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Motivating Gifted Students: Technology as a Tool for Authenticity and Autonomy

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Abstract. Gifted student may underperform if unmotivated. Teachers can help students who are gifted to be motivated by using technology to help provide autonomy and authenticity in the curriculum. Technology can be used as a tool for student autonomy when it is used in ways that give the student choices. Teacher can use the Internet to provide students access to different topics. When students can control the depth and breadth of content through what they learn using technology, they are motivated. Technology also allows individual students control over the pacing of learning when they can accelerate through easily mastered or already mastered material, and then slow down when something particularly interesting is encountered. Authenticity, where students are doing work or experiencing learning activities that are equivalent to adult or expert experiences, are accessible to students through technology, but only if teachers plan for it. Particularly web 2.0 technologies allow students to create authentic products for authentic audiences because the can publish and share a variety of media. Technology can facilitate student collaboration and allow for mentoring from experts. Gifted students, who can be motivated by competition, can also increase the competitions available to them by looking for competitions online. Teachers control student access to and uses for technology within the school setting. If teachers are concerned about students who are gifted developing to their full potential, then planning for motivation makes sense and technology is a ready tool.

Keywords: Motivating gifted students; educational technology; authentic learning; autonomous learning

Introduction

Not every gifted child grows up to be a productive adult. Adults who show high levels of productivity often have been encouraged to pursue areas of intense interest, to take risks with new ideas, and to use creativity in their work; all factors that increase motivation (Rogers, 1998). Motivation is a complex construct, for adults or students, as it is influenced by personal characteristics as well as by situational factors (Clinkenbeard, 2012). The strongest predictor of students' on-task behavior in the classroom is their own valuing of the learning activities, and not peer or parental influence (Kilian, Hofer, & Kuhnle, 2013).

Students with the potential for creative productivity may find that the pacing, materials, and approaches to learning in the traditional general education classroom often diminish their curiosity (Harrison, 2004; Little, 2012) and stifle their motivation to work hard at learning. By definition, such students need to receive specialized educational interventions to meet their learning needs and help them reach their full potential (Clinkenbeard, 2012). They require greater instructional intensity or higher levels of autonomy (Russo, 2004) than other students since, to a great extent, their degree of motivation influences their level of productivity (Colangelo, & Davis, 2003; Little, 2012). Creativity and problem solving skills can decrease over time when the curriculum offers few opportunities for students to use them (Russo, 2004; Henriksen, Mishra, & Fisser, 2016).

For high-end learners, teachers need to plan for and then monitor the development of curiosity, creativity, and problem-solving skills. Such development is mediated by motivation to learn, to create, and to achieve at high levels (Colangelo, & Davis, 2003; Little, 2012). Thus teachers must also specifically monitor motivation, linked as it is with so many factors that determine both academic and lifetime success (Gottfried, Gottfried, Cook, & Morris, 2005).

Students work hard only when they are motivated to do so. For gifted students, motivation is increased when they have control over what they will study, how they will study it, and how they will show what they have learned (Clinkenbeard, 2012; Kimball, 2001). This kind of autonomy is rare in many classrooms (Harrison, 2004). In addition, gifted students have a particular need for interaction with people who have specialized knowledge and skills in their areas of interest. Such people can constitute an authentic audience for their work or as mentors (Housand & Housand, 2012; Mammadov & Topcu, 2014). Authenticity is strongly related to motivation for gifted students (Kimball, 2001). Fortunately for the classroom teacher, technology can mediate and even make possible opportunities for students in both the autonomy and authenticity of learning opportunities (Housand & Housand, 2012).

Autonomy

Students identified as gifted want autonomy in their learning; they and their families are among the most proactive in shaping a learning environment that supports their growth and development (Bennett, & Hertzog, 2004; Clinkenbeard, 2012; Colangelo, & Davis, 2003). They often pursue independent projects (Dove, & Zitkovich, 2003), some of which are inspired by school work (Kimball, 2001). Rapid mastery of skills and concepts (Betts et al, 2004; Dove, & Zitkovich, 2003; Harrison, 2004) and leaps of understanding when encountering new material (Harrison, 2004) often characterize the learning of gifted students. Both academically and creatively gifted, students prefer accelerated learning and the freedom to choose at least some of the topics, methods, or tools they use in assignments and tasks (Olszewski-Kubilius, & Lee, 2004; Wong et al, 2006). Choice is important in fostering gifted behaviors such as creativity (Fleith, 2000) or motivation (Clinkenbeard, 2012).

When students have choices around how to learn, such as by pursuing hands-on projects that integrate subject areas or by controlling the pace of their work, they are more likely to be engaged in school work. Other approaches that encourage student engagement are: flexible directions for assignments, unstructured time in which to work on projects the opportunity to collaborate with others, based on mutual interest (Fleith, 2000; Olthouse & Miller, 2012).

Technology helps to motivate gifted students toward high levels of production by mediating the in development of knowledge in specific topics, by providing a medium which lends itself to repeated revision, and by creating a context that facilitates experimentation and risk-taking. The Internet allows students self-directed access to material of high interest across many different subject areas (Boon, Fore, & Rasheed 2007). Because they control the pace of their work they can dwell with one topic long enough to probe for answers (Wong et al, 2006) or rapidly skim sites to construct a satisfying degree of understanding (Wighting, 2006). This ability to explore either the breadth or the depth of a subject by using links and search engines makes technology satisfyingly responsive to learners' needs and interests. Autonomy promotes academic engagement when students control topic, depth or breadth of information, acceleration and pacing, and intensity.

Choice of Topic

Gifted students often demonstrate their abilities to reason with and to acquire knowledge rapidly even in subject areas that have little interest to them (Swiatek, & Lupkowski-Shoplik, 2000). Being "rewarded" by a teacher with more study of the same subject when they complete required assignments, readings, and tasks more quickly than their classmates may not meet their needs for a challenging education (Colangelo, & Davis, 2003). In fact, such "rewards" may discourage them from performing to their full potential. Rather than automatically assigning gifted learners more work on the same topic, teachers need to free them to use their time productively in pursuit of knowledge and skills that interest them (Housand & Housand, 2012; Little, 2012). Students can use technology as a tool for independent study. In addition to using the Internet to find information, they may formally enroll in online courses in topics of interest that are not offered in the local school (Housand & Housand, 2012; Olszewski-Kubilius, & Lee, 2004).

Depth & Breadth

The Internet and various software programs provide students with easily explored information resources written by experts. A student looking up an article online can either click from link to link within articles to experience breadth, or find multiple websites or other resources on the same topic to do in-depth reading. The need for depth and breadth of information can vary according to subject, maturity of the student, and motivation levels. However, a general characteristic of gifted students is that they are capable of synthesizing large amounts of information (Colangelo, & Davis, 2003). Technology allows them to actively pursue independent investigations and energetically seek the amount of intellectual stimulation they need (Harrison, 2004).

One characteristic feature of gifted education is to help students examine the ways that knowledge is structured in different disciplines. As students browse various websites, they can begin to recognize similarities in the way the information in the topic is presented. Such recognition prepares them to begin to transfer knowledge among topics and various contexts. Students who use technology report their awareness of having learned more than they do without technology (Betts, Tardrew, & Ysseldyke, 2004; Boon et al., 2007; Dove, & Zitkovich, 2003; Garcia, & Rose, 2007; Kimball, 2001; Siegle, & Foster, 2001; Wighting, 2006; Wong et al, 2006). A second aspect of autonomy is being able to choose how much to learn. Because gifted students have such a variety of interests, technology can satisfy their need for depth of information about a great variety of subjects. Technology provides easy, quick, searchable access to high-quality current information (Mohide, Matthew-Maich, & Cross, 2006).

Acceleration and Pacing

A third aspect of autonomy is having control over how fast to learn. When given a choice, gifted students typically select courses that allow self-paced learning (Betts et al., 2004; Olszewski-Kubilius, & Lee, 2004). Because students access information and materials at their own zone of proximal development, computers support rapid learning and thus influence student levels of achievement. Without the possibility of working flexibly with content, some able learners can become discouraged at the repetition and redundancy in the curriculum. Acceleration offers a solution for this problem. Curriculum compacting, when students are pretested on content and then excused from assignments which cover material that is already mastered, can assure teachers that gifted learners know the curriculum for which they are responsible; the instructional time created from compacting can be devoted to accelerated learning (Ba, Tally, Tsikalas, 2002; "Digital Imaging," 2001; Dove, & Zitkovich, 2003; Smith, & Weitz, 2003).

In the general education classroom, it is usually the teacher who controls the scope and sequence of materials and he or she is typically responding to the needs of the majority of the students in the classroom. Technology gives gifted learners the freedom to select material that better corresponds to their learning needs. An amount of this material is above grade level (Neuman, & Celano, 2006; Olszewski-Kubilius, & Lee, 2004). Because many gifted students are capable of handling the material at a faster rate, they need the challenge of acceleration to keep their motivation for learning. Gifted students may also develop their abilities with technology at a faster rate than average students.

Technology can be used to help with curriculum compacting and acceleration. Some students have difficulty completing tasks that depend on lower level skills (Zentall, Moon, Hall, & Grskovich, 2001); computers can differentiate tasks so they provide the appropriate skill level set for each child. When higher achieving groups are given technology to aid in learning, they reach even higher levels of achievement (Betts et al., 2004; Siegle, & Foster, 2001). In a study of self-paced math software that allowed students to explore subjects thoroughly,

gifted students typically tried a greater number of practice problems than did average students (Betts et al., 2004). Self-paced software allows students to speed up or slow down to explore topics or concepts as needed or as interest dictates.

In addition to giving gifted learners access to appropriately leveled materials, technology can also make on-line courses available to them. Schools need to have a plan for granting credit for classes taken through distance learning organizations. It is especially important when students demonstrate mastery of material by performing well on Advanced Placement exams (Olszewski-Kubilius, & Lee, 2004). Programs and structures that help students earn college credit can provide appropriate acceleration.

Intensity of engagement

Another aspect of autonomy that gifted students value is the opportunity to determine the intensity of instruction. Gifted students generally seek intense experiences (Kimball, 2001; Olszewski-Kubilius, & Lee, 2004) and typically have the ability to maintain a narrow focus for an extended period of time (Colangelo, & Davis, 2003; Kimball, 2001). When students control the intensity of instruction, they immerse themselves in a subject in which they have a strong interest, rapidly obtaining the basic knowledge of that subject. Then, they move quickly to higher levels of thinking and creativity within the topic (Sak, 2004). Technology provides resources both for immersion and for rapid transfer to productive creativity (Henriksen et al., 2016; Kim, Park, Yoo, & Kim, 2016) as students look at multiple websites and communicate with groups of people who have similar interests (Clinkenbeard. 2012).

Although, emotional intensity is often a characteristic of creative people, it is often not adequately addressed in many classrooms. Many gifted students may have a strong sense of justice (Colangelo, & Davis, 2003) and actively seek information about topics about which they are passionate. The computer provides up-to-date resources for students to connect with issues, advocate for causes, and link with social networks of people who can help them develop their empathy. Additionally, the Internet can provide information about career paths that relate to their passions. Some gifted students find it motivating to understand how their passions can translate into a future career, and they tend to seek this information earlier than other students (Greene, 2006).

In summary, autonomy is very important to gifted learners, and technology offers multiple ways to help teachers provide choices in the classroom. Allowing learners to have control over their use of instructional time, their choice of topic, its breadth or depth, the speed with which they access new information or skills, and the intensity of engagement puts the responsibility for learning into the hands of the learners. Most gifted learners prefer it that way (Colangelo, & Davis, 2003; Kimball, 2001).

Authenticity

While autonomy is important for gifted students, they also desire authenticity in their work. They want to know why they should learn particular topics or skills

and they dislike what they perceive as "busy work" (Colangelo, & Davis, 2003; Zentall et al., 2001). Teachers can use the tools of technology to ground student work in authentic assessment by way of authentic production, authentic audiences, and competition (Housand & Housand, 2012; Mammadov & Topcu, 2014).

Gifted students are more likely than average students to ask questions about the relevance of the underlying structure of knowledge (Colangelo, & Davis, 2003). Therefore they particularly benefit from understanding how certain knowledge and skills fit into the structure of a discipline, and seeing mentors use knowledge and skills in their work in the discipline. Gifted students are motivated by what seems important and relevant.

Authentic Production

Gifted students are more likely than others to experiment with their abilities (Betts et al., 2004; Kimball, 2001), and exhibit a preference for acquiring knowledge and skills through creation of authentic projects ("Digital Imaging," 2001; Dove, & Zitkovich, 2003; Kimball, 2001) completed independently (Zentall et al., 2001). These products can demonstrate knowledge in subject areas (Garcia, & Rose, 2007; Mohide et al., 2006; Wong et al, 2006), and by using technology, they increase the hands-on, constructivist aspect of learning (Zentall et al., 2001).

Technology aids students in dealing with minor barriers to excellent production of work such as being able to use spell check or an online dictionary or thesaurus to make the best word choice. When creative students are not slowed down or distracted by aspects such as the inability to spell a word, they are more likely to complete assignments (Fleith, 2000). Technology allows them to focus less on these "inconveniences" and more on actual production issues similar to those with which an expert would be concerned during production.

A variety of software can help students develop authentic products. Multimedia software can structure their work with audio files, pictures, animation, or movies. Although gifted students may start with simple products, as their skill levels increase, the complexity of what they produce also increases ("Digital Imaging," 2001; Olthouse & Miller, 2012). Authentic practice helps students gather the necessary experience within a discipline to move towards becoming an expert (Colangelo, &.Davis, 2003; Mammadov & Topcu, 2014). When students publish stories, poetry, fan fiction, comics, podcasts, and movies for public consumption using blogs web pages and other web 2.0 technologies, their products are as readily accessible as, and can be compared to, those produced by adult experts (Olthouse & Miller, 2012). Projects and assignments that use software and other technology resources employed by professionals help students see the relevance of what they are learning.

Gifted students are motivated by projects that they perceive as making a difference in the real world. Although technology has the potential to create self-centered individuals (Cross, 2006), it can also be used to help students become aware of current concerns and issues around the world. Through service

learning projects with real world problems, students can use technology to locate data and background information that provide the rationale for particular projects. Technology can connect them to people doing similar project. Technology can be used to organize, plan, manage, facilitate, and reflect on these service learning projects.

Original and elaborated products (Harrison, 2004) as well as technology can be used to develop products that expand creativity ("Digital Imaging," 2001; Dove, & Zitkovich, 2003; Fahey, Lawrence, & Paratore, 2007; Henriksen et al., 2016; Johnsen, Witte, & Robins, 2006; Kim et al., 2016; Siegle, & Foster, 2001; Taylor, & Duran, 2006; Wong et al, 2006). Product topics accessible through technology are unlimited (Kimball, 2001). Students can use the computer to communicate, edit and share creative ideas (Fahey et al., 2007; Fleith, 2000). The creativity, evaluation and synthesis at the heart of an original product can be shared via the Internet through public process skills portfolios, which trace the development of original work by keeping track of peer or self-critiques of drafts of projects and reflections on learning (Fahey et al., 2007; Olthouse & Miller, 2012). As technology provides support for discovery learning and open-ended questions, it also helps support creativity development (Fleith, 2000; Henriksen et al., 2016; Kim et al., 2016).

Authentic Audience

In schools the most obvious audiences for student work are peers, younger students, teachers, and parents. These audiences, as appreciative as they may be, may not actually be the most authentic audiences for students work. Authentic audiences are groups of people who share an interest in a subject matter, have knowledge of the typical products within the discipline, and can therefore critique student work. The Internet can connect students to pre-existing interest groups, and provide a ready-made authentic audience for their work which can give them the motivational push to work beyond the minimum requirements for an assignment. Their work will often reflect their full potential when it is seen by knowledgeable others (Fahey et al., 2007; Mammadov & Topcu, 2014; Wong et al., 2006). Authentic audiences can provide a context for practicing skills required for creative productivity such as creating multiple drafts, editing their work, and thinking about audience.. Students can gain a greater understanding of what experts actually do who work in the subject area for which the products were designed (Fahey et al., 2007; Mammadov & Topcu, 2014).

Technology can foster communication with others who share interests through email, instant messaging, webcams, message boards, and other online tools ("Digital Imaging," 2001; Mammadov & Topcu, 2014). It also presents multiple options for sharing products: public web pages, blogs, wikis accessible only by invitation, or emails to experts who might not be available locally (Fahey et al., 2007; Garcia, & Rose, 2007; Olthouse & Miller, 2012). It can be used to communicate with experts who can serve as guest speakers (Fleith, 2000), mentors (Dove, & Zitkovich, 2003), or critics of students' work (Mammadov & Topcu, 2014).

Competition

A finale aspect of authenticity is participation in competitions, which allow gifted students to compare themselves with their peers (Colangelo, & Davis, 2003; Housand & Housand, 2012; Olthouse & Miller, 2012). They can acquire a realistic perspective as to whether their work is excellent in the field versus just excellent in their local environment. Such perspective often motivates students to work harder (Clinkenbeard, 2012).

The computer can help students find competitions in a variety of subject areas locally or even nationally, both in-person and virtual competitions. Students may participate in everything from poetry, robotics, history, to problem solving. Some competitions require a long term time commitment and guidance from a mentor, but when students participate in these competitions it may increase their access to resources such as financial support to attend college or extracurricular programs, and access to experts through mentors or internships (Colangelo, & Davis, 2003; Housand & Housand, 2012; Mammadov & Topcu, 2014; Olthouse & Miller, 2012).

In recent years, computer games and Internet activities that require memory or allow for competition have become increasingly popular. Some allow the player to compete against the computer; others organize ways for people to compete against each other. Simulation games that feature problems to solve or quests to experience allow (Tünzün, 2007; Williams, Ma, Feist, Richard, & Prejean, 2007) students to compare their relative standing even while the game is progressing.

In summary, technology offers multiple opportunities for teachers to create authentic learning contexts in the classroom. Computers make is possible for students to experience authentic production with all the freedom that comes from a context which promotes risk-taking and experimentation, multiple revisions and iterations of ideas and the creation of original products that solve real problems. Through technology, students can interact with authentic audiences joining communities of learning and practice that provide both academic and social support in the pursuit of expertise (Mammadov & Topcu, 2014). Finally, the Internet can facilitate students' participation in competitions that allow them to judge their standing among their intellectual peers (Housand & Housand, 2012). Engagement with these dimensions of authenticity provides perspective on learning for gifted students. Most gifted learners prefer it that way (Colangelo, & Davis, 2003; Kimball, 2001; Olthouse & Miller, 2012).

Conclusion

Students frequently select computers as tools for learning tasks (Fleith, 2000; Zantall et al., 2001); however, it is clear that teachers control technology use both in school and in relation to school work (Kimball, 2001). Instruction and learning with technology and the use of technology by gifted students can take many forms. Technology related tasks can range in complexity from simply copying someone else's poem in order to practice typing to writing a complex paper that reports original research to creative multi-media presentations. Students may use computers, videos, and televisions as sources of information, tools for self-selected research projects, or purely for entertainment. (Ba et al., 2002).

For gifted students it is crucial that teachers help them understand and adopt productive uses of technology that go beyond entertainment. Use of technology in schools should be related to a need for it (Baule, 2007), and a need is clearly present in educating gifted students. At school, gifted students benefit from a climate where using technology for learning challenges them, and helps fill gaps in their learning. In this way, technology use at school becomes a model for how to use it at home.

Potential Issues

Students may benefit from use of technology, but this does not necessarily mean that it is available to them. Funding for educational technology is frequently controlled by the school or district, and classroom teachers may have little or no input in decision processes related to selecting technology for their own classrooms. Some schools and districts also restrict access to or possible uses for certain technology applications, such as not allowing public blogging by students, restricting access to certain websites, or banning cell phones from classrooms. This lack of access to some technologies may impact the technology strategies available for teachers to use with students. Additionally even if a technology is available, the teacher may wish to have professional development in using the technology in educational settings before implementing it with students (Tondeur, Forkosh-Baruch, Prestridge, Albion, & Edirisinghe, 2016). When teachers are ready to implement new technology with students, then they will need to include time to introduce and teach how to use the technology, even if it is imbedded within the context of a particular assignment (Zimlich, 2015).

Further research needs to be done to help determine which technologies are both motivating to students and which have the greatest impact on achievement. As new technologies are developed, schools will need data to help make decisions about which technologies are worth investing money and time into implementing in classrooms (Tondeur et al., 2016). Finally, student-choice is key in the argument for how technology is motivating. Allowing students options for creativity can be motivating. Additional research examining the interaction between creativity and technology is warranted (Henriksen et al., 2016).

