TOJNED
THE ONLINE JOURNAL OF NEW HORIZONS IN EDUCATION

ISSN: 2146-7374

The Online Journal of New Horizons in Education

Volume 8 Issue 4
October 2018

www.tojned.net
October 2018

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Published in TURKEY

Message from the Editor-in-Chief

Hello from TOJNED

The Online Journal of New Horizon in Education (TOJNED) welcomes you. TOJNED also thanks all researchers, practitioners, administrators, educators, teachers, parents, and students from all around the world for visiting the issues of TOJNED. TOJNED has diffused successfully innovation on new development in education science around the world.

TOJNED is a quarterly journal (January, April, July and October). This online periodical is devoted to the issues and applications of education. Reviewed by leaders in the field, this publication is designed to provide a multi-disciplinary forum to present and discuss all aspects of education.

TOJNED provides new development in education forum and focal point for readers to share and exchange their experiences and knowledge each other to create better research experiences on education. The main purpose of this sharing and exchange should result in the growth of ideas and practical solutions that can contribute toward the improvement of education. TOJNED records its appreciation of the voluntary work by the following persons, who have acted as reviewers for one or more submissions to TOJNED for v8i4. The reviewers of this issue are drawn quite widely from education field. Reviewers' interests and experiences match with the reviewed articles.

I am always honored to be the editor-in-chief of TOJNED. Many persons gave their valuable contributions for this issue. I would like to thank the editorial board of this issue.

TOJNED invites article contributions. Submitted articles should be about all aspects of education science. The articles should also discuss the perspectives of students, teachers, school administrators and communities. The articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJNED. For any suggestions and comments on the international online journal TOJNED, please do not hesitate to contact with us.

Prof. Dr. Aytekin İŞMAN

October, 2018
Editor in chief

Table Of Contents

'WE CONSIDERED OURSELVES A TEAM': CO-TEACHING FROM THE PERSPECTIVE OF GRADUATE TEACHING ASSISTANTS	1
ALYSSA HARTER, LAURA JACOBI	
A STUDY ON THE INVESTIGATION OF LEARNING ORGANIZATION STRUCTURE AND INSTRUCTIONAL LEADERSHIP IN TERMS OF TEACHERS IN SCHOOL	11
Özlem ERDEM, Erkan AÇIKYÖRÜK	
AVAILABILITY OF PHYSICAL FACILITIES FOR IMPLEMENTATION OF UNIVERSAL BASIC EDUCATION IN JUNIOR SECONDARY SCHOOL OF EBONYI STATE, NIGERIA	30
Bernadette Nnenna Odey,	
EFFECTS OF GRAPHING CALCULATOR ON LEARNING INTRODUCTORY STATISTICS	41
Wei Wei, Katherine Johnson	
E-PORTFOLIOS, COURSE DESIGN, AND STUDENT LEARNING: A CASE STUDY OF A FACULTY LEARNING COMMUNITY	50
Devshikha Bose, Patrick R. Lowenthal	
EVALUATION OF CHARACTER AND MORAL EDUCATION IN ELEMENTARY SCHOOL	63
Eli Meivawati, Badrun Kartowagiran, Tin Rustini	
EXPERIENTIAL LEARNING AND UNDERSTANDING DUALITIES IN REFLECTING LIFE EVENTS	73
Rebecca Samson – Gaddi, Goyena Solis - San Pascual, Kwangdong Lee,	
IMPACT OF GLOBAL ENGLISH TO FORM THE IDEAL L2 SELF AND MOTIVATION OF ASIAN RURAL L2 UNDERGRADUATES	81
Prasangani K.S.N.	
RELEVANCE OF LEARNING SCIENCE THROUGH INQUIRY BASED PARTICIPATORY ACTION RESEARCH IN BASIC PUBLIC SCHOOLS OF NEPAL: A PROPOSAL	87
Kamal Prasad Acharya, Bhimsen Devkota, Chitra Bahadur Budhathoki, Birgette Bjonness	
SYSTEMATIC REVIEW OF THE CHECK-IN/ CHECK-OUT COMPONENTS AND THE EFFECTIVENESS FOR STUDENTS WITH CHALLENGING BEHAVIORS	98
Dana Laging, Caitlin Buerger, Christine Hoekstra, Shannon Childs	
THE IMPACT OF ELECTRONIC FEEDBACK ON STUDENTS'WRITING QUALITY	103
Wardani Dwi Wihastyanang, M. Adnan Latief	

