agreed that the businesses saw these two goals as being important, in this order:

1. Improve/enhance business reputation in the community.
2. Prepare upcoming workforce for the business partner.

Neither of these goals was mentioned by any school partners. For the remaining goals, researchers discussed their rankings until 100% agreement could be met.

*Question 2: How do partnerships understand PBL?*

For school partnerships, “engaging students in problem-based learning” was the most frequently identified and most emphasized goal, and it was mentioned by four of the five businesses. However, there was little evidence to suggest that schools and businesses had a well-developed understanding of PBL. One school representative, for example, explained that “problem-based learning is really important and we need to be getting kids to do more of it. This partnership is all about that. It’s all about project based learning and doing authentic projects with the kids.” When asked to talk more about why problem-based learning was so important for students, the representative explained that “it helps students learn to problem solve better and think more critically.” Such responses suggested that partners did not have a language of their own to talk about problem-based learning and that they did not truly understand PBL as a teaching method.

An analysis of the data revealed that two themes identifying ways in which partnership participants understood PBL emerged, one focusing more on process and the other on outcome. While these themes were not mutually exclusive (data suggested that some participants’ understanding of PBL represented both themes), there did seem to be a tendency for participants to be more comfortable talking about PBL with regards to one theme over the other:

1. *PBL as a step-by-step, teacher-driven strategy.* Some participants understood PBL as an instructional strategy that could be accomplished by engaging students in a linear series of steps, directed by the teacher, which included identifying a question of interest, researching an answer to that question, and then documenting and reporting on the answer. Two CPP

classrooms were observed on the day that, according to the teachers, students would be identifying their PBL questions. As students identified questions for their projects, it became clear that the teachers had already selected questions for investigation. Students were clearly guided towards those questions. When asked about what was observed during a conversation with the teacher later in the day, he explained, "I kind of push them towards those [questions]." He goes on to explain, "We only have one class period to get students to pick their questions, so we really need to come in with a list and just let the kids decide which question they like."

2. *PBL as a catch phrase for achieving the outcome of "better" learning.* Other participants had more of a product-oriented understanding of PBL. They understood PBL to be something that students engaged in that helped them be "better" at something, such "better problem-solvers," "better scientists," and "better at working in groups."

A characteristic of virtually all participants, regardless of how they talked about PBL (either with a focus on process or product), was an inability to expand on and/or talk more in-depth about how PBL differs from other approaches that involve the same processes/claim to accomplish the same goals.

## Discussion

Four years after the launch of the first CPP partnerships, the project has folded and the partnerships have dissolved. In a recent personal communication with a teacher at one of the 2006/2007 partnership schools, the teacher insisted that "problem-based learning really doesn't work." A more likely, but more complicated answer, however, is that the partnerships were unsuccessful with PBL because they were unable to enact it with authenticity. Due to the logistics and lack of support from CPP, the teachers (and businesses for that matter) were never engaged in the "conceptual

dilemmas” (Windschitl, 2002) that would challenge their philosophical perspectives towards teaching and learning, a precursor to engaging in any constructivist approach to teaching and learning.

The results of this study are not surprising. The notion that simply partnering schools with businesses, giving them a book on PBL, and sending them off to engage students in meaningful and authentic PBL without any guidance or support clearly seems short-sighted now that the project has ended. But, unfortunately, these types of strategy-based educational reforms are often presented seductively to teachers and community members as the winning ticket to educational success. The educational community consistently attempts to use quick, poorly conceived, fixes to solve serious problems in the field, mistakenly labeling their attempts with language that describes something far more complex and worthwhile (sometimes intentionally and sometimes not), and ultimately trying to sidestep the difficult and often uncomfortable “dilemmas” that are inherent in making significant and necessary changes in the field. The failure of this project, further confirms the need for long-term critical work between educators, community members and students. In order for educational reforms to ‘work’ such reforms cannot be simplified into a series of steps to follow that require little if any check on teachers’ philosophical and epistemological beliefs about teaching and learning.

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# Effective Strategies for Teaching English Language Learners (ELL) Social Studies

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*This article discusses the relevant topic of teaching English Language Learners (ELLs) social studies. ELLs are non-English speaking students and are also referred to as English as a Second Language (ESL) or Limited English Proficient (LEP) students. The primary purpose of this article is to explain effective strategies educators can use to teach social studies to English Language Learners. The article highlights six effective strategies for teaching English Language Learners social studies. Those strategies are Communicating with ELLs, Managing the Classroom, Promoting Social Interaction, Embracing the Culture, Delivering Content, and Technology and the Social Studies.*

## **Introduction**

As a teacher educator I have the duty of training future social studies teachers. Prior to discussing teaching English language learners (ELL) social studies, I like to share the following story about my dog with my pre-service teachers.

I have a dog name Zeus; he is a 100+ pound fawn colored Mastiff – mix. The coolest part about Zeus is that I taught him Spanish. No really, I taught him Spanish. Now, he does not speak Spanish or understand Spanish, but I did teach him Spanish.

I share this story to demonstrate that just because one teaches a social studies topic/concept, does not mean that students, especially ELLs, understood, comprehended, and/or retained the information.



Unfortunately, many ELLs have this educational experiences, whereby the teachers teach the information, but the students do not learn, understand, and/or retain the knowledge. ELLs can also be referred to as English as a second language (ESL) student, or limited English proficient (LEP) student. Regardless, this article will refer to non-English speakers as ELLs.

Various states deal with ELLs more than others. California, Florida, and Texas are a few of the states in the nation that face an enormously large ELL population. According to the National Center for Education Statistics, during the 1993-94 school year, the United States had 2.1 million ELLs in the public school system. However, by 2003-04 school year, the number of ELLs nearly doubled, reaching 3.8 million (nearly 11% of the entire student population). It should be noted that the 3.8 million ELLs does not include data from Illinois, New York, Pennsylvania, or Tennessee. Those states did not report data on ELLs (Hoffman and Sable, 2006). However, the Office of Education Research and Improvement reports that nearly 70% of public school teachers have not been properly trained to teach ELLs (Han & Baker, 1997). Furthermore, ELLs are considered to be the fastest growing segment of the student population, between 1992 and 2002 the number of ELLs in grades 7-12 increased 70% (NCTE, 2008).

Furthermore, No Child Left Behind (NCLB) requires adequate early progress across all student populations. This means that attention must be given to the needs of ELLs. It can be extremely challenging for ELLs to demonstrate progress in an English-only curriculum. According to the NCLB guidelines, ELLs are required to be tested in English within two years of entering a U.S. school. In 2005, only 4% of all eighth grade ELLs achieved proficiency on the National Assessment of Educational Progress (Short & Fitzsimmons, 2007).

Many teachers feel unprepared to teach ELLs. In a survey of pre-service teachers, only 10% reported that they felt comfortable teaching ELLs (Russell, 2008). The concern that the pre-service teachers reported most frequently was that they were not going to know the appropriate instructional methods and strategies for helping teach ELLs social studies. The purpose of this

article is to provide educators with effective classroom tested strategies that can help can social studies teachers teach ELLs.

## **Effective Strategies**

### *Communicating with ELLs*

When communicating with ELLs in a social studies classroom, speak clearly. As well, do not need speak louder; they are not deaf. When communicating with ELLs use props, pictures, drawings, gestures, signals, objects, graphic organizers, etc., to help explain the directions and/or the social studies content information. If you are communicating in written form, be sure and print legibly or type information. Sloppy handwriting and/or cursive add an additional challenge for ELLs. In all forms of communication be sure and avoid slang terms (e.g. cool), colloquialisms (e.g. ya'll), and idioms (e.g. kick the bucket) (Szpara & Ahmad, 2007).

### *Managing the Classroom*

As with any efficiently and effectively run classroom, students need to be aware of requirements and expectations. Develop classroom rules, procedures, and routines for everything; from using the restroom, to turning in assignments, to getting make-up work, etc. Just like you would teach the American Revolution or any other topic, be sure and teach the class rules, procedures, and routines. Post your rules in English and in your respective ELLs language/s. For translating, try the school/district foreign language department. Classroom structure will help ELLs to function in the classroom environment. Furthermore, involve ELLs in day-to-day activities. Do not isolate them. However, be sure to foster an environment that allows all students to feel safe, secure, and comfortable (Curran, 2003).

### *Promote Social Interaction*

One of the core components of social studies is social interaction. Some social studies teachers do not promote social interaction because they prefer the "stand and delivery" method or the "read and answer the questions" method. ELLs need social interaction and

fostering an environment that encourages social interaction will allow ELLs to be more comfortable (Brown, 1994; Hadaway, Vardell, and Young, 2004), thus increasing their chances of success. Social interaction promotes discussions among students. Discussion can increase students' interest in content and improve basic interpersonal communication skills (BICS) (Cruz, Nutta, O'Brien, Feyton & Govoni, 2003). Often times, "ELL students who are included in English-dominant classrooms can be subjected to subtle segregation unless teachers are prepared to address their needs. That is, principles of inclusion without adequate preparation can lead to segregation" (Iddings, 2005). Provide ELLs with opportunities to work with partners and/or in cooperative learning groups. Social interaction with peers can help ELLs with basic vocabulary, build BICS, increase self-esteem, and most of all prevent segregation.

### *Embracing the Culture*

Another core component of social studies is culture. However, some social studies teachers often shy away from discussing the cultures of students. Embrace your ELLs culture by incorporating it into the curriculum (Szpara & Ahmad, 2007). Display photos, books, and images around the classroom. Have all students share artifacts, experiences, and/or stories about their cultures. Utilize oral histories to have all students explore and learn more about their classmates' cultures. This will provide all students with an opportunity to highlight themselves and their culture without segregating the ELLs.

### *Delivering Content*

Use a variety of instructional methods and present information in a variety of ways when teaching ELLs (Anstrom & DiCerbo, 1999; Brown, 2007; Pappamihel, Lake, & Riceet, 2005; Salinas, Franquiz, & Guberman, 2007; Weisman & Hansen, 2007). Utilizing a variety of instructional methods can increase student achievement and understanding (Bonwell and Eisen, 1991). ELLs will benefit from kinesthetic related activities. Being hands-on allows ELLs an opportunity to complete a task and

feel validated. Place new content terminology on the board and provide as many visual aids and demonstrations as possible. Research has shown that using visual aids increases student understanding and comprehension of the material being presented (Hobbs, 2001; Stone, 2002; Russell, 2007). When delivering new content, give simple directions. Relate new information with students' everyday lives and help make connections to students' prior knowledge. Repeat and rephrase information frequently. List the lesson objectives and activities on the board and provide ELLs with step-by-step instructions. Allow students to interact. Be sure and check for comprehension. Have them demonstrate their learning to check for comprehension. Do not ask "do you understand?" Usually ELLs will reply "yes" even if they do not understand.

### *Technology and the Social Studies*

Research showed that incorporating technology into the curriculum served as an effective method (Glennan & Melmed, 1996). Technology is a powerful tool that can enhance classroom instruction and there are numbers of technologies that can be utilized to help teach ELLs content (Pardon & Waxman, 1996; Terrill, 2000). Film and video, the Internet, and various computer programs (e.g. PowerPoint) are a few technologies available. Film and video can be useful tools to help ELLs visualize the content. However, that does not mean ELLs always understand what they are viewing. Provide ELLs with video terminology and/or an outline of the film/video. The Internet can be utilized for research projects, obtaining pictures, virtual field trips, etc. The use of PowerPoint presentations are also a valuable tool. Teachers can use PowerPoint to organize and reinforce content, with visual images and terminology. As well, ELLs can use PowerPoint to give presentations or make slideshows. These strategies will help make the social studies content more meaningful and relevant to students' everyday lives.

### **Conclusion**

As previously mentioned, ELLs oftentimes are subjected to subtle segregation, because teachers are

not prepared to properly address their needs. The strategies discussed in this article can help prevent the segregation of ELLs. With over 3.8 million ELLs in the public school system and the adequate yearly progress requirements outlined by No Child Left Behind, all teachers need to be prepared to teach ELLs. Many teacher education programs require some type of ELL training throughout their program of study, but not all programs. As teachers it is our responsibility to teach all students, not just the English speaking ones. Ideally, this article and the effective classroom tested strategies and techniques will be beneficial for all students.

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# Teachers' Perceptions of Technology Use in the Social Studies Classroom

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*Considering the overwhelming use of technology by students outside the classroom, social studies teachers may wish to utilize various technologies to enhance and promote successful learning. One problem, however, that may exist regarding the use of such technologies concerns the social studies teacher's own lack of knowledge about and comfort with such quickly evolving tools. To try and understand where social studies teachers may stand in this regard, this study first looks at research regarding the use of technologies in the classroom and then examines one group of social studies teachers' perceptions for using such technologies.*

## **Introduction: The DOT generation**

Today, teachers often find themselves in competition with the latest technologies. Students are especially exposed and drawn to technologies outside the classroom, technologies such as cell phones, on-line gaming, Internet exploring, and music downloading. These technologies are fast paced, interactive, colorful, and certainly keep students' attention. Now place these students in a classroom where the teacher is lecturing without any visual stimulation or active participation by the student. It should be no surprise the students' interests are compromised and learning is therefore hindered. This, of course, suggests that improving teaching effectiveness might begin with the integration of such technology into the social studies classroom.

Students in today's classrooms are sometimes referred to as the DOT.com generation because they have been raised on various forms of multimedia.



Prensky (2001) observed, in this regard, that “today’s students are no longer the people our [traditional] educational system was designed to teach” (p. 1). Prensky also coined the phrases, “Digital Natives” and “Digital Immigrants” in his article describing children who have been born into the digital world. He suggested that teaching these students, who are so comfortable with computers and so interested in the latest technology, without using computers, is simply a waste of opportunity for enhancing learning and instruction. Another research study by Izumi-Taylor (2008) demonstrated just how strongly students were attracted to modern, high-tech, audio-visual multimedia products. A social studies teacher, however, does not have to read one of these studies to become aware of this trend. All he or she typically needs to do is just look around the classroom.

In today’s schools, a majority of the students keep cell phones, iPods, or MP3 players, in their backpacks. This reality suggests that the more technologically diverse the teaching strategies are in the classroom, the more attentive the students will be regarding learning. As Morehead and Beau (2004) pointed out, “Technology can be used as a tool for communication and inquiry through a constructivist approach—fostering student learning through real-life application” (p. 13). Hokanson and Hooper (2004) believed that there existed a connection between technology and knowledge and that teachers who understood this connection might be better able to improve the educational process. In short, to change and progress in education may mean creating a modern, 21<sup>st</sup> century classroom full of technology that is student-centered, innovative, and promotes hands-on learning. A more in depth review of research concerning technology use in the classroom may reveal some important possibilities.