Technology can be a tool to help teachers ensure autonomy and authenticity for gifted learners. However, teachers have to purposefully plan to use technology in ways that motivate students (Housand & Housand, 2012). Students who are gifted can use technology to learn about self-selected topics, to accelerate their learning, to add challenge, to create products, to communicate with mentors, to collaborate with other students, and to engage in competition. As new technologies become available in the school setting and as tech-savvy teachers enter the field gifted students could increasingly encounter technology that is used to meet their unique set of needs.

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"We give you a song and you give us a song"- Reciprocity in Action Research in the field of Music Education

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Abstract. Action research is a cyclical process, alternating action with critical reflection, leading to a better understanding of a phenomenon. It examines the influence of an intervention and includes an investigation conducted by the person who initiated the action. A free dialogue between the researcher and the participants is essential in action research, since the research seeks the points of view of the people who are involved in it. Good relations and free information flow between the researcher and the participants are the heart of action research and are necessary for validating the research. This article reflects on a study in the area of music education, where action research was used as a methodology. It focuses on the aspect of the relations between the researcher and the research participants. The author also discusses the conflict of wearing the two different 'hats', as the course teacher and the study researcher, which often causes tension since they require two different perspectives.

Keywords: Action research; Dialogue; Music education; Reciprocity; Researcher-teacher Conflict

Introduction

Action research is a cyclical process, alternating action with critical reflection, leading to a better understanding of a phenomenon. It examines the influence of an intervention and includes an investigation done by the person who initiated the action. Action research is also a practitioner's research that is performed in order to improve one's own performance and it involves a group of people collecting evidence and making decisions regarding their performance, attitudes, and beliefs, in order to understand them better and to improve them. Action research constantly undergoes modifications and variations (Katsarou, 2016) and its development over the years is tied to the social movements of the 20th century (Glassman and Erdem, 2014).

Action research strives to find out the point of view of the people who are involved in it. Therefore, there must be good relations and a free information flow between the researcher and the participants (Elliott in Kemmis & McTaggart, 1990). Additionally, this free dialogue between the researcher and the participants is necessary for validating the research. The issue of the relations between the researcher and the research participants was discussed widely in the literature on action research, mostly under the category of ethical considerations (Campbell & Groundwater-Smith, 2007). Coghlan and Brannick (2014) highlighted the complex nature of an insider research project within an organization, where the researcher has to maintain an explicit action research role while continuing to function within the organization. The significance of having good relations and communication between the researcher and the participants in action research is well recognized.

This article is based on a study in the field of music education, and focuses on the relationship between the researcher and the research participants. The study focused on the musical development of early childhood educators and its objective was to examine the development of the participating preschool teachers' musical competencies, confidence, and ability to integrate music into the preschool setting. The process involved much reflection by all participants along the way. Both types of reflections described by Schon (1983, 1987) took place: 'reflection in action' and 'reflection on action'.

Reciprocity in Action Research

Reciprocity can be defined as an ongoing process of exchange with the purpose of creating and maintaining equality between parties (Maiter et al., 2008). Being aware of reciprocity in action research and the importance of involvement and trust between the researcher and the research participants, the researcher made sure that she would nurture close relations with the participants. She ascertained that the atmosphere in the lessons would be pleasant, safe, and respectful and tried to make sure there was reciprocity in the relationships. Nevertheless, on some occasions some individuals expressed statements that showed the relations in a different light and led the researcher to understand how these individuals perceived their relations. The following are three examples of such situations, as were documented in the researcher's diary:

Episode No. 1: *During one of the lesson's break I spoke with L (a preschool teacher who participates in the study) and wondered out loud where we had met before, since she looked familiar to me. It transpired that we had studied at the same college years ago. I was quite excited and happy to discover this; I felt as though I had met an old friend. Suddenly she said: 'Well now, look where you are today and where I am!'*
While I was still feeling that the revelation could bring us closer, it seemed that for her this revelation formed a gap between us, since I was the course teacher and a researcher studying for my PhD and she was one of the course and research participants. It suddenly became clear to me that despite my aspiration to construct a system of equal relations, the preschool teachers, or at least some of them, might see me as a person who occupied an exalted position.

Episode No. 2: *As I visited the preschools in order to observe the preschool teachers leading musical experiences with the children, I tried to contribute to the musical life of the group whether by teaching musical activities to the children, with advice, or by sharing an appropriate musical material. I felt that mutual enrichment and reciprocity was indeed created. I was therefore surprised by O's reaction when I turned to her one day during the course in order to coordinate a visit to her preschool. She was a co-operative and open teacher, and I knew that her preschool door was always open for me. On this occasion when I asked her if it would be OK with her that I would come and observe her preschool, she answered: 'Fine, then maybe you can also teach the children something… so that we'll also get something from your visit, that we can 'exploit' you a bit'. Her words were accompanied by a chuckle indicating embarrassment, but the message was clear. While I had felt that there are reciprocal relations between us, her statement led me to realize that maybe from her point of view this was not the situation.*

Episode No. 3: *One morning I visited R's preschool. During morning assembly after she welcomed everybody with a good morning, she stated to the class: 'Children, I have agreed with our guest - we will give you a song and you will give us a song!' Again, she made it clear to me that she expected to get something from our meeting.*

The above examples sharpened the researcher's awareness regarding the complicated dynamics of the relations between her and the research subjects through the research, relations of 'give and take', alternating closeness and distance.

Ownership of the research

In a qualitative study, the relations between the researcher and the research subjects are not optimal, and throughout the research process there are dynamics relating to power that are not simple (Karnieli-Miller et al., 2009). At the start of the path, the researcher arrives from a position of power as the initiator, the one who is aware of what to expect from it and its implications. Later during the process, the research participants become those with the power since they hold the control in their hands and they own the knowledge. At this stage, the researcher attempts to construct trust relations with the participants, to gain their consent to take part in the research, and to create accessibility and an entrance into the researched world. The researcher's desire is to weave a system of positive relations, which will enable openness, authenticity, and discovery. During data collection, the researcher is entirely dependent on participants; on their willingness to participate, cooperate, and share their knowledge with the researcher. At this stage, the control and ownership of the data is exclusively in the hands of the participants. The quantity and quality of the data shared with the researcher will depend upon the relationship that develops with him or her. The researcher becomes an observer, a client, a student of the research participants (Karnieli-Miller et al., 2007). With the termination of the data collection process, the power returns to the researcher.

All the above-mentioned was clearly experienced in this present research. The dynamics of the relations described above place in doubt the possibility of 'symmetrical and equal' relations attributed to the researcher and the research subjects in an action research. In this study, the participants discovered issues

that worried and concerned them, and were the ones who created the change and participated in its assessment. However, the research subject itself did not emerge from a problem that the preschool teachers identified and for which they tried to find solution together with the researcher. The preschool teachers did not lead the initiative for change and they did not identify the need for improvement.
In this case, the researcher was the one who initiated the study. She arrived as an external factor with an instructive program of her own that had been developed in light of an underlying difficulty that she had identified in the preschool teachers' ability to integrate music within their educational work. The problem that constituted the incentive for the research worried the researcher and not the preschool teachers; for their part, they consented to participate in the process. Thus, throughout the research, the researcher found herself wondering whether the preschool teachers were really full partners in the process or whether they took an active part in a procedure that only worried and concerned her. Was the position of the preschool teachers in the general layout of the research sufficiently significant?

Although the researcher believes that the answers to these questions are positive, this is only so to a certain extent and it is neither absolute nor decisive, again because the problem that constituted the incentive for the action research did not originate from the preschool teachers' concerns. In general, the role of researchers who carry out action research is often defined as doing research '*with them and for them*', and the researcher asked herself whether the research was conducted with the preschool teachers and for them. Obviously, the research conclusions, which were implemented in the field work during the process and will continue to be implemented in the future, lead to more successful and effective musical activity for both the preschool teachers and the researcher as their mentor. However, more than once during the process the researcher felt that for the group that participated in this action research, the study was actually performed with them and for *her*. This issue became more pertinent, because the goal of the research was to examine a change process. It is clear and acknowledged that a change process is complex and in fact it is difficult to engender and assimilate a significant change. The difficulty is even more evident when the initiative for change comes from an external source and not from internal motivation.

The problematic nature of this issue, which can be summed up in the question 'whose research is this and for whose advantage?', is also connected with the ethical aspect of the research. At the beginning of the course, the researcher informed the preschool teachers regarding the procedure of the research and what their participation would involve. The preschool teachers all expressed their consent to take part in the research and signed a declaration form. The preschool teachers chose to take the course out of an interest in the field of music and a desire to improve their knowledge, musical ability, and their professionalism. However, in practice their participation in the research required them to perform additional tasks beyond the course work, such as writing in journals, answering questionnaires, and allowing the researcher to

observe them in their preschool work. In addition, participating in the research involved a certain degree of exposure and openness. During the process, there was an intrusion into the teachers' privacy and they could even feel exposed to criticism and judgment that could probably cause a sense of discomfort and perhaps even a threat.

The Conflict in the Dual Role of Teacher and Researcher

The two 'hats' that the researcher wore during the process, as the course teacher and the study researcher, often caused tension and conflict since they required two completely different perspectives. While the actions as a teacher focused on the practical, applicable aspect, as a researcher the researcher came from the academic context and aspired to form a conceptualization of the studied phenomenon. As a teacher, she aimed to move forwards, to stimulate, to create interest, to bring about change, while as a researcher she was required to pause, to observe, and to stand at a certain distance from the events. While the teaching was motivated by a profound desire to share knowledge, skills, and experience with the preschool teachers and to 'give' them as much as possible in the field of music education, here the researcher was constantly occupied with an inverse issue of what she could 'obtain' from them--i.e., what she could learn from them about the process.

In the setting of this course that the teacher-researcher examined and studied, she was not totally occupied with teaching. Sometimes it seemed to the researcher that this dual role harmed her teaching, and the need to deal simultaneously with teaching and the examination of its implications was more than once to the course's disadvantage. The researcher could not devote her entire being to her role as a teacher, guiding the action with complete attention to the needs and dynamics that arose in the lesson, since she was also committed to research demands such as recording, data collection, and reflection. More than once, the researcher was forced to interrupt the musical activity because of time restrictions and the desire to be able to document the activities as well. This commitment to the research process also harmed the spontaneity of the course's development.

This was expressed in the researcher's diary as follows:

Keeping in mind that at the end of the course I intend to request the participants to answer the same questionnaire that they answered at the beginning of the course makes me very focused. Usually in my teaching I include interesting reading passages from the education field, which I have collected over the years. Although these reading passages are prepared in my file, I find out that in this specific course I avoid including them in practice because it seems like a waste of time. I am focused on my goal to contribute to them in the following defined fields: recognition of the strength of music and the importance of musical education for early childhood, demonstrating and exposing them to the potential of work with percussion instruments, and teaching methods, techniques, ideas and materials for the incorporation of percussion instruments. Is it possible that because of my desire to be effective, the course loses some of its inherent beauty?

The conflict involved in being a teacher-researcher is described extensively in the literature (Atkinson, 1994; James, 1999). Robertson (2000) stated that this

tension can be resolved by maximum reciprocity within the research design. Lather (1986) defines reciprocity as follows: "Reciprocity implies give-and-take, a mutual negotiation of meaning and power. It operates at two primary points in an emancipatory empirical research: the junctures between researchers and researched, and between data and theory" (p. 263). This concept of mutual benefits and responsibilities, commitment to each other, and negotiation of meaning and power is integral to action research. Robertson (2000) emphasised that the process of theory building should be mutually beneficial to researcher and research participants.

Concluding Remarks

In action research, the practitioner is at the center of the inquiry, and a symmetrical communication between the researcher and participant is necessary. This symmetrical communication gives the basis for reflection and inquiry (Whitehead, 1987). Action research is founded on the reflections of its participants. The researcher, who also serves as a participant in the process of data collection, is legitimized in the research to investigate his or her own activities and to alter them throughout the research on the basis of the findings (Elliott 1995). Both the researcher and the informants are used as sources of information, and throughout the research analytical reporting is performed based on occurrences that take place during the research. In the field of education, the goal of action research is to achieve a deeper understanding of the educational practice of the teachers themselves and the institutions in which they act (Bresler, 1996). According to Kirk and Miller (1986), in action research the issue of validity is not a question of objectivity, but rather a question of whether the researchers see what they think that they see. McNiff (2002) argues that the validity of action research depends on whether the study does what it set out to do, whether there is sufficient evidence to back up the claims, and whether it is presented in a clear form.

Action research can help teachers to develop their reflective practice (Sowa, 2009) and overcome barriers in their pedagogic context (Pleschova and McAlpine, 2016). Vaughan and Burnaford (2016) found three goals for action research in the graduate teacher education literature: action research as reflection; action research as participatory, critical inquiry; and action research as preparation for teacher leadership. Based on the above, the methodology chosen for this current research was action research, a methodology that the researcher found suitable for the study goals. Action research allowed the researcher to collaborate with the preschool teachers over time, to recognize their viewpoint, and to learn about their work in the music context. The research work and data collection were conducted over a period of two academic years and followed two different groups of preschool teachers.

In conclusion, the researcher believes that due to the close relationship and on-going long-term interaction with the research participants, the conclusions reached are authentic and reflect the participants' perspective. These relationships enable profound levels of understanding and interpretation of the issue under investigation.

As stated by Kirk and Miller (1986), no technique can be used to examine the validity of a research other than continuous personal interaction. We can never be completely convinced that we understand all the cultural meanings of the studied phenomenon, but the best possible investigative tool is a sensitive and wise field researcher equipped with a good theoretical orientation and close relationships of trust with the informants over a period.

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Substance Abuse and Youth: An Overview and the Role of Educators

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Abstract. Substance abuse among youth remains a serious issue that directly impacts teachers, schools, and the community. It is incumbent upon educators to update their awareness of the nature of the problem and to devise and implement substance abuse policies to clearly delineate procedures for teachers and all stakeholders according to best practices and research. This article defines the issue through an examination of the existing data and new developments with respect to substance abuse, discusses the role of educators in the context of this issue, and presents recommendations and guidelines from the literature for policy development and review.

Keywords: substance abuse; youth; role of educators; school policy

Introduction

With respect to substance abuse and youth, as an old adage goes: what is old is new again. The concerns, the consequences, the denials, the successes, and the failures are still a part of the substance abuse landscape, whether in our homes, in our workplaces, or in our schools. The general extent of the problem has not significantly decreased in recent years overall (see Table 1) although it has changed its face in some cases and we do not necessarily recognize it as will be noted later in this article. Educators find themselves uniquely positioned to participate in efforts directed at identification of a problem and in an initial or ongoing dialogue with students suspected as already being involved with substance abuse or at risk for doing so. The purpose of this article is to examine the current nature of the issue of substance abuse among school-aged children, primarily among middle and secondary grades, to identify some of the issues associated with the teacher's role in identification and treatment, and to present policy practices that may help guide school personnel in dealing with this issue. Teachers and school personnel come into contact with children and youth every day and are tasked with the responsibility to teach academic content and social skills that will be critical if their students are to assume productive roles in society. This task becomes very difficult if students are engaged in substance abuse.

Substance abuse, viewed by the medical professional community as a

mental health issue, has been related to social ills such as crime and economic deficits (Brook, Brook, Rubenstone, Zhang, & Saar, 2011; Cerda, Johnson-Lawrence, & Galea, 2011). It presents societal challenges with respect to medical treatment and workforce development (Miller & Carroll, 2010). Not surprisingly, the issue of youth substance abuse has been identified as a serious issue in education and is an issue that teachers have to face on an almost daily basis (Parkay, 2015).

When teachers are faced with the issue of youth substance abuse, they may find conflicting information concerning the extent of the problem and what their role is in aiding students who they believe may be involved with substance abuse. For instance, there may be instances in which a school district wishes to publicly minimize the extent of substance abuse among its students for politically motivated reasons. Further, there is the aspect of denial about substance abuse problems among the population in general, with the fear of being stigmatized or because of a misunderstanding about the nature of addiction (Adlaf, Hamilton, Wu, & Noh, 2009; Luoma et al, 2007). Teachers find that their role in helping their students can be unclear when insufficient training has been provided for them relative to such training for other school staff such as school counselors (Gates, Norberg, Dillon, & Manocha, 2013).

The Nature of the Problem

Substance abuse is a socially pervasive problem that affects people across age groups, socio-economic levels and settings (National Institute of Drug Abuse, 2015). Substance abuse can be defined in a number of ways and takes many forms. In some cases, the issue is an overuse or dependence on alcohol or the use of alcohol before a legally defined age. Substance abuse can also take the form of the misuse of pharmacological substances (either one's own or another's, i.e. narcotics or stimulants such as ADHD medications) or the use or sale of a range of drugs from marijuana to hard drugs such as heroin, methamphetamine or cocaine (in powder form or as crack). It can also involve the use of inhalants, hallucinogenics (synthetic or plant form such as mushrooms), ecstasy, and steroids. The appearance of so-called "designer drugs" adds another range of substances to the list. These are modifications of existing chemical drug formulations in order to bypass existing regulations on their sale and distribution. Most recently, the advent of vaporing (aka "vaping") has contributed a complicating factor to this discussion as it brings the element of camouflage to drug use – that is, detection using the sense of smell of the actual substance being "vaped" is nearly impossible as the vapor does not carry the characteristic odors of that particular substance (Ganin & Zamost, 2015; Morean, Kong, Camenga, Cavallo, & Krishnan-Sarin, 2015). For purposes of this discussion and at its most basic level, substance abuse can be understood as the use of the aforementioned substances insofar as it affects the academic and social development of youth as well as others in the youth's environment by creating difficulties and barriers to development, legal consequences, and disturbances in relationships.

Families who have a member who abuses substances often suffer from serious issues that affect the ability of the person and family to develop relationships in healthy and productive ways. Students who engage in substance

abuse bring a host of problems into the school and classroom that make it extremely difficult for learning to occur. To complicate the issue further, students often find that peers may attempt to sell or provide them with illicit substances either on or off school property (Schwartz, 2012). Arguably, schools could be the forum in which youth make peers aware of parties in which substances are going to be abused, creating an environment that is not conducive to effective education. Even more serious perhaps is that some of the youth engaged in these activities or who are caught abusing or selling substances often find themselves facing serious legal problems and possible out-of-school suspension or expulsion. Such ramifications have serious deleterious consequences for students such as discontinuation of education services, increased risk for dropping out of school, and ongoing involvement in the juvenile and adult justice systems (Lamont, 2013).

Schools have the responsibility to teach academic content in a setting in which students can focus their efforts and attentions on learning. Schools also serve as one of the primary social institutions in which social skills are taught and practiced and where youth learn life lessons. These tasks of the school and the teacher become quite difficult, if not impossible, for those students who are engaged in or affected by substance abuse as school disengagement in general can be an indicator of student substance abuse (Henry, Knight, & Thornberry, 2011). As a result, it is critical that teachers and school personnel engage the subject of how they should handle the issue of substance abuse in their schools.

The Extent of the Problem

In order to provide a foundation for a discussion of the extent of substance abuse among youth in the United States, we turn to the Center for Disease Control and Prevention (CDC) which has published the results from its 2015 Youth Risk Behavior Survey (YRBS) (Center for Disease Control and Prevention, 2016). The data from the YRBS used for this discussion are presented in Table 1, which also includes results from previous years for comparison purposes. As can be seen in the table, the survey has been given to U.S. youth every other year since 1991, and the recent overall trend in the data is encouraging. With the exception of two items – asking about taking steroids without a prescription or ever having injected an illegal drug – the last decade's data indicate decreases across all items. As noted in the table, the changes identified as statistically significant have to do with decreases in the numbers with respect to alcohol, inhalant, and ecstasy use.

At the same time that encouragement and optimism may result from a review of the data, it is incumbent upon all stakeholders in this issue to maintain and/or to increase efforts to address the issue. That is, while the 2015 percentage of 17.7 for youth reporting having taken 5 or more alcoholic drinks on 1 day within the last 30 days is a statistically significant decrease, almost one-fifth of students in this category could still be considered too high of a percentage. Further, the
percentage reported for ever having used heroin, while lower than 1999, has remained fairly stable over the past decade, and most recently was 2.1%. At least as troubling as any of the other items found in Table 1, 22.7% of students indicated that they had been offered, sold, or given drugs on school property. It

is important to note that the YRBS data is also disaggregated by state, by certain large school districts, and by certain demographics, and readers interested in a more in-depth review of the data are referred to the CDC website listed in the references for this information.