'WE CONSIDERED OURSELVES A TEAM': CO-TEACHING FROM THE PERSPECTIVE OF GRADUATE TEACHING ASSISTANTS

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ABSTRACT
Previous research has explored the influence of co-teaching models on student learning in the K-12 grade curriculum. However, little research explores the effects of co-teaching models implemented in higher education among graduate teaching assistants (GTAs). This case study examines the benefits and drawbacks of co-teaching models in higher education classes for GTAs. Two sections of the basic communication course (one for international students and one for American students) at a mid-sized Midwestern university were combined for 50% of the semester classes. Lessons with a focus on intercultural communication were co-constructed and co-taught by two GTAs. Based on this experience, a reflexive journal was used to identify emerging themes pertaining to the benefits, drawbacks, and student learning outcomes of co-teaching by GTAs in higher education. In addition, in-depth semi-structured interviews were used to gather the perspectives of three GTAs with co-teaching experience. Results reveal variety of teaching approaches, wealth of instructor experiences, instructor chemistry, and instructor approachability as benefits of co-teaching. Perceived drawbacks include power distances and lack of familiarity with pedagogy and co-teaching models. Implications for GTAs and students in higher education are explored.
Keywords: co-teaching; graduate teaching assistants; higher education

Introduction

'We considered ourselves a team':
A view of co-teaching from the perspective of graduate teaching assistants

Although around for close to 70 years, co-teaching models have shown limited use in higher education and have been scarcely researched. Even when studied, graduate teaching assistants (GTAs) have been eliminated from such research. Despite this gap in research, co-teaching offers benefits to instructors and students (Walters & Misra, 2013). Furthermore, it provides educators and practitioners with the opportunity to explore co-teaching approaches and their potential as a training model for GTAs and as an alternative pedagogical style from which undergraduate students may learn and grow.

Although used by some general and special educators, co-teaching models have been selectively implemented in higher education (Potts & Howard, 2011). In university settings, educators are often collaborative in their research, but not in their teaching. Perhaps college faculty do not collaborate on instruction because they are limited to teaching loads in a semester-length course, unlike K-12 teachers (Lock et al., 2016). Also, co-teaching requires faculty to invest more time and energy (Held & Rosenberg, 1983), potentially leading to the perception that there is less time for research (Korhonen & Törmä, 2016). It is such perceptions that likely lead to less interest in the implementation of collaborative teaching models amongst faculty.

While few professors have attempted co-teaching, even less GTAs have done so (Walters & Misra, 2013). Co-teaching can be utilized as a form of GTA training, but it requires greater investment of time and energy (Walters & Misra, 2013), which may deter faculty members from forming a co-teaching relationship with a new instructor. Therefore, there are very few opportunities for GTAs to partake in co-teaching. This is unfortunate considering the potential benefits of co-teaching partnerships.

If used effectively, co-teaching models may work well in training GTAs. For a new instructor, the transition from novice to veteran involves learning discipline-specific content and pedagogy (Smith, 2005). New instructors must also learn to communicate effectively with diverse learners in the classroom, and with colleagues and administrators (Hunt, Simonds, & Cooper, 2002). Building these skills ultimately boosts the self-concepts and perceived competence levels of GTAs (Korhonen & Törmä, 2016). Because co-teaching involves frequent communication and one-on-one opportunities with a partner, it provides an ideal platform for building competence with content, pedagogy, and communication.

The use of co-teaching models also allows a platform for graduate students to work together to ensure quality teaching practices within the classroom. For example, Hunt and Weber Gilmore (2011) posit that

graduate students in co-teaching relationships learn to develop course materials, manage classroom behavior, and develop an authentic teaching style. In addition, having another instructor in the classroom allows the co-teaching partners to observe and implement different teaching strategies, such as lecturing, discussion, and small group work (Walter & Misra, 2013). When things go awry, the co-teaching partner can offer feedback on areas of improvement to his/her colleague. When programs implement co-teaching as a training model for GTAs and eventually "shift roles from teaching assistant to lead instructor through supervision," GTAs have the potential to form a teaching philosophy and personal style and "gain confidence and competence as teachers" (Baltrinic, Jencius, & McGlothlin, 2016, p. 32).

Sweigart and Landrum (2015) assert that limited empirical evidence has been collected regarding co-teaching within higher education classrooms. Even less research exists pertaining to the use of co-teaching as a pedagogical approach among GTAs. Therefore, this case study was conducted to fill a gap in the literature. It serves as a preliminary investigation to understand the benefits and challenges that may be involved with co-teaching for GTAs in higher education. With this goal in mind, the following research question was advanced:

RQ: From the perspective of GTAs, what are the benefits and drawbacks of co-teaching versus traditional approaches?