## **Review of Literature**

### *The Value of the Internet*

There is an abundance of research that indicated technology used effectively in the classroom resulted in improved educational effectiveness (Morehead & LeBeau, 2004; Owston, 1997; Rother, 2003). Hokanson

and Hooper maintained, “Engaged learning, where the student is motivated and involved in developing ideas as part of the learning process, is more effective at developing cognitive skills and information retention. Engaged media, where the unique characteristics of the media are used to investigate and generate, will be similarly more effective” (p. 250). Barnett (2003) conducted a longitudinal study that resulted in a positive correlation between computer use and students receiving higher standardized test scores on statewide tests, better grades, and an increase in graduation rate. The study also found a link between computer use and students having better discipline and positive attitudes toward learning. Brownell and Brownell (n. d.) argued that “Information is the vital component of a participatory and representative democracy. In the 21<sup>st</sup> century, ignoring the education of children in assessing, analyzing, evaluating, and producing media messages, deprives students of the very tools they need to function as citizens and to live a fruitful, rewarding personal and life work” (4).

Research revealed teachers can also benefit from the use of the Internet in the classroom. The Internet may aid teachers as a supplement to their curriculum, helping them to create visual stimulation, to carry out research, and better plan lessons. As a result of the availability of the Internet, professional development opportunities are also increasing for teachers. Taking on-line courses to further their education may improve their teaching abilities. Social bookmarking can help teachers organize files, websites, and search engines for better and more effective use in the classroom. Directing students to previously created websites or search engines enabled teachers to guide students away from harmful or inappropriate material found on the Internet.

It must be remembered that no one instructional system is “in and of itself . . . likely to improve learning in a significant way when it is used to deliver instruction. It is how effectively the medium is exploited in the teaching and learning situation” Owston (1997, p. 28). However, many students prefer to learn with the Internet, and teachers can certainly enhance student learning by using the Internet to supplement their curriculum.

### *Social development*

Social development is an important part of educating today's students. The Internet can serve, in this regard, as a medium for people to meet and deal with issues and concerns on a global scale. The Internet, for example, can serve a democracy by assisting people in the exercise of free speech. The Internet can also provide students with the opportunity to discuss issues and debate topics in an open-minded and freethinking environment. This electronic environment also has the ability to promote tolerance and teach students acceptance of world cultures. Finally, the Internet opens up a world of information and people. If given the guidance, students who use the Internet to socialize with others from around the world broaden their perspective. It is important, however, that students who use the Internet in the classroom be taught to respect the opinions of others and avoid negative or derogatory comments.

Zukas (2000) contended that students using the Internet may develop a better understanding of the world and of societal problems. Several other studies (Casutto, 2000; Debevec, Shih, & Kashyap, 2006; Mergendoller, 1996) affirm the positive effects of technology when used as a tool in the classroom. Upon analysis of Apple's "Classroom of Tomorrow" project (ACOT) by Barnett (2003), researchers found the following advantages to learning when students had unlimited computer access.

- Students routinely used critical thinking skills above their grade level.
- Students demonstrated enhanced ability to cooperate with peers on assignments.
- Students showed an increase of initiative.
- Students remained on task for longer and often continued their work during recess, before school, and after school.

Also of importance, this research found substantial

positive perceptions in teacher beliefs about teaching and learning after being a part of the unlimited computer use project.

In 2003, Rother conducted interviews of K-12 teachers regarding the use of the Internet in the classroom and found that the majority believed that sometimes computers did a better job of conveying information than the teacher. It was also found that students' attention concerning the content increased when computers were used. Student achievement increased with the use of computers as well.

### *Communications*

Global communications is another aspect of the Internet that can benefit schools, teachers, and students. Schools can use Internet access to correspond with teachers, with their district, their school board, other schools, and with parents. Schools benefit from the use of e-mail, as well as making, sending, and receiving information that is essential and necessary to share. Schools should be aware of virtual office space that could eliminate junk files or promote healthy organization of valuable information. These virtual office tools can also lead to free file sharing among schools, their districts, or the board. Organizing school materials online could be a great advantage for all involved. Bonk, Appleman, and Hay (1996) described how computer mediated environments such as the web, e-mail, bulletin boards, and computer conferencing have broadened the range of audiences and viewpoints available to students. Such tools encourage students to explore various avenues of learning. These experiences of communications can shape thought and create convenient methods of collaborating.

### **Purpose of the Study**

The above research strongly suggests that the use of technology in the social studies classroom may be an essential element for effective teaching and student learning. However, before such usage can be implemented, it would be of great value to know what things might hinder this process from the social studies

teacher's end of the spectrum. Consequently, the major purpose of this study was to examine teachers' perceptions about technology use in the social studies classroom. More specifically, this study attempted to answer the following questions from the teacher's point of view:

1. Should technology be the main pedagogical method of instruction in the social studies classroom?
2. Is technology even needed to teach social studies?
3. Does the lack of knowledge and support inhibit teachers from using technology.

### **Methods**

This research was based on quantitative method designs and strategies of inquiry in survey research outlined by Cresswell (2009). In this survey method, participants complete a survey or questionnaire relating opinions or attitudes concerning specific aspects of an identified problem. These participants, in turn, represent a sample of a particular population. A cross-sectional approach was used to administer the surveys when data was initially collected. The sample consisted of seventy-five participants in three school districts using two-stage random sampling. Each of the schools employs approximately one hundred and fifty teachers at their high schools. At that time, each school served approximately one thousand students in grades nine through twelve. The survey instrument consisted of ten statements that were designed to measure teacher competency, knowledge, and usage of technology in the classroom. Samples were analyzed for response rates and frequency of answers given for individual statements. All three schools were grouped together as one sample and analyzed according to each Lickert response: strongly agree (5), agree (4), no response (3), disagree, (2) and strongly disagree (1). At the heart of the survey were the following key statements:

1. Technology should be the main pedagogical method in Social Studies instruction.
2. Some teachers say that technology isn't needed to teach social studies.
3. Technology is often viewed as confusing and difficult.
4. I have received adequate training for technology use in the classroom and relevant, appropriate training in technology is available for teachers.
5. If provided with training, I would be more willing to incorporate technology in my classroom.
6. My administration/ department chair values the use of technology in the classroom.

### **Findings**

Seventy-five surveys for this study were distributed and thirty were collected; providing a modest response rate of 40%. Of the thirty participants, more than half (56.7%) were female. The majority of the teachers have taught for more than thirteen years and sixty percent teach ninth grade. World Geography teachers made up thirty-six percent of the sample, twenty-six percent teach primarily World History, and twenty-six percent teach U.S. History.

Thirty-nine percent of the participants disagreed or strongly disagreed that technology should be the main pedagogical method in Social Studies instruction. On the other hand, forty-two percent either agreed or strongly agreed that technology should be the main pedagogical method in social studies instruction. These results could be due to the different confidence levels of the teachers or their lack of experience with technology. It may also indicate the high comfort level many social studies teachers have with the lecture method. Interestingly, a majority of the teachers disagreed with the statement that technology isn't needed in social studies instruction. Thus, it appears that these social studies teachers felt technology is needed, but should not be the most common teaching method in the social studies classroom.

There was also a slight division among the participants regarding whether technology was confusing and difficult. Fifty-two percent of the sample disagreed

on the statement technology is confusing and difficult, while thirty-two percent of the teachers agreed. If teachers believe that technology is beneficial to teaching social studies, but fear it to be confusing and difficult, they are less likely to approach its many advantages and opportunities. The survey also revealed sixty-five percent thought they had been adequately trained to use technology in the classroom and nineteen percent disagreed that they have been adequately trained in the use of technology in the social studies classroom. Eighty-four percent agreed that with proper training, their willingness to use technology in the classroom would be improved. Almost the entire sample, ninety-four percent, either agreed or strongly agreed that their administration or department chairs value the use of technology in the classroom. Perhaps the most significant element from the sample survey results is the suggestion that participants who find real value in using technology in the classroom may have some fear of using that technology and that this fear may limit their use of technology.

### **Conclusion**

The results of this study suggest several areas where challenges may exist regarding computer technology use by social studies teachers. These areas include the availability of computers, access to computers, teacher training in technology, funding, and support. These are not new problems. Nagel (2008) reported that teachers in one particular study complained of the inadequate amount of computers at their school, the majority revealing less than two computers on average in a classroom. One may therefore ask how educators are supposed to align curriculum with that of technological standards without an adequate number of computers per classroom. It is clear, however, that many schools are working to bring more technology into the classroom, but until teachers feel comfortable with the availability of computers, the effective use of the Internet must wait.

### *Teacher training*

The need for teachers who are "tech-savvy" is at an all-time high. Schools are demanding technology trained

teacher education programs. The National Council of Accreditation of Teacher Education recommended, for example, “new understanding, new approaches, and new forms of professional growth” for teachers to effectively use technology in the classroom (Ivers, 2003). Debevec et. al. (2006) contended that “it is the instructor’s challenge to adopt appropriate technology to support and create different types of learning environments that replicate and expand the traditional classroom to enhance students’ learning experiences and maximize their performance.” Nevertheless, teachers’ perception regarding using technology in the classroom, including the effective use of the Internet, can be a challenge. As this research discovered, for example, social studies teachers, many of whom harbored some level of discomfort with technology use, may need training in using technology effectively in the classroom. Such training, however, should give hesitating teachers a more positive view of technology, causing them to be less fearful of it. Kadel (2005), in fact, found that teachers’ hesitation toward using technology can be lessened with various learning experiences and by setting goals which correlate with the teachers’ confidence levels.

This research suggests social studies teachers need quality training in software and hardware programs so they are more confident working over students who, in some cases, know more than the inexperienced teacher. There are several ways such training might be encouraged. Social studies teachers could be provided with the opportunity, or even mandated, to receive and earn credits in technology. It may also be necessary to poll teachers’ wants in terms of technology training and provide them with relevant courses of training. Additionally, pre-service teacher training in the education departments on the college level may wish to require more hours in technology. Unfortunately, social studies teachers being able to integrate technology into the classroom is not always a matter of choice. Teachers need adequate time and increased funding for technology integration. Just having technology does not insure effective use (Kadel, 2005). Proper funding and support for its use must also be in place.



### *Funding & Support*

When teachers were asked about computer use in the classroom in this research, it was discovered that one of the primary issues concerned funding and support. Currently, there are two coordinating technology trainers for three large high schools studied. These trainers must schedule time with teachers at these schools and have little time to maintain computers found on the campus, in classrooms, the library, or on the laptop cart. Therefore, many computers are broken, need repairs, and frustrate teachers who try and use them for instruction. Support must come in the form of additional staff, especially for the maintenance of computer equipment, and staff specifically assigned to the teachers at a school. With an increase in support and funding, teachers, students, and the school as a whole will benefit from the use of technology in the classroom. Schools must allocate funds for computers in classrooms and for support to maintain the technologies. This problem must be addressed on a local if not national level. Teachers need to be proactive and propose funding for technology integration and an increased number of computers for all schools and increase the amount of teacher support at one school.

On-line literacy challenges and unreliable networks plague schools as well. Lack of on-line literacy is certainly a barrier to students using the Internet. Educators must teach students about context and practice evaluating information on the Internet. Creating and consistent updating of programs, especially security measures, can keep students safe when using the Internet.

In conclusion, it is apparent that the use of technology in the social studies classroom can be beneficial to teachers and students, as well as schools as a whole. There are challenges to integrating technology our society faces and these must be addressed before successful and effective use can occur. Today's technologies offer a new possibility to learning. Embracing these new ways will be difficult, but with the proper funding and teacher training, as well as by taking precautions to ensure effective and safe use of

the Internet, these technologies will result in enhanced student learning.

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## Relationships among Instrument Choice, Instrument Transfer

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*The purpose of this study was to investigate reasons for initial instrument choice in relation to participants' sex, and the decision whether or not to transfer instruments. Subjects were collegiate instrumental musicians (N = 235) who responded to a two-part survey: 30 Likert statements concerning instrument choice, and open-ended inquiries into the reasons specific instruments were chosen. Sixty-eight subjects (28.93%) reported that they had transferred from the initial instrument to another instrument; the remaining 168 subjects (71.06%) were designated as non-transfer subjects. Cross tabulations of sex by transfer and instrument family membership by transfer and sex yielded non-significant results. Results for initial instrument by transfer, current instrument by transfer, and initial instrument and current instrument by sex were significant. Among reasons for instrument choice, the item "I liked the sound of the instrument" was rated highest. Correlations among the 28 items were determined. The factor analysis of reasons for instrument choice produced eight factors: physical properties of the instrument, influence of the teacher, ease/accessibility, influence of father, influence of male relative or friend, influence of female relative, challenge, and influence of mother. A MANOVA procedure across the eight factors indicated significant differences by the main effects of sex and transfer and their interaction.*

### **Introduction**

The choice of an appropriate initial instrument is important to the success of a beginning instrumentalist. Satisfaction with the instrument played has been linked to motivation and success in instrumental music

(Martignetti, 1965; Chandler & Auria, 1986), and students who are satisfied with their instrument of choice are more likely to persevere in instrumental music and continue in their participation (Fortney, Boyle, & DeCarbo, 1993). Dissatisfaction with the instrument has been identified as a reason for dropping out of band or orchestra class (Brown, 1996), and this attrition from instrumental music results in missed opportunities for students (Sinsel, Dixon, and Blades-Zeller, 1997).

Because there are so many reasons that a student may choose to discontinue instrumental music study, a reliance on dropouts for data on instrument satisfaction may provide an incomplete picture. Additional information about instrument satisfaction may be available from those students who remained in instrumental music class but transferred to another instrument. The child who transfers to another instrument is likely not dissatisfied with the many aspects of the instrumental music class or unwilling to dedicate time to home practice. Rather, the transfer occurs because the teacher has guided the student to another instrument, or the student initiates the change due to the greater appeal of the transfer instrument or dissatisfaction with the initial choice. Research, however, that specifically addresses transferring from the initial instrument to another instrument is very limited.

Graham (2001) conducted a preliminary study to identify factors that may influence an individual's choice of a first instrument and investigate how these factors may differ by sex. Instrumental musicians ( $N = 223$ ) were asked to complete a short questionnaire composed of 16 Likert-scale items. Subjects rated the factors that influenced them as they selected their first instrument. To examine the degree to which these 16 items represented broader factors, a factor analysis was performed. The resulting five factors produced from the factor analysis procedure for all subjects were identified as follows: 1) Identity; 2) Characteristics of the instrument; 3) Influence of authority figures; 4) Size; and 5) Ease of playing or Comfort with the instrument. In addition, subjects rated 16 instruments on a five-point scale of masculinity and femininity, and slight differences were found in the order of mean scores for the 16

instrument items for males and females. This current study attempted to extend this research by examining a full range of reasons for instrument choice with a large sample of subjects.

### **Purpose**

The purpose was to investigate reasons for initial instrument choice as related to participant's sex and transfer status on the initial instrument. Specific research questions were as follows:

1. What reasons do college-instrumentalists recall as influencing their choice of initial band or orchestra instrument?
2. What factors underlie these reasons for instrument choice?
3. To what extent do these reasons and their underlying factors differ by a subject's sex?
4. To what extent do these reasons and their underlying factors differ between those who persevered with the initial instrument and those who transferred to another instrument?
5. To what extent does the frequency of transfer differ by instrument?
6. To what extent is sex related to the subject in their choice of an initial band or orchestra instrument?