Table 1: Items from CDC Youth Risk Behavior Survey. Results for Alcohol and Substance Abuse 1991-2015. Percentage of Those Surveyed

Item	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Had 5 or more drinks on 1 day within last 30 days	31.3	30.0	32.6	33.4	31.5	29.9	28.3	25.6	26.0	24.2	21.9	20.8	17.7
Ever used marijuana	31.3	32.8	42.4	47.1	47.2	42.4	40.2	38.4	38.1	36.8	39.9	40.7	38.6
Currently used marijuana (1 or more times within last 30 days)	14.7	17.7	25.3	26.2	26.7	23.9	22.4	20.2	19.7	20.8	23.1	23.4	21.7
Ever used cocaine in any form	5.9	4.9	7.0	8.2	9.5	9.4	8.7	7.6	7.2	6.4	6.8	5.5	5.2
Ever used hallucinogenics	–*	–	–	–	–	13.3	10.6	8.5	7.8	8.0	8.7	7.1	6.4
Ever used inhalants	–	–	20.3	16.0	14.6	14.7	12.1	12.4	13.3	11.7	11.4	8.9	7.0
Ever used ecstasy	–	–	–	–	–	11.1	11.1	6.3	5.8	6.7	8.2	6.6	5.0
Ever used heroin	–	–	–	–	2.4	3.1	3.3	2.4	2.3	2.5	2.9	2.2	2.1
Ever used methamphetamines	–	–	–	–	9.1	9.8	7.6	6.2	4.4	4.1	3.8	3.2	3.0
Ever took steroids without Rx	2.7	2.2	3.7	3.1	3.7	5.0	6.1	4.0	3.9	3.3	3.6	3.2	3.5
Ever took Rx drugs without Rx	–	–	–	–	–	–	–	–	–	–	20.7	17.8	16.8
Ever injected any illegal drug	–	–	2.1	2.1	1.8	2.3	3.2	2.1	2.0	2.1	2.3	1.7	1.8
Ever offered or given illegal drugs on school property	–	24.0	32.1	31.7	30.2	28.5	28.7	25.4	22.3	22.7	25.6	22.1	21.7

* "–" denotes no data collected for that year for that item.

Sloboda et al. (2009) noted that up to one third of teen students surveyed indicated a problematic use of drugs and alcohol. Their data suggested that up to 14% of the teens they surveyed may be drug dependent. Burrow-Sanchez, Jenson, and Clark (2009) indicated that, in their study, 20% of eighth graders had used alcohol in the last 30 days, that 18% and 22% of eighth graders and of twelfth grades respectively had used illicit substances in the last 30 days.

Ford and Watkins (2012) reported that in 2009, a minimum of 75,000 emergency room (ER) visits in the 12-17 year-old age group were related to prescription drug abuse, and that half of all ER visits related to drug abuse were from the 12-17 year-old age group. Most troubling was that this represented a 24% increase from 2004. The number of ER visits may be increasing at the same time that drug use numbers are holding steady as a result of an increased awareness about the importance of treatment, an increase in the potency of the drugs, and or an increase in the level of usage of individual drug users.

The most severe disciplinary consequence of any substance abuse activity available to schools is expulsion. A recent review of data made available by some U.S. states on their Departments of Education's websites shows that the percentage of total expulsions for substance abuse-related infractions in recent years has ranged from as low 5.6% (Maryland State Department of Education, 2014) to as high as 43.9% (Colorado Department of Education, 2015). In states such as Colorado, where possession and use of marijuana has recently become

decriminalized for adults, the expulsion rate for drug-related offenses has risen from 37.9% in 2010-2011 to the 2015 rate while the total number of expulsions has decreased (Colorado Department of Education, 2015).

These data point to a significant issue with substance abuse that is also reflected in the high number of children and youth -- 1,820,727 -- who were admitted to alcohol and substance abuse treatment programs in 2010 (U.S. Department of Health and Human Services, 2012). It is encouraging to note that many youth seek treatment, but there is a great deal of data to suggest that there are many youth who have substance abuse problems who are not seeking treatment or are engaged in ineffective treatment programs (Falck, Nahhas, Li, & Carlson, 2012).

The already serious problem of substance abuse may be growing in complexity, if not necessarily in size, and schools continue to need a coherent way to address the problems associated with substance abuse. The aspect of increased complexity in this problem is reflected in the inclusion of a new YRBS data collection category: the use of prescription medication without a prescription or against prescribed dosages. Another factor adding to complexity which has yet to reflect a pattern in the data is that of the increasing decriminalization of marijuana use and its legalized possession by adults. While this is not yet a national condition, it will be of extreme interest to education and mental health professionals to monitor percentages in those states where marijuana becomes or has already become decriminalized for adults. Another serious aspect of this problem is data showing an increase in the number of deaths and hospitalizations from heroin use reported for 26 states during 2013, with some increases as high as 50% over the previous year (Associated Press, April 5, 2014). It can be extrapolated from all the data presented here that the monetary and personal cost of this problem is a serious economic and social issue -- one that has long term effects on society.

Decreasing academic achievement and academic growth has been correlated with increasing drug use among middle school and secondary students (Henry, 2009; Ratterman, 2014). Substance abuse has also been shown to negatively impact high school graduate rates, especially when the predominant use is alcohol (Kelly et al., 2015), with decreased graduation rates negatively impacting future earnings and career opportunities (Lamont, 2013).

Factors Associated with Substance Abuse

Factors associated with substance abuse may be categorized as either risk factors or protective factors with each category being equally important to consider when addressing this issue, especially with respect to efforts directed at substance abuse prevention in schools.

Risk Factors

Among the risk factors is socioeconomic status (SES). While it may be commonly thought that students from low SES families are represented in higher percentages among students with substance abuse problems, some research has indicated that students from high SES backgrounds may be as likely to abuse substances as those from low SES backgrounds (Humensky, 2010). Factors such as depression, delinquency, and family violence may be related to increased levels of substance abuse among youth (Yi, Poudel,

Yasuoka, Palmer, & Jimba, 2011). Likewise, unemployment, age of first use, poor parenting skills, antisocial behavior in the home, harsh home discipline, low school expectations, a low perception of harm from alcohol and drug use, more drugs in the community, a stronger potency of drugs as in marijuana, a low level of bonding with the school environment, and low academic achievement are also factors that have been associated with youth substance abuse (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Birckmayer, Holder, Yacoubian, & Friend, 2004; Burrow-Sanchez et al., 2009; Case & Haines, 2008; DeWit, Adlaf, Offord, & Ogborne, 2000; Humensky, 2010; Yi et al., 2011). With respect to parenting skills and other family-related factors, we can say more specifically that perceived parental approval of drug use (Donovan, 2004), low parental monitoring in general (Shillington et al., 2005), parental and or sibling substance use (Birkmayer et al., 2004), and family history of alcoholism (Warner & White, 2003) are risk factors for substance abuse.

Many of these factors are beyond the control of the classroom teacher and school personnel. The exact nature of the relationship between adolescent substance abuse and these risk factors is unclear. Some authors believe that many of these risk factors are causal and need to be addressed in treatment programs while others believe that these factors are largely correlational and may be a *result* of substance abuse (Swendson et al., 2012). Gallimberti et al. (2011) went so far as to conclude that the primary contributors to adolescent alcohol abuse were those family-mediated factors mentioned above that contributed to high-risk social behaviors.

Another important consideration in a discussion of risk factors is the issue of comorbidity of substance abuse with a range of mental health diagnoses. In one study, 23.9% of adolescents reported comorbidity of externalizing mental health disorders – which include attention-deficit/hyperactivity disorder (ADHD) and oppositional defiant disorder – and 11.2% with internalizing disorders such as depression and anxiety (Sabri, 2012). As many as 90% of adolescents who presented for substance abuse treatment had been diagnosed with at least one mental health disorder according to a study by Shlosberg, Zalsman, and Shoval (2014). With respect to alcohol abuse alone, the most frequently diagnosed mental health disorders include conduct disorder, posttraumatic stress disorder, ADHD, and major depressive disorder (Pompili et al., 2012). Among adolescent marijuana users who presented for substance abuse treatment, more than two thirds had a diagnosis of two or more mental health disorders (Pompili et al., 2012).

Arguably the most prevalent disorder among the general population of students, affecting 8.1% of all school-age children according the Centers for Disease Control and Prevention (CDC), ADHD is a risk factor associated with adolescent substance abuse (Gudjonsson, Sigurdsson, Sifgusdottir, & Young, 2012; Salm, Sevigny, Mulholland, & Greenberg, 2011). Moreover, data suggest that youth already at-risk for school failure who are below grade level in achievement, who manifest serious behavior problems in school and have serious problems interacting with peers and teachers may be more likely to abuse drugs and alcohol, compounding serious already-existing problems (Trenz, Dunne, Zur, & Latimer, 2015). The implication for educators is twofold: 1) that signs and symptoms of substance abuse may be confused with or masked

by those of the other condition(s) present, and 2) that substance abuse may or may not be the original condition – that it may be a form of self-medicating and should not necessarily be the primary focus of any intervention (Garland, Pettus-Davis, & Howard, 2012).

Protective Factors

As with the risk factors for youth substance abuse, many protective factors have their roots in the family and in the community environment. Such factors include: (a) parenting skills such as a positive, authoritative (as opposed to authoritarian) style; (b) close monitoring; (c) a strong sense of family cohesion as expressed by mutual positive regard among family members; (d) impulse control; (e) academic competence; (f) strong positive neighborhood connections; and (g) participation in effective antidrug use programs (Birckmayer et al., 2004; Robertson, David, & Rao, 2003).

Teachers can provide another layer of protection insofar as their relationships with their students are positive and supportive. Such positive relationships that contribute to emotional attachment to the school environment have been shown to be associated with a decrease in risky adolescent behaviors to include substance abuse (Li et al., 2011; Rudasil, Reio, Stipanovic, & Taylor, 2010). More on the role of the teacher follows.

When Use Is or Is Not Abuse

The data suggest that many students will experiment with drugs and alcohol, but that not every child who experiments with these substances will eventually become a substance abuser (Burrow-Sanchez et al., 2009). Likewise, not every behavior or attitudinal problem manifested by an adolescent is reflective of drug or alcohol abuse. Often, the problems of youth are transitory and reflective of the difficult period of adolescence and not a result of the use of illicit substances. However, there are instances when teachers suspect that a student is experiencing problems that may be associated with substance abuse and then the question becomes what to do. A teacher's suspicions would be triggered when the student begins missing class without a legitimate excuse, has grades that are dropping, and is beginning to have disciplinary referrals at school (Henry et al., 2011).

Role of the Teacher

Teachers rightly do not have the authority or sufficient training to themselves directly intervene when substance abuse by a student is suspected. Not only are issues of liability, confidentiality, and, at times, the risk to the relationship between teacher and student of utmost importance, but equally important is the potential emotional impact on the teacher. While some teachers may seem to have a natural inclination to effectively communicate with their students about sensitive topics, there may be far-reaching ramifications to beginning down the path of intervention by engaging in a conversation with an individual student about their suspicions. It is not uncommon that, at the very early stage of expressing a concern, the standard response, especially on the part of youth, is denial, anger, and blaming the other person. Such conversations between teacher and student should not be undertaken without the teacher first being versed in how to do so effectively, that is, with minimal repercussions

afterward to the relationship with the student. At the classroom level, it is also critical that teachers have full knowledge of the realities of substance abuse and their responsibilities to conform to the policies and procedures developed by the school or school district. There are early warning signs of substance use and abuse with which teachers, alongside parents, will come into contact. Such signs include changes in behavior, personality, mood, appearance, and social circle. Also present may be uncharacteristic belligerence when confronted with suspicion of substance use, uncharacteristic poor judgment, disinhibition, deterioration of grades, truancy, skipping classes, and lack of motivation (Ali et al., 2011).These signs, which do not typically appear in isolation, may be the first indication that would alert teachers to pursue more accurate information about more formalized identification methods and about school professionals to whom a referral should be made. Information on policies for reporting suspected substance abuse should be readily available and, perhaps most importantly, teachers should play an active role when school policies concerning educational alternative are developed.

School-Based Responses

Given the ongoing levels of substance abuse as already discussed, it is critical that schools have a clear and coherent approach to deal with the issues associated with this problem. School responses to substance abuse must be well thought out and reflective of best practice and legal requirements. In some cases, such as the distribution of drugs and alcohol on a school campus, the matter quickly becomes a legal issue that supersedes any school-based sanctions. However, in many cases, schools do have a significant role to play especially when confronted with students who they may suspect are involved with substance abuse.

There have been a number of attempts at early intervention to prevent substance abuse such as the Drug Abuse Resistance Education (DARE) program, arguably the most well-known. Some researchers have noted that many early prevention programs such as DARE, while well intentioned, have been less than effective in addressing many of the substantive issues with substance abuse in schools (Hanson, D. J., 2013; Vincus, Ringwalt, Harris, & Shamblen, 2010). It should be noted that, despite much empirical evidence for its ineffectiveness overall, there are some reports that acknowledge the program's benefit in other factors, such as school attendance on days when the program is being held (Berman & Fox, 2009). These early intervention programs point to the need for schools to develop a comprehensive approach to substance abuse that reflects best practice, involves relevant community services and agencies, includes parents and teachers, and is designed to keep students engaged in an educational environment.

Most schools have a zero tolerance policy related to substance abuse and move to exclude students from school settings by way of suspension or expulsion when they determine that the student manifests such a problem (Burrows-Sanchez et al., 2009). These zero tolerance policies are ineffective and do little but to push the problem out into the community and exclude the child from any meaningful engagement with the educational environment. Zero tolerance does little to address the problems of the child and, in fact, creates a

more serious problem by depriving the child of the environment that potentially could be the most valuable, which points to the need for school policies that include a graduated system of interventions that reflect the severity and history a student's substance abuse problem. These interventions should be designed to keep students engaged in the educational programs but may offer a number of educational settings that enable the student and his or her peers to fully and effectively engage with the educational program. There are two basic types of recommended intervention in the school setting: individual intervention with a trained professional who is a part of the school staff, and group counseling/educational sessions which would also be conducted by such a professional.

Designing the scope of these graduated policies and environments will necessarily involve teachers, parents, school counselors, school psychologists, and social and legal agencies and should recognize the critical role that each plays in the identification and referral for treatment of substance abuse. This involvement will require ongoing education and training for all parties in the realities of substance abuse treatment and especially in the evolving nature of the problem. In some cases, states' Departments of Education provide written guidelines for schools and school districts for developing substance abuse policies. One such guide includes certain topics that should be addressed, such as a philosophy statement, a community involvement component, a guide for effective communication, a prevention/education component, an enforcement policy, an intervention process, a treatment referral procedure, a disciplinary component, a review/revision timetable and process, as well as guides with respect to state laws and state resources (Maine Department of Health and Human Services, 2008).

Students with Special Needs

An important student population to consider when crafting a school substance abuse policy is that of students with special needs. A school's or district's code of student conduct will likely include a section that specifically delineates how students with disabilities shall be given any disciplinary consequences with reference to the students' individualized education plan (IEP). Such plans often require the convening of the student's IEP team members to address disciplinary matters, especially those which would call for suspension or expulsion, such as substance abuse related infractions.

Recommendations

The most effective approach to school-based substance abuse prevention programs is one that is inclusive of all students, not only those who might be considered at risk for substance abuse (Kristjansson, Sigfusdottir, & Allegrante, 2013). Substance abuse problems are bigger than any one group of individuals within the school setting. The authors emphasized a holistic and school-community approach that would provide a prevention program akin to community health education. Moreover, any discussion of alternatives will almost certainly necessitate a discussion of finances and a cost/benefit analysis. This discussion has to involve all aspects of the community, as the activities of one agency will affect the entire community. For example, schools that move to

quickly expel students who have been identified as having a substance abuse problem may inadvertently put the youth out on the street in an even more unsupervised setting and could result in an increased level of crime and an escalation of attendant problems. Therefore, it is critical that all community groups recognize that the issue of youth substance abuse is a community problem that calls for serious, coordinated, collaborative action.

There is ample literature to support that student self-disclosure is a critical and necessary part of an effective substance abuse treatment program (Bertrand et al., 2013). Student self-disclosure refers to the student revealing the truth about his or her own substance use pattern and history. This results in a shift in the locus of control to the student and involves him or her in a very necessary way in the treatment program. Student self-disclosure cannot occur, however, if school administrators strictly adhere to zero tolerance policies in which students are removed from schools if they admit to a drug or alcohol problem.

School policies also have to recognize the critical role of parents in any substance treatment program (Griffith, 2010; Unger, Ritt-Olson, Soto, & Baezconde-Garbanati, 2009). Parents may need to engage in some type of ongoing dialogue related to the effect that substance abuse has had on their family, to the ways that they deal with misbehavior in the home, and to the role of their own behavior (Gallimberti et al., 2011). These can be sensitive and difficult conversations and well beyond the scope and responsibility of regular school personnel, although teachers are most often on the "front line" of initiating them. These discussions should involve mental health professionals trained in dealing with substance abuse and social service agency staff. Still, schools can assist in working with agencies to develop policies that recognize the critical role that teachers and parents play in the lives of youth with substance abuse problems.

Teachers are increasingly evaluated by the results of formal test scores that measure the amount of academic growth made by students in their classes. The pressure of this evaluative process may cause teachers to be very wary of students who manifest serious problems such as substance abuse and may be seen as a drain on their instructional time in the classroom. This is not an unreasonable concern, but the reality is that there are students who do manifest problems and teachers are in a unique position to identify and assist in facilitating referrals to interventions designed for these youth. So, the challenge becomes the structuring of the educational community's response to students who may be involved in substance abuse while recognizing the very real concerns of classroom teachers.

Treatment issues necessitate that careful attention be paid to issues of truancy, parental supervision, parenting practices and school achievement. Any approach has to recognize that students may need intensive academic assistance as well as ongoing counseling services and that these services must account for relapse and unexpected issues involving the family and community interaction.

It is also important that everyone involved in the development of substance abuse policies and attendant treatment services recognizes the importance of adhering to the legal requirements associated with substance abuse and the reporting of suspected cases of drug use. Burrow-Sanchez et al.

(2009) noted that U.S. Federal Regulation 42CFR addresses the issue of confidentiality related to student substance abuse. According to the regulation, if a particular state's law does not require parental consent to treatment, then the minor owns the confidentiality over any and all information pertaining to that treatment, especially to the fact of its having taken place. School policies need to carefully reflect their state's requirements vis a vis this federal regulation as well as any other applicable state laws.

Among the principles recommended when developing substance abuse policies or selecting an existing prevention program are: (a) enhancing protective factors and reduce risk factors; (b) addressing all forms of drug abuse with a focus on prevalent community drug abuse problems; (c) including a family-based component; (d) beginning at the earliest age feasible – the younger the target population, the stronger the focus on protective factors should be, i.e. academic achievement; (e) collaborating with community leaders to foster a consistent prevention effort across settings; (f) planning for the long-term implementation with repeated and frequent delivery and reinforcement; and (g) including interactive strategies (i.e. peer discussions) that have been shown to be most effective (Robertson et al., 2003). Additionally, recommendations from a large, inner-city substance abuse policy emphasize (a) framing the policy as a health risk initiative, (b) annually reviewing the policy for effectiveness, (c) protecting teachers and other school personnel from liability, (d) involving families wherever and whenever possible, and (e) cooperating with law enforcement as necessary to maintain public safety (Newark Public Schools Discipline Plan and Policy, 2009).

Conclusion

Substance abuse is a serious and complicated issue that requires careful planning and the full involvement of teachers, school officials, and social and legal agencies so that a coherent and unified approach can be developed that seeks to address the very real needs of youth, their parents, and the community. In such a setting and under such conditions, it is reasonable to expect a continuation in improved outcomes for all stakeholders in this important issue, especially for the youth who are being served and who are entitled to our very best and highly informed efforts. The changes in recent years in many states to the nature of what is or is not legal for adults with respect to substance use and possession will likely contribute to the ongoing changes in the landscape of this issue.

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The Usage of Counselling Skills to Increase Motivation in Teaching Among Trainee Teachers in Malaysia

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Abstract. Motivation in teaching is a significant factor in improving teacher-students' relationship, students' academic performance and students' well-being. However, the use of counselling skills to increase motivation in teaching is still minimal. Therefore, a university course, Personality Development, which encompasses counselling skills is made compulsory for trainee teachers in Malaysia. This study discussed how counselling skills in the Personality Development course can be used to enhance motivation in teaching among trainee teachers. This study employed the ex-post facto survey design. A sample of 596 participants from a population of 1350 trainee teachers were selected randomly for the study. They consisted of 496 trainee teachers who had passed the course and another 100 trainee teachers who were never exposed to Personality Development course. The research instrument titled Motivation in Teaching was used to gather information from the sample. The instrument was developed based on Person Centred Theory (Rogers, 1998) and Motivational Framework for Culturally Responsive Teaching (Wlodkowski, 2003). The instrument has been validated by experts and results show a high score of validity. The reliability of the instrument is also high. The results show a difference between trainee teachers who were exposed to Personality Development course and those who were not exposed to the course ($t=3.4$, $df=594$, $p<.05$). Trainee teachers who were exposed to Personality Development course exhibited higher motivation in teaching than those who were not exposed to the course. It was concluded that students who were exposed to the course were better disposed to resolving challenges in teaching.