Literature review

Co-teaching Models Defined

Co-teaching has been defined as "two or more people sharing responsibility for teaching some or all of the students assigned to a classroom" (Villa, Thousand, & Nevin, 2004, p. 3). Effective co-teaching involves more than thoughtful planning, instruction, and evaluation of instructional approaches. At its best, co-teaching is a marriage between instructors that is built upon trust, healthy communication, and collaborative approaches (Villa et al., 2004).

Potts and Howard (2011) outlined six models of co-teaching: (1) one teach, one observe, (2) one teach, one assist, (3) station teaching, (4) parallel teaching, (5) alternative teaching, and (6) team teaching. Careful consideration of these models can help instructors to choose the appropriate one given the specific classroom circumstances. In the *one teach, one observe* co-teaching classroom, one instructor teaches a lesson while the corresponding teacher observes the students, often offering remedial attention to students who are struggling. In the *one teach, one assist* model, one instructor teaches the lesson while the other floats around the room providing assistance to individual or groups of students. In *station teaching,* teachers share equal responsibility in implementing the lessons with stations through which students rotate. In *parallel teaching,* instructors are each responsible for teaching a smaller section of students, which helps to lower the teacher-to-student ratio. In *alternative teaching,* teachers pull aside groups of students for additional instruction when necessary. Finally, in *team teaching* classrooms, instructors equally share the planning, teaching, and assessing of all the students in the classroom.

When deciding which model is best in a given co-teaching partnership, teachers need to consider their ease in planning together, possible time commitments, comfort with course content, and the size of the classroom (Potts & Howard, 2011). For example, while team teaching requires instructors to understand the course content and commit to lengthy planning times, station teaching requires less time for co-planning but more time for individual construction of lessons. A number of the models may work effectively for GTAs who co-teach. In this study, the team teaching model was adopted to ensure shared responsibility for planning, teaching, and assessment.

Current Perspectives on Co-teaching

When implemented successfully, co-teaching has been found to have multiple benefits in the classroom. First, in a typical co-teaching classroom, the teacher-student ratio greatly improves (Diana Jr., 2014; Sweigart & Landrum, 2015). A smaller number of students gives new teachers the opportunity to "ease" into teaching. Teachers also grow professionally because they are more invested in developing and meeting learning objectives through collaboration with another teacher (Villa et al., 2004). In addition, co-teaching offers avenues for instructors to model non-traditional pedagogical approaches in the higher education classroom (Harris & Harvey, 2000). In other words, co-teaching is a learning opportunity for new instructors due to the fact that they are responsible for less students while having increased opportunity for reflection and practice with a teaching partner. Such reflection and practice leads to increased motivation and job satisfaction (Villa et al., 2004; Potts & Howard, 2011).

Although there are benefits, co-teaching approaches also have drawbacks associated with their use based on time and instructor compatibility. First, co-teaching is more time consuming (Letterman & Dugan, 2008). A co-teaching pair must create a syllabus, lesson plans, and grading procedures collectively, which may take extra time. One instructor may also take longer to grade than the other; this lapse in time may cause frustration. Furthermore, conflict may arise between instructors or power differences may surface (Letterman & Dugan, 2008). Either of these could cause disruptions within the classroom. Lastly, administration, support staff,

and other teachers may view co-teaching as an educational fad, claiming that the traditional approaches to teaching are more effective (Diana Jr., 2014).

Methods

The purpose of this study was to examine GTA perspectives on co-teaching models used in college classes. In this preliminary investigation, a co-taught classroom was designed and implemented by two GTAs. A reflexive journal and in-depth semi-structured interviews were used to gather the perspectives of GTAs, and content analysis was used in coding the data. The methods are explained in more depth below.

Co-teaching Course Design

Two sections of the basic communication course (one for international students and one for American students) at a mid-sized Midwestern university were combined for half of the semester classes. Lessons were co-constructed and co-taught by two GTAs. The team teaching model of co-teaching was used. GTAs equally planned, taught, and took responsibility for the students. Mindful of their strengths and weaknesses, the GTAs would simultaneously deliver lessons, taking the lead at times, and supporting at other times.

Data Collection

Recruitment. Following approval from the Institutional Review Board (IRB), GTAs were recruited through known-group sampling via an e-mail invitation; the recruitment script was sent to GTAs at a mid-sized Midwestern university. Only those who had experience with co-teaching methods were invited to participate, which resulted in three volunteers.