### **Methodology**

The subjects in this study were undergraduate and graduate instrumental musicians ( $N = 235$ ) from a large Midwestern university. Subjects were asked to complete a short questionnaire for demographic information prior to the administration of the main instrument. The distribution of subjects by sex was fairly even, with 52.8% male and 47.2 % female. Subjects ranged in age from 17 to 41 years ( $\bar{x} = 21.03$ ,  $SD 3.56$ ) and were both music majors and non-music majors.

Subjects were asked to indicate whether their current major instrument was the same instrument with which they began instrumental instruction. Those subjects who declared their current major instrument to be different than the initial instrument were designated as transfer subjects; those who declared their current

major instrument to be the same as the initial instrument were designated as non-transfer subjects.

The test instrument contained 30 Likert statements that represented reasons for initial instrument choice. Another section of the instrument solicited additional reasons or factors that influenced the subject in the initial choice that were not listed or mentioned previously in the test instrument. The two independent variables in this study were transfer/non-transfer (whether the participant persevered with the initial beginning instrument or transferred to another instrument) and participant's sex.

## Results

### *Quantitative Analysis*

In preliminary analyses, transfer rates were observed, with 68 (28.93%) subjects reporting they were not playing the initial instrument (transfer) and 168 (71.36%) who were still playing the initial instrument (non-transfer). Cross tabulations were performed for the variables of sex and transfer, as well as current instrument and initial instrument. The Chi-Square analysis of sex by transfer yielded non-significant results ( $\chi^2 = .29$ ,  $df = 1$ ,  $p > .59$ ) indicating that the percentages for transfer status were comparable between male and female subjects.

To examine the research questions related to the frequency of transfer by specific instrument, cross tabulations were performed to determine whether individuals having certain initial instrument choices were more likely to transfer. The analysis of initial instrument by transfer yielded a significant result ( $\chi^2 = 26.93$ ,  $df = 13$ ,  $p < .01$ ; Cramer's  $V = .34$ ); thus there were significant disparities in cell sizes. Subjects having initial instrument choices of French horn and trombone were less likely to transfer (0.0% and 4.3%, respectively), whereas individuals choosing trumpet and violin were more likely to transfer (37.5% and 55.0% respectively). The Chi-Square analysis of current instrument by transfer also produced a significant result ( $\chi^2 = 40.50$ ,  $df = 14$ ,  $p < .001$ , Cramer's  $V = .42$ ). For the instrument groups of oboe (66.7%), bassoon (66.7%), and tuba (72.7%), more subjects had transferred to these

instruments than had selected them initially, as might be expected.

Chi Square analyses were performed for initial instrument and current instrument by sex. The result for males was significant ( $\chi^2 = 764.11$ ,  $df = 169$ ,  $p < .001$ , Cramer's  $V = .69$ ). Male subjects who initially played trumpet, violin, and clarinet were more likely to transfer than those male subjects who initially chose trombone and percussion. The result for females was also significant ( $\chi^2 = 595.26$ ,  $df = 154$ ,  $p < .001$ , Cramer's  $V = .70$ ), in that female subjects who initially played instruments such as trumpet, flute, and clarinet were more likely to transfer to another instrument as compared to those female subjects who initially played French horn, oboe, and trombone. Transfer differed by sex; female subjects were more likely to transfer from woodwind instruments to brass and percussion, and while more males initially chose brass instruments, they were more likely to transfer to instruments within the brass family.

Descriptive statistics for reasons for initial instrument choice items were tabulated (Table 1). The item "I liked the sound of the instrument" was rated highest for all subjects ( $\bar{x} = 4.94$ ,  $SD .94$ ). This result confirmed that of Graham (2001), indicating that the sound of the instrument was very important to the selection of the initial instrument. The item "I tested on the instrument and did well" ( $\bar{x} = 3.72$ ,  $SD 2.21$ ), was the second highest rated of the 30 items. This item was not included in the pilot study, but appeared to be of importance to instrument selection. Since skewness and kurtosis values exceeded  $\pm 1.00$ , Kolmogorov-Smirnov tests were applied to check normal distribution for each of the 28 items. As a result, 26 of the 28 items were transformed to achieve normal distribution. These transformed variables were used in subsequent analyses.

Reliability for survey items pertaining to the reasons for initial instrument choice was determined through the use of a test-retest procedure to determine the stability of subjects' responses. A subgroup of 40 subjects volunteered to repeat the measure approximately three weeks after the initial administration. Retest reliability coefficients were tabulated for each item ranging from



1.0 to 3.5. Given the retest reliability results, it was determined that the items with extremely low coefficients ( $< .40$ ) would be eliminated. Therefore, two items, "I heard a recording of the instrument being played" (.36) and "No students of my gender chose to play it" (.35) were removed from subsequent analyses.

Correlations among the 30 items were determined, and significant correlations were observed with coefficients ranging from .17 to .68 (Md  $r = .29$ ). Factor analysis procedures were considered to analyze the reasons for instrument choice items, because the 28 items were significantly correlated, and a reduction in the number of variables seemed warranted. Sample size requirements for the factor analysis procedure were satisfied, in that the subject-to-item ratio was 8.39:1. The Kaiser-Meyer-Olkin measure of sampling adequacy was .66. Bartlett's Test of Sphericity was significant ( $\chi^2 = 1666.40$ ,  $df = 378$ ,  $p < .001$ ), thus the null hypothesis stating that the set of variables was not correlated was rejected.

The factor analysis of 28-item reasons for instrument choice was performed using a Varimax rotation, and this appeared to provide the best and most stable factor solution. Principal components were utilized to obtain a relatively small number of factors while accounting for the greatest amount of variance. The Varimax rotation produced eight viable factors which met the Eigenvalue criterion of 1.00 (Table 2). The eight factors accounted for 58.34% of the variance for the 28 items. The internal consistency of the factors (Cronbach's  $\alpha$  coefficients) were as follows: F1  $\alpha = .56$ ; F2  $\alpha = .74$ ; F3  $\alpha = .74$ ; F4  $\alpha = .49$ ; F5  $\alpha = .59$ ; F6  $\alpha = .80$ ; F7  $\alpha = .47$ ; F8  $\alpha = .42$ . Considering the low coefficients for Factors 4, 7, and 8, these results should be interpreted cautiously.

Factor 1, "Physical Properties of the Instrument" appeared to represent items related to seeing and hearing the instrument in performance. The item "I liked the sound of the instrument" was the best marker for Factor 1, with a loading of .78. Four of five items loading on this factor exceeded .65. Factor 2 was identified as "Influence of the Teacher." An examination of subjects' qualitative responses indicated that the items concerning the testing of the instrument, the physical and facial

characteristics needed to play the instrument are related to the teacher, in addition to the actual recommendation of the teacher. Five items loaded on Factor 2.

Factor 3, "Ease/Accessibility of Selection," was determined to be related to the ease with which the instrument was played or selected to be played. The items that loaded most strongly on Factor 3 were the presumed ease of carrying the instrument, buying or renting the instrument, and playing the instrument. Other factors related to the band or orchestra needing the instrument to be played and many other students of the subject's sex also selecting to play the instrument made it an easy, less-risky choice for the subject.

Factor 4, "Influence of Father," is clearly defined by the items "My father wanted me to play it," and "My father played it." In addition, the item "My family already owned the instrument" also loaded strongly on this factor, relating to the possible possession of the instrument if it was the instrument the father played. Similarly, Factor 5, "Influence of Male Relative and Friend," is composed of three items related to male relatives other than the father or a male friend choosing or recommending the instrument to the subject. No other items loaded on Factor 5. Factor 6, "Influence of Female Relative," had only two items that loaded  $> .30$ , those describing the influence of a female relative other than the mother, either by recommendation or that the relative played the instrument herself.

Factor 7, "Challenge of Selection," was the least well-defined factor and the most difficult to label. The highest loading item, "I thought the instrument would be challenging to play," appeared to define the factor best (.68). The items relating to the subject's mother playing or suggesting the instrument, and the instrument already being owned by the family (as in the case of Factor 4, Influence of the Father) clearly defined Factor 8, "Influence of the Mother."

Factor scores were produced for the eight factors. A MANOVA procedure was performed using the factor scores as dependent variables with sex and transfer as the independent variables (Table 3). The main effects and their interaction were statistically significant. An examination of univariate results for sex revealed that it

was significant for four factor scores (Factors 2, 4, 5, and 6). An examination of means and standard deviations for each of the significant univariate scores indicated that for Factor 2, male subjects ( $\bar{x} = .14$ ,  $SD .97$ ) were more likely to be influenced by the teacher's recommendation than female subjects ( $\bar{x} = -.15$ ,  $SD .98$ ). For Factor 4, male subjects ( $\bar{x} = .16$ ,  $SD .94$ ) were also more likely to be influenced by their father in instrument selection than were female subjects ( $\bar{x} = -.18$ ,  $SD 1.03$ ). For Factor 5, male subjects were more likely to be influenced by male relatives or friends than were female subjects. For Factor 6, female subjects were more likely to be influenced by a female relative than were male subjects. The main effect of Transfer was significant only for Factor 5; subjects who transferred ( $\bar{x} = .36$ ,  $SD 1.02$ ) were much more likely to be influenced in their initial instrument choice by a male relative or male friend than those subjects who did not transfer ( $\bar{x} = -.14$ ,  $SD .96$ ). The interaction of Sex and Transfer was also significant for one factor, Factor 4, the influence of the father. Female subjects who transferred had a group mean well below those of males (regardless of transfer and females who did not transfer); the influence of their father on their initial instrument selection was minimal.

### *Qualitative Analysis*

Participants were asked to complete open-ended inquiries regarding the specific reasons for initial instrument choice and transfer. Findings for the specific reasons for initial instrument choice were very similar to those indicated in other parts of the test instrument. The desire to choose an instrument suitable to play in church services was a reason for instrument choice that had not previously been identified. Several subjects indicated that a desire to be in a school band or orchestra was the driving reason for their initial instrument choice, not the instrument itself. Most transfer subjects responded that they were satisfied with transferring to another instrument and they did not regret the decision. A notable finding was that many non-transfer subjects indicated that, although they were very satisfied with their initial instrument choice, they would have considered transferring to a "jazz" instrument, one on

which they would be eligible to participate in their school jazz band. Many of these respondents had initially chosen instruments such as flute, clarinet, double reeds, and French horn, all instruments that are not included in the standard jazz big band.

Several reasons that were not previously identified were revealed in the open-ended responses. The suitability of the instrument for performance in church services was cited by one subject who stated, "The flute...is a good instrument to play solos at my church." Other subjects acknowledged a desire to become a member of a school instrumental music organization. When asked the primary reason that he chose his initial instrument, one subject simply stated, "I wanted to be in band." In additional open-ended responses, subjects indicated a desire to play an instrument that was suitable for the school jazz band. One flute player who initially chose flute and indicated high satisfaction with the flute, stated, "I wanted to switch to saxophone to be in the jazz band." The desire to play an instrument suitable for jazz band is an influence in instrument selection that warrants further investigation. Another factor that emerged was socio-economic influences. In the present study, three items were included in the reasons for instrument choice that are related to socio-economic variables. These reasons were important to the subjects in this study, but additional information was conveyed in the open-ended responses in the test instrument. One subject stated, "I was poor and could not afford to rent an instrument. The school system had some 'free' instruments, but they were usually things like French horn, tuba, and baritone. I got put on baritone." A trombone player reported, "I originally wanted to play trumpet, but financial situations wouldn't allow. A friend gave me his trombone. I wound up liking it."

## Discussion

In regard to Research Question 1, the results of this study indicate that many reasons contribute to the choice of an initial instrument. Subjects indicated that the sound of the instrument was very important to the initial selection. This result is similar to findings of Fortney, Boyle, and DeCarbo (1993), in that 51% of subjects (N =

990) indicated that they liked the sound of the instrument chosen as most-favored. Schmidt & Lewis (1988) found that 83.1% of their subjects (N = 205) indicated that the sound of the instrument was the most important aspect in the selection of an instrument. The look of the instrument also received a high mean and was among the most important influences in the previously cited studies (Abeles & Porter, 1978; Graham, 2001).

Perceived potential for success on the instrument was also a very important reason. Having the second highest mean of the 28 items, the item "I tested on the instrument and did well," as well as the two items concerning subjects' being physically well suited to play the instrument, were also very influential. The influence of the instrumental music teacher cannot be overemphasized. These results concur with the findings of Fortney, Boyle, and DeCarbo (1993) in that subjects indicated that the perceived ease of playing was one of two major reasons for selecting an instrument. Parental influences were articulated to be very important in the initial choice of an instrument. Some subjects were influenced by the recommendation of a family member, and also by the model of a family member who played a particular instrument.

The eight factors that were identified in the analysis indicate that subjects in this study were influenced by the suggestions of family members, friends, and teachers, the apparent ease or difficulty of playing or selecting the instrument, and the physical properties of the instrument, such as the sound of the instrument and the way it looked. The influence of parents was identified as relating specifically and separately to both the mother and father, and likewise the influence of friends and other relatives as either male or female was important. The influence of the teacher was identified by not only an implicit suggestion by the teacher, but also the feedback the subject received in testing on the instrument, either by a successful attempt or declared physical suitability to the instrument. The factors identified in this study provide a practical explanation of reasons for instrument choice, but the relatively unstable reliability coefficients for some of the factors suggest that some conclusions are tentative.

Research question three, "To what extent do these reasons and their underlying factors differ by a subject's sex," was addressed using a MANOVA on factor scores for the reasons for instrument choice. Compared with females, male subjects were more likely to be influenced by the father, the teacher, and male relatives and friends. In contrast to males, female subjects were more likely to be influenced by female friends and relatives other than the mother. Graham (2001) investigated differences in the reasons for instrument choice by sex, and slight differences were found in the order of mean scores for 16 instrument choice items for males and females. The present study expanded the number of potential reasons that were specific to the sex of influential friends or family members, enabling a more comprehensive explanation for the sex differences. In open-ended responses in this study, many subjects provided detail about the influence of specific family members. A male saxophonist stated, "I wanted to play the saxophone because my brother played it."

In regard to the fourth research question, "To what extent do these reasons and their underlying factors differ between those who persevered with the initial instrument and those who transferred to another instrument," the MANOVA produced one significant result regarding the influence of a male relative or male friend. Those subjects who transferred from the initial instrument were more likely to be influenced in the initial selection by a male relative (other than the father) or a male friend. The practical implications of the significant finding however are minimal in that the influence of the male relative or friend explained very little of the variance ( $r^2 = .05$ ). The results of the qualitative inquiries support the finding, however. One subject stated that he initially chose trombone because his male cousin, a trombonist, suggested it. Because research specific to transfer is very limited, these results cannot be compared with previous findings.

The fifth research question, "To what extent does the frequency of transfer differ by instrument," was addressed through cross tabulation procedures. Both male and female subjects were more likely to transfer to instruments considered to be masculine instruments. Or

in the case of an initial choice of a masculine instrument, the transfer was to an instrument that was considered more masculine than the previous choice. Those subjects who initially started instrument instruction with a 'beginning' instrument, such as flute, clarinet, trumpet, and violin, were also likely to transfer to another instrument. Those instruments that might not be considered suitable for beginning instrumentalists, such as oboe, bassoon, tuba, and string bass were more likely to be transferred to than selected as an initial instrument. A female subject who started instrument instruction on cello stated, "I wanted to play bass from the beginning, but I was too small until I was about twelve."