Keywords: Counselling skills; personality development; trainee teachers; motivation in teaching.

Introduction

Studies on teachers' personalities, effectiveness and motivation in teaching, and their correlation with students' academic achievement have been conducted and published (Abu Bakar & Ikhsan, 2003; Che Norlia, Abdul Majeed, Zulkefli & Salina Noranee, 2005; Farirai Musika & Richard Bukaliya,2015; Garcia, Kupczynski, & Holland, 2011; Mucella Uluga, Melis Seray Ozdenb, & Ahu Eryilmazc, 2011; Mohd Sofian, Aminuddin & Borhan, 2002; Nazri & Nashrudin, 2014; Tang Keow Ngang & Tan Chan Chan, 2015, Shazaitul Azreen & Maisarah, 2016). The impact of teachers' motivation in teaching is reflected on the development of the students and the schools. Students who do not have motivation to learn might be involved in disciplinary cases. Students with disciplinary cases are found to be lacking of social skills, have poor academic performance and may eventually drop out and end up being criminals in the future (Asmah & Zulekha, 2004; and Finn, Fish & Scott, 2008). To overcome this, teachers who are responsible in educating students are expected to develop good personality traits. Therefore, it is essential to produce trainee teachers with good personalities.

Trainee teachers spend about three to four years at the institutions, excluding semester breaks and holidays. Therefore, an ideal time to train teachers is during their training years. Recent studies conducted on trainee teachers focussed more on the factors of the teaching profession and the importance of personality traits and ethics among undergraduates (Nazri & Nashrudin, 2014; Tang Keow Ngang & Tan Chan Chan, 2015 and Shazaitul Azreen & Maisarah, 2016). There has been an increasing interest in searching for strategies in personality development especially motivation in teaching among teachers. Factors that influence career choice among trainee teachers are their intrinsic interest, motivation, and confidence. These factors are critical in producing successful students. To show the importance of motivation in teaching, Gemeda and Tynjala (2015) posited that teachers must be committed and motivated in performing their roles in schools so that the huge investment could be benefited. There are several studies conducted in Malaysia that investigated personality development and motivation in teaching (Abu Bakar & Ikhsan, 2003; Ahmad & Akmal, 2014; Aripin, Hamzah & Norihan, 2011; Nurul Haerani, Ahmad Esa & Zalina Aishah, 2014). However, the samples used in these studies did not take samples from any compulsory course for trainee teachers in Malaysia.

The Personality Development course is a university course compulsory for students who will become teachers in a teacher training institutions in Malaysia. The course includes knowledge and skills pertaining to personality development of teachers. During the course, trainee teachers are given information regarding the philosophy, concepts, ethics and theories of teaching. They are expected to understand and compare the philosophy and concepts of education in Malaysia with those in other countries. Apart from knowledge regarding the national philosophy, trainee teachers are also expected to understand and apply the professional ethics regarding the teaching profession so that they are able to refer to the guidelines given by the Ministry of Education whenever they need to.

Knowledge regarding theories of personality is useful for trainee teachers as it will help them to understand themselves and others. In this topic, self-reflection is used. Reflective activities are proven empirically as effective in developing professional identity among trainee teachers (Ivanova & Skara-Mincane, 2016). By understanding about themselves, trainee teachers are able to empathise and understand others.

Trainee teachers are also trained in interviewing or basic counselling skills in the Personality Development course. They have to apply the basic counselling skills in classes and when doing their assignments and participating in programmes. Guidance is given to apply the skills in a conducive environment and the lecturer acts as a role model in applying the basic counselling skills. Among the counselling skills are interviewing skills such as responding, questioning, reflecting, summarizing, paraphrasing and asking for clarification.

Audio, visual, cognitive, affective, and psychomotor aspects are used as proposed in Gardners Intelligence Theories (Gardner, 2006). Activites that cover these aspects include music, role playing and discussions to enhance thinking skills. Freedom is given to the trainee teachers to act and show emotions in any of the activities. One major advantage in this course is that it is safe, convenient, and provides opportunities for trainee teachers to realise their potentials as proposed in the Person Centred Theory (Rogers, 1998). Empathy and non judgemental are also emphasized in classes.

Research showed that appropriate intervention in programmes, classes and activities will increase the level of personality development positively (Che Norlia Abdul Majeed Ahmad, Zulkefli Abdul Rahman & Salina Noranee, 2005, and Galini, & Efthymia, 2009). Counselling skills play an important role in creating conducive environment and in helping students and teachers at school. Teachers who practise and apply counselling skills in a programme, classes and activities are found to motivate students (Zuria & Salleh, 2002; Farirai Musika & Richard Bukaliya,2015). Shepard, Salina, Girtz, Cox, Davenport and Hillard (2012) also identified how relationships can transform troubled lives. Therefore, counselling skills are found to be effective in creating conducive environment, especially for trainee teachers during the beginning years in the training institutions. Experience in the training can enhance knowledge and skills of trainee teachers especially if the training is conducted in a healthy environment where social interactions are ensured.

Based on the significance of personality development in motivating teaching, there is a need to investigate its impact on motivating teaching. Hence the study aims to investigate the effect of counseling skills, in the Personality Development course, on motivation in teaching among trainee teachers in one of the teachers' training institutions in Malaysia. The remaining section of this paper will discuss on the methodology, results and discussion.

2. Methodology

This study utilized an ex post facto survey design. The aim of this study is to investigate the effect of counselling skills in Personality Development course, on motivation in teaching among trainee teachers in one of the teachers' training

institutions in Malaysia. This design has been used by other researchers (Borhannudin, Jacklyn, & Maisarah, 2016). This is due to the fact that the cause and effect can also be measured by utilizing ex post facto design as the right of participants in receiving treatment is not deniable.

The study was carried out in a teacher training institution in Perak. The institution was purposely selected. The sample for the study consisted of 596 voluntarily participants comprising of 496 students who had passed the compulsory Personality Development Course (experimental group) and 100 students who were not exposed to the compulsory course (control group). These students were first stratified into two before they were later selected using random sampling technique.. They were also randomly assigned to two groups - the experimental and the control.

The participants consisted of university students of the age of 22 to 25 years old. Most of them were Semester 1 students (427 or 71.6%), while the rest were from Semester 2 (108 or 71.6%) and Semester 3 (61 or 10.3%). Table 1 shows the faculty of the participants. Most of them were from Faculty of Language (46.1%), Faculty of Technical and Vocational (16.1%) and Faculty of Social Science (10.1%).

Table 1: Participants according to faculty

Faculty	*Students who passed the Personality Development course*		*Students who have never been exposed to the Personality Development course*		*Total*	
	Frequency	*Percentage (%)*	*Frequency*	*Percentage (%)*	*Frequency*	*Percentage (%)*
Language	235	47.4	44	44	279	46.8
Music and Performance	10	2.0	3	3	13	2.1
Administration and Economy	44	8.9	8	8	54	9.0
Education and Human Development	7	1.4	5	5	12	2.0
Technical and Vocational	81	16.3	15	15	96	16.1
Social Science	51	10.3	10	10	61	10.1
Computer Science and Industrial Creative	43	8.7	10	10	53	8.9
Sports Science and Coaching	25	5.0	5	5	30	5.0
Total	496	100.0	100	100.0	596	100.0

An instrument titled Motivation in Teaching was developed by the researchers .This was adopted from Motivational Framework for Culturally Response Teaching by Wlodkowski (2003) and Person Centred Theory by Carl Rogers (1961). There are 11 positive items of awareness and confidence of being a teacher. Among the items on awareness listed are "The Personality Development course utilizing Counselling Skills has made me : (1) realise my personality, (2) aware of my potential of becoming a teacher, (3) aware of the

importance of helping my peers at school, and (4) aware of the way to communicate effectively with others.

The items on confidence consists of "After taking the Personality Development course utilizing Counselling Skills, I am confident to: (1) be a good teacher in the future, (2) guide my students effectively, (3) help others, (4) give cooperation in group work, (5) become creative teacher in the future, (6) make good decisions, (7) have potential of becoming a good person.

Response to the instrument are given 4 likert scales; (1) Strongly Disagreed, (2) Disagreed, (3) Agreed, and (4) Strongly Agreed. Response 1 is given 1 mark, 2 is given 2 marks, 3 is given 3 marks and response4 is given 4 marks. The minimum score for the response is 11 and maximum score is 44. The distribution of levels of motivation in teaching are as below:

Table 2: Levels of motivation in teaching

Levels of motivation in teaching	Scores
High	33-44
Average	22-32
Low	11-21

The instrument was validated by 5 experts. They are lecturers and teachers from the education, counselling and measurement field. Most of them have been in the education service for more than 10 years. The instrument has been found to have a high score of validity and reliability value of 0.7 to 0.8.

The data was collected at the end of the semester in 2015. The data was analysed using t-test, percentage and frequency. Prior to the beginning of the study, a month was spent to get the permission from the authorities to carry out this study. The university course was carried out as usual to the students. The classes were conducted for 14 weeks at the institution. A set of questionnaire was given to the treatment group at the end of the semester, and to the control group at the beginning of the subsequent semester. The treatment group are also asked to give reflection regarding the Personality Development course utilising Counselling Skills. Reflections were given voluntarily as there is no coercion used in collecting the data.

Results and Discussions

Results are discussed in two parts. The first part is the data for motivation in teaching, and second part is the supporting data based on the reflection given by trainee teachers at the end of the semester.

Motivation in teaching

The data is analysed using t-test. The results show that there is a difference between the treatment and control group ($t=3.4$, $df=594$, $p<.05$). There is a difference in the mean score of motivation in teaching in the treatment group (min=3.76) compared to the control group (3.37). This shows that the treatment group comprises of more trainee teachers of high level of motivation in teaching. This indicates that the university course, Personality Development is able to help in increasing the level of motivation in teaching among trainee teachers in one of the teachers' training institutions in Malaysia.

There is a difference in motivation in teaching between the control and the treatment groups. The treatment group had passed the course and the control group had never been exposed to Personality Development course. Treatment was given in 14 weeks where counselling skills were demonstrated and applied. Facts and examples were given and role play and presentation were carried out in classes. To enhance their communication skills by using basic counselling skills, trainee teachers were also required to carry out an outreach programme and attend a two-day experiential programme where they were asked to apply the basic counselling skills with their peers and with the community. The importance of educating students was one of the aspects that had been discussed in the course where case study and discussions were carried out.

Reflection

Through a survey, 313 (63%) of the trainee teachers who had passed the course totally agreed, 178 (36%) agreed, 4(0.8%) disagreed and 1(0.2) totally disagreed that the Personality Development course has given them motivation in teaching. Reflections collected from trainee teachers show that the emerging themes include the enjoyment and benefits of taking the course and hopes regarding teaching. Trainee teachers expressed their enjoyment in taking the Personality Development course. They enjoyed the activities conducted in the course. Students were required to participate in role play as teachers and students. Acting as students has helped them to understand students' feelings when teachers used certain ways of communication. Trainee teachers were also required to participate in the experiential programmes where they were given certain tasks in groups such as puzzle, problem solving, personality test and reflection.

The benefits that were listed in the reflections include understanding oneself and others, communicating effectively with others especially students, future benefits such as when having their own family and career achievement. Trainee teachers also expressed their hope that they will be able to apply the knowledge and skills acquired in the course. They also suggested that the Personality Development course be opened to teachers and students at schools. Among the expression given were:

> "It is fun taking the course. Lots of activities".
>
> "I love the programme in this course. It is great. We have time to apply whatever we learn - help friends, give supports to each other, communicate well, understand others. It was great".
>
> "Being in the course was thrilling. We were asked to role play. Sometimes we had to act as good teachers and also as bad ones. Being students and audience at that time, we can know and understand how students feel if teachers act in certain ways".
>
> "I can understand myself when we were asked to reflect ourselves – during discussion on theories of personality.. interesting".
>
> "Communication… that's the best part.. learn, practise, apply".
>
> "I will use the skills for the future – having family, in the workplace".
>
> "The best.. this should be given to teachers and students at school".

However, there are trainee teachers who are unsure of the impact of the course such as:

"Not sure of what I get from the course".

"No, I don't really like to act as students – childish".

Discussion

The findings of the study show that nearly all trainee teachers have high level of motivation in teaching after taking the Personality Development course compared to trainee teachers who have not taken the course. To conclude, the university course, Personality Development has proven to help trainee teachers to be motivated in teaching. Trainee teachers feel confident and are aware of the responsibilities of being a teacher in the future. The result was also supported by data collected in the reflections given by trainee teachers who have taken the Personality Development course.

The course comprises of knowledge and skills in teaching. The knowledge regarding philosophy, concept and ethics in the teaching profession and the skills acquired in the course are found to be helpful in increasing motivation in teaching among trainee teachers in a teacher training institution in Malaysia. The findings in recent research found that motivation and ethics are important aspects in teachers training. (Gemeda, & Tynjala, 2015; Galini & Efthymia, 2009; Shazaitul Azreen & Maisarah, 2016; Tang Keow Ngang & Tan Chan Chan, 2015; and Wlodkowski, 2003).

In this study, it has proven that conducive environment is essential for teachers' development. It has also been claimed by Driscoll, Lambirth, and Roden (2012) and Farirai Musika and Richard Bukaliya (2015) that along with a good knowledge of the subjects to be taught, teachers are also fair and empathetic and know the demands of teaching a single national curriculum to children in a culturally rich and diverse community. The trainee teachers' reflections also show that the counselling skills taught in the Personality Development course have helped the trainee teachers to gain confidence of their self-potential. This is supported by Zuria and Salleh (2002), Baker and Gerler (2004), who stated that proper and suitable ways of conducting classes or programmes increase students and teachers well-being and future undertakings. Therefore, teachers should have counselling skills and apply them in classrooms and during interactions with students, teachers, staffs, and parents.

Conclusion

The results show that the university course, Personality Development can be a part of the programme that contribute to increasing motivation in teaching among trainee teachers. The Personality Development course can also be used as a medium for students and parents to gain motivation in teaching their peers and children. Therefore, it is believed that this course can be used by all education institutions and other organizations to give confidence to trainee teachers, educators, parents and students as well as develop their potentials to be integrated human resources for the nation.

Basic counselling skills should also be the most important aspect in training as it may give ways and guidelines to teachers, educators, parents and students on effective communication. With the right way of communication,

relationship can be developed, maintained and strengthened, thus creating a conducive environment where positive impact will be achieved tremendously.

This study, however, did not investigate the effect of the course using pretest posttest experimental design. Other variables such as emotional quotient, competencies and self efficacy that may affect teachers' performance are not included in this study. The process of gaining motivation in teaching to understand its factors and barriers is not explored in this study. The sustained motivation in teaching among trainee teachers who have taken the course to measure whether the course has long time effect is also not investigated. Thus, further studies should be taken to determine the effectiveness of this course by utilizing prepost experimental control group design, longtitudinal study and also inquiry naturalistic study.

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The Role of Cultural Factors on Students' Social and Achievement Goals Motivation

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Abstract. The present study hypothesized that student's motivational goals could be predicted by cultural factors such as ethnic identity (exploration and commitment) and social achievement goals (social development, social demonstration-approach, and social demonstration-avoidance). A total of one-hundred fifty-nine university students participated in the study with the results showed that students' social goals motivation positively predicted achievement motivational goals, but ethnic identity did not predict any motivational goals. Students' horizontal and vertical relationships within the Indonesian context, was also measured in relations to their social achievement goals and ethnic identity. In the Indonesian context, vertical relationships pattern had predictive role on social demonstration-approach goal. A further exploration on how social goals predict motivational goals is needed for a more thorough comprehension on how these two variables interact.

Keywords: social achievement goals, ethnic identity, horizontal and vertical cultural orientation, achievement goals motivation.

Introduction

Students' motivation has been an important topic in any educational settings as shown by many studies (eg. Dweck, 1999; Elliot & Church, 1997) as it is the desired condition in any learning process. Achievement goal motivation defines motivation as something that guide and direct one's cognition and behavior toward a particular goal (Dweck & Elliot, 1983). The goal drives the students in different ways as they try to achieve different goals. Some students may want to achieve mastery level, others may want to compete with others.

Previous studies have shown that the type of motivation which a student has will affect their approach to learning (Ames, 1992), and also their academic performance (Elliot, McGregor, & Gable, 1999). Achievement motivation itself has been found to be related to varieties of factors, such as emotional intelligence

(Sontakke, 2016), gender (Sutantoputri & Watt, 2013) and also ethnicity (Murniati, Sutantoputri, & Purwanti, 2013; Sutantoputri & Watt, 2012), Students' achievement motivation itself can be affected by a lot of factors. Based on the nature of achievement goals itself, it could be students' goals motivation can be also affected by their social goals especially in a collectivistic culture such as Indonesia which emphasizes sociability. In a society which emphasis on sociability and interdependence, to get along or to be accepted by others would be an important matter. This would make social competence as something to attain for. As social goals in a collectivistic culture seem to be imperative, it would not be surprising if they could also motivate students in a certain way. For example, a student who wants to show off his/her social skillfulness and abilities to be accepted by his/her friends might be more likely to want to demonstrate his/her academic abilities in contrast with a student who only wants to develop his/her social skills and abilities. In fact, previous study showed that students' social goals predicted different types of learning approached among students (King, Ganotice && Watkins, 2014). This shows that social goals have significant weigh-in on academic behaviors amongst students.

Putting students' achievement motivation and social goals in a larger perspective of one as a member of one's culture, it would not be surprising to see culture to have an impact on the goals, as culture has been found to affect one's motivation and behavior (Banks, 1993). One cultural factor that has been found to affect students' motivation in the Indonesian context is ethnic identity (Sutantoputri & Watt, 2012). Ethnic identity refers to one's sense of belonging to an ethnic group. This belonging to one's ethnic group cannot be chosen by oneself as it is defined not only by one's racial group but also by one's affiliation to one's cultural heritage which include its values, traditions, and language. Students' strong ethnic identification has been found to have a positive relationship with their motivational goals (Oyserman, Harrison, & Bybee, 2001). As ethnic identity is associated with ethnic group values, it would not be unexpected to see that one's cultural orientation would be found in association in some level to it. Previous study in the Indonesian context found that one's collective self-esteem, which can be related to one's ethnic identification, is related to one's cultural orientation (Sutantoputri & Evanytha, 2013).

One's culture can be individualism or collectivism, depending on where s/he was born and lives. Individualism refers to a culture which encourages individual independence whereas collectivism culture encourages its people to be interdependence (Triandis, 1995). In general, most Western countries are associated with individualism, whereas most Asian countries with collectivism. Within either culture, there are some differences within the culture. For example, in a collectivistic culture with a Confucian background there could be a more leaning toward authoritarian values and traditional sociability as Confucian teaching emphasizes on honoring one's parents and respect to the orderly, but on other collectivistic cultures there might be different perception on those values, although they all encourage sociability. Triandis and Geldfand (1998)

proposed that what makes the distinction across cultures would be how the people put importance on their horizontal and vertical social relationships. One's horizontal and vertical social relationships can affect their values and behavior (Shavitt & Cho, 2016). The dichotomy of horizontal and vertical relationships gives a deeper insight of cultural factors as it shows layers of the fabric of culture which would have different effect on a lot of things, which might include students' social achievement and achievement motivation goals. The present study proposed that students' achievement motivation could be affected by social achievement goals and that both goals, in turn, could be affected by ethnic identity; and that ethnic identity and social achievement goals would be influenced by the pattern of their social relationships (horizontal and vertical patterns).

Achievement Goal Motivation

Achievement goal motivation refers to students' motivation to develop or demonstrate their competence at an activity (Dweck, 1986). There are three well-established achievement goal motivations: learning, performance approach and avoidance goals (Elliot & Harackiewicz, 1996). Students who are motivated to develop their competence and task mastery are said to have a learning goal motivation. Students who are motivated to demonstrate their competence at an activity would have a performance approach goal, whereas they would have a performance avoidance goal when they are motivated to avoid looking incompetent at an activity. Another type of motivation is known as work avoidance goal (Archer, 1994). Work avoidance goals refer to students' motivation to do as minimum as possible at an activity not because of academic incompetence but just because they prefer to do the least work possible. This study explored learning, performance approach, performance avoidance, and work avoidance goals

Social Achievement Goals

People have different social goals motivation. These goals will direct their social behaviors. Ryan and Shim's (2007) study found three types of social achievement goals which are distinct from academic achievement goals: social development goal, social demonstration-approach goal, and social demonstration-avoidance goal. Someone has a social development goal when s/he is motivated to develop her/his social competence. S/he has a social demonstration-approach goal when s/he is motivated to demonstrate her/his social competence, whereas s/he has a social demonstration-avoidance goal when s/he is motivated to avoid getting negative judgment from others. Both social demonstration goals are concerned with social desirability, with the approach leaning toward positive social desirability whereas the avoidance concerns with avoiding undesirability. As face saving behavior is known to be important in collectivistic cultures (Triandis, 1995), it could be that social demonstration-avoidance would be prevalent in the Indonesian context and might predict achievement motivational goals.