Participants. Three GTAs at a mid-sized Midwestern university were interviewed. The instructors interviewed had all taught in both traditional and co-teaching classrooms. Two of the instructors had co-taught with an experienced instructor, while the third participant had co-taught with another GTA. Of the three research participants, one interviewee identified as a White, female instructor, one identified as an African American, female instructor, and one interviewee identified as a Bangladeshi, male instructor.

Procedures

Interviews. Interviews were conducted at a location and time chosen by the interviewee to ensure convenience and privacy. Before beginning the interview, consent forms were collected by participants. Notes were taken during the interview to record important themes that emerged from interviewee responses. Semi-structured interviews were used to guide the conversation but also allow freedom to move beyond the constructed set of questions (Reinard, 2008). The interviewer worked from a list of questions, but following interviewees' responses, the interviewer paraphrased and/or asked clarification questions at times. This approach allowed the interviewee to finalize his/her thoughts before proceeding to another question. It also helped to ensure more thorough responses to the interview questions.

Reflexive journal. As one of the instructors in the co-teaching classroom structured as a part of this study, it was important to include my perceptions of co-teaching in the form of a reflexive journal. Reflexive journals are used to expand on learning experiences, prompting an individual to reflect on a range of viewpoints and perspectives. Commonly used in the field of education, Alexandrache (2014) claims the purpose of reflexive journals is to allow the "expression of the feelings and the attitudes manifested" (p. 22). Alexandrache argues that because reflexive journals involve self-evaluation, they can also be a part of learning, especially if they "emphasize the conceptual development of the things learned during the psycho-pedagogical classes and on the mental processes developed during the teaching practice" (p. 22).

There are two types of reflexive journal approaches, including simple and elaborate reflexivity. For this study, I engaged in elaborate reflexivity, which is defined as data analysis "in which one relates to others and the way in which one personal experience is compared to another or to the experiences of others" (Alexandrache, 2014, p. 23). In using elaborate reflexivity, I examined the similarities and differences between my experiences and the observations of the GTAs in this study. In this way, my voice serves as another participant, contributing to the body of knowledge on the benefits and drawbacks of co-teaching. In addition, I hope to offer additional analysis through examination of the comparison between my experiences and those of the GTA participants in this study.

Content Analysis

To ensure quality data analysis, the three phases of content analysis suggested by Elo and Kyngas (2008) were used, including 1) preparation for analysis, 2) organizing, and 3) abstraction. The preparation phase of content analysis requires the selection of a unit of analysis, often a word or a theme. Themes were chosen as the unit of analysis for this study. Additionally, the researcher must decide whether to consider the manifest or latent content or both. To best fit with the purpose of this study, manifest content was chosen for analysis. Once the researcher decides on the unit of analysis and type(s) of content to explore, he/she must make sense of the

data in order build familiarity prior to analysis. To build familiarity with the data, the reflexive journal and interview transcripts were read through several times.

After the preparation stage, the researcher organizes data through inductive or deductive content analysis. An inductive approach was taken due to the paucity of research pertaining to co-teaching, the phenomenon of study (Elo & Kyngas, 2008). To code both the reflexive journal data and the GTA interview data, the three stages defined by Elo and Kyngas (2008) were used: open coding, categorization, and abstraction.

During open coding, notes and headings were recorded in the margins while reading through the reflexive journal and transcripts. After open coding, lists of categories to be grouped together were created based on the nature of the comments. This allowed similar themes to be grouped into similar, yet broader, categories. Dey (1993) posits that creating categories does not simply bring together similar concepts or themes; rather it allows phenomena to be classified as belonging to a group that can be compared to or contrasted from different categories.

Lastly, to engage in abstraction, categories were created using content-characteristic words. For example, GTA participants offered themes related to "teaching styles," "chemistry of co-teaching partners," and the "lack of co-teaching knowledge." Results of the coding process are shared in the Results.

Results

Four themes pertaining to benefits and two themes related to drawbacks of co-teaching from the perspective of GTAs were generated from the data. To protect the anonymity of the interview participants, pseudonyms are used when sample responses are provided.

Benefits

Four themes emerged as benefits of co-teaching: a variety of teaching approaches, the wealth of instructor experiences, instructor chemistry, and instructor approachability.

Variety of teaching approaches. A variety of teaching approaches were discussed as a benefit to co-teaching because this variety contributed to better teaching. Participants discussed how such variety led to compensation for their own instructional weaknesses, enhanced instruction, and personal growth.