Research question six, "To what extent is subject sex related to the choice of an initial band or orchestra instrument," is addressed in the reported frequency counts and cross tabulations. Male subjects in this study were significantly more likely to initially choose brass instruments than woodwinds, and female subjects were significantly more like to choose woodwinds over brass. In previous studies (Abeles & Porter, 1978; Delzell & Leppla, 1992), the instruments that were found to have feminine associations were primarily woodwind instruments (e.g. flute, clarinet, and oboe), with the exception of the saxophone and bassoon, which were considered neutral in terms of gender association. The brass instruments, with the exception of the French horn (often designated as neutral), were consistently reported as 'masculine.' Research in gender stereotypes of musical instruments confirms that females are increasingly comfortable selecting a perceived 'masculine' instrument, but that males are still resistant to choosing those instruments that are perceived to be feminine (Abeles & Porter, 1978; Delzell & Leppla, 1992; Graham, 2001). One female subject in the present study chose the flute because, "it was the only instrument beside the baritone that I could get a sound out of, and I thought only boys played baritone." Another female subject decided to transfer from flute to trumpet because, "The people in the flute section were all girls." Given the present results, the perception of musical

instruments as sex-specific has apparently changed little in the last 25 years.

Additional influences not previously identified that appeared to be very important to the subjects in this study were a desire to be in the school jazz ensemble, or to choose an instrument suitable for church or worship services. These reasons should be investigated in future studies of instrument choice. Many subjects were motivated to become a member of the school band and orchestra, but were not specifically inspired to choose a particular instrument. The eagerness of some subjects to simply be in band or orchestra was sufficient; they had no strong feelings toward any specific instrument.

The socio-economic factors related to instrumental music instruction were examined in this study by the analysis of three items in the main instrument. The items dealt with purchasing an instrument, using an instrument the family already owned, and using a school-owned instrument. These influences were important to most subjects, but some subjects indicated that economic factors were central to their selection of an instrument and participation in instrument music in general.

Although few previous studies have considered the transfer of one musical instrument to another, this phenomenon appears to deserve more attention. Those subjects who had transferred to a different instrument than the initial instrument expressed their experiences fervently. Many suggested that they would not have continued in instrumental music had they not been allowed to switch to another instrument. The reasons given for transfer included an inability to make progress on the first instrument, and physical or facial characteristics of the individual were often to blame. Instrumental music teachers may be reluctant to let a child transfer to another instrument because of lost instruction time. Wherever possible, transferring to another instrument should be investigated, and the disadvantages of lost instruction time be weighed carefully with the advantages of renewed motivation, ease of playing, and successful participation on the part of the child.

This study was designed to investigate reasons for initial instrument choice and to determine the influence



of subject sex and instrument transfer on these choices. Some analyses in the present study were hindered by uneven cell sizes, so a more purposeful sample could be obtained in future studies to further investigate specific questions relating to those subjects who play particular instruments.

In the present study, the influences on instrument selection appeared to be different for players of string instruments; separate studies using only string instrument players or an equal population of string players to wind and percussion players may be useful to future research. Some subjects in the present study stated that they had begun string instrument instruction at a very early age, as in a Suzuki program. More information from these individuals would help inform future research in string education.

Future qualitative research involving open-ended questions or interviews would assist researchers in generating additional hypotheses concerning reasons for instrument choice particularly to how these are influenced by gender stereotypes. The information gained in the present study in regard to church-related factors and the desire to play in a jazz ensemble are important findings; additional factors or trends may be identified through the use of qualitative methods.

The subjects in the present study related that the reasons for and influences on instrument selection were very clear in their memories. However, future research should reexamine these issues in questions directed to younger subjects, perhaps middle school or secondary students, or beginners. Middle school students especially would provide information in regard to reasons for transfer. Degrees of satisfaction, from Likert-like scales, could be compared between groups (years of instruction) and trends could be identified for length of study and by instrument.

The desire to play in the school jazz band, as well as the interest in playing an instrument deemed suitable for religious services warrant further investigation. Because instrumental music participation requires an instrument to be purchased or otherwise obtained, factors related to socio-economic status of the family are increasingly important in music education. Research that investigates

the attitudes of children of working class parents toward instrumental music may also be helpful in guiding students in instrument selection. The future of instrumental music depends on all children having access to musical instruments and equitable opportunities for participation.

Research studies that investigate transfer specifically would be useful, especially considering the findings of the present study. Inquiries into the ways transfers are implemented in school band and orchestra programs would inform future research. Possible outcomes of this research could include better strategies for application of transfer and policies for the identification of students who would benefit from beginning instruction on a second instrument. Exploration of the ideal time to transfer, suitable transfer instruments for children with particular physical characteristics, improved methods of instrument selection, and the generation of music materials (such as those that exist for violinists transferring to viola) would likely result in more effective teaching practices. Instrument satisfaction may be a key factor to perseverance and success in instrumental music, and any research that better informs the profession would be welcome.

The benefits of participation in school instrumental music programs are well documented. Successful participation, however, depends on the availability of a suitable instrument that is comfortable to play and the student's sense of accomplishment in the task. The selection of the initial instrument or appropriate transfer instrument is therefore crucial to the child's eventual success, and factors relating to the selection, such as those investigated in the present study, are of utmost importance. With continued analysis of influences in instrument selection, individual achievement in music will be assured and school bands and orchestras will continue to flourish.

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# Tai Chi for Your Health: Implications for Leisure Studies and Health Education

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*Tai Chi, also known as a “moving meditation” or an “oriental dance,” is a classical form of martial arts. Originally from China, Tai Chi, with a set of graceful movements and effortless physical inputs, gained its popularity in the Western World. In the past two decades, numerous researchers reported health-related benefits achieved from practicing Tai Chi. These findings are drawing more people into this miracle-like exercise. This paper offers an overview of those health benefits and aims at explaining how Tai Chi worked as a “moving meditation” through analyzing kinematics of Tai Chi’s physical movements. This paper also suggests that Tai Chi, with its characteristic gentle physical movements, regulated breathing techniques, and graceful body rotations, should be promoted as a form of therapeutic exercise in health and leisure studies classes.*

## **Introduction**

Tai Chi, also known as “Tai Chi chuan,” is a classical form of martial arts originating in China seven hundred years ago. “Chuan” in Chinese means boxing, while “Tai Chi” stands for a “Grand Ultimate,” representing a primary principle of all entities in the universe, that of the need for a balance of two complementary attributes, Yin and Yang. Also referred to as the male and female principles, a balance of the two is the foundation for maintaining one’s health. A double-fish diagram symbolizes these two complementary attributes: Yin and Yang.



*(Figure 1). Yin and Yang*

Tai Chi is a rich and complex cultural tradition that was initially introduced into American society one hundred years ago. It was not until the 1960s that American society started opening up to cultural traditions from the East, particularly India and China. There was an interest in Eastern music, religious beliefs, medicine, food, and philosophy as part of the counter-culture's search for alternative, more holistic, and less materialistic lifestyles. Some of these explorations moved from fads to established and accepted practices. Tai Chi is an example of an Eastern cultural tradition that is being adopted into mainstream society.

Combining exercise with meditation into graceful, seemingly effortless and dance-like movements, it has become popular in the western world over the last three decades. Oftentimes perceived as having mystical abilities to enhance well-being, Tai Chi is sometimes misunderstood as a religious belief system. Scientific studies, however, demonstrate that it offers numerous health benefits (Gyllensten, Chan, & Tsang, 2010; Hackney & Earhart, 2008; Kim, Han, & Cho, 2009; Lelard, Doutrelot, David, & Ahmaidi, 2010; Thornton, Sykes, & Tang, 2004; Yan & Downing, 1998).

Tai Chi, because of its effectiveness in promoting good health, may deserve to be one of the exercise programs taught in college physical education and leisure study classes. This paper offers an overview of the literature surveying those health benefits and suggests that Tai Chi, with its characteristic gentle

physical movements, regulated breathing techniques, and graceful body rotations, should be promoted as a form of therapeutic exercise in college health programs. The paper also offers insights into the mechanics of physical movements in Tai Chi, providing a knowledge-based understanding of this “moving meditation.” It discusses four categories of benefits of Tai Chi (improved balance control, increased cardio-respiratory function, enhanced psychological well-being, self-defense skills developed and self-image boosted), as well as the basic principles involved in Tai Chi training.

## **Health Benefits of Tai Chi**

### *1. Improved balance control*

Many researchers demonstrated that the practice of Tai Chi can improve one’s balance and reduce the risk of falls, particularly among older adults (Gatts & Woollacott, 2007; Hackney & Earhart, 2008; Kutner, Barnhart, Wolf, McNeely, & Xu, 1997; Province, Hadley, Hornbrook, & Lipsitz, 1995; Wolfson, Whipple, Derby, Judge, King, Amerman, 1996; Wolf, Barnhart, Kutner, McNeely, Coogler, Xu, et al., 1996). Regardless of which style or school within Tai Chi (Yang, Sun, Wu, or Chen, to name a few), all require practitioners to constantly hold a semi-squat posture to perform almost all physical movements (**Figure 2**). This unique posture during the exercise helps to preserve and build strength of the muscles on the upper legs (quadriceps) as well as knee extensors (Jacobson, Chen, & Cashel, 1997).

Gatts and Woollacott (2007) studied a group of physically fragile older adults, aged 68 – 92 and explained how Tai Chi practice helped them gain balance control. In their study, a pretest-posttest nonequivalent control group design was incorporated and 14 sessions of intensive Tai Chi training within three weeks were given to the treatment group. The results indicated that seniors in the Tai Chi training group significantly improved their balance control more than the group without Tai Chi intervention. Their laboratory work on the tripping tests revealed that Tai Chi training produced kinematic effects which helped an individual gain more vertical trunk and body segmental control.



*Figure 2. Semi-squat standing in Tai Chi*

Winter (1989) also argued that kinematic patterns of normal gaits of older adults helped them to gain balance recovery. Seniors were often found with flat-footed landings, less push off, and shorter steps when recovering from incidental unbalance. The movements in Tai Chi practice, however, contain many postures that preserve one's normal gait and increase balance control. For example, the movement of "Cloud hand" requires a body weight shift; "Repulse monkey" needs one's trunk to rotate; while "Golden-cockerel standing" requires a single-leg standing. All these movements train an individual to become stronger at maintaining balance.

## *2. Increased cardio-respiratory function*

Along with learning and remembering sequences of physical movements, students of Tai Chi are taught to adjust their breathing to slow and deep breaths, adapt abdominal breathing techniques to inhale and exhale, and breathe rhythmically in correspondence to every physical movement. These breathing techniques help maximize the volume of oxygen exchange and reduce the amount of residual air in the lungs. A study found that Tai Chi training increased an individual's maximum volume of oxygen consumption ( $VO_2$ ) up to 19 percent more than those individuals who did not participate in the training (Lan, Lai, & Wong, 1996).

The capacity of exchanging oxygen in the lungs is an important part of maintaining one's health, particularly in relation to an older individual's cardio-respiratory system. As a person grows older, cardiovascular texture becomes attenuated with loss of elastic fibers in the vessel walls, accumulated atherosclerotic plaques, increased calcareous deposit in the media, and narrowed lumens, etc. Consequently, these changes lead to a decrease in the velocity of blood flow as well as oxygen concentration in the circulating blood, thereafter, hampering the heart function (Li, Qin, & Chan, 2001).

Oxygen is a powerful healing element and plays a key role in the maintenance of one's health conditions. Even though almost all forms of physical exercise will increase oxygen perfusion into the blood and diffuse it into tissues, the difference between a vigorous exercise and the gentle moving Tai Chi is that vigorous exercise exhausts the fueled oxygen (e.g. aerobics), while Tai Chi restores energy source and makes it available to be used in the tissues. Tai Chi can help to maximize utilization of oxygen by infusing it into tissues and restoring it as an available resource for a healing process. The gentle movements associated with all forms of this "moving meditations" pushes the body into a deep state of relaxation. Natural body intelligence then pulls oxygen out of the blood toward the tissues and restores it as an available resource (Harrigon & Jahnke, 2007).

### *3. Enhanced psychological well-being*

Tai Chi has also been recognized as an effective intervention for coping with stress-induced anxiety and depression and for enhancing psychological well-being (Jin, 1989; Lee, 1993; Li, Qin, & Chan, 2001; Qu, 1990; Wang, Zhang, Rasmussen, Lin, Dunning, Kang, et al. (2009). Jin (1989) recognized that Tai Chi training could increase noradrenalin excretion in urine and decrease salivary cortisol levels. These are stress-associated elements, implying that the practice of Tai Chi can help reduce tension, depression, or other mood disturbances. To prove this hypothesis, Lee (1993) used the State-Trait Anxiety Inventory to assess participants' emotional states before and after a Tai Chi training program. In his study,



subjects were professionals in a psychiatric service clinic who were often challenged by a highly stressful working environment. The result of this study indicated that the level of anxiety in the experimental group not only was reduced in their posttest but also appeared significantly lower than that of the control group.

Tai Chi is often labeled a “thinking man’s exercise” that emphasizes harmony of body and mind. While performing a physical movement, one is asked to concentrate the mind on the body’s vital energy, also known as “Qi,” and to hold it in the Dan-Tian (an area at lower stomach). Qi can be cultivated in Dan-Tian and guided by the mind to flow throughout various channels that then distribute it all over the body. Moreover, with a high degree of mental concentration on the activities of Qi, one may eventually become mind-free from all other disturbing factors and achieve a form of tranquility-like relaxation (Lee & King 1998). Qu (1990) reported that such a highly concentrated mind may sharpen the functions of the central nervous system, which, in turn, will stimulate the cerebral cortex, causing excitation in certain regions of the brain and protective inhibition in others. This activation may enable the cerebrum to rest and relieve the cerebral cortex of pathological excitation caused by ailments.

#### *4. Self-defense skills developed and self-image boosted*

Another distinctive property of Tai Chi that differentiates it from other relaxation exercises (e.g. Yoga) is its techniques of self-defense. Tai Chi movements consist of martial arts techniques. It was originally created for use in battle and to develop skills emphasized on defensive boxing. The skills learned from Tai Chi typically reflect the principle of Yin (void) -Yang (solid) philosophy: “Avoid main force and strike weak point.” Unlike western styles of boxing, which often emphasize muscular strength, hand speed, and footwork mobility, Tai Chi encourages “re-action” rather than “action.” It cultivates one’s competence by developing techniques in rotating the body, shifting bodyweight, and twisting arms and wrists to response to an intruder. When facing combat, a Tai Chi practitioner will use these techniques to interpret incoming force, neutralize its

power, and manipulate the attacker's strength by redirecting it to miss the target. Consequently, an attacker will often be seen either to fall to the ground or lose balance due to missing the target.