Ethnic Identity

There are many facets to one's ethnic identity (Ashmore, Deaux, & McLaughlin-Volpe, 2004) such as self-categorization (how one labels oneself as a part of certain ethnic group), private regard (one's positive or negative attitudes toward one's ethnic group). Phinney (1992) developed an ethnic identity measurement which measures critical components of commitment and exploration of the ethnic identity which were assumed to be cross-cultural. Commitment refers to one's sense of belonging to one's ethnic group, this could vary between one individual to another. One may have commitment to one's ethnic group through identification with parents, other may have strong commitment to his/her ethnic group through his/her knowledge and understanding of his/her ethnicity which was formed by exploring the subject. Exploration itself can be explained as one's active seeking of information and experiences important to one's ethnicity (Phinney & Ong, 2007). These two constructs although have been found to be distinctive on their own (Roberts et al, 1999) may have a close relations as one's exploration toward one's ethnicity would need a certain level of commitment and vice versa. As ethnic identity changes over time and context, it also means that one's exploration may continue throughout one's course of life. It is expected that one may reach one's ethnic identity achievement which comprises of having a firm commitment to one's ethnic identity which is formed by a thorough ethnicity exploration as opposite to foreclosure or moratorium stage (Marcia, 1980). The former refers to having commitment without sufficient exploration, such as only by identification with parents or role models, whereas the latter is having an ongoing exploration in regard to one's ethnicity without any commitment. The revised version of Phinney (1992) ethnic identity measurement (Multigroup Ethnic Identity Measure-Revised; Phinney & Ong, 2007) was used to measure students' ethnic identity in the present study as it can give information on the strength and security of ethnic identity.

Horizontal and Vertical Relationships Patterns

Triandis and Geldfand (1998) proposed that there are horizontal and vertical aspects of individualism and collectivism; where horizontal aspect refers to one being equal with others and vertical aspect refers to a pattern of hierarchy. People with a horizontal individualism orientation would be more likely to be perceived unique and self-reliant; people with a vertical individualism orientation are concerned with having a high status and would engage in competition with others to achieve it. People with a horizontal collectivism orientation encourage interdependence and social harmony and sociability without hierarchical order, whereas people with a vertical collectivism orientation also encourage interdependence, social harmony, and sociability but with a hierarchical order. The present study explored these four patterns in the Indonesian context to gain valuable knowledge of cultural patterns in Indonesia. This study proposed that students' motivational goals could be affected by their social achievement goals and their ethnic identity. In turn, students' social achievement goals and ethnic identity could be influenced by their cultural orientations.

Methodology

Participants. One-hundred fifty-nine students from two private universities participated in this study. One-hundred fifty-eight students identified their gender, with thirty-three as males, and one-hundred twenty-five as females. One-hundred fifty-three students identified their ethnicity, with one-hundred eighteen students as Native Indonesians, thirty-three students as Chinese Indonesians, and two students as from Other ethnicity background.

Instrumentation

Social achievement goals scale (Ryan & Shim, 2007) had three dimensions: social development (α = .644), social demonstration-approach (α = .766), and social demonstration-avoidance goal (α = .557). The coefficient reliabilities for motivational goals subscales were: learning goals (α = .808), performance approach goals (α = .837), performance avoidance goals (α = .738), and work avoidance goals (α = .745). Ethnic identity scale (Phinney & Ong, 2007) had two dimensions: exploration (α = .804) and commitment (α = .840). Horizontal and vertical patterns had 4 dimensions (Triandis & Geldfand, 1998): horizontal individualism (α = .652), vertical individualism (α = .636), horizontal collectivism (α = .428), and vertical collectivism (α = .581). Some of the reliability scores were found to be high, which indicated a good internal consistency, some were not so. It was decided to keep the items to have them tested for the next step of the study. The reliability for horizontal collectivism was found to be low but it was still included in the analysis to give additional information in the Indonesian context.

Analysis

Two multiple linear regression models were engaged to analysis the study data. One model had motivational goals (learning performance approach, performance avoidance, and work avoidance) as dependent variables with social achievement goals (social development, social demonstration-approach, social demonstration-avoidance) and ethnic identity (exploration and commitment) as predictors. The second model had horizontal and vertical cultural patterns as predictors, with social achievement goals and ethnic identity as dependent variables.

Results

Social development goals predicted only one achievement goals, namely learning goals (β = .398, $p < .01$). Students who were motivated to develop their social skills and abilities were more likely to have a learning goal orientation. Social demonstration-approach also only predicted one achievement goals, which was performance goals (β = .418, $p <. 01$); students who were motivated to be socially favored were more likely to try to demonstrate their competence in front of others. Social demonstration-avoidance goals predicted performance avoidance goals only (β = .324, $p < .01$); students who were motivated to avoid being socially undesired by others were more likely to avoid looking

incompetent in front of others. Work avoidance goals were not predicted by social achievement goals and ethnic identity. Ethnic exploration and commitment did not predict any motivational goals, which suggests that for the present study, the measurement for ethnic identity in the present study which were divided into exploration and commitment, were not found to affect motivational goals.

Social development goals and social demonstration-avoidance goals were not predicted by any of the vertical and horizontal cultural patterns. Vertical individualism orientation was found to predict social demonstration-approach goals ($\beta = .293$, $p < .01$) with students who were likely to be motivated in getting a high status by individual competition with others were more likely to have a motivation to get a favorable judgment by others. It was also found to be negatively predicted by vertical collectivism ($\beta = -.253$, $p < .01$), which shows that students who were leaning toward interdependence and submission to authority were less likely to have a social demonstration-avoidance goal.

Discussion

As expected, students' social achievement goals did predict their motivational goals. This would not be because they were in a same league with each other as Ryan and Shim's study (2007) showed that social achievement goals were distinct from academic motivational goals. This means the present study shows that students' social motivation could be considered as a factor that can affect students' motivational goals. In a collectivistic culture such as Indonesia where saving face is considered to be important, the result that social demonstration-approach predicted performance approach goals was not surprising. To outperform others could be one way of being respected, honored, which could also be seen as accepted in a hierarchical society as Indonesia. Previous study with Indonesian university students (Sutantoputri & Watt, 2012) showed that contrary to most results found in Western countries, performance avoidance goals positively predicted students' academic performance. The authors suggested that it could be due to cultural influence to not lose face which is a prevalent concept in many collectivistic cultures in Asia. It might explain why students who focused on avoiding negative judgment from others would be more likely to avoid looking incompetent. As they did not want to lose face socially, they would not want to look incompetent in front of others. One of the results of the present study also showed that social development goals predicted learning goals positively. It seems that although social development goals and learning goals are distinct from each other, the nature of both goals might be the reason why social development goals predicted learning goals positively. It could be that the mastery inclination of both goals might be caused by students' trait predisposition. Work avoidance goals were not predicted by any social goals. This is not surprising as the items for work avoidance goals were distinctly different from other goals, including performance avoidance goals. The work-avoidant students in the study chose to do the least work possible because they wanted to. This would not be influenced by the desire to master, to outperform others, or not to lose face.

Some intriguing results came up for horizontal and vertical orientations. One of them was the low reliability for horizontal collectivism dimension where it was expected that within the Indonesian context, the value of collectivism would be more prevalent, but instead items supporting (horizontal) collectivism such as "To me, pleasure is spending time with others" did not fare well on reliability scale. When a factor analysis was run for the four dimensions, from 4 items of the dimensions, one was not found to load at all ("The well-being of my peers is important to me"). Also, the results of this study showed that only vertical cultural orientation had any effect on students' social achievement goals. It would be apt to the Indonesian context which has a patriarchal and hierarchical society rather than an equality (horizontal) value. Students with vertical individualism orientation were found to be more likely to have social demonstration-approach whereas students with vertical collectivism orientation would be less likely to have social demonstration-approach. The result would be appropriate as students who were more competitive would be more likely wanted to demonstrate their social competence whereas students who leaned toward authoritarian and traditional sociability might prefer not to be perceived as showing off as they valued conformity. Students with vertical individualism orientation were more likely to do some exploration in regard to their ethnicity, although they were not more likely to commit. This might be related to their wanting to be perceived to be socially competent. It is reasonable for people who want to be perceived socially competent, as having social skillfulness and social abilities, to want to learn as much as they could about their ethnic background in the effort to use it to their social advantage, as an attempt to increase their social standing.

Conclusion

The study has also shown that in Indonesia, vertical orientation is much prevalent than horizontal orientation, and that vertical orientation indeed affected social goals. A further study into the process of how this orientation affects social goals could give a better value in understanding of the relationships between those variables for further study. As mentioned in the discussion, Indonesia is a patriarchal and hierarchical society which may cause the adoption of vertical orientation in the cultural measurement.

The present study has shown that, within the Indonesian context, students' motivational goals were influenced by their social goals. But, it has not shown how this might be so. It is advisable to study how social goals in particular affect motivational goals. By knowing how social goals affect motivational goals within the Indonesian context, it can be used to help the learning process by reinforcing the social goal which can effectively affect their learning motivation. For further study, it is also important to have a much reliable scale for horizontal collectivism. In sum, the result of the present study has been beneficial to the study of cross-cultural educational psychology as it gives significant knowledge of the relationships among cultural factors, social and motivational goals.

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Using Tried and Tested Processes Successfully

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Abstract: How many educators wonder daily if the material being taught is actually retained for future use? Research validates that students retain information learned when they acquire knowledge, make meaning of that knowledge and are able to discern when to transfer that knowledge to a new situation on their own. With the development of the "Boomerang Strategies" for the book, A Value Added Decision, these researchers help readers and, when applicable, session participants improve their pedagogical practice to make learning powerful and engaging for their students, taking them from mere compliance to complete engagement and commitment to their own learning processing. The research tool used has immediate application in any educational setting, is interactive, and is enlightening as participants construct knowledge from their own experience as learners at any grade level and in any discipline. The most important detail is that participants own the process and can see how what they construct has immediate application in their own situations.

Keywords: Collaboration, engagement, learning strategies, professional development, stages of learning.

Introduction

The report *Silent Epidemic* presented a study of high school dropouts in which 47% reported that they had dropped out of school because they were bored, unmotivated and disengaged from their own learning (Bridgeland, Dilulio & Morrison, 2006). Lack of engagement was also noted as a cause for students not becoming involved in their own learning as cited in a meta-analysis of factors that contribute to student drop outs. (Cheatham & Chappell, 2015). So, how do teachers hold learners' attention, focus the learning process, and move students toward transfer of learning, rather than just regurgitation of newly acquired information? How does the teacher get students who are not "academically inclined," as Philip Schlechty suggests, to engage in the work (Schlechty, 2014)? Through his extensive work in the area of engagement as it compares to compliance, Schlechty advises the following: "If our schools are to succeed in

the twenty-first century, they must be organized to nurture and develop engagement, just as they are now designed to produce compliance... students who are engaged comply because they believe in what they are doing, see meaning in the tasks they are assigned, and are willing to voluntarily commit personal resources (time, energy, attention) to these tasks and activities." (pp 16-17). Generally speaking, the concept of "student engagement" is predicated on the belief that learning improves when students are inquisitive, interested, or inspired, and that learning tends to suffer when students are bored, dispassionate, disaffected, or otherwise "disengaged." Stronger student engagement, or improved student engagement, is a common instructional objective that most educators desire in their classrooms. As Katrina Schwartz, in her work *Mindshift: How we Learn,* states, "Engagement is a crucial part of learning, but ensuring students are actively engaged is more complex than whether a student is paying attention or not." The engagement issue is a difficult one to concretize because it is a multi-dimensional concept. In fact, James Almarode from James Madison University looks for eight different qualities that include elements such as personalization of the task, authenticity, choice, and social interaction to name a few (Schwartz, 2016). Quite often the teacher has spent countless hours preparing a lesson and delivered it with minimal results at best. How can that be? If the teacher has worked that hard on preparing, why are students not engaged and, more importantly, why are results on assessments showing that students have not learned the material well enough to be able to use it in a new and completely different context?

An examination of the three stages of learning, according to Grant Wiggins and Jay McTighe shows that these, when properly applied, yield learning results for the long term, not just for the short term, for all learners of all ages (Wiggins & McTighe, 2007). The concepts which undergird the stages of learning are simple and do not constitute a taxonomy, such as Bloom's Taxonomy. Instead, the three stages describe the processes a learner undergoes as the learning becomes more and more long lasting. During the acquisition stage, learners are exposed to information, memorizing, and basically learning steps, procedures and facts. Learners in the meaning-making stage analyze, synthesize, and evaluate, but doing it all in their own minds. In so doing, learners are trying to understand the material. The teacher is merely the guide through the meaning making stage, allowing the learners to process the learning. Finally, the transfer stage is the point at which the learner has truly understood the learning and is able to use it independently. Sadly, plans for teacher learning opportunities do not normally include all these stages. Usually, their workshops include acquisition through a speaker's talk and Power Point presentation and some meaning making with hands-on activities that allow for practice either as a group or individually. However, because of time limitations, professional development usually falls short of learning for transfer, thus assuming teachers will somehow, on their own, transfer the learning to their classrooms. Perhaps that may explain why professional development for teachers has not delivered anticipated results, even after a sizeable investment of time, money and resources have been allocated. In other words, regardless of the complexity or simplicity of the professional development, just delivering pearls of wisdom in a nicely bound binder will not guarantee transfer into the

classroom setting. Maybe that is why more teachers are not using the research-based strategies that they "learned" in a workshop environment. Teachers are generally good note takers and can capture the essence of a presentation. However, if nothing happens beyond the workshop to take the learning to transfer, the learning will remain in the well-written notes.

The problem is, in fact, multi-faceted. The first thing to consider is whether teachers really learned the strategy well enough to use it independently, to be able to transfer it to their own pedagogical practice. Should the presenter be held accountable? If that is a possibility, how can a presenter with a roomful of participants even begin to assess the level of understanding with traditional means of delivery and with limited presentation time? If not the presenter, should the teacher be required to submit a summary of the main understandings, concerns, and next steps? Perhaps a quick reflection might make use of what is learned in a workshop, but more likely it will become an unnecessary burden that does not go beyond the actual acquisition of knowledge level which never transfers into the day-to- day teacher planned learning activities. The next point to consider is whether it fits the teacher's individual "style." Do the strategies, methods, and ideas presented hold enough appeal that the teacher will do whatever is necessary to embed them into his or her instructional design? Finally, even if a teacher worked through a strategy in a workshop and actually understood its purpose and value does not mean that it will transfer naturally into that teacher's classroom without additional support. Most teachers already have otherwise busied lives outside their classrooms. Any major adjustment that the teacher must undertake to make the new strategy with its multiple steps fit into what the teacher had already planned is a burdensome undertaking at best. To be able to implement a new strategy, the teacher must first understand the thinking behind it, its theoretical basis, and its applicability.

More importantly, the teacher must feel certain that the workshop learning is a good "fit" for his or her students. Onsite support and follow-up on workshop strategies are generally not the rule. Teachers are left on their own for the accurate implementation of new concepts and ideas delivered from a consultant in a workshop setting, probably as a lecture. Consequently, the whole point of the workshop is forgotten or buried in workshop treasures that teachers accumulate in binders and handouts as a good intention or failed attempt. The truth is that teachers willingly attend workshops, perhaps even try some parts, but are soon discouraged when what happens in their classrooms does not equate to the promise of the workshop presenter. Another point to consider is that new, research-based strategies and ideas require participants who are willing to change what they are currently doing. Over and over, workshop after workshop, teachers look upon the idea with a jaundiced eye and think, "This too shall pass." Ironically, usually it does, "pass" and teachers go on to what they are used to doing.

Method of Research

As previously stated a common concern among all teachers of all subjects and in all grade levels is whether a particular strategy will work with their students in their classrooms. A troubling question which teachers face is how they can

customize what they heard and adapt it to their particular situation. There may be district or school wide edicts that require teachers to use a particular strategy following some sort of professional development activity. In light of the requirement, teachers may comply, acquiesce, and say that a particular strategy holds promise. However, trepidation that they may or my not possess the necessary expertise or skills becomes a deterrent and a quick mind block to even attempting the idea. If they have the courage to try a new process and fail, the results that follow are devastating to all concerned, particularly the students who may be blamed for the failure.

Recognizing that replicating the learning is essential, this research project began with the development of the tried and tested ideas later called *Boomerang Strategies* (Guilott & Parker, 2012). The research question became, why not use the approaches teachers revert to when they get back in their classrooms and make them the best they can be? To accomplish this, teachers of all grade levels and disciplines have been asked to become learners again. They have been asked to think like a learner. Most teachers normally return to using what is tried and tested, what they already know and what their teachers used to help them learn. In fact, Byrk states that a "previous approach has been to generate lists of what works. However, "the new paradigm should be to figure out how to make it work, with replicability as the new gold standard" (Bryk, 2015). Teachers at all levels and in all disciplines needed to know that regardless of their content, they could all use the same thinking in their instructional design so that it would lead to transfer of learning.

A common research-identified problem is that teachers do not typically transfer what they learn in a workshop into their own practice. Another commonly accepted idea is that teachers need feedback, and that they want to be in charge of their own learning. Teachers, like most human beings, do not like someone else imposing their ideas unless they choose them and recognize them as their own. Teachers' ownership of ideas is probably the most powerful component in teacher development. If someone gives the teacher "the answer" or "the strategy," what will happen when neither works? Will the teacher assume an internal locus of control or blame the person who told him/her to use the particular strategy? These findings were critical in constructing ideas that would actually improve learning and would be used by teachers in their classrooms. Another common challenge is trying to reach common understandings about instructional design and pedagogical practice. Educational authors typically introduce a concept or program until it becomes a household word, but at the institutional level and at the classroom level, educators fail to commit to and build upon what they already know collectively in order to share common understandings of the concept. For example, in a K-12 group of educators, the idea of differentiation seems like a common term that everyone knows and understands. The term has become so commonplace, that many teacher evaluation documents include it as a desirable teaching behavior. In fact, in a group of ten, most would nod their heads in agreement because everyone knows that it needs to be present in all classrooms. However, if each of the ten present were asked what it means in their classrooms, ten different interpretations would emerge for a "commonly used" term that holds certain expectations in both instructional design and pedagogical practice. Still,

educational leaders wonder why calibrating observers of teaching behaviors is a difficult and almost impossible task. What educators fail to do is to have meaningful discussions about what each of these commonly held terms means in their individual classrooms and with their own students. So, there is no surprise that educators make assumptions that everyone is talking about the same thing when, in reality, they are not. In fact, in a room of ten teachers, if each teacher were asked to write a paragraph describing differentiation in their classrooms, there would be ten different scenarios that have little in common with one another. So the research question was to target this common problem of removing assumptions that were far from reality and alleviating a complete lack of common understandings.

To begin, participants were provided a brief presentation of the stages of learning followed by a check for understanding of the differences each provided. During the check for understanding of the differences between each stage of learning (acquisition, meaning making and transfer), participants at all grade levels and in all disciplines quickly grasped the concepts and were able to identify which activity represented which stage with total ease. Additionally, participants were referred to Philip Schlechty's *Description of the Levels of Engagement* which makes clear distinctions between engagement and compliance, as these apply to an educational setting. In *Creating Great Schools*, Schlechty states that "First, the development of higher-order understandings and skills requires considerable self-direction, discipline, and persistence, elements likely to be lacking when inducements external to the task or activity (and not engagement) are the primary means of gaining attention and action. Second, the likelihood that what is learned will be transferable to contexts other than the specific context in which the learning has occurred is increased when the tasks that result have meaning and value to the student. Engagement increases the likelihood that such meaning will be present. Third, considerable evidence exists that retention is also increased when new learning occurs in contexts that have meaning and value to the student" (Schlechty, 2014).The distinctions between engagement and compliance were easy to follow as participants were asked to think like learners, not teachers, as they completed the research tool in small or large group settings.

Table 1 is a research tool, which asks teachers to identify what they need as learners to make each learning situation an experience that leads to meaning making and transfer of learning. By design, the research tool included twelve common processes that occur in classrooms from Pre-Kindergarten to the university level and across all disciplines. The procedure engaged teachers from all levels and from all disciplines to collect the qualitative data that steered the research.