For the participants of this study, having a variety of teaching approaches present in the classroom helped the individual instructors to compensate for their weaknesses. For example, in response to a question pertaining to the characteristics desired in a co-teaching partner, Lillian replied "I know there are things that I struggle with in the classroom on a personal level… and I feel like the partner that I was granted the opportunity to work with was really good at helping to cover and balance all those things." She further claimed, "There were a couple instances when we were together, and I was watching my partner and I was like 'wow! If I could just do that'." Peter's comments offer a similar perspective. In referring to his initial days of co-teaching, he states, "At that time, I was not sure how I should address the issue [of lack of experience] or how well I trust myself with this teaching environment." For Peter, having a co-teaching partner made teaching in a new environment more comfortable.

In addition to helping to compensate for instructional weaknesses, the participants felt that co-teaching enhanced instruction. Participants discussed the opportunity to gather more ideas during course preparation and to create better lesson plans, classroom activities, and discussion prompts. In my personal experience with co-teaching, the development of lesson plans, activities, and discussions were fundamental to my growth as an instructor. My co-teaching partner and I would bring former lessons from previous semesters to our preparation time, only to leave with an advanced version of our lessons and activities. For example, we modified a game of cultural bingo for our students. Originally, the game was adapted for American students only. However, working together, we developed a game of cultural bingo that provided insight into global perspectives that represented both domestic and international students in our classrooms. The co-teaching experience enabled us to change our classroom materials to fit the changing needs of our students. Lillian further confirms this idea when talking about her experience modifying an activity with her partner:

> We kind of went through and changed some of the ideas in the blocks and ultimately the students needed to work together [to complete the activity]. . . and you know, I think doing collaborative activities like that, that's one thing for sure that I'm going to bring into the classroom [after the co-teaching experience].

Having a partner with whom to design course materials allows for greater creativity and potentially more effective classroom exercises.

Finally, GTAs believed their exposure to a variety of teaching approaches contributed to personal growth as instructors. For example, Diana explained that co-teaching allowed her to "develop a sense of self and your own style of teaching." She believed her role in the classroom allowed her to teach prescribed content in a way that demonstrated her authentic teaching style. Peter echoed Diana's thoughts, claiming his co-teaching partner gave him flexibility in his teaching. He fondly remembers being told by his co-teaching partner, "you can go your own way and you can teach it on your own." In the co-teaching relationship, Peter felt the opportunity to

expand on his teaching style and experience creative approaches in the classroom. The interviewees believed having another instructor in the classroom encouraged development of their own teaching styles because they were able to observe the teaching styles of their partners and improve on their own approaches simultaneously.

Wealth of instructor experiences is good for the students. A wealth of instructor experiences was discussed as a benefit to co-teaching for two reasons. Different experiences contribute to student learning and offer diverse perspectives in the classroom.

According to the GTAs interviewed, the different experiences and perspectives of co-teaching instructors were beneficial to student learning. For example, when asked about the benefits of co-teaching in the basic communication course, Diana claimed that co-teaching provides "more of an opportunity to show these students there are multiple ways to approach communication." Providing students with multiple perspectives of viewing course content allows students multiple ways to analyze information and come to their own conclusions. Peter's words confirm this idea: "If one teacher gives an example from one perspective, and the other instructor gives an example from their perspective, students understand that one thing can happen in different ways." There were even instances when I was co-teaching, and my partner was asked a question for which she did not have an answer. Due to my knowledge in the subject matter, my partner asked for my help and directed the class attention towards me. The wealth of different experiences between my partner and I provided the students with the opportunity to understand how our experiences can shape our understanding of course content.

With more than one instructor in the classroom, navigating difficult conversations or explaining connections between course content and real-life scenarios is more beneficial to students because they are exposed to various life experiences. For example, Diana claimed that "having two instructors provides them [students] different expertise on the same topic . . . a broader understanding than they would have had with just one instructor." Having more than one instructor provides different experience and expertise levels. For Peter, an international instructor, the presence of his perspective is fundamental in the classroom. He noted, "I always try to give examples from the international perspective because I am more familiar with international issues." Peter clarified the importance of life experiences in demonstrating the connection between course concepts and life applications. Whether instructors have different nationalities, genders, religions, or other aspects that make them diverse, they all have different life experiences that can be brought into the classroom.

Instructor chemistry. If present, chemistry was a great benefit of co-teaching according to the participants interviewed. In all cases, chemistry was perceived to be crucial to an effective co-teaching classroom. Lillian explained "If you don't have chemistry right off the bat, the students will pick up on it." Fortunately, because I was already friends with my co-teaching partner, the chemistry was already there. When we taught together, our students knew we enjoyed each other and the collaborative process of co-teaching. When strong and healthy, the chemistry of co-teaching partners can enhance the learning environment. Lillian added the following piece of advice for co-teachers: "You got to have someone that you can actually like to be around. One of the things I was taught was that if you can see yourself not being in a relationship with that person and being all right, then you shouldn't go through with it."