Gaining skills in self-defense, improving physical conditions, and enhancing psychological well-being were found to benefit those who practice Tai Chi by increasing their confidence and self-efficacy. Self-efficacy refers to people's beliefs about their ability to produce designated levels of performance that exercises' influence over events. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave (Bandura, 1994) and therefore plays an important role in one's health life. Hartman, Manos, and Winter (2000) noted that Tai Chi training programs helped to reduce tension and nervousness and to improve self-efficacy perception among participants. Li and his colleagues (2001) further demonstrated that Tai Chi training helped to boost an individual's efficacy in their six-month training program and found that changes in self-efficacy are likely to improve one's exercise adherence. Given the desirable characteristics of Tai Chi in skill development, then, there is a corresponding expectation of efficacy enhancement.

### **Principles of Tai Chi training**

At last, we must point out (as we have discussed earlier) that all of the health-related outcomes generated from practicing Tai Chi are embedded in the exercise itself. They are part of its creation, philosophy, and practice and are the result of the combination of mind-body harmony, rhythmic breathing coordinated with physical movements, slow body motion cultivating internal vital energy flow, and effortless movements channeling out tension or agitation. There are usually three levels of accomplishments in learning Tai Chi.

First Level: learn basic movements and skills of Tai Chi. Try to memorize the sequence of all movements and learn various postures, including flexibility training, breathing techniques, weight shifting, body rotating, etc. The main focus in this stage is skill-development.

Second Level: Try to achieve a physiological symmetry. Through long-term practice and training, individuals may improve their physical condition and enhance overall well-being, achieving balance improvement, mind-body harmony, coordination between breathing and physical movements, etc. The main accomplishment in this stage is to maintain and increase the fitness level and to develop techniques of rotating, shifting, twisting, etc.

Third Level: practitioners need to learn how to cultivate internal energy – Qi, and develop consciousness of self-awareness to direct the vital energy source – Qi to flow throughout the body channels in a harmonious way. The ability to direct energy flow is crucial in managing health in one's life and generating greater power in the case of boxing. The focus in this level is to seek a mind free from external disturbing factors. This leads to a state of tranquility of the mind derived from gentle body motions.

### **Conclusion**

This paper illuminates that training in Tai Chi brings about numerous health benefits. Its popularity as a meditation practice producing harmony of mind and body may have begun as an exploration of alternative ways of seeing the world, but it is also due to its practitioners achieving these very real benefits. This study suggests furthermore that Tai Chi should be promoted as a healthy form of exercise, particularly for older adults and for anyone seeking ways to deal with the stresses of life.

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## Using Classroom Activities to Teach the ISLLC Standards

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*One of the more heavily endorsed set of standards for educational leaders and teachers is the Interstate School Leaders Licensure Consortium standards. The author of this article applies the spirit of each ISLLC standard to a number of interesting and likely effective classroom activities.*

### **Introduction**

Crystal Machado & Daniel Cline (2008) reported that although the need for tying theory to practice is widely recognized, there is a dearth of reported literature that describes the use of standards as a basis of program improvement. These authors further contended that faculty need to be proactive in implementing the standards rather than waiting for a problem to develop and using the standards to fix it. One way that educators can use this advice is to develop a repertoire of activities that have proven effective and enjoyable in the classroom, align these activities with the standards, and then use them to make their classes more enjoyable and effective.

Both the No Child Left Behind (NCLB) legislation and the National Council for Accreditation of Teacher Education (NCATE) endorse the Interstate School Leaders Licensure Consortium (ISLLC) standards. This makes meeting these standards serious business, but just because these standards must be met doesn't mean that learning cannot or should not be fun. In preparation for writing the new book, *Supervision: A Collaborative Approach to Instructional Improvement*, members of the National Council of Professors of Educational Administration (NCPEA) were surveyed and asked to

share their favorite classroom activities. Intending to use these activities to enrich his own classes, and later finding them fun and effective in tying theory to practice, this research went one step further and use the activities to meet the spirit of the ISLLC standards. Each activity was aligned with an ISLLC standard to show how fun-filled activities could be used to meet these standards. With the permission of the contributors of the activities, the following is a discussion of the results.

The ISLLC standards require all members of our school faculties to collaborate in building a learning community. This process begins with an examination of all faculty members' visions of learning, requiring the sharing of these visions and the forming of an overall vision of learning that reflects the entire faculty's thinking. The first standard addresses this vision-making process:

**Standard 1: An education leader promotes the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by all stakeholders.**

Among its multiple demands, this first standard requires collaboration. The absence of collaboration can be a serious roadblock to building and enriching a learning community. Steve Lapan and Patricia Hays (in press) have reported that throughout the decades, teachers have not been accustomed to engaging in collaboration. In their words, "More often than not, teachers perform their daily teaching duties in the isolation of a self-contained classroom" (p. xx). Educational administrators must have the ability to get their faculty members into a collaborative mode. Eastern Illinois University faculty member Beverly Findley combines lunch and brainstorming to encourage teachers to share their ideas. Here's how she says it works.

**It's Playtime**

- *Give staff time to “play” together. Have pitch-in lunches or other activities in the staff lounge. When staff can play together, they work together more easily. The idea of sharing ideas and brainstorming with those whose company they enjoy becomes a natural progression of the fun event.*
- *Whenever a new practice is introduced, discussions seldom go very far until one or more of the group members begin to question its feasibility. In fact, with most innovations, many teachers are quick to question the new practices. Unless overdone, this skeptical behavior is healthy; therefore, faculty members should be encouraged to share their individual perspectives. Knowing that if left unattended, all of the differences in perspectives and opinions can become barriers to the development and growth of the learning community.*

University of Northern Iowa professor Victoria Robinson has a game that she uses to search out and remove the many doubts.

- *I bring homemade “magic wands” to class and give a wand to each student. I tell them this magic wand can be waved and one education reform wish will be granted. Excluding unlimited funding as their wish, students are asked to write on the top of a sheet of paper the education reform practice they would seek with their magic wand. The selected reform practice must result in improved student learning.*
- *Students exchange papers, read the magic wand reform, and then identify one reason why this reform would benefit students. Students exchange papers again and read what has been written and then they identify one barrier other than funding that prevents the implementation of the suggested reform. On the next exchange of papers, students are asked to suggest how this barrier could be overcome.*



- *Students then find their original paper, read the other students' comments and then share with the large group their reform and the comments from the paper exchanges. This activity engages all students and also results in an excellent discussion about school reform.*

Whatever efforts are made to improve schools, the leaders must be able to tie these activities to student learning. For maximum learning to occur, the faculty must reach a consensus on what learning conditions are best for the particular students and the community. This means that the most important leadership role is the improvement of the school's curriculum and instruction. Leaders must ensure that all teachers and counselors have continuous opportunities for professional growth. The second ISLLC standard specifies the leader's responsibility for providing a culture that promotes and sustains continuous improvement of both the school's culture and its professional development program:

**Standard 2: An education leader promotes the success of every student by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.**

A sometimes overlooked and, to say the least, underappreciated part of building a learning community is the practice of having teachers visit each other's classes. Such visitations have multiple purposes. Obviously, the visitor can give the teacher some objective feedback that might improve future lessons. But peer coaching offers more. Auburn University's Dr. Cindy Reed mentions an equally important advantage of carefully planned peer coaching: applying models to the "real" world.

- *The mental models we use in our day-to-day interactions with others can either limit or enhance our ability to address key issues. I like to use this activity within the first few weeks of*

*my supervision course to develop our class community and gain insights into the types of experiences my students have had with supervision conferences. I find the activity especially helpful in terms of helping students develop a deeper understanding of how others view supervision conferences so they can consider these multiple viewpoints when conducting their own conferences as supervisors.*

- *I begin the class by reminding students that the mental models or images we have about experiences are often brought to our day-to-day interactions with others. These mental models or images are like metaphors; they are visual and emotional representations of a situation. For example, a metaphor for peer coaching might be yin and yang....opposites joined together to create a whole. I ask students to think about and then create a visual representation of a metaphor they might use to describe to a building-level supervisor some aspect of the supervision conference, based on their own prior experiences. Depending on class size, we either break into discussion groups of 8-10 or share the metaphors and brief explanations as a whole group. We use these metaphors as a vehicle to discuss the purposes for supervision and how the supervisory process is viewed by others. We identify issues for my future supervisors to remember when they are conducting supervisory conferences with staff.*

So, instead of trying to lead her students to accept her views or the sometimes very narrow view of a textbook author, Dr. Reed's activity encourages—actually forces—diverse thinking. While this activity helps teachers build their peer coaching skills, it also enriches the culture of the developing learning community, a community that says it's okay to have varying views and opinions. One collective part of a

learning community's mission might be to encourage diverse thinking in all school matters.

But having individuals with their own unique ideas, by itself, falls way short of having a learning community. Somehow, the members of a learning community must gather their many individual perspectives and mold them into broad themes that all members are willing to buy into. Each successful learning community has its own ways of achieving this cohesion. Saginaw Valley State University professor Helene Lusa prepares her teachers to use instructional walks to achieve this purpose.

### **Instructional Walks**

- *Supervisors often do walkthroughs or instructional walks. Following observations, we often ask the teacher to reflect on the lesson; the supervisor's reflection is also critical. It allows observers to make connections between practices, behaviors, attitudes and overall instruction issues across classrooms and throughout the building. Reflective practice suggests that supervisors think about their own thinking as it relates to their observations and look for trends, patterns, and connections between and among teacher practices. This gives a ready understanding of where the building is in terms of improving instruction and/or implementing new initiatives.*
- *Select a focus for the walk-through. Take notes on your observations, and then share those thoughts with your teachers. Don't forget to look for positive trends in instruction, use of best practices, and other indicators of growth based on the school's improvement plans. Positive notes or encouraging comments in a faculty meeting, based on these reflections, can do much to promote teacher motivation for instructional improvements.*

Dr. Bill Phillips, dean of the college of education at Eastern Kentucky University has the responsibility of serving as the superintendent of one of the nation's

largest nursery-through twelfth-grade laboratory schools. He joins the school's administrators in using a similar type of walkthrough called an e-walk.

*Administrators at our Model Laboratory School are conducting monthly supervision of instruction by recording classroom activities on a hand-held electronic device. We call it E-Walks to describe these electronic walks through every classroom every month. Administrators are able to record the number of students off task, any evidence of a clear learning objective, bell-to-bell instruction, evidence-based teaching strategies, higher-order critical thinking, student generated on-task discussion, teacher lecturing, worksheets, or non-instructional activities. These data are then organized in a simple chart and presented to grade level teams of teachers for their comments, discussion, and action. One chart might list the number of classes working from bell-to-bell. Another chart might indicate the percent of lessons that had clear learning objectives. With these charts, teachers immediately visualize and grasp a grade-level problem that needs to be addressed. The administrator does not need to tell the teachers how to address the problem. Teachers are in control of the solutions. Each month repeats the cycle. The school is becoming a learning community by using this system of E-Walks to improve instruction.*

Consistently ranked among the best schools in the state, this learning community works because its administrators trust its teachers to make the most important decisions about the operation of the school. The purpose of the e-walks is not to gather information so that the administrators can tell the teachers what to do; rather, the administrators oversee the e-walks, collect the data, and then trust the teachers to solve any existing problems and seize any additional opportunities for improving the school. Such practice empowers teachers to take possession of their own profession.

**Standard 3: An education leader promotes the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment.**

With the existing national economy, schools are being challenged to create their own devices for supporting their programs. The “do more with less” expectation, with which most educators are only too familiar, has grown old. But, it is unlikely to disappear in the near future. Ironically, the nation that has always had a surplus of politicians who give lip service to support their schools has never backed the promises with adequate funding. This is not an exaggeration, and it is not a secret. Eric Gleibermann (2007), a former California teacher, says that “Federal, state, and local funding combined provide urban public schools with nothing close to the level of resources they need to educate all children well” (p. 459). This is true, and Americans know it. The 40<sup>th</sup> PDK/Gallup Poll of the Public’s Attitudes Toward The Public Schools (Bushaw & Gallup, 2008) found that for the sixth year in a row “Lack of funding for schools tops the list of the biggest problems facing schools.”

This means that school leaders are being forced to be creative. This third standard holds school leaders accountable for taking whatever funds are available and managing them so that they support a safe, efficient, and effective learning environment. What is a leader to do? One approach is to look for, or create, school improvements that are cost free. University of Dayton professor Tom Oldenski shares an activity that he uses to do what he calls Free Change.

*Change seems to be one of those words that many teachers are not enthused about. In order to help teachers appreciate the experience and the need for change, I have teachers take the time to write two journal entries: “My Ideal Day at School (I suggest to them that this must include student and administrators being there,) and “My Not So Ideal Day at School.” The teachers then reflect on what they wrote, identify themes or patterns, and*

*comment on what needs to be done to change the not so ideal days to become more like the ideal days. Then they discuss how this can happen and what steps are needed for this change to occur. Usually, it is discovered that these can happen without any financial cost and by one's commitment to make them happen. This activity can either be done with a small group of teachers or with the supervisor interacting with a teacher.*

### **Grants and Gifts**

A grant-writing model that has proven successful for the author in the funding of more than 30 grant proposals is called The Triangular Model for Grant Writing (Henson, 2004; Henson, 2010). This model puts the funding source at the top of the triangle, yourself at a base angle, and your institution and community at the other base angle. Putting the source at top reminds the investigator that funds are available to serve the desires of the funding source, not the grant-writer's desires. After finding a prospective funding agency that funds the type and size grant you are seeking, you then begin examining your own strengths and limitations and those of your institution and community. Skilled grant writers can turn their limitations into strengths. For further information on grant writing, see the author's books: *Grant Writing in Higher Education: A Step-by-Step Guide*. The book offers examples of several grants written to improve local schools.

### **Rallying Support**

Since the dawn of our nation, religious institutions of all denominations have been involved in helping the schools. Florida A&M University professor Patricia Green-Powell gives assurance that this is still happening.

- *Many national religious organizations are committed to being a part of improving the educational opportunities available to those children in the local communities that are served by their houses of worship. Together, national organizations, their local affiliates, schools,*

*communities, and individuals can make a positive difference in family involvement in education, thereby improving the schools and helping children achieve high standards.*

- *New Mt. Zion A.M.E. Church located in Tallahassee, Florida, in its efforts to provide school supplies for the children in its community, sponsors an annual “back pack” school program where children are given back packs filled with the necessary supplies that they need for the new school year. Does such support really make any academic difference? Apparently so. Griffin Middle School, which is located only .2 miles from this church performed better than the counterpart disadvantaged schools in the region.*

**Standard 4: An education leader promotes the success of every student by collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources.**

When educators begin working with the local community, they can expect to revisit the paradoxical conditions that led Charles Dickens to begin his story, *A Tale of Two Cities* by declaring his era to be the best of times and the worst of times. For, indeed, working with the community at large brings the best of times and the worst of times. The best of times requires no warning, but this is not so for the many road bumps that are sure to come. Every community outside the school, like the school’s own faculty, has its naysayers, teachers who are quick to tell you why partnerships between the school and community won’t work. So, be prepared. The following experiences can help you prepare for coming conflicts and logjams. Lamar University professor Sandy Harris uses an activity that she calls Finding Common Ground.