Table 1: Boomerang Strategies Worksheet.

Learner Situation	What conditions must be present for **you** as the learner?
1. When is **reading text** engagement in meaning making, leading to transfer?	When…
2. When is **completing a worksheet** engagement in meaning making, leading to transfer?	When…
3. When is **solving a problem** engagement in meaning making, leading to transfer?	When…
4. When is **talking to a peer** engagement in meaning making, leading to transfer?	When…
5. When is **classroom discussion** engagement in meaning making, leading to transfer?	When…
6. When is **listening to a lecture** engagement in meaning making, leading to transfer?	When…
7. When is **taking notes** engagement in meaning making, leading to transfer?	When…
8. When is **writing a paper** engagement in meaning making, leading to transfer?	When…
9. When is **working on the computer** or some other form of technology engagement in meaning making, leading to transfer?	When…
10. When is **working on a project** engagement in meaning making, leading to transfer?	When…
11. When is **doing homework** engagement in meaning making, leading to transfer?	When…
12. When is **making a presentation** engagement in meaning making, leading to transfer?	When…

Process Used

In small groups, teachers responded as learners. In *A Value Added Decision,* the authors named the process the *Boomerang Strategies* because it is what teachers revert to when they go back into the classrooms (Guilott & Parker, 2012). The Boomerang strategy is inherently collaborative in nature. In fact, the process cannot be done alone. Learning for teachers (like their students) is more profound and transferrable when they are engaged in collaborative learning with their peers. John Hattie, in his work, *What Works Best in Education: The Politics of Collaborative Expertise*, states, "What we need instead is a defensible and compelling narrative that leads to long-term, coherent and focused system-wide attention on student learning. I call this territory 'the politics of collaborative expertise'. Its premise is that there is differential expertise across our schooling system and that there can be wide variation within schools. At the same time, there is a remarkable spread of expertise that can be identified, nurtured, esteemed and brought together to reduce this variance" (Hattie, 2015).

He further states that the teacher cannot be the only one that we rely on for changes to instruction. Specifically, Hattie writes in his opposing work, *What Doesn't Work in Education: The Politics of Distraction,* "Certainly there is a constant clamor to emphasize the teacher is the key, with claims that the system is only as good as the teacher and that teacher standards must be raised. In many ways this is correct, except that teachers cannot do it on their own: they need support; they need to collaborate with others in and across schools; they need to develop expertise, and they need excellent school leaders. Further, supportive and great systems are needed to support and nurture great leaders (Hattie, 2015). Once again, the importance of creating opportunities for collaboration among teachers is clear from a Canadian nation-wide research study on student engagement, entitled, *What Did You Do in School Today*? "Affecting a deeper transformation to school and classroom practices calls upon all of us to begin looking at school improvement as a collaborative, knowledge-building activity where teachers themselves are actively engaged in co-constructing ideas that contribute directly to school improvement and development (Dunleavy & Milton, 2009).

Anyone who teaches may not remember what he or she learned in a workshop, or find it cumbersome to implement given the current situation, but they are already comfortable with the *Boomerang Strategies* because they are universally identified. They are the way everyone learned in one setting or another. Additionally, teachers typically emulate their teachers in their own instructional delivery. So why not make these *Boomerang St*rategies the best they can possibly be given what teachers already know about their own learning experiences? A portion of the qualitative research collected for *A Value Added Decision* was published and has been included to illustrate the power of this process.

Every conversation begins, preferably, with a discussion that distinguishes acquisition, meaning making and transfer and describes what each looks like for each participant as a learner. How does the instructor know when a student is making his own meaning? How can anyone tell when the teacher is working with students on transfer? Although deceptively simple, these processes are quite complex and difficult to pinpoint. In fact, that is why a well-behaved classroom full of compliant students on task is highly praised. Educators delude themselves into believing that these students are really learning: they are actually just memorizing or "learning it" for the test, not taking it to transfer for the long term. If educators want to see students doing work individually that will endure beyond the test, they will need to change how they deliver instruction. Lesson plan design must be engaging and challenging for students; otherwise, it is a just fun activity with no real and lasting learning actually taking place.

Before completing the research tool, participants are provided examples of what the presenter needs to make a particular experience a meaning making one that leads to transfer for the participant as a learner. For example, if the instructional design is "reading text," the presenter identifies the conditions that must be present for him or her as a learner and will make the experience one that produces meaning making and leads to transfer. The presenter might say that she needs to set her own purpose for reading text. Another example the presenter may provide for a learner situation such as "filling out a worksheet" is

that the presenter needs to know that it will connect with what he or she just learned and that it will lead to what she will learn next. By providing at least two examples of what is expected, each participant in able to proceed following a word of caution from the presenter that the response cannot simply be "because it is relevant." The participants need to consider and then articulate what makes that particular learner situation "relevant", and why is it "relevant"? Once all participants understand that they are completing the research tool as learners, not as teachers and that they are taking the stages of learning into account, they begin filling in the research tool. Each participant completes the research tool individually and quietly. The presenter provides as much time as participants find necessary to complete the tool thoughtfully and completely. The main question to be answered is what each participant needs as a learner to make the experience a meaning making one that leads to transfer in a particular learning situation.

When everyone is finished, depending on the size of the group, a sharing process begins in a small group or in pairs. The main data collection begins when the presenter asks each group member to share what he or she needs to make the particular learning situation a meaning making experience leading to transfer. A critically important part of the process is that the facilitator capture and display in writing large enough that everyone can see from any section of the room each individual response to a particular learner situation. As the facilitator begins collecting individual responses to each question collectively, participants begin to "see" how their peers learn, identify deeply how they learn, and begin to ponder what else they need to make their instructional design and delivery one that engages the learner in the learning and one that is a meaning making experience leading to transfer. If any clarification is necessary, it happens on the spot. The information collected must be crystal clear to everyone who participates in the process. Suddenly, before their very eyes, participants begin to realize where their gaps are, where their blind spots have been, possibly based on their assumption that everyone needed the same things. Without pointing any fingers or making anyone wrong, the group begins to discover where their deficiencies lie and what some other options might be based upon the collective responses of the group (Guilott & Parker, 2012). First year teachers from Springbank High School in the Rocky View School System in Canada who participated in the Boomerang Strategies discussion had the following to say about the process.

> Teacher A: I found it helpful to be asked to consider what I am doing in the classroom from the perspective of the students. The variety of people involved helped to add a second opinion about what is relevant/engaging for everyone. I found it useful to remind myself that while I am trying to survive each day in the classroom, it would be easier if the students were excited/engaged with what we are doing. I think the key for me is to make sure that as a student I would be engaged in the activities.
>
> Teacher B**:** It was good to hear different strategies that people use in the classroom and also to hear how each of us learns and thinks differently, recognizing that our students would be even more diverse than our small group. It was also nice to know that we could discuss teaching strategies

and not be evaluated on recognizing our own flaws, but instead we see them and think of how we could fix them (*Guilott & Parker, 2012*).

Validation of the Research Tool

Each process included in the research tool has been traditionally considered standard practice in formal educational settings. With the advent of personal computers, cell phones, tablets and the like, a call for change in instructional practice has been the dominant theme in educational circles. Consequently, a paradigm shift is in order when asking teachers to shift from being a "sage on the stage" to being a "guide on side." Teachers have traditionally been the keepers of the knowledge and the dispensers of information. However, now that students can readily access information by simply asking Google a question; the need for an adult to only disseminate information has diminished to the point that many traditional practices have taken a negative spin. This negative spin results from the idea that students are disengaged in the learning process, that they are bored, and that they see little value in their schooling process. So, does that mean that traditional schools are no longer in vogue and should shut down? Or, does it mean that teachers who use traditional processes are doomed to failure? Unfortunately, left to their own design without taking into account changes in the 21st Century, teachers could become irrelevant. That is precisely what the research tool used in this project intends to prevent.

The research diverts from the premise that teachers cannot continue using their tried and tested instructional processes as long as they incorporate the stages of learning and view learning from the learner's perspective. In other words, why not take what teachers typically already use and turn the pedagogical practice into engaging experiences that focus on meaning making leading to transfer? This process had to be generative. Teachers had to feel a sense of ownership. And, the processes had to be based upon solid research. The researchers chose to use the stages of learning as identified by Wiggins and McTighe in their seminal work, *The Understanding by Design Guide to Creating High Quality Units,* because of its sound basis and ease of use (Wiggins & McTighe, 2007).

The first process included, *Reading Text*, is one that is universally used by teachers and one that has controversial approaches. Rather than become mired in the controversy, the tool sought to uncover what each learner individually needs to make the experience engaging, not just about acquisition but about meaning making leading to transfer. By eliciting individual responses, teachers began to see the many facets of reading text without being given recipes or complex programs to follow.

The second process, *Completing a Worksheet,* is one that has been belittled and repudiated as a time management tool designed to bore students with trivial work that leads nowhere. In fact, frequent use of worksheets is not considered good teaching and has been controlled by rationing the use of the copying machine. Granted, the abuse of worksheets that fit the classroom control criteria has made many repudiate worksheets in general. However, once teachers break down what they themselves need as learners in the design of a worksheet, the opportunity for making this practice a good one again emerges. When teachers express what they need in the worksheet to make it a

meaningful, meaning making experience, they realize what changes they need to make individually and collectively in a simple tool that has been cast aside but still has merit when properly designed.

The third process, *Solving a Problem*, once revised, offers participants a variety of approaches, ideas, and tools they can include in their design if the intention is that learners actually solve a problem in any discipline. The suggestions that emerge from the group think process offer participants a wealth of information for pedagogical design.

The fourth process, *Talking to a Peer*, allows learners to clarify misconceptions and add to their own bodies of knowledge based upon how others have interpreted specific information. Think, Pair, Share, a common strategy, that could become a trite and overused idea, takes on a new scope when using acquisition, meaning making and transfer as the basis for its design. Besides building confidence and allowing for think time, the question format and the interaction between students increase in rigor and cease to be useless.

The fifth process, *Classroom Discussion,* opens the door for steps that may have been overlooked but that, if included, make a measurable difference in the results.

The sixth process, *Listening to a Lecture,* provides possibly the most significant opportunities for changing another rejected process and making it a stellar learning experience. At Harvard University, the Mazur Group has determined that traditional "lectures simply reinforce students' feelings that the most important step in mastering the material is memorizing a zoo of apparently unrelated examples." The standard belief in educational circles is that students "check out" when listening to a lecture. However, when teachers reveal what they need as learners to make the experience an engaging one that leads to transfer, they begin to see that some minor changes in their own practice will transform a negatively held performance into a positive and powerful prospect for transmission of knowledge that has a high yield for student engagement. In fact, the Mazur Group has developed a process to enhance lecture that takes into account student engagement in meaning making (The Mazur Group, 2016).

The seventh process, *Taking Notes*, reveals the various assumptions that are interfering with making this experience a productive one. Teachers tend to forget what they needed as learners. But, they also know how important good note taking is to learning. As they share what they need as learners, they are reminded to deconstruct the process without "dumbing it down" and focus on how to improve it for students.

The eighth process included, *Writing a Paper,* is another one that is universally used regardless of the grade level or discipline as a means of demonstrating understanding. Once again, as participants disclose their own needs, they begin to realize components that make the process worthwhile. Respondents included statements that pointed to specific issues in the process that need attention and ways to make the process whole and compelling for the learner.

The ninth process, *Working on the Computer* or using another current technology, is particularly germane as accessing information and creating documents becomes more and more dependent on the tech tools. In other words, the question becomes how does the technology enhance the learning experience

from just being mechanical in nature? How does using technology provide insights in helping to answer questions that students cannot just Google for themselves? Preventing technology use from being a virtual workbook of low level design is critical to ensuring depth of understanding. The responses participants provided illustrated the depth of thinking that must be elicited if the tools indeed support and enrich learning.

The tenth process, *Working on a Project*, covers projects across disciplines and grade levels that are individual and group endeavors. As participants shared their own needs, what emerged showed the socio-emotional, technical, and organizational requirements that must be in place to make the experience a fulfilling one. When using a project as the vehicle to demonstrate true understanding, teachers realized that specific and detailed elements had to be in place. Otherwise, working on a project would result in failure or complete compliance where students just do the absolute minimum to get credit. Preferences for individual or group projects pointed to the need to personalize the experience.

The eleventh process, *Doing Homework,* is one that generally calls forth passion either for or against any sort of homework assignment. Traditionally, homework has been a contentious point with teachers aligning themselves on either side of the debate. However, when teachers considered what they themselves would need to make a homework assignment a meaning making leading to transfer opportunity, they once more began to re-assess its particular value and wanted to discuss how to achieve consensus on the faculty if homework were to be used school or district wide. However, the rationale for the value of homework was not as important as understanding its purpose.

Finally, *Making a Presentation* as a typical classroom practice, is also used to demonstrate mastery of content or depth of understanding. Typical responses from participants pointed to what needs to be in place to add value to the experience.

Findings

Once everyone has completed his/her individual sheet, as a group we complete a blank version of Table 1. *What conditions must be present as a learner in our tried and tested teaching practices? We complete the process by asking ourselves what we need to do as teachers to make those conditions happen for diverse learners.* The representation developed gives everyone a frame of reference and a set of reminders to make the learning experience a meaningful one. While each completed Table had variations of answers, and are too numerous to list, each illustration offered teachers and administrators insights into their own instructional design, its strength and shortcomings, and, ultimately, their students' learning processes and needs. When used within a school, the process built ownership and yielded a rich and generative conversation and new, but common, understandings. This process works well with students as well. Following the exact same format, teachers can assess their learner needs and begin to plan accordingly. Each student then begins to see why her teacher is using a particular design and how he or she too can benefit from it.

The process levels the playing field and builds on what teachers already know. Everyone is already a learner. Everyone is therefore an expert of his or her own learning. No new learning is necessary.

During the April 2016 Ireland International Conference on Education, presenters shared the tool with willing participants. Following are some of their responses.

When "listening to a lecture," academicians in attendance said they needed the following from the lecturer:

*The subject to be interesting.
*To add to the body of knowledge.
*To answer specific questions.
*To provide space to consider and time to play with the information presented.
*To help the participant find similarities with his/her own understandings.
*To connect with the participants.
*To use various modes of presentation.
*To be passionate about the subject presented.

When "working on a project" the academicians present said they needed the following:

*The project has to have real value; not be a time-filler.
*To like other members of the team if a team project.
*To have choice in the approach to the topic.
*To have full understanding of the concept at hand.
*To make a contribution.
*To make mistakes and explore.
*To be able to cooperate with others.

When "making a presentation" academicians said they needed the following:

*To be passionate about the subject at hand.
*To be able to pose challenging questions to others.
*To present to an authentic audience.
*To field questions from participants.
*To teach others something they did not already know.

The process was well received by those present as they could readily see its replicability in their own individual situations. Every time this process is shared participants comment with appreciation of its instant and easy use with their groups. The magic is actually in the individual and group participation and in the sharing of individual needs captured for everyone to see right away. Just having people complete the research tool without the group sharing is a waste of time. Because the process is not threatening at all and because it is based on what learners already know about themselves, the barriers and resistance disappear.

As learners, educators already instinctively know all these things. However, educators forget and tend to narrow the focus of their instructional design to the point that learners get lost and disengage in the learning process. The tool can be adjusted to fit whatever processes are most common in the particular grade level, institution, or discipline. For example, if the school is K-5, then typically certain processes may be more appropriate than others. To have

the most impact, the process should be limited to no more than four processes in an hour. The point of the process is to capture everyone's expert contribution as a learner. Everyone needs to feel as a contributor, an expert in his or her own learning, and a willing participant who commits to self-reflection and change. Obviously, the point is to move the needle with the people in the room. Just reading about how everyone else learns lacks the impact of being in the room participating. Therefore, using this process by design with small groups of 10-12 people optimizes the dialogue that ensues and the enlightening of all participants. Once everyone shares what they need to make the experience a meaning making one that leads to transfer, the professional dialogue that follows begins to illustrate the need to design using acquisition, mean making and transfer as the basis, regardless of the discipline or grade level.

Table 2 is a qualitative compilation of responses from a group of teachers in Toledo, Ohio.

Table 2: Qualitative Data from Toledo, Ohio.

Tried and Tested	Teacher Learning Needs	As a Designer of Learning
Class Discussion	1. I need to have background knowledge of the topic to be discussed. 2. I need parameters so that the discussion is safe and does not get out of hand. 3. I need to know that we will be building on what we know individually. 4. I need to know that we will stay on task and not stray from the topic at hand. 5. I need to know that there is a so what with the discussion. 6. I need to know that there is order and respect in how we go about discussing. 7. I need to feel safe to speak. 8. I need a prompt or a cue to help me get started. 9. I need a relevant topic for discussion. 10. I need sufficient time to complete the discussion so that I do not feel rushed and cut off.	1. I need to set clear parameters with set expectations. 2. If necessary, I need to make sure that there is a group leader. 3. I need to guide the discussion on the side with guiding questions. 4. I need to motivate the group to engage fully in the discussion. 5. I need to make sure that the format or protocol is consistently followed to maximize use of time. 6. I need to make sure that students know the outcome beforehand. 7. I need to be engaged myself as the teacher. 8. I need to make sure that I provide closure and ask the students for their takeaways from the discussion.

Administrators are always looking for ways to provide meaningful professional development for their staffs. Is there a better way to focus professional development than one that comes from individual ownership based

upon his or her own learning needs? One particular example that focused professional development follows. Using the exact same process, participants identified the seven strategies that they wanted to complete within the time allotted. The process began with a conversation on acquisition, meaning making and transfer, what it means, how it shows up, and what are examples. Additionally, there was an important discussion on Philip Schlechty's levels of engagement. Teachers had to understand fully the difference between engagement that had learners committed to the task even in the absence of the teacher and compliance that had students merely doing the work to meet some of sort of external reward, a grade, a prize or the like. Unfortunately, students are quite often motivated to do the work simply to comply to receive the grade. Consequently, the task is completed and, if the student is a high achiever, the task is completed well. However, there is no lasting learning. Typically, the student promptly forgets what got him or her the excellent or at least passing grade on the test. The only thing that matters to the students is the grade that certifies that she or he has passed the exam or the course.

When teachers were asked what they needed as learners, their responses are captured in Table 3.

Table 3: Engagement Responses

Tried and Tested Teaching	**Learning Needs**	**Designer's role**
Filling out a **worksheet**	1. I need to know the purpose. 2. I need to know what happens next. 3. I need clear instructions, directions, and a sample. 4. I need to have prior knowledge so that I don't become frustrated. 5. I need clear procedures. 6. I need a breaking down of the steps to facilitate my engagement. 7. I need the worksheet to be high interest (it must count). 8. I need a peaceful learning classroom environment. 9. I need to build on what I already know and apply skills I have practiced. 10. I need it to be relevant to what just happened during class. 11. I need it to be open-ended when possible. 12. I need feedback that I am on the right track.	1. Secure, create, and share resources that work with colleagues in my building. 2. I need to make sure that whatever I create is student focused. 3. I need to take cues from the students as I design the worksheet. 4. I need to make sure that the worksheet is purpose-driven and not a time-filler. 5. I need to offer it to the students in a timely fashion. 6. I need to design it so that it's just right (Goldilocks) and at the correct level of difficulty and depth of understanding. 7. As I design it, I need to focus on the process of learning, not just the end result. 8. I need to build in feedback that is non-evaluative, is descriptive and is ongoing.