For Diana, having a teaching partner that has similar qualities and interests is important to maintain chemistry in the classroom. She described her new co-teaching partner: "She's a woman, she studies queerness, she's on my level academically . . . like sameness in a sense." In addition to compatible personalities and academic interests, compatible schedules is important. When Diana worked with an established faculty member, negotiating times to meet was difficult. When working with another GTA during the co-teaching experience, scheduling meetings was much easier. She noted that "with a grad student, you're basically on campus with them all the time. You can work with that." She further explained, "If you're not working closely and collaborating with your co-teaching partner, it becomes this thing where it doesn't seem even seem like the same class." For GTAs, having chemistry with their co-instructors can influence whether the co-teaching experience will be a positive one.

Approachability. During the interview, the participants were asked to speak to the benefits experienced by students in co-teaching classrooms. Approachability was one such benefit. Having more than one instructor in the classroom adds another person from whom students can seek help or clarification. This becomes especially important when students do not find one of the instructors approachable. For example, Diana, who co-taught with a male partner often had women approach her, "and they would only talk to me because I was a woman and I was a little bit more approachable." In addition to gender, this happened with age as well. Lillian stated, "while you have these novice instructors coming in, you have a lot of first year students as well, and you can better assess those needs. I mean, it wasn't too long ago where I was an undergrad myself." New students can often relate to young GTAs, which makes those GTAs more approachable. Regardless, having more than one instructor in the classroom allows students more opportunity to seek help from an instructor they perceive to be approachable and view as credible.

From my own experience, approachability played a huge role in building relationships with students in the classrooms. During my co-teaching experience, we had a unique class structure that involved 25 international students and 25 American students. Co-teaching allowed the students to engage in collaborative learning with

individuals from cultures different from their own. While some students remained apprehensive about the process, others fully embraced the opportunity. Had our presence been unwelcoming, our students would not have viewed us as approachable. Being able to provide a space for diversity and inclusion within the classroom was helpful to students, yet I do not believe this would have been possible without my co-teaching partner and I allowing our students the space to voice their concerns and build relationships with us both in and outside of the classroom. By the end of the semester, students in the course were exploring other cultures, challenging their worldviews, and making friends with their classmates.

Drawbacks

Although there are benefits to co-teaching from the perspective of GTAs, it is also important to explore the drawbacks. There were two drawbacks discussed by participants: power distance and unfamiliarity with co-teaching approaches.

Power distance. Both interviewees in co-teaching relationships with an experienced instructor noticed power differences present in their co-teaching relationship. Peter explained that he had little role in the creation of his co-teaching course. He said "[my co-teaching partner] nicely explained my role, what would be my role in co-teaching, and how he can help me." Peter had small amounts of agency when designing and implementing the co-teaching course. He noted, "I was slightly confused and feared how I would work with him and how I would teach the students." Diana also described an experience of having little agency in the classroom: "To some extent if you have all of this content that is given to you, there is only so much you can do with it."

Diana examined power distances in greater detail in her interview. She stated "I think that often times when there are power distances and those power constructs with these two people, it can be very difficult to navigate." She clarified from her own experiences, "My experiences as a woman instructor teaching juxtaposed to a man teaching was a really weird place to navigate." Being placed in a position with less power than her counterpart made Diana exert large amounts of energy that left her exhausted by the end of her co-teaching experience. She stated co-teaching is "actually so much more emotional and intellectual labor to cater your own identity to [your partner's] identity."

In the interview with Lillian, who co-taught with another GTA, conversations of power distance were absent. In contrast, Diana and Peter posited their co-teaching experiences would have been different had they instructed alongside another GTA. For example, Peter believed that co-teaching between GTAs would have proven beneficial because GTAs have similar levels of autonomy and experience. He stated, "Both are students, and both don't have that much experience. In a sense, you have the same mentality, the same type of preparation style, and understand the balancing issue." This fits with my co-teaching experience with a fellow GTA, in which power was equal. There were moments when conflict would arise or one would refute the other's idea, yet these conversations are bound to happen during a collaborative teaching experience. Rather than simply telling my partner that one approach works better than another approach, we would collaboratively weigh the pros and cons to find the best approach to implement in the classroom. When GTAs were paired with veteran instructors, they experienced moments where they were told the right approach from the wrong approach with little collaboration involved in the process. These power differences did not arise when GTAs were paired together.