- *I use this activity when working with teacher leaders to demonstrate that no matter what the conflict situation, it is necessary and possible to*

find common ground. This is what we do. Participants partner with the person to their right. Everyone must choose any number, but no one can have the same number; so, as participants call out their numbers, I write them on chart paper. Then I inform participants that I will give them specific instructions concerning what they are to do with their numbers. I also point out that each partner is responsible for each other. Therefore, it will be each partner's responsibility to make certain that his/her partner follows the instructions correctly. Then I give the following instructions: 1. Take your number and **double** it: (ex.,  $2+2=4$ ) Each individual tells what their "problem" will be: (ex.:  $2+2$ ,  $3+3$  and so on; .2. Add the number **8** to your answer: (ex.,  $4 + 8 = 12$ ); 3. Divide your new answer by **2**: (ex.:  $12/2 = 6$ ); 3. Take your new answer and subtract the number you started with: (ex.:  $6 - 2 = 4$ ) After each step, I remind partners to check each other's work. After step 4, I ask each participant to share the final solution. (Everyone should have 4!). Explain that although everyone started with different "problems," by working together, each came up with a common answer. This demonstrates that while common ground exists, sometimes we must actively seek it out.

- Finally, I write Barriers for Finding Common Ground on one side of a white board and Advantages of Finding Common Ground on the other side. Collaboratively, we take turns writing the barriers and advantages. Identifying the barriers leads to an in-depth conversation about our differences that lead to conflict and how these conflict perceptions are often inaccurate. The conversation concludes with a discussion on the many advantages of finding common ground.

But prepare as you may, you can never avoid all the roadblocks that will occur as you work with members of the local community. Sooner or later, you will face



obstacles. To help his future leaders remove the obstacles, Salisbury University professor Dr. Douglas DeWitt uses an activity called Breaking Logjams.

*A number of years ago, as a high school principal I was charged with planning and implementing a major state mandated curriculum change. There was considerable opposition and resistance by many members of the faculty. We ended up in a site curriculum council going around and around arguing whether or not the state should be mandating these changes. We were going nowhere, and getting there fast. To break the logjam, I posed the question regarding whether or not the essence of the changes would be good for our students. After much discussion, we came to a consensus that yes, in fact, most of these changes would be beneficial for our students. At that point, it was a whole new ball game. We began problem solving and discussing 'how' we would make the changes and not 'if' we would make the changes. It all started with finding the common ground and building a consensus that was agreeable to everyone. Once we found the common ground, the planning became the focus and the job got done.*

Certainly one of the most important lessons a leader can ever learn is to always be fair and always behave ethically at all times. The old cliché remains true: “What goes around comes around.” Now look at the fifth standard.

**Standard 5: An education leader promotes the success of every student by acting with integrity, fairness, and in an ethical manner.**

This standard demands fair and ethical behavior, but even if there were no written standards, the behavior called for is indispensable to leader success. Some educators may take issue with this standard because they consider themselves already fair and ethical. But just being fair and ethical isn't enough. A new leader, like a new neighbor, has to earn trust. Educators must

behave in ways that convince their colleagues that they are trustworthy, and this requires a plan. It begins with getting to know your faculty. People naturally trust you more if they know you, and especially if they know that you have taken the time to know them, and you care enough about them to keep abreast of their struggles and victories.

### **Know Your Faculty**

Dr. Rodney Davis, who teaches at Troy University – Dothan Campus, has an activity to guide and help you as you begin to know your faculty and help your faculty get to know and trust you.

*Creating learning communities within the school is rapidly becoming a national trend. The research certainly indicates that when teachers increase their understanding of content and delivery methodologies, student achievement also increases. Preparation is the key ingredient in the successful development of a learning community. The principal should know the staff in the following ways:*

1. *Know their strengths and weaknesses*
2. *Know what they need to become better teachers (this may be new strategies, motivation, or encouragement.)*
3. *Know their readiness for growth (one cannot lead someone to a place that he or she is not willing nor ready to go.)*
4. *Plan in advance. Spending a sufficient amount of time in planning and preparation on the front end will increase the likelihood that the learning community will be something that will thrive.*

In recent years, the Asians have outstripped American students on the TIMSS international video mathematics and science exams (Gonzales, 2008). Naturally, we have wanted to emulate their practices so that our students' scores will also soar to the top. Ironically, in our efforts to score well on these tests, our NCLB high-stakes tests have robbed teachers from their ability to know their students and stay aware of their students' fears and dreams. The irony continues; while

we have become impersonal in our struggle to have our schools become more like the Asians, the Asians, after whom we have so much wanted to model our schools, have done just the opposite; they have created ways to personalize their schools. Sooner or later, personalizing always comes down to one-on-one relationships. In other words, understanding and knowing a student body or faculty as a group cannot be achieved without knowing each individual member. Professor Linda Searby at the University of Alabama in Birmingham shares an activity that she uses to develop these one-on-one relationships which she calls "Using Spreadsheets to Personalize."

*We know that the most effective school principals are those who are visible and in touch with teachers and staff. When I was an elementary principal, I never left my visibility and caring "to chance." Because I valued regularly communicating and encouraging the teachers and staff, I made myself a spreadsheet with each of their names along the left side and a row of cells beside each name. I would pick 5 staff members per week to focus on, making sure I made a personal, meaningful visit with them. I also wrote an encouraging note to place in each of their mailboxes or on their desks. I would note the date that I did that next to the person's name on the spreadsheet. On those occasions where notes to staff were needed, I also kept record of those. I carried this spreadsheet in my planner, and consulted it monthly to make sure I was not neglecting anyone. My goal was for everybody to receive a personal note of encouragement from me at least three times a year. Many staff members told me how much the notes meant to them.*

**Standard 6: An education leader promotes the success of every student by understanding, responding to, and influencing the political, social, economic, legal, and cultural context.**

The No Child Left Behind Law requires increasing the level of parents' involvement in their children's education. This last ISLLC standard No. 6 requires

leaders to understand the political, social, economic, legal, and cultural context and use this knowledge to promote student success. Certainly, no part of the student's environment plays a more important role than the degree and manner of parent involvement in the child's education. Dr. Jack Blendinger at Mississippi State University shares his approach "Project-Centered Parent Involvement" to help increase the level of parent involvement.

*Common sense, backed by research, indicates that when parents are involved their children's education, students achieve more and behave better, regardless of the family's socioeconomic status, ethnic-racial background, or educational level. Agreeing with the importance of parent involvement is easy, but making it happen is another matter.*

*For over a quarter of a century, I have helped educators develop successful school-home partnerships through project-centered action. Before taking action, the principal and teachers assess the quality of the school's parent involvement in each of three dimensions: (1) communication with parents, (2) parents helping in their children's learning at home, and (3) parent participation at school. After completing the assessment, they set goals and develop school-wide projects (e.g., encouraging students to read at home through read-aloud programs intended to bridge the classroom with the home) designed for the purpose of achieving the goals. Once implemented, project activity is regularly evaluated and results discussed at faculty meetings.*

Dr. Jack Blendinger is co-author of *Reaching out to Families*, published by Kendall/Hunt. He noted that the environments mentioned in this Standard No. 6 are not limited to the environments outside the school but must also include those inside the school building. Perhaps there is no better way to learn about the social and cultural environment of a school than to conduct action research projects about the school.

### **Using Authentic Data**

Instead of using contrived data in research classes, St. Bonaventure University professor Greg Gibbs suggests that we should conduct on-campus action research projects that collect data on the local schools.

*In our educational leadership classes, project work and case studies are a big part of the curriculum. Rather than inventing data to create a case study, collaborate with local districts and work on real data and real problems. Students in the educational leadership classes do not always have availability to real data for their projects. Help them out by contacting local districts and helping them use their data to develop school improvement plans, budget scenarios, instructional improvement, etc. We have seen this process serve the local districts as well as the students' needs, with much greater focus on reality.*

*Through this process, our classes often help districts find answers to nagging problems. Oftentimes, solutions can be elusive to those close to the problem and our students have a level of objectivity that can be a real plus. They can see the impact their work has on local education while developing their own leadership skills.*

## **Conclusion**

You have seen how each of these activities can help you meet the ISLLC standards. Hopefully, you will welcome the use these activities because, while helping meet the ISLLC standards, they can also add vitality and enrichment to your classes.

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# Multiple Perspectives on the Importance of Dispositions in Teacher Preparation

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*In 2000 the National Council for Accreditation of Teacher Education (NCATE ) added teacher disposition as one of the standards teachers must possess. The different attitudes and philosophies regarding educator dispositions, however, have traditionally been diverse and at odds with one another. The purpose of the study was to establish which teacher dispositions are necessary in the development of preservice educators. By determining such dispositional qualities, a basis might be provided for improving the auditing of preservice teachers' dispositions upon admittance into a teacher education program.*

## **Introduction**

Throughout history teacher education has fallen under criticism. In response, educational reform movements have driven teacher education programs to review and refine the process by which they prepared future educators. While content knowledge has been the main focus of these reforms, the need for educators with the passion to teach with empathy and concern for students may be equally as important. In this regard, the National Council for Accreditation of Teacher Education (NCATE) has identified three areas that all educators must possess. These areas are listed as knowledge, performances, and dispositions. The most difficult of these to measure or evaluate were an educators' dispositions. Nevertheless, assessing the dispositions of preservice teachers has become a vital component in teacher education programs (Borko, Liston and Whitcomb, 2007; Burant, Chubbuck, and Whipp, 2007).

Osguthorpe (2008) in particular, has argued for training teachers “of good disposition and moral character,” but warned,

*This presumption of a relationship between the moral dispositions of teachers and the moral development of students is one rationale for attending to dispositions in teacher preparation programs, but does little to quell the debate swirling around the definition of dispositions, their potential for development in teacher preparation and the best methods of assessing them in teacher candidates.*  
(p. 288)

Villegas (2007) defined dispositions as “tendencies for individuals to act in a particular manner under particular circumstances, based on their beliefs.” The author goes on to assert, “Because teacher candidates’ beliefs are powerful filters that not only make new phenomena understandable but also organize ideas, teacher education cannot ignore their students’ entering and developing beliefs” (373).

The National Council for Accreditation of Teacher Education (NCATE, 2002) has especially promoted the concept of dispositions as an indispensable component for highly qualified teachers and their success within the classroom. Consequently, universities with teacher education programs have become the focal point of the assessment and promotion of dispositions expected in the profession of teaching, in addition to the production of educators who were skilled in pedagogy and content areas. The process for the evaluation of dispositions, however, is complex, given the fact that, by nature, dispositions have been determined to be subjective and are frequently dictated by individual philosophies. Educators themselves have hotly debated the topic. As Borko, Liston, and Whitcomb (2007) pointed out, many issues related to the role of dispositions in education “remain unresolved” (p. 359). At the national level, there have been recent attacks by decision makers and the media on the concept of measuring dispositions as well. A lack of semantic study has certainly hindered the ways in which schools of education have been able to measure dispositions effectively. More specifically, in



order to make rational changes in educational programs, there has been an increasing need to examine current dispositions of preservice educators and current practitioners, then to measure the congruity of the observed dispositions with those identified by NCATE. The purpose of the study was to establish which teacher dispositions have been necessary in the development of preservice educators. By determining these dispositional qualities, a basis would be provided for improving the auditing of preservice teachers' dispositions upon admittance into a teacher education program. A deeper goal of this study was to further the development of the preservice educators' professional attitudes and behaviors.

### **Method**

Surveys were administered to a sample of preservice educators, licensed inservice P-12 educators, P-12 administrators and higher education teacher educators in an attempt to gather information as to their beliefs and practices concerning teacher dispositions. The survey instrument was designed to allow the participants the opportunity to rate a series of statements on a Likert scale concerning their beliefs and knowledge bases in the study of educator dispositions. A total of 1,000 electronic surveys were sent to prospective respondents. Upon completion of the data collection, there were a total of 401 respondents.

Survey data were analyzed by total sample. The categories (preservice teacher, inservice teacher, administer, higher education) served as the groups used to analyze the data by an Analysis of Variance (ANOVA). Participant responses were gathered in an electronic survey (EListen), translated to a spreadsheet (Excel 2003), and exported to SPSS (Version 14.0). For each group, item response scores were computed by assigning the following values: 1= rarely / Minimally Important / Not Answered; 2= Sometimes / Somewhat Important, 3= Often / Important, and 4= usually / highly Important. A one-way ANOVA was then used to analyze group data at the  $p=.05$  level of significance.

This study was predicated on the following null hypothesis: There was no difference in beliefs,

practices, qualities, and characteristics among preservice teachers, inservice teachers, administrators and teacher education faculty.

A one-way analysis of variance (ANOVA) was conducted on survey responses from the four groups using SPSS, Version 14.0. Table 1 displays the test results. An  $F$  coefficient of 598.639 ( $df = 3, 76$ ) was significant at the  $p = .05$  level, the critical value of  $F$  being 2.720. Because the calculated value of  $F = 598.639$  was larger than the critical value of  $F = 2.720$ , it was concluded that there was a significant difference among the survey responses from the pre-service teacher, licensed teacher, P-12 administrator, and teacher education faculty groups. Therefore, the null hypothesis which stated that there was no difference in beliefs, practices qualities, and characteristics among preservice teachers, inservice teachers, administrators, and teacher education faculty was rejected. Teachers, inservice teachers, administrators, and teacher education faculty were rejected.

A series of post hoc tests were performed using SPSS Version 14.0 to determine which data sets contributed to the calculated difference identified by the analysis of variance. Table 2 displays the test results for the Tukey and Scheffé calculations. The Tukey test returned a  $p = .0001$  level of significance between Group 1 preservice teachers and Group 2 licensed teachers, a  $p = .001$  level of significance between Group 1 preservice teachers and Group 3 P-12 administrators, and a  $p = .953$  level of significance between Group 1 preservice teachers and Group 4 teacher education faculty. In addition, a  $p = .0001$  level of significance was returned between Group 2 inservice teachers and Group 3 P-12 administrators, a  $p = .0001$  level of significance was returned between Group 2 inservice teachers and Group 4 teacher education faculty, and a  $p = .0001$  level of significance was returned between Group 3 P-12 administrators and Group 4 teacher education faculty. In the mean survey, the 1.000 represents preservice teachers. The 2.000

Further, the Scheffé post hoc test, which is less conservative than the Tukey test, returned a  $p = .0001$  level of significance between Group 1 preservice teachers and Group 2 licensed teachers, a  $p = .001$  level

of significance between Group 1 preservice teachers and Group 3 P-12 administrators, and a  $p = .965$  level of significance between Group 1 preservice teachers and Group 4 teacher education faculty. In addition, a  $p = .0001$  level of significance was returned between Group 2 inservice teachers and Group 3 P-12 administrators, a  $p = .0001$  level of significance was returned between Group 2 inservice teachers and Group 4 teacher education faculty, and a  $p = .0001$  level of significance was returned between Group 3 P-12 administrators and Group 4 teacher education faculty. In essence, responses of the inservice teachers were significantly different from all other groups, and responses of the P-12 administrators were significantly different from all other groups. There was no significant difference between the preservice teacher and teacher education faculty responses.