Homework	1. I need it to be limited in quantity but high in quality. 2. I need it to review what I already know so that I can deepen my understanding. 3. I need to have a "so what" for the task. 4. I need to know that I will get feedback. 5. I need a real life connection that grabs my interest. 6. I need to see how I will use this at some point. 7. I need it to incorporate a spiral review of what I have been learning. 8. I need to be able to self-assess along the way. 9. I need choice. 10. I need to know that there is some sort of reward…(intrinsic or extrinsic) 11. I need to experience a feeling of success. 12. I need to be able to do it by myself, without outside help.	1. I need to create an accountability system that works, based on the "so what." 2. I need to create the situation myself whenever possible (not just commercial sheets or those taken from the Internet). 3. I need to locate good websites to help me design the homework 4. When I find something that works, I need to find time to share with my colleagues. 5. I need to design homework that has purpose and is meaningful, not busy work. 6. I need to remember that there is a possibility that someone may be helping with the homework. 7. I need to design homework that is achievable in the time and with the resources allocated 8. I need to build a safety net into my accountability system in case the homework is incomplete through no fault of the student.
Class Discussion	1. I need to have background knowledge of the topic to be discussed. 2. I need parameters so that the discussion is safe and does not get out of hand. 3. I need to know that we will be building on what we know individually. 4. I need to know that we will stay on task and not stray from the topic at hand. 5. I need to know that there is a so what with the discussion. 6. I need to know that there is order and respect in how we go about discussing. 7. I need to feel safe to	1. I need to set clear parameters with set expectations. 2. If necessary, I need to make sure that there is a group leader. 3. I need to guide the discussion on the side with guiding questions. 4. I need to motivate the group to engage fully in the discussion. 5. I need to make sure that the format or protocol is consistently followed to maximize use of time. 6. I need to make sure that students know the outcome beforehand.

	speak. 8. I need a prompt or a cue to help me get started. 9. I need a relevant topic for discussion. 10. I need sufficient time to complete the discussion so that I do not feel rushed and cut off.	7. I need to be engaged myself as the teacher. 8. I need to make sure that I provide closure and ask the students for their takeaways from the discussion.
Working on a group project	1. I need to know what our deadlines are. 2. I need to know what the goals for the project are from the beginning. 3. I need to know what my assigned role will be and why it's an important role. 4. I need to work with other students who respect me and value my opinion. 5. I need to know what our product will be and how it will be assessed against a rubric. 6. I need an exemplar that I can use as a model. 7. I need to know whether I will have choice in product, process, and role. 8. I need to have access to the necessary resources from the beginning.	1. I need to make the project a progression in small chunks to insure success until students are able to do it on their own and provide appropriate feedback along the way. 2. I need to release responsibility at the right time and build that into my design of the work. 3. I need to provide the students with a clear rubric. 4. I need to provide examples of excellent work so that students may use them as models. 5. I need to build in feedback along the way so that students have an opportunity to redo the work if necessary. 6. I need to give the students a realistic timeline for completion of the project. 7. I need to provide directions in print to serve as the contract with the students. 8. I need to give the students a powerful goal and a realistic purpose for their work ahead. 9. I need to provide some reminders so that the group does not get behind in its work. 10. I need to make sure that students know the point of the project.

Following their contributions, eliminating duplicates and clarifying anything that seemed confusing, teachers were asked to look for commonalities across the processes and identify the ones that were most significant to each of them as learners. The faculty consisted of twenty-five members. Each participant was given a set of five sticky dots to vote for what they considered most significant on the various lists on flip charts around the room. The group was given 30 minutes to converse with other faculty members concerning questions they might have, issues that were raised, or other important details impacting their own learning process so that they could decide how they would vote. The intention for the vote was to further crystallize ownership prior to identifying what the faculty professional development would be for the year and what they would look for in their own instructional designs and in their peer observations. Everyone was poised to commit to improvement and growth. The voting process clustered particular needs and readily identified what the faculty as a whole needed and wanted. Here is a summary of what resulted from their choices.

1. Appropriate release of responsibility is evident.
2. Frequent and appropriate checking for understanding
3. Individual feedback is ongoing and evident
4. Clear statement of lesson goals
5. Instruction is interactive
6. Lesson is engaging and challenging
7. Appropriate time to practice learning during the lesson
8. Lesson is relevant
9. Activities are targeted and purposeful
10. Lesson connects to prior learning

This list provided them a guide for the year that offered a means for professional dialogue that was based on clear understandings of learning needs and on collaboratively achieved learning design targets. Everyone could now hold everyone else accountable because nothing had been imposed on them. They had designed their own school improvement targets that would actually pass muster against any set of critical elements. The beauty of this set of targets was that teacher resistance to change was virtually eliminated and that a spirit of collaboration was firmly in place.

Conclusion

The process of bringing teachers together to share their collective expertise while using the Boomerang Strategy honors the group's thinking, allows for creativity in helpful ways, thus providing assistive tools for providing meaning making and transfer of learned information. By having teachers and administrators complete this activity, they actually return to what they know already and have done in their own classrooms. What they identify collectively are reminders of what they already knew intuitively. This collective thinking then becomes a reminder of what they need to do as designers of learning, individually and collectively, to make the learning experience one that engages the learner and will ultimately lead to transfer of learning. Since the design of the learning task predicts learner performance and individual and group accountability begins with the tasks students are asked to do, this process has actually provided

educators at all levels and from all disciplines with real tools to include in their instructional design without being punitive or judgmental. Without declaring it, on their own, teachers come to the realization that planning for learning is not the same as planning for teaching. Terms such as collaboration and cooperation become real. They are no longer empty words that teachers distrust and consider a mockery. Teachers begin to trust as they see themselves as contributors to the greater good and to the learning of their own students. The process creates an opening for everyone concerned. In its simplicity it opens a multitude of avenues for improvement. Ideas that may have gone unnoticed are suddenly on everyone's front burner and brought to the group's attention. Having these tools at hand will lead to the creation of a powerful culture of instructional practice. As professionals, educators need to begin to see pedagogy as a collective and powerful practice leading to transfer of learning. As a result, when the learning environment shifts its focus to the personal growth of teachers and administrators, students, too, reach a higher level of engagement. Like their teachers and administrators, they also discover that learning is a personal endeavor involving autonomy, self-reliance, and commitment within the community of other learners (Dary, Pickeral, Shumer, & Williams, 2016).

Thus, as stated in *Neil Learning and Leading Cycles*, "Our work as leaders is to make sure that these types of structures and routines (knowledge building cycles) are embedded in the school culture and across the division so that all teachers come to understand that this is where we are going, and it is everybody's professional responsibility to continue to grow and learn" (Brandon, Saar, Frierson, 2016).

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Exploring the Effectiveness of LINE for EFL Vocabulary and Reading

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Abstract. The development of mobile technology is rapidly changing the environment and the way of learning in school. In addition to facilitating communication, mobile devices (e.g., smart phones and tablets) have made ubiquitous E-learning more accessible and mobile learning more popular. Multimedia messaging service (MMS), such as WhatsApp and LINE, can deliver richer information, including images, audio and video files, to enhance the interest of English learners. However, whether MMS can help students learn English is of interest. This paper aims to explore the effectiveness of MMS, LINE in particular, in helping English as a foreign language (EFL) students learn English by using 40 college students enrolled in Freshman English Reading course as participants. Data collection consists of pre- and post-test, MMS messages, student writing, and interviews. Based on the comparison of students' pre- and post-test, the findings indicate that the LINE-based learning activities helped students familiarize with English vocabulary and improve English reading comprehension. The study also shows that students who were more engaged in the LINE-based activities tended to have better improvement than those who were less active. In general, most students made improvement and had positive perceptions of the designed activities.

Keywords: mobile-assisted language learning; English as a foreign language; English reading and vocabulary; multimedia messaging service; LINE

Introduction

With the rapid development of information technology, students are used to learning different dimensions of knowledge through various devices such as computers, notebooks, tablets, and smart phones. Much literature has been published on the application of information technology for assisting teaching and learning (i.e., computer-assisted language learning (CALL) and

electronic-learning (E-learning)) (Crook, 1994; Greenfield, 2003; Gonzalez-Lloret, 2003).

The speed of mobile technology is increasing and has made ubiquitous e-learning more accessible and mobile learning more popular. Mobile technology is gaining much attention because of its characteristics such as mobility, reachability, personalization, spontaneity, and ubiquity, and its promises for education (Saran & Seferoglu, 2010). Mobile devices allow a richer learning environment for language learners (Bouhnik & Deshen, 2014; Yousefzadeh, 2012). Several attempts have been made to understand the advantages of mobile learning (M-learning) and mobile-assisted language learning (MALL) (Chen, Hsieh, & Kinshuk, 2008; Kahari, 2013; Kiernan & Aizawa, 2004; Suwantarathip & Orawiwatnakul, 2015; Wu, 2015).

Recently, many smart phone-based applications have been developed such as short messaging service (SMS) and multimedia messaging service (MMS). These devices have also changed the way people learn, especially English. The use of SMS and MMS with mobile devices for facilitating English learning is gaining much attention (Lawrence, 2014; Saran & Seferoglu 2010; Yousefzadeh; 2012). For example, Lawrence (2014) conducted research to investigate students' experiences of using SMS for vocabulary development. Saran and Seferoglu (2010) have explored how to support foreign language vocabulary learning through multimedia messages via mobile phones. Yousefzadeh (2012) found that learning English vocabulary through MMS resulted in better learning outcome than learning through SMS. However, most SMS- or MMS-based studies have focused mainly on the learning of English vocabulary, and very few studies have explored the learning of English through instant and interactive conversation. As mobile learning is gaining in popularity, the viability of MMS for learning English is worthy of investigation.

This paper aims to explore how MMS, LINE in particular, supports English language learning. It examines the learning outcomes of and student perspectives on LINE-based activities. The findings of the study play a crucial role in defining the role MMS (i.e., LINE) plays in supporting English as a foreign language (EFL) students learning English reading and vocabulary.

Literature Review

Mobile-assisted language learning (MALL)

Mobile-assisted language learning (MALL) is different from computer-assisted language learning (CALL) because it emphasizes the "continuity or spontaneity of access and interaction across different contexts of use" (Kukulska-Hulme, 2009, p. 162). Mobile learning (M-learning) is defined as acquisition of knowledge with the aid of any service or facility regardless of time and space (Lehner & Nosekabel, 2002). The utilization of M-learning has gained importance in the field of English language teaching. According to Tayebinik and Puteh (2012), "mobile learning applications in language learning has its advantages and its potential should not be overlooked, for, the future holds great possibilities for this type of technological device for pedagogical use" (p. 60). Norbrook and Scott

(2003) also claimed that mobile language learning motivates and enhances learning because of the portability and immediacy of mobile devices.

In fact, numerous researchers (Collins, 2005; Ogata et al., 2006; Kukulska-Hulme, 2006; Sarica & Cavus, 2009; Guerrero et al., 2010; Kiernan & Aizawa, 2004; Sandberg et al., 2011; Suwantarathip & Orawiwatnakul, 2015; Wu, 2015) have emphasized the benefits of M-learning for teaching English as a foreign or second language. For example, Kiernan and Aizawa (2004) studied the effectiveness of English task-based learning through mobile devices including text messages, emails, and speaking activities in a Japanese university. The results showed that the language learning tasks were satisfactorily achieved; they thus contended that applying mobile phones in EFL classrooms could significantly reinforce second language acquisition.

One of the devices used in mobile learning is the smart phone which has great potential for educational purposes. Common features of a smart phone include short messaging service (SMS), multimedia messaging service (MMS), Internet access, cameras, bluetooth, etc. Chinnery (2006) stated that these features provide access to authentic content, opportunities for communicative language practice, and platforms for interactive task completion. Brown (2001) conducted the very first study on the use of smart phones in language learning in the Stanford Learning Lab. The study explored the possibility of using both voice and email in mobile phones in Spanish study programs. These mobile-assisted programs included vocabulary exercise, word translations, exams, and live talking tutors. The findings of the study revealed that implementing smart phones with automated voice in vocabulary lessons were effective and had great potential for quizzes when delivered in small chunks. Likewise, Levy and Kennedy (2005) developed a program for learners of Italian language in Australia. Learners of the program regularly received words, idioms, definitions, and example sentences through SMS; they were asked to take quizzes and to respond to follow-up questions. The findings showed that the mobile phone-assisted learning significantly improved the students' language proficiency, and that students responded to the program positively.

On the other hand, several scholars argued that smart phones need to be used with caution in the learning environment (Kahari, 2013; Thornton & Houser, 2005). While they are useful for learning, learners tend to abuse them. Kahari (2013) pointed out that features in cell phones such as apps and games are sometimes distracting. Thornton and Houser (2005) also suggested that the tiny screen size of cell phones is only effective for review and practice, not for learning new content.

Mobile messages and language learning

More and more young users in Taiwan are contacting with each other via mobile messaging services like WhatsApp, LINE, Viber, and WeChat. Some scholars have pointed out the prominent roles of mobile messaging services in learning environments. For instance, Sweeny (2010) argued that the technology of instant and text message provides platforms for social networking, information sharing, and communication, which plays a significant role in education. Traxler and

Riordan (2003) also claimed that mobile messaging services can be used to provide motivation, support, bite-sized content, and tips and revision.

Previous studies have examined the application of SMS for language learning on smart phones. For example, one study investigated SMS for learning Italian (Levy & Kennedy, 2005), and another for learning Irish (Cooney & Keogh, 2007). Some researchers looked at the use of SMS as a tool for offering vocabulary exercises and quizzes (Lawrence, 2014; Levy & Kennedy, 2005; Norbrook & Scott, 2003). Thornton and Houser (2005) conducted a similar study in SMS-based English vocabulary learning with Japanese university students. The students received short vocabulary lessons via SMS three times a day and then watched video clips that explained English idioms on smart phones. The results indicated that the students receiving the lessons through SMS on their phones scored twice as high as the students receiving their instruction on paper. The students had positive attitudes toward the SMS-based mobile learning and recognized the approach as highly effective for learning English vocabulary.
While instant and text messaging services facilitate English language learning, such shortcuts might have a negative impact on the development of students' spelling and grammar skills (Rankin, 2010), and might even impede the learning of formal writing skills in mainstream schools (Rabab'ah, Rabab'ah & Suleiman, 2016; Salem, 2013). These scholars pointed out that students in their studies tended to use sentence fragments, emoticons, abbreviations, and incorrect vocabulary in their text messages, which distort Standard English and have an adverse impact on their development of English literacy. Therefore, these drawbacks need to be avoided when designing SMS-based learning activities.

MMS is a progressive form of SMS. In addition to sending text, it can also send graphics, audio, and video clips (Tayebinik & Puteh; 2012). As multimedia instruction offers a more engaging and lively learning environment, designing English courses with the use of MMS seems to be becoming an important issue. Several studies have compared the use of SMS and MMS in English learning and found MMS-based instruction to be more engaging and effective, which is in line with the Dual-Code Theory (Paivio, 1986) and the cognitive theory of multimedia learning (Gilakjani, 2012). For example, Yousefzadeh (2012) examined the effect of using SMS and MMS through smart phones on English vocabulary learning of 50 elementary level learners. Students in the MMS group received English vocabulary with definitions, pictures and examples, while the SMS group received only English vocabulary with definitions. The findings indicated that compared to SMS, MMS had a considerably higher capacity for information-carrying, and the achievement scores in the MMS group were significantly increased. Similarly, as Chen, Hsieh, and Kinshuk (2008) pointed out, learners receiving English words along with both written and pictorial definition via mobile messaging service had better learning outcomes than those receiving only English words without written or pictorial definition. In other words, the use of visual media enhances English vocabulary acquisition.

Furthermore, Bouhnik and Deshen (2014) conducted qualitative interviews with teachers who used *WhatsApp* in their classrooms and argued that such mobile

application provided a pleasant environment and had a positive influence on classroom communication. Likewise, Gutiérrez-Colon et al. (2013) studied the benefits of using *WhatsApp* to improve the English reading skills of Spanish college students. The results of their study demonstrated that almost all participants acknowledged that the application of *WhatsApp* enhanced their motivation to read in English. Saran and Seferoglu (2010) also examined students' opinions on using MMS via mobile phones for learning English vocabulary. They found that the students were motivated in the educational settings and were able to make use of their previously wasted time (on the bus or waiting for something/someone) to learn English vocabulary.

Up to now, however, only a few studies have explored how MMS affects foreign language learning. In addition, students who learned with this teaching method passively received instruction from the researchers or teachers via mobile phones, rather than interacting with their peers. According to one of the suggested principles of multimedia learning, "multimedia learning is more effective when it is interactive and under the control of the learner" (Gilakjani, 2012, p. 59). This means that MMS-based activities would be better received when learning through instant and interactive conversation.

LINE, launched in Japan in 2011, is an application for instant messaging on smart phones, tablet, and PCs, and is more of a social entertainment network, in addition to a messaging app. It provides free voice calls, instant text messages, games, and a built-in camera. Users can exchange photos, music, videos and documents with other users. The function of stickers and emoticons make communication more interesting. A growing number of users prefer to connect with friends through LINE because messaging apps like LINE makes the users feel safe and intimate when sharing a status, picture, or video through a private message. Due to the popularity of LINE, it is hoped that such technology can be leveraged to support EFL vocabulary and reading.

Therefore, this paper aims to explore how the application of LINE supports EFL vocabulary and reading by engaging students in interactive role-playing activities. The following research questions guided the study:

(1) What are the students' learning outcomes after participating in the LINE-based activities?
(2) What are the students' perspectives on the LINE-based activities?

Methodology

The research context and participants

This study was conducted at a university located in a suburban area of northern Taiwan. The participants involved in the study were 40 students who enrolled in the course English Reading. The 18-week course is offered by the Department of Applied English. The course is a compulsory course with four credits for English majors, and has four scheduled class hours per week.

Instructional design

The English Reading course aims to help students comprehend a selection of English reading texts on a variety of topics and to interpret the texts through using reading skills. The instructional design consists of two elements: in-class instruction and after-class LINE-based activities.

(1) **In-class instruction:** Each week the course focused on one theme, such as tourism, animal studies, political science, etc. In-class instruction introduced vocabulary, main ideas, supporting ideas, and reading skills. Some reading and writing exercises were included for practices.

(2) **After-class LINE-based activities:** The LINE-based learning activities were designed to engage students in contextualized, content-related scenarios in which the students speak, write and interact with each other. Toward the end of each class, the students received role cards that explained their roles and tasks. They then formed groups of two, three, or four, according to the scenario. They decided which role they would like to take on according to the role cards. They followed the tasks on the role cards to prepare the information, materials, etc. needed for their conversation. Figure 1 shows an example of a role card for the theme *Tourism*.

Role A and Role B: Karen and Paul Anderson Task: Tell your best friends about your honeymoon trip. Make sure to introduce the location, describe the place and your schedule. Talk about what you did on the trip and how you felt about it.
Role C and Role D: Best friends of Karen and Paul (create your own names and identities) Task: Ask your best friends, Karen and Paul, about their honeymoon. Make sure to ask about the location, schedule, and other details. You also want to know how they felt about the trip. Comment on their responses if needed.

Figure 1: Role card: Chapter 1—Ice Hotel

After each class, the students participated in the role-playing activities using LINE. They were instructed to use what they had learned in class to communicate with their group members. They were also encouraged to include photos, video clips, links, or any information that would facilitate their communication. Figure 2 demonstrates an example of a LINE conversation.

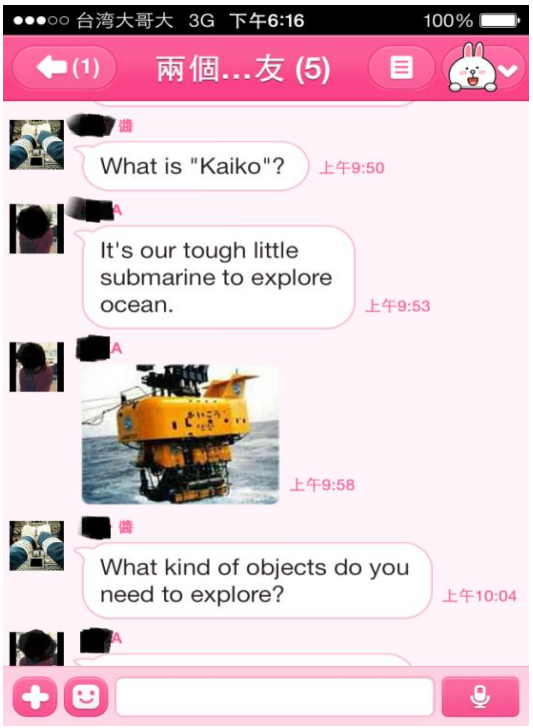

Figure 2 An example of mobile LINE conversation

Implementation

The implementation included three elements: the pre-test and post-test, the LINE-based activity, and the student questionnaire and interviews.

(1) The research utilized the pre-test/post-test design to examine students' English reading proficiency before and after the experiment. At the beginning of the semester (first week), the participants were asked to take a test of English reading (pre-test) to determine their English proficiency level. At the end of the semester (17th week), the participants took the same test of English reading (post-test) to assess their improvements during the experiment.

(2) Throughout the semester (2nd-16th weeks), the students were asked to participate in weekly role-playing activities after class using the vocabulary and language expressions introduced in class.

(3) At the end of the semester (17th-18th weeks), student group interviews were conducted. The students were invited to participate in group interviews to allow the researchers to further understand their experiences and reflections on the LINE-supported English learning.

Data collection

Data collection consisted of three sources: pre- and post-test, LINE messages, and group interviews with students.

A pre-test was prepared to test the participants' proficiency level of English reading. The test consisted of fifty items, including multiple choice (20 items), cloze (15 items), and reading comprehension (15 items) questions. With the order

of the items changed, the identical test was re-executed as a post-test.