Lack of familiarity with co-teaching approaches. All three participants interviewed claimed to have had no formal knowledge of co-teaching before engaging in a co-teaching experience. In some instances, interviewees claimed that this lack of knowledge put them in inferior positions. For example, Diana defined her first co-teaching experience as "working for somebody who has higher teaching experience than you." Her explanation of this phenomenon was certainly shaped by her co-teaching experience with a male professor, who held both legitimate and societal power.

Participants perceived their lack of knowledge about co-teaching was due to limited opportunities for GTAs, and they attributed the lack of opportunities to societal expectations. Lillian asserted, "We assume within the society that we live in that we have to have someone with experience before they get involved in this project." Lillian's comment illustrates the assumption that co-teaching partnerships must involve a co-teaching partner with experience in order to be viewed as effective. While co-teaching with a veteran instructor can be helpful in the professional growth of a GTA, Lillian believed the process can be implemented with two GTAs and does not require experienced instructors. Diana felt similar regarding the societal influences keeping GTAs from engaging in co-teaching experiences. She states, "I think there is this assumption that [GTAs] need more time to develop our specific concentrations and what we're good at." She found being limited to basic courses did not allow for personal growth as an instructor or researcher, yet her co-teaching experience opened her up to the opportunity to teach higher level material to upper-level students.

Discussion

The data analyzed for this study offered perspectives on the benefits and challenges of GTAs co-teaching in university settings. Specifically, the findings suggest the need to consider the potential of co-teaching

as a tool to encourage reflexivity, to increase opportunities for student retention, and to implement co-teaching as a training model for GTAs.

Co-Teaching as a Tool to Encourage Reflexivity

Results of this study suggest that co-teaching may encourage reflexivity for instructors in terms of personal examination and mentoring, and reflexivity has been shown to be an important part of GTA training in previous research (e.g., Fong, Gilmore, Pinder-Grover, & Hatcher, 2017). Fong et al. posit that "reflection is often one part of the cyclical learning process that includes learning new instructional strategies through class activities and discussion, implementing those practices within one's teaching, and reflecting on effectiveness following implementation" (p. 4).

Participants in this study indicated the potential for co-teaching as a tool for encouraging self-reflection in their teaching methodology. For example, the GTAs interviewed often found that their individual teaching skills served as a successful teaching model for their partner, and vice versa. In other words, if a teacher lacked skills in a potential area of instruction, the opportunity to observe such skills used by a co-teaching partner helped that teacher to grow, and perhaps to mirror such skills. This is consistent with previous findings (Walters & Misra, 2013). Additionally, while it is common for GTAs to receive feedback on their instructional skills by a supervisor, typically GTAs are not observed more than once. Co-teaching allows for consistent observations; both partners observe each other in every class period, providing the opportunity for frequent feedback. Furthermore, this encourages continuous reflection upon one's teaching practices along with the platform to try new things. At its core, co-teaching fosters reflexivity in instructional approaches, allowing growth at both personal and professional levels.

For the participants in this study, the co-teaching relationship also offered an avenue for mentorship with an experienced faculty member or co-teaching partner that encouraged examination of their teaching approaches as they navigated the classroom. In other words, the co-teaching partner not only provided an opportunity for *observation* of a different teaching style, but an opportunity for *mentorship*. The nature of the co-teaching partnership allows for a mentor to be there at one's side throughout an entire semester or year, providing a consistent partner from whom to seek advice. GTAs in this study noted the increased opportunity to seek advice from their co-teaching partner; this allowed for different perspectives and approaches to be offered within the classroom. For example, when one of the GTAs noticed a problem in the classroom, he was able to seek advice from his co-teaching partner on how to resolve the problem. In such instances, co-teachers utilized collaborative teaching approaches to examine the best practices for navigating difficult situations. As found in previous studies (e.g. Bacharach, Heck, & Dahlberg, 2008; Thousand, Villa, & Nevin, 2014) and in this study, working with a co-teaching partner encourages reflexivity as the instructors examine their weaknesses in the classroom, propose new ideas to handle a variety of situations, and examine their own instructional practices.

Co-teaching provides a unique opportunity as a tool for reflexivity because there is an element of reflection embedded into the course design. Instructors likely experience growth on personal and professional levels, and co-teaching allows for mentorship between teaching partners that may contribute to an enhanced learning environment.