A one-way analysis of variance (ANOVA) was conducted on survey responses mean scores from the four groups using SPSS, Version 14.0. Table 4 displays the test results. An  $F$  coefficient of .134 ( $df = 3.76$ ) was not significant at the  $p = .05$  level, the critical value of  $F$  being 2,720. Because the calculated value of  $F = .123$  was smaller than the critical value of  $F = 2.720$ , it was concluded that there was no significant difference among the survey responses mean scores from the preservice teacher, licensed teacher, P-12 administrator, and teacher education faculty groups. Therefore, the null hypothesis which stated that there was no difference in beliefs, practiced, qualities, and characteristics among preservice teachers, inservice teachers, administrators, and teacher education faculty was retained.

### Findings and Implications

Overall, it was found by analysis there was not a significant difference of beliefs on all probes; however, there was a significant difference, at the .05 level, on seven of the probes. In reviewing the study's findings, the following conclusions were made. (1) There was a statistically significant difference in beliefs among preservice educators, licensed inservice P-12 educators, P-12 administrators, and teacher education faculty. (2) The responses of the inservice teachers were

significantly different from all other groups. (3) The responses of the P-12 administrators were significantly different from all other groups. (4) There was no significant difference between the preservice teacher and teacher education faculty responses. The study suggests that post-secondary curriculum should be revised to include additional study of terms and theorists in the field of educator dispositions to add requisite knowledge to future educators. Since educators' beliefs impact their decision making, it is vital that educators appreciate why they hold certain beliefs and that they are able to substantiate those beliefs by citing scholarly sources for them. Post-secondary education programs also may need to extend training for preservice education students and teacher education faculty in the area of developing proper dispositions to teach. Because of the movement toward identifying and assessing educator dispositions, there is a need for professional development for all educators to increase their knowledge in this area. It is vital for educators to be aware of trends that are prevalent at any given time. Currency of knowledge in the field is mandatory for providing the best possible preparation for educators.

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## The Need for Need: What Professional Baseball Can Teach English Language Classrooms

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*This article looks at the language learning process of professional baseball players and how they are able to acquire English proficiency despite a lack of consistent instruction and a transient lifestyle. Through this study, instances of players' needs to learn English are highlighted to illustrate the use of need to facilitate learning English.*

Every year in The United States, as the temperatures rise and the snow begins to thaw, a migration of sorts descends upon the states of Florida and Arizona. Thirty professional baseball teams send their players to one of these two states to train for the upcoming baseball season. It is in these locations that teams will bring together their superstars and their emerging prospects to receive instruction that covers such various topics as handling the media, learning the laws of a new country and learning English. This is what is generally known as spring training.

In 2008, during spring training in Florida, three of these professional baseball teams agreed to allow their Latin-born players to participate in focus group interviews that explored what English language instruction they were being offered and their perceptions of their own progress with the acquisition of the English language. All three focus groups were conducted in Spanish to allow them to speak freely about their experiences and opinions. These focus group interviews provided rich insight into a fundamental principle in language acquisition. They provided a context to better

view the fundamental role of need in language acquisition.

### **Review of Literature**

Need is an essential element in all paradigms of language instruction. Krashen and Terrell (1983) argued for a silent period to allow students time to observe input before introducing the need to produce language. This provided insight into the preparatory period to ready students to use language when it is needed. Sociocultural theorists such as Bonnie Norton (2000) make an argument for including meaningful communication between English learners and English speakers that provide an environment where the language produced by the learner is meaningful and needed. Participatory theorist Paulo Freire (1970) argued for the inclusion of problem posing into any quality educational program. The argument for problem posing is that it brings meaning to the learning process and allows the student to learn in meaningful ways because the content is relevant to the learner's reality and is needed to solve the problems. There has been significant research done in the areas of learning motivation, which promote meaningful learning (Kohn, 1993; Carreira, 2011). There are also many proponents of need-based instruction (Beckert, Wilkinson, & Sainsbury, 2003) that promote the importance of teaching subject content matter at the moment that the need is there for the subject matter to be used. However, often the breadth of the analysis overlooks the practical application of the fundamental principle of need in the language classroom. This study invites us to revisit the important aspect of need in the classroom and emphasizes that without the presence of need, classes may not achieve desired results.

### **Method**

During the spring of 2008, focus groups were conducted with Latin-born professional baseball players from three different Major League Baseball organizations. Players ranged in age from their late teens to their early twenties. All focus groups were conducted in Spanish and translated into English after coding and analysis. In addition to focus groups,

observational notes were taken, interviews were conducted with program administrators and follow up emails were sent to ensure the quality of the interpretation of the meaning. Questions asked to participants explored the structures of the programs that were offered them by their respective organizations and their perceptions of their own learning of the English language.

### **Background information**

Professional sports in the United States are becoming increasingly international. A brief look at the major sports leagues in the United States illustrates the increasing degree to which the leagues are becoming global. In recent years the National Basketball League (NBA) has spent more money on marketing outside the United States than within it. Meanwhile, the National Football League (NFL), which has begun marketing itself in Mexico, played its first game there during the 2005-2006 season, which has inspired Latino players who do not speak Spanish to learn it (Associated Press, 2004). Not to be outdone by basketball and football, Major League Baseball (MLB) created the World Baseball Classic, which debuted in 2006, to showcase how far reaching internationally the sport has become.

With the increased global markets, the number of international athletes coming to the United States to play professional sports has increased greatly in recent years. Percentages of foreign-born baseball players playing in the major leagues has grown to the extent that they accounted for 27.4 % of all those on opening day MLB rosters in 2005 (Miller, 2006).

In the 1980's, teams began to offer English instruction to their players during spring training. As time has passed, most teams have arranged English instruction for their players throughout the season. These programs vary from full high school diploma programs (Baxter, 2006) to language schools and tutors hired by organizations. Many organizations offer structured English as a Second Language (ESL) classes to their athletes at the lowest levels of the organization. These classes are taught in their Venezuelan and Dominican leagues and in the rookie leagues. As a

player advances through the organization, continuity of instruction is often lost (B. Smith, personal communication, February 24, 2006).

Although many foreign-born players reach the major league level and earn millions of dollars, most never make it to the profession's top level. Gonzalez Echevarria stated, "If you take a hundred baseball players in those academies (baseball programs in the Dominican Republic . . . only one of them will play even an inning in the major leagues" (as cited in Marcano Guevara & Fidler, 2002, p.201). Most players from countries such as Dominican Republic and Venezuela sign contracts when they are seventeen years old and never finish high school. This creates a need for the acquisition of marketable skills for their post-baseball lives (Marcano Guevara and Fidler).

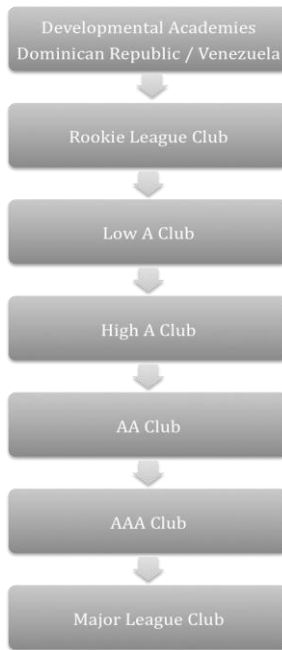
When looking at the Latino population boom in baseball, it is necessary to understand the structure of professional baseball organizations. A modern day organization will have one major league club. Beyond that major league club, they have an extensive minor league program that develops players through multiple levels. In addition to the minor league programs, teams operate developmental academies in countries like Dominican Republic and Venezuela. It is in these developmental academies that players first become affiliated with a team. If a player shows great talent and skill, they advance to the minor league systems in the United States and Canada. These developmental academies openly recruit local players to sign contracts with the team in hopes that they will be the next great player for the organization. This creates a large talent pool of Latino youth from which the professional baseball organization can pull the elite players (Marcano Guevara & Fidler, 2002). See Figure 1.

Many professional baseball teams provide formal English language classes at the Dominican/ Venezuelan academies and the rookie league levels. Players then advance to a rookie league. This will be their first exposure to playing baseball in the United States. Most programs offer English instruction at this level. After advancing to the Low A club, players have less structured classes and are expected to be able to speak



and understand enough English to be able to get to the team bus and travel on their own. By the time that a player reaches the AA club, they are expected to handle their own press conferences without an interpreter said one team executive (B. Smith, personal communication, February 24, 2006).

The English programs offered by organizations vary as there are no standard regulations as to how many hours of instructional time or methods of instruction set forth for all organizations. The players that participated in this study came from three teams that varied greatly in their English education offerings. All teams offered classes to players while they participated in the baseball academies in Dominican Republic and Venezuela. All teams provided English instruction during Spring Training in the United States; however, one team stopped offering instruction at this point. Another continued instruction for their players through the A level and the other provided classes at any level if desired by the players, but did not mandate that they participate in the courses after the rookie level. While formal English offerings may vary from organization to organization, a constant across all teams is the factor of transiency and inconsistency of formal instruction. Although efforts are made to provide formal English instruction, this situation would not appear to provide the optimal environment to learn English.



*Figure 1.* Professional baseball team organizational chart

## Findings

As players from the three teams participated in the focus group interviews, a powerful theme emerged. It was the theme of need. These players were minor league baseball players that were still trying to make it to the major leagues. They were at various stages in their careers, from having just arrived in the United States for the first time to having lived in the United States for many years. They mentioned that they had classes offered to them before they arrived in the United States; in fact, they had received years of training, but their stories of English language use upon arriving in the country were comprised of failure and frustration. One player shared his story of navigating the airport when arriving with a group of players in the United States for the first time. "We were three Dominicans. We were checking in luggage and there was a sign saying that we

were allowed two suitcases below and one carry on and that you must pay for extra luggage. The worker says that we need to pay for extra weight for a bag, but I'm understanding that there is a problem with bringing three bags. I had to find someone (not a teammate) who spoke Spanish to tell me what he was saying." Although these players had received formal classroom instruction for a couple of years in the Dominican Republic, they still couldn't navigate the airport successfully.

Another player shared his struggles with a host family after he was sent to live with them while recovering from a surgery. "I was at the house of a nurse and she said she spoke Spanish, but she couldn't say anything. They kept asking if I'd like water or about air conditioning, but I didn't understand anything they were asking. I wanted to say that I was cold, but I couldn't say I was cold." There were numerous stories of frustrations with the inability to communicate in English in basic ways upon arriving in the United States. This can be attributed to some extent to the lack of need to use English while players lived in Dominican Republic and Venezuela. All players participating in the focus groups admitted to not being sufficiently proficient upon arrival to the United States.

When the players interviewed were in Spanish speaking countries, they didn't feel the pressure to use the English that they were learning. Even though they were receiving formal classroom instruction, they hadn't established "need." A player from the third organization said it well when he stated, "I would say we become somewhat lazy. We know that in the future we will need English and when we're home, we don't study. We should be more interested because in the future it will help us." This illustrates the lack of immediate need to learn English. Without this immediate need, Players struggle with their limited English proficiency when they arrive in the United States. The players in the academies learned English for a few years but didn't come to the United States with English skills sufficient to get by; instead, they tended to improve their English as they were promoted through the system, even when they were in systems that stopped formal instruction after a certain level. While the players played in the academies,

they were taking EFL classes and were surrounded by people who spoke Spanish. It is much harder to internalize the importance of learning English when Spanish is so prevalent, and there are not immediate language obstacles in place that serve to make English language skills necessary. In essence, when the players had ample formal English instruction, they had no need for the language, and when they had need for the language, they were lacking formal instruction.

Administrators described their English program offerings and acknowledged that formal classroom opportunities were drastically decreased as players progressed through levels in the United States. All teams offered classes at their spring training complexes, which are also used for rookie leagues; however, as the players advanced from these complexes, their formal English instruction decreased drastically. However, even with the limited and sometimes absence of formal instruction, the English proficiency of these players advanced. This is due in large part to the environment of being part of a team. The team concept and the efforts of the organizations to assist their students created an environment that created a need for English.

The ESL classes offered by one organization while in the United States recruits college students from the surrounding community to come to the ESL classes and speak with the players. This provides the athletes an opportunity to practice their acquired English with English speakers of their same age group. By providing these experiences in the classroom, the players are able to practice in a safe and secure environment. Many of the players discussed their fear of speaking English outside of the team's facilities and with members of the community. This gives them a safe place where their anxiety can be reduced and the affective filter can be lower than in society. The players must take risks, but they are surrounded by a support system of their peers and teacher. The initial introduction of players into an English-speaking environment where English is necessary also requires some affective scaffolding. The preparations made by this particular team allowed students a safe place to use their English while also

providing the element of need for the language into the classroom.

Players are also given tasks to perform in English. These are done primarily outside of the classroom. The team understands the need to help the players perform their occupational duties using English. Players who do not speak English natively, are given the same tasks as the English-speaking players. That means that they receive tasks that require some production of English. The players in the third focus group were primarily pitchers and discussed tasks such as carrying the hitting charts for the other pitchers. The person responsible for carrying the hitting chart must interact with all the pitchers regardless of their first language. This is an essential task in the pitcher's preparation for upcoming games. These tasks are also essential in making those who do not speak English interact with those who do. It is viewed as a team-building task that allows both parties to take an active part in communicating with each other. In Norton and Toohey (2001) work, the essential component of valued language production is discussed. The research indicated those learning a language must be in a community of practice that provides them the opportunity to use the language and have their contributions to the community valued. These players exist in a true community of practice. They perform functions that require them to use English, which are essential to their team's success. They need to produce English and when they do; it is valued by the community.

Another way that students learned was from unplanned tasks. Those interviewed related their various stories of coming to the United States and having to travel on their own or with groups of other players that didn't speak English. They talked about their struggles to learn important information regarding their travel, health and social situations, which caused them to use their instincts and trust what little English they did understand. These unplanned tasks enabled them to build confidence in their English abilities and challenged them in new ways daily. These tasks weren't planned to be learning experiences. Instead, they just happened because the players lived in an English-speaking environment where variables changed day-to-day. For

English to be learned, it must be needed in both the planned and unplanned events of the day. The need for English outside of the formal learning environment and contexts allowed these players to improve their English and gain confidence in their English by confronting their fears and having small successes in language production.

One Latin-born coach, who had been through this process as a player, explained it well when he said, “The players need to change their attitudes from asking why they should learn English to saying, ‘I need to learn English because. . . .’” Once a player can make a connection to how English is necessary in his life, he becomes more willing to put in the individual study necessary to become proficient.

### **Pedagogical Implications**

Although need is a basic and fundamental concept for language learning, there are often questions about how to connect need for English to real world practice. Participants in this study underscored three components of need that can be interwoven into English education. These components are providing a scaffold to students that will enable them to confront demands on their English use; providing a community of practice where English use is not only necessary but also valued; and creating classrooms where there are non-planned needs for English use.