All of the messages delivered via LINE during the weekly English reading activity were gathered. When the students participated in the LINE-based activity, they were asked to include the researcher's account in their conversation so that all the LINE messages could be recorded.

All of the students were invited to participate in the group interviews at the end of the course. The semi-structured interviews addressed four main questions: prior experiences with mobile- and LINE-based learning, current learning experiences, individual effort and group interaction, and overall reflection. A total of 12 group interviews were conducted. Each interview lasted about 30 minutes. All the interviews were digitally recorded.

Various sources of data were used for triangulation to increase the credibility and validity of the study.

Data analysis

The quantitative data were processed with the statistical software, Statistical Package for Social Science (SPSS), including *t*-tests, descriptive statistics, and correlation. The students' pre-and post-test scores were analyzed employing *t*-tests. Specifically, the results obtained in the pre- and post-tests were compared in order to determine the effects on the learning outcomes of English reading.

Word count was used to analyze the LINE messages to assess student learning performance. First, The LINE messages were tallied and categorized by student. Next, the vocabulary and phrases used in the in-class instruction were identified. Then, the number of vocabulary and phrases used in each student's LINE messages during the role-playing activities were counted. The more identified words appearing in the students' messages, the better their learning performance.

In addition, content analysis was utilized to analyze the qualitative data. Students' interview transcripts were analyzed using category construction (Erlandson et al., 1993) to code the data into emergent categories.

Results

A number of interesting findings emerged from this process. This study focuses on two themes concerning the effectiveness of LINE for learning English vocabulary and reading: (a) students learning outcomes after participating in the LINE-based activities and (b) the students' perspectives on the LINE-based activities.

The first research question investigated the students' learning outcomes after participating in the LINE-based activities. A paired t-test was conducted to compare students' learning outcomes before and after participating in the LINE-based activities. The *t*-test statistics in Table 1 indicate a significant difference in the students' scores for the pre-test (M=42.86, SD=21.59) and

post-tests (M=63.10, SD=20.40); t=7.0888, p=0.000. Based on the comparison of the students' pre- and post-tests, their scores on the post-test were significantly improved after participating in the LINE-based activities.

Table 1. Results of the descriptive data and paired t-tests on the pre-test and post-test (N=40)

	Mean (SD)	t	P
Pre-test	42.86 (21.59)	7.0888***	.000
Post-test	63.10 (20.40)		

***p<.001

Furthermore, correlational analyses were used to investigate the relationship among the students' gained scores, focus vocabulary used and frequency involved in the LINE-based activities. As shown in Table 2, results demonstrate a positive relationship between the students' number of vocabulary used and their frequency engaged in the LINE-based activities, r(40)=.50, p<.05. It is also found that the students' gained scores had decisive relationship with the number of vocabulary used, r(40)=.5, p<.01, as well as their frequency of participating in the designed activities, r(40)=.57, p<.01. In other words, students who engaged in conversation more frequently used more focus vocabulary in the role-playing activity and subsequently had better improvement in the test.

Table 2. Correlations among the students' gain scores, vocabulary and frequency

	Gain scores	Vocabulary	Frequency
Gain scores			
Vocabulary	.59**		
Frequency	.57**	.50*	

*p<.05，**p<.01

The second research question examined the students' perspectives on the LINE-based activities. The findings reflect a highly positive attitude toward the design. According to the student interviews, they felt that the LINE-based activities had a significant effect on their familiarity with the English vocabulary. As Students 11 and 18 stated in the interview:

> *[The LINE-based activities] provide opportunities to practice using vocabulary, which enhances the impression of the vocabulary and course content. (Student 11)*

> *The activity is very helpful for remembering English vocabulary because it allows me to practice applying the vocabulary learned in class in my daily conversation. (Student 18)*

Moreover, most students enjoyed the LINE-based activity because of its nature of instantaneity, novelty and sociability. Many students reported that one of the advantages of using LINE as a learning platform is its immediacy. They could respond and receive responses right away. Many of them also thought that the

LINE-based learning activity was novel and interesting. Furthermore, the sociability of the instructional design enhanced the bond of affection among the students, which reinforced their learning motivation. As Students 13 and 5 stated,

> *The activity brings group members closer through intense interaction in English, which strengthened their relationships with each other. I think this is great. (Student 13)*

> *In addition to understanding the meaning of reading texts, the activity could increase my emotional bonds with my classmates. (Student 5)*

To sum up, the students, overall, had positive perceptions of the LINE role-playing activities; many of them reported that the activities helped them familiarize themselves with the new vocabulary introduced in class. In addition, LINE, as a learning platform, was reportedly convenient and fun to use for interacting with peers.

While most students had positive attitudes toward the LINE-based activity, they also reported several challenges of the instructional design, including (a) collaboration with group members who are not very responsive, (b) availability of teacher feedback, and (c) flexibility of time for instant conversation.

Discussion and Conclusions

In this study, the effects of a LINE-based activity for learning English reading as well as student perceptions of the instructional design are presented. The findings show that there were differences between the pre- and post-test scores in terms of student learning performance. Also, those who were more engaged in the activity tended to improve their English reading performance. Students in the study performed better after participating in the LINE-based activities. Up to this point, these results are consistent with those of Saran and Seferoglu (2010) and Gutiérrez-Colon et al. (2013) who found that WhatsApp-based learning enhanced students' English vocabulary and reading skills.

These results may be explained by considering the sociable nature of LINE. As a social networking application for mobile devices, LINE has gained popularity among Taiwanese students. Functions such as instant messages, stickers and emoticons have made communication easier and more fun. When it comes to language learning via LINE, students in the study reported repeatedly the advantages such as learning with classmates and enhancing bonding with peers. That is, being able to learn and interact with peers in a social-networking environment creates a feeling of joy and informality, which increases students' learning motivation and learning performance.

Several pedagogical implications can be drawn from this study. In the current study, the LINE-based activity was designed as an after-class assignment. It is suggested that groups are given opportunities to share their conversation in class. Class presentation serves as a platform for all groups to learn from each other and to reinforce language skills.

Moreover, students in the learning activities need guidance and instruction. Students' conversation and language output in the learning platform should be carefully monitored to ensure that all students contribute, remain on track, and meet deadlines. Timely feedback should be given to guide students and promote learning outcomes.

In conclusion, the findings suggest the potential of mobile devices and applications for enhancing language learning. Future research is obviously required, but this is an exciting first step.

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An Approach to Teaching the Production of a Literature review for a Student Research Report

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Abstract. Technical and academic writing is a challenge and generally not a popular activity amongst university students. Writing literature reviews for student research projects is complex, both cognitively and linguistically. It involves a range of skills including critical thinking, problem solving and, of course, appropriate language knowledge. This case study describes an approach designed to make this task more accessible to novice student writers and to permit them to take some ownership of the generative elements of producing the review. Initial student feedback indicates a high level of satisfaction with the approach and resulting grades.

Keywords*:* literature review, academic, approach, ownership.

Background

The following is a description of what developed into a series of teaching and learning sessions on the production of a basic literature review for an undergraduate student-generated research project and the approach used by the instructor to teach this. The students are freshmen in the second level of a two-part communications programme in the Petroleum Institute in Abu Dhabi. The programme has a team-based, project-based learning dynamic. Average class size is usually 20 students. All students are native Arabic speakers.

The programme focuses on the development of a primary research project ulminating in a substantial written recommendations report and a multi-media presentation. Students have already produced a source summary as part of their work on the first level of the course and are now building on that knowledge to produce a basic literature review for their report. This genre is new to them and they could therefore be described as 'novices'. It is, of course, generally accepted that a well-crafted literature review is central to effective research and any paper resulting from this. As stated by Boote & Beile (2005, p.3), "a researcher cannot perform significant research without first understanding the literature in the field." The legitimacy of the literature review is therefore easily established and explained.

The literature review is a challenge for students anywhere and ours are no exception. An additional hurdle for them of, course, is that they are not native

speakers of English (Funderburk-Razo & Hidalgo, 2014) and this factor has influenced that part of the approach which deals purely with language (See app 2).

There are three very commonly used formats for the organization of a literature review; historical, conceptual and methodological (Randolph, 2009, p.4). Levy & Ellis (2009) believe that, "an effective and quality literature review is one that is based upon a concept-centric approach rather than chronological or author-centric approach" (p.184). Since our students are novice researchers with all the problems that implies (Webster & Watson, 2002, Chen, Wang & Lee, 2016) and given the language issue identified above, a conceptual or theme-based approach (see Stage 1 of the approach below) is the most accessible and useful for them. For similar reasons, the review focus leans towards findings through the analysis and synthesis of information contained in the source texts, given that as stated by the Educational Resources Information Center (1982), the literature review can be seen as, "information analysis and synthesis, focusing on findings and not simply bibliographic citations" (p 85). Reference to this particular focus is part of the task description given to the students.

All tasks on our programme have a written task description (See appendix 1). Students are expected to read, discuss and annotate these to develop an understanding of the task before the class. As teachers are aware that not all students may do this, the task descriptions are commonly used as a teaching/learning tool. Obviously there are many possible approaches to this. Described below, is the one used by the writer. The class materials used are displayed in appendices 1 and 2.

A further issue is student 'ownership'. Writing is not generally a popular activity among university students (Schuman, 2013) so this approach is designed to focus very much on what they can contribute and input at any stage of the production process. For example, right at the start, as a contextualization for the literature review and its development, we use to the topics the students have chosen as a focus for their research and the sub-questions they have generated in their teams, as this will inform the selection of texts they will choose as the basis for the review. Further, students are periodically invited to teach parts of the process in class to their colleagues when they are confident to do so. Thus active student involvement is present from the beginning.

Stage 1

1. Students have selected relevant texts based on the research topic (two for each team member) from academic databases such as EBSCO Host to use as background reading for their research project. These are based on different research themes/concepts/questions and sub-questions which they have developed and will gather data on. They are expected to have read and annotated these out of class and will use them as the focus for the review. Reference is first made to previous experience of like tasks (reflection) and then to what individual and collective understanding students may have of the

current task. This generally tends to be patchy at best. Discussion focuses on where and how the literature review fits within their research report and its importance in this context in order to allow effective conceptualization of the task and lend it a clear purpose and application (Donahue, 2009). Students present their text choices and explain the relevance of their chosen texts to the research question. All team members are expected to screen the texts to be sure they are appropriate. Other students are invited to comment on the apparent relevance of the texts and the teacher gives input and guidance on alternative choices, if texts do not appear to have a high level of relevance. Unlike a more teacher-led classroom activity, students have a high level of input at this stage and are instrumental in setting the context and goals for what follows.

2. The task description (see appendix 1) is then screen- projected and skim read. Students also have hard copy. They are familiar with the purpose and use of task descriptions from previous assignments and the preceding Communications course. Key lexis is focused on and discussed. The purpose here is to establish what students already know (schema) that can be applied to the current task and most of this session is based on student input related to past experience, current understanding, knowledge and reflection. Students take notes and general understanding is reviewed with a Q and A session in which they are encouraged to give a deeper analysis of the text (task), focusing on the highlighted concepts (vocabulary). Italicized text indicates task orientation vocabulary (instructional) and bolded text is the teacher's best guess at what vocabulary may be unfamiliar. Students are encouraged to offer definitions of the latter and identify any other 'problem' vocabulary. They are then asked to comment on grammatical features and these are reviewed, explained and discussed where understanding is not clear (e.g. modality, use of passive, and collocation). An extended Q and A session for clarification and checking then follows. This is a whole-class activity within which students generate and respond to each other's questions. The teacher's role is one of facilitator. As can be seen, there is a strong emphasis on discussion as this can help in providing a firm foundation for the development of literacy skills (Dickenson & Tabors, 2001). Further, the emphasis is on the "exploration of ideas" and knowledge (Cazden, 1988) rather than having students respond to teacher-generated 'comprehension' questions (p. 54).

3. Students are reminded of the importance of paraphrasing in academic writing and prior experience of paraphrasing is elicited and discussed. This focuses on the 'why' and 'how' of this rather complex process. An in-class team exercise is given on paraphrasing the final paragraph of the task description.
These stages usually take two 50- minute class sessions. However there needs to be flexibility with timing given that students or the facilitator my see the need for more time to be spent exploring a particular element or challenge such as the paraphrasing mentioned above. (Ankawi, 2015).

Stage 2

1. In the next class, teams present their paraphrases and discuss the effectiveness and integrity of these. They compare features of their work with the italicized model at the end of the task description (this is not on the original document, but added prior to this stage after the previous class is finished). They then describe the different approaches used to produce the paraphrases and these are discussed and evaluated. This is a student-led activity.

2. We then begin work on building a possible structure for the literature review using a screen- projected 'skeletal' version of the template in appendix 2 (see step 3 below). We take a general to specific approach of the concepts that underpin the organization and content of the document. These are: context (introduction), summary, argument, synthesis, evaluation and conclusion. These terms are discussed in the context of the document the students are required to produce and related to previous documents they have written (experience). Synthesis, argument (Bitchener & Turner, 2006) and evaluation tend to be the most cognitively challenging ideas for the students to grasp and they are unfamiliar tasks. Proportionately more time is therefore spent on exemplifying and clarifying these by identifying them as features of the texts the students have selected themselves. Existing schema and real-world experiences, such as comparing two cars in order to decide which one to buy (information synthesis, evaluation and argument), are also referred to in order to personalize the activity.

The students work in their teams to suggest possible ways to introduce different elements of the content and structure of the review. These are shared and refined with respect to level of formality and stem sentences (see appendix 2) are generated as ways of introducing the informational load (content). Speculative discussion focuses on what information might follow and what language could be used to describe this.

3. Additional language structures are elicited in the same way and added to as shown in the text box in appendix 2. It is important to emphasize that the document displayed here is almost 'complete'. In the first class of stage 2 (step 2 above) it is presented in a very basic and simplified form and is fleshed out as the learning sessions develop with students suggesting language input into the developing document. Based on discussion and negotiation of the relevance and appropriateness of this, it is either included or rejected. This is again, a class decision in which the teacher functions as a facilitator and is designed to optimize both individual and collective (team and class) understanding. We then refine the contributions (as above), particularly with respect to level of formality as students are often able to propose an appropriate chunk of language (in terms of meaning) albeit in an informal style. They take notes and at the end of the third session the 'completed' document is mailed to them to use as a guide and checklist for their review. They then proceed to draft the document (application).

The three steps described above normally take three 50-minute class sessions. The class-based sessions lead to out-of-class follow up as the students apply

new to existing knowledge to continue to work on the document. Repair and development continues to take place back in the classroom and extensive formative feedback is given until the literature review is handed in for grading.

Conclusion

As stated in the introduction, the review is both a cognitive and linguistic challenge for the students. I have found over time that following the described approach has, for many of them, resulted in a demonstrably well-defined understanding of the overall task and its components which allows them to apply research topic-based knowledge and critical thinking (analysis) to the production of the literature review (Bitchener & Turner, 2008). This increases the likelihood of completing the task as required, as well as reducing the possibility of flawed organization. Further, it contributes to a clearer understanding of the concepts (themes) they will focus on in the research.

Students are able to show development and relevant application of a higher frequency of genre - appropriate lexis and the inclusion of a higher level of appropriate content. This is particularly important in our context, given that our students are operating in a foreign language. Task fulfillment, organization, content and language are all assessment categories in the descriptive rubrics we apply for the grading of written assignments. Relative performance in these areas within our programme, are also indicators of evolving critical thinking and language development.

Informal student feedback in discussions after the review was completed, indicated a more developed understanding of the task and more mastery of the specific lexis required to both write and talk convincingly about their background research reading. They could also see that they would be able to apply the language and ideas again in the final research report, both in the extended literature review and the discussion section of the report. Additionally, they stated that they felt more knowledgeable about their research topics and questions. There was a strong feeling that they had been directly involved in the teaching/learning process and thus a higher 'buy in' for the assignment. That student engagement is a foundation for more learner-centered 'teaching' is well established (Fredricks, Blumenfeld & Paris, 2004) and the above statements are a gratifying response from these learners.

It is important to state here that the literature review is not usually a popular assignment with the students, partly because their understanding of its purpose is often not clear. This was not the case in these two classes. Lastly, students were largely satisfied with the grades they received for the review.
As yet there is no detailed data over time to link this approach to grade performance or comparison with grades in other classes as this is not part of the scope in this paper. This might form part of the focus of a future research study on the approach.

The tables below represent the scores for the assignment in two classes taught by the author in a previous semester. The grade distribution difference between the classes is an interesting one.
However, it is not the purpose of this document to provide any analysis or explanation for these differences. A further longitudinal study might usefully do so.

Table 1. Grade breakdown. Class of 16. Assignment average: 78.819 (B-77.5- < 80) 62.5 in B range.

A (90+)	A-(87-89)	B+(83-86)	B (80-82)	B-(77-79)	C+(73-76)	C(70-72)	C-(67-69)	D(60-66)	F(0-59)
5	3	2	1	**1**	2	1	*2	*1	0

Table 2. Grade breakdown. Class of 18. Assignment average: 78.33 (B-) 44.4 A range

A (90+)	A-(87-89)	B+(83-86)	B (80-82)	B-(77-79)	C+(73-76)	C(70-72)	C-(67-69)	D(60-66)	F(0-59)
0	0	6	0	**4**	5	0	*1	0	0

**These students were historically weak writers and often demonstrated a generally low level of understanding of tasks*

In the opinion of the writer, these scores are generally a cause for optimism, especially given the level of difficulty of the task and the second language factor. Typically in our programme, it is not a task that results in a high number of 'A's.

As suggested, further research could focus on the use of control groups to generate a body of data on the assignment over a wider range of class sections. This would allow a qualitative comparative text analysis in order to establish whether there are any significant differences between the quality of documents produced in classes where this approach is used and classes where it is not (Dalton, 2011). As stated above, grade comparisons and analysis for the assignment could also then be made across a higher number of sections.

It has not been the purpose of this study to focus on the issues faced by second language users in this context, but this would be a very useful and interesting focus for further research. In our situation, the particular problems faced by Arabic speaking students while writing a literature review, such as differences in rhetorical style, (Siti Hamin & Mohamed, 2012), various forms of interference

and issues related to the low level of English/Arabic cognates would be a worthy investigation.

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Appendix 1
Teaching materials

Literature review Preparation– Task Specification

This is an *individual deliverable written by each team member.* It will help the team write its background/literature review in the *proposal and the final research report*. Each member should *select two texts* based on *usefulness and relevance* to the team project. These texts need to be compared and the information **synthesized.** Texts should normally be academic texts from **authoritative** sources. They might also be texts that do not actually report research directly from sources but that provide vital factual or scientific information on the topic (such as the **EPA** website, if you are researching an environmental topic).

The purpose of this task is to **extract** relevant information for a team literature review. You will need to use the skills previously learnt of annotating texts, reading for specific information and note taking. This reading should also help you understand important **variables, concepts and theories** that are relevant to your topic, tell you about research already done done and help you *compare and evaluate* what has been done by other researchers. This may help you work out what has not yet been done, give you ideas about the most appropriate and original contribution your team can make, select an appropriate research method for your topic and allow you to summarize important background information.

You should normally combine different approaches to literature review drafting. You will sometimes need to paraphrase (which involves *briefly summarizing* what a paper says on a particular theme *in your own words*). You will also need to identify useful direct citations which need to be clearly marked as citations using "…" with page numbers. Long citations (often above 40 words) should be indented as block quotations. You will be provided with information by your instructor about using a variety of reporting verbs to communicate your own **stance** on the information being reported.

Remember that **ultimately** you will be using the full literature review in your team to identify your own research focus, which could be determined by identifying a gap in the literature. This individual task is a first step towards the full team-drafted literature review.

Possible paraphrase: ***One important function of the individual literature review is to assist in the development of the team review. Also, it will help in focusing the research as there may be questions and issues not covered in the texts which the team might gather data on in its research.***

Appendix 2

Context

The team is currently conducting research into…..
Various significant research themes have been identified……
The following review……

Summary and focus

(General to specific) [1] describes……..
The author's/text's main focus is…..
Other questions……

Synthesis

Both studies…..
However……..
Authors' perspectives?

Evaluation

What is the value of the text/s?
What information is specifically useful and for what?

Conclusion

This review has……..
Several major questions……
Need for further investigation?

According to [1]……
The text/ source/ author, states/reveals/describes/proposes that……
It is stated in [1], [2] that…..
As stated in …..
[2] shows that…

The research indicates that…
While the studies are similar in some respects……..
[2] takes a slightly different perspective/view….
On the one hand….
They agree that…..
On the other hand…

The stated information is useful for….
The information described can influence our research……
This is important/significant/useful because….
Refine research question, identify areas of focus for our research, influence methodology.

Of particular interest is……
Particularly notable is….