#### *Scaffolding for Need*

Players in this study had all experienced the pains of acculturation when moving from their native Spanish-speaking countries to the United States. This process of learning about a culture and adapting behaviors associated with the different culture (Berry, 1980) can be very stressful and must be accommodated when planning new challenges for students learning a new language. The example of the first team interviewed, which brought English speakers from the community into the safe environment of the classroom, exemplifies how scaffolding can be planned for and implemented to prepare students to produce needed language. The team realized that the classroom was a safe place. In

the classroom, students felt comfortable and their anxiety was lower than when they entered the community. In the community, they had to adopt cultural norms of the society. The culture of the classroom was more accepting of the individual native cultures of the players. They still were confronted with a need to produce English. The students brought to the class didn't speak Spanish, and therefore the players had to use their English to communicate, but there was the affective scaffold of bringing them to the classroom, which helped them to feel more comfortable producing their learned language.

Many travelers have experienced the initial culture shock of arriving in a new country and being overwhelmed with the new culture along with the language. The shock can cause the most advanced language learners to question their abilities and shy away from producing their learned language. Scaffolding for the introduction of need will help students to take the risks needed to produce the needed language.

### *Community of Practice*

In addition to providing a safe environment to erect the scaffold for introducing the need, it is also important to consider the community of practice. Practice is paramount to developing any skill. A member of the first focus group compared learning English to playing baseball. "It's like us who play ball. If we skip a month or two months of practice, we lose skill. It's like that with English. If there isn't practice, we will need to repeat it to learn again." Of course, with these being professional baseball players, their practice is even more needed than for those who play in recreational leagues. Their practice has the necessary element of being meaningful. They have teammates that are hoping for their success. If an individual fails, oftentimes the team will lose. They are truly united for success.

This same principle of being united for success finds place in their English acquisition as well. They carry out essential functions for the team that require them to use their English. They must carry the batting charts and talk to the other pitchers. If they don't, the valued

information that they have will not be conveyed, and they may lose. How valued is the English produced in the typical English language classroom? Are students united for class success? Are the tasks assigned meaningful? Do the tasks require authentic use of language? These are all questions that are at the heart of establishing a positive community of practice for learners. Teachers must focus on not just production of language, but meaningful and needed production of language. They must also focus on learning communities where peer success is not only needed, but valued.

### *Non-Planned Need*

The nature of moving to another country that uses a different language implies that the new language be an integral part of the immigrant's life. They are confronted with unplanned encounters with the new target language daily and therefore provided with needs to produce the new language. This was the case of the players in this study. They found that they needed to use English in ways that they hadn't imagined before coming to the United States. They didn't just need baseball vocabulary, but also needed to be able to order food, explain injuries and navigate airports. They also discussed social needs of dating and talking with teammates, who were English speakers, about non-baseball related topics. These were all unplanned needs that pushed them to use their language in ways that they hadn't been taught in class. This synthesis of language benefited them a great deal in their language acquisition process.

How often do students encounter unplanned English needs in the classroom? This underscores the argument for teaching English by only using English in the classroom. Although many students learn English in a non-English speaking country, they still can benefit from the unplanned needs that arise in planned English language environments. Because it is impossible to plan every aspect of a class, the unplanned needs naturally arise if an English environment is successfully implemented.

### **Conclusion**



Although the English language programs offered by professional baseball teams may be flawed, they also do something right. They take advantage of the social and workplace environments of their language learners and either intentionally or unintentionally use them as learning opportunities for their players. Players form close connections with their teammates, which allows them optimal communities to practice their English. Their English language production is valued by their teammates, and it serves to produce meaningful encounters between peers. How often can the same be said about English language classroom instruction? If need is established in the English language classroom, then students should also have a camaraderie akin to that shared by teammates on a baseball team. Language production in a classroom should be more valued if there is a plan in place to make it so. If these players can teach the English language teaching community anything, it is that there is a great need to have meaningful and needed production of English in the classroom

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# Teachers' Perceptions of Mixed-Ability Classrooms in the High School

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*While many studies have examined the question of what can or should be done regarding mixed-ability classrooms, few studies have looked at what teachers feel and think about the problem. This work looks at the thoughts and feelings of one group of high school and middle school teachers regarding the problems found in mixed-ability classrooms, based on a narrative driven survey.*

## **Introduction**

A major problem prevalent in the modern day classroom is that of having to deal with students possessing differing levels of mastery and cognition in any given subject. Called mixed-ability classrooms, the circumstance often creates a negative image in many teachers' minds. (Tomlinson, 2001). This problem is not new. In early American education, for example, one room school houses were common and possessed limited resources. Often a community had only one teacher for several grades who taught students with different abilities and learning styles.

Today, the problems found in mixed-ability classrooms has been accelerated by such forces as the growing number of second language students, the practice of social promotion, and the mobile nature of American society (Rury, 2005). Regarding the latter aspect, Siddiqui, Yeo and Zadnik (2002), observed that

standards adopted in one school system may not be applicable to another and that many “students come from schools that maintain very high teaching standards and develop conceptual learning, while . . . others come from schools with normal teaching standards where subject may have been taught in a passive learning environment” (p. 5-6). Regardless of the circumstances, a teacher who truly cares about their students must come up with organized methods to reach students in the greatest way possible. As Tomlinson noted, “It is no longer possible to look at a group of students in a classroom and pretend they are essentially the same” (p. v). Tomlinson (1995) believed there were four elements to teaching a mixed-ability classroom effectively.

1. Instruction is concept focused and principle driven
2. Assessment of the student is built into the curriculum
3. Flexible grouping is consistently employed
4. Students are active participants

While some educators have embraced the mixed-ability classroom setting, many others carry more varied mixed feelings and thoughts about the situation (Hallam and Ireson, 2003). This study examined the thoughts and feelings of one select group of high school and middle school teachers regarding the problems found in mixed-ability classrooms, based on a narrative driven survey.

### **Design of Study**

Teachers involved in middle and high school classrooms often provide reliable insights into the challenges found in mixed-ability classrooms. In order for a study to gain a true picture of the concept of mixed ability classrooms and their difficulties, educators who were involved in the study were allowed to give their response in both written and oral forms. An important element of the study was to provide a cloak of anonymity for teachers in which they could give both honest and often poignant reflections. The mixed ability classroom was investigated using middle and high school teachers

and did not include elementary teachers. Elementary teachers were excluded because they often attribute differing abilities in their classroom to levels of development and not diversity in ability based on extrinsic forces.

The participants in the study were selected with the idea of creating a purposeful sample. According to Byford (2008) "purposeful sampling is based on the assumption the investigator wants to discover, understand, and gain insight into a situation and therefore, must select a sample from which the most can be learned." This study contained one group of high school teachers. In light of information gathered through interviews of the principal and the Head of School, the focus of the study centered on how teachers effectively compensated for students who began the academic year below the average ability level of the other members of the class in that specific subject. The study was conducted at a private Christian school that was started in the mid 1970's. The total student population is 786 with 360 being high school students. The demographics of the school is 92% Caucasian, 6% African American and 2% other

## **Methods**

The study was conducted with twenty middle school and high school teachers in the month of October 2008. A survey, accompanied with a follow up qualitative survey was contained in the study. The selection of the teachers who participated in the study was done randomly, with their qualifications based on tenure and years of service. Teachers involved in the study taught a variety of classes that included math, science, keyboarding, English and music. One point of the study was to focus on tools and effects of mixed ability classes in general and not problems that would be subject specific.

The teachers were given surveys in which to gain insight in a non-threatening way. Faculty could reveal true feelings and mixed ability classrooms without any hesitation or fear of information being supplied to administration. Surveys that were administered to each faculty member that participated in the study included

eight questions ranging from those dealing with mixed ability classrooms to how peer tutoring impacts specific classroom interaction and student comprehension. Below are the eight survey questions.

1. Do you have classes in this school year in which you have students who have started on a lower level than the majority of the class?
2. Give your opinion regarding why this is the case.
3. How does this change your teaching style?
4. How does this affect the other students in the class?
5. Do you feel that the school has anything in place to help either eliminate this issue or control it?
6. Do you have any strategies that you use to handle this in your classroom?
7. Do you feel that this problem will get worse in the future?
8. Do you think this problem is greater in the public or private school and why?

The survey was administered after the first nine weeks grading period so that teachers could gauge the performance of each student in their class. Information was collected and organized into groups of teachers that have similar issues in their classroom. Faculty members who participated in the study were interviewed by the researcher to further expand themes that were revealed in the surveys. After collaboration, data was reviewed and resulting themes were noted.

### **Research Finding**

Although some teachers interviewed provided insight that was not shared by the majority of those interviewed, the majority of teachers did give perspectives that established three dominant themes. The first theme suggested mixed ability students inhibit classroom potential. The second theme indicated that individual interaction is the most commonly used teaching strategies. The third theme pointed to the perception that public schools experience more mixed ability classrooms due to extrinsic factors.

As the interview narratives showed, most teachers also possessed strong feelings when mixed ability classrooms were discussed. All teachers surveyed acknowledge that mixed ability classrooms were an issue that they presently dealt with in this current school year. As noted, the first theme suggested that mixed ability classrooms inhibit overall class potential. Goals set by the teacher were not met at the end of the school year due to the differing levels of mastery in class. Amy expressed a strong tendency to modify daily instruction due to differing levels.

*I have to slow down a lot because I want the entire class to know the same level of information. Some may know more than the others. As long as the lower level students have a general understanding of what is going on in the class, that is acceptable.*

Teachers also made reference to the negative affect that the slower learner had on other students in the class more advanced. One high school teacher, Donna noted,

*Most high achievers in the class have to wait for the slow students. Because of this, the more advance students will get bored and will not make as much progress during the day than they would if they had not had the distraction.*

Some teachers felt the decrease of progress, due to lower level students, not only had a negative effect on the overall progress of the class, but on the overall learning environment of the classroom. In this regard, one teacher asserted, "Students that can work at a regular pace have to wait on the other students who are lagging behind. Disciplinary problems ensue because I am having to work one on one and am not able to work with the other students in the class."

A majority of teachers, regardless of ability or tenure, placed mixed ability classrooms as the major inhibitor of reaching classroom performance goals that are set at the beginning of each school year. This study was conducted with teachers with varying degrees of

experience and abilities. One teacher interviewed was in their first year of teaching in contrast to several who had over 30 years of experience in the classroom. Regardless of the dynamics of a classroom, the overall theme woven throughout the interviews suggested the teachers' perception that mixed ability classrooms inhibited the overall potential of the entire class.

In light of the inhibiting of the overall potential of students, the majority of teachers indicated that individual instruction is the most commonly used teaching strategies. John made reference to individual instruction in handling the students who were behind. "I try to watch my pacing of covering the material and I try to think of the best way to explain and demonstrate the methods and processes that are being discussed in class as a whole. Additional instruction on an individual basis is needed." Ten of the teachers surveyed indicated the need for one on one instruction as the only tool available in order to move lower level students up to the level of the majority of the class.

One element of the study that did provide a positive reinforcement to the character of the teaching staff was their refusal to ignore lower level students. Pat referred to her classroom practices in light of lower level students as an ongoing process throughout the year. "I have to give more explanation, more time with those students and sometime extra tutoring is needed. I over-teach the material, and I always try to link new information with something they already know."

A prevailing thought in many interviews centered on the need for one on one instruction and other teacher driven interaction to raise the level of mastery for the lower level students. Susan, a tenured teacher, brings reinforcement to the concept of individual instruction with mixed ability classrooms.

*Some students come from other schools and are not up to the level of the classroom. I often have to give one-on-one instruction to slower students. I usually try to accommodate both extremes. Most high achievers wait for the slower students to catch up. Some of these students get bored while I give individual instruction to slower students.*



Susan indicated her belief that the school itself could not provide the structure to ensure non mixed ability classrooms. "The school is not doing anything to help with teachers who have mixed ability classrooms. I do feel that it is probably inevitable that not all students are on the same level." Donna echoed this thought by referring to the use of resource classrooms at school. "The school does provide resource classrooms for those students who need help, but the school does not provide help in the other regular education classrooms. I have to make myself available to the resource students and have the more capable students help them as well." There was also great discussion as to the cause or factors in the mixed ability classrooms—what is the source of this seemingly unavoidable situation and is it more prevalent in the public school system as compared to the private schools?

The third theme referenced a perception of public schools having a greater number of mixed ability classrooms due to extrinsic factors. A majority of teachers surveyed pointed to factors that were more prevalent in the public school classroom in contrast to the private school. John noted, for example: "I believe that mixed ability classrooms are more prevalent in public schools because students that are in private schools are from a pool that have parents that are more concerned about or more capable of dealing with their students."

It should not be inferred by survey comments that supportive parents do not exist in the public school systems. It should also be noted that the lack of parental support did surface as a perceived extrinsic factor for mixed ability classrooms.

Another element that attributed to the perceived lack of parental support was the increased pressure on families in the public school system who live in lower socioeconomic conditions. A student who resides in a family in which both parents work and often work more than one job may not have the support of the parent or parents when it comes to educational support at home. The lack of support is in no way linked to a lack of desire on the part of the parent or parents in the home, but is

directly tied to a lack of time due to the increased work schedule that is usually found in the lower economic areas of the student body. John, a math teacher makes a reference to this issue in the public schools by observing, "Students that are in private schools are from a pool that has parents that are more concerned about or more capable of dealing with, their student's education." Pat, however, believed that an important part of the mixed ability classes being more prominent within the public school system involved more than just a lack of time. "I believe that children from lower socio-economic levels suffer from a perception that the child's education is a lower priority in the family. This stems from not just a single parents issue but may also emerge from generations of bad parenting."

Almost all those surveyed and interviewed agreed that the problem with mixed ability classrooms was certainly greatly enhanced by the lack of parents taking an active role in the education progress of their children.

### **Implications**

Based on the surveys and interviews in this research, teachers in general expressed an ongoing struggle with effectively identifying, evaluating, and ultimately coming to create an equalization of the mixed ability classrooms. Although all teachers did not share the same feelings in reference to the causes of mixed ability classrooms, most did indicate that it was an essential problem and could be a major hindrance to the full progression of more advanced students. A majority of teachers surveyed also expressed a feeling that the problem found in the mixed ability classroom would not go away nor decline in the future, but would in fact increase.

Mixed ability classrooms are indeed likely not a passing fad but a permanent fact and the strategies of school districts, principals and teachers in the classroom regarding this reality will probably center on manageability in the coming years. This research indicated that teachers tend to have three major perceptions regarding the problems inherent in the mixed ability setting:

1. Mixed ability classrooms inhibit classroom potential
2. Individual instruction is the most commonly used teaching strategy in mixed ability classrooms
3. The problem with mixed ability classrooms is greater in the public school systems due to extrinsic factors.

This research discovered many teachers have strong negative perceptions regarding the mixed-ability classroom. Conversely, Danzi, Reul, and Smith (2008), in an action research study, found that students at all ability levels could be motivated to perform well in a mixed setting. This wide gap in perceptions and experiences suggests wider research, especially from a public school stand point, seems warranted to see if educators may need to factor in teacher perceptions when planning strategies to meet the realities of mixed ability classrooms.

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