Increased Opportunities for Student Retention

Research shows that a student's experience in the social and academic sphere of college has a direct impact on student dropout rates or voluntary withdrawal from an educational institution (Tinto, 1975). Such research conveys the significance of finding ways to enhance students' experiences. The results of this study suggested that co-teaching has the potential to help enhance students' experiences in college, and ultimately may boost retention rates.

One way in which to increase student retention is by building rapport with students (Glazier, 2016; Gurland & Grolnick, 2008). The GTAs interviewed in this study discussed their ability to build strong rapport with students due to their similarities with undergraduates. They argued that GTAs are often younger instructors, having experienced their undergraduate careers more recently than university professors. Being aware of the struggles of undergraduate students, GTAs in this study offered perspectives to their students in a different way than an experienced instructor could. GTAs in co-teaching partnerships may be able to capitalize on this ability to relate to students even more. In addition, since there are two instructors present, they have the opportunity to display the rapport that they have with each other, which likely fosters a positive classroom environment and strong rapport with students. Glazier (2016) states the importance of rapport building for retaining students, noting that high-rapport relationships between instructor and student are a key factor in student success. Thus, rapport building acts as an instructor-driven action that improves student retention rates and enhances grades.

In addition to rapport, instructor approachability is important in helping to retain students (Glazier, 2016; Benson, Cohen, & Buskist, 2005). Findings of this study revealed instructor approachability as a benefit of co-teaching. Consistent with the findings of previous research (e.g., Diana Jr., 2014), co-teaching instructors in this study found that students were more willing to approach them with questions or seek clarification because

they would often establish positive relationships. This is partly a matter of numbers. Due to the decreased teacher-to-student ratio, co-teaching provides the opportunity for stronger development of student-teacher relationships. For example, one of the GTAs interviewed in this study noticed that she would be approached by female students that were uncomfortable seeking help from her male co-teaching partner. Because there are two teachers involved, the co-teaching classroom offers an increased opportunity for students to seek help from an instructor they find to be less intimidating, more immediate, or more understanding. In other words, in co-teaching classrooms, the likelihood of students seeking help from an instructor they view as approachable is high, and because of the relationship between approachable instructors and student retention in research, there is increased potential for student retention in co-teaching classrooms.

Co-teaching as a Training Model

Findings of this study suggest that exploration of co-teaching as a training model is warranted, but caution must be taken when considering power differences and GTAs' lack of pedagogical knowledge. Two of the participants in this study who had experience co-teaching with distinguished faculty members reported concerns about power distance in their co-teaching relationships. This is not an uncommon phenomenon in co-teaching partnerships that involve novice and veteran instructors (Walters & Misra, 2013). The findings of previous research and the current study suggest that co-teaching partnerships between two individuals with equal levels of power and decision making may be more beneficial. This is partly because the GTAs in this study claimed that their faculty partner had little to no interest in the collaborative aspect of co-teaching. At the very least, this implies that caution should be taken when placing a GTA with an experienced faculty member, because the benefits of co-teaching may not be experienced in situations where a faculty member does not view co-teaching as collaborative. This aligns with previous research, which noted that for co-teaching be effective, collaborative models require that faculty be reflexive about power differentials between themselves and students, and responsive to the concerns of GTAs (Cordner, Klein, & Baiocchi, 2012).

While the GTAs viewed power differentials in their co-teaching partnerships as potentially problematic, they were equally as likely to feel unprepared because they lacked the proper knowledge surrounding pedagogy and/or the implementation of co-teaching models. Thus, schools must proceed with caution when pairing two novice GTAs. However, there is still merit in implementing co-teaching as a training model in higher education. As discussed by the GTAs in this study, co-teaching allows instructors access to mentorship, opportunities to observe one another, and reflexive practices in their pedagogical approaches that contribute to instructor growth. In addition, Plank (2011) finds that there is a "messiness" involved in co-teaching that requires partners to navigate their approaches to teaching in different ways than they would on their own. While participants in this study labeled lack of familiarity with co-teaching models a drawback, previous research argues that lack of familiarity contributes to the constant transformation associated with learning the facets of co-teaching models (Plank, 2011; Ploessl, Rock, Schoenfeld, & Blanks, 2010). In other words, one way to navigate the "messiness" associated with co-teaching is to illustrate the importance of process as it leads to instructor growth and increased comfort in examining different instructional approaches.

Graduate programs should consider the possibility of incorporating co-teaching models into their graduate teacher training and instructor development processes (Shostak, Girouard, Cunningham, & Cadge, 2010). Wider spread implementation of co-teaching courses with GTAs has the potential to enhance the professional development of GTAs and increase the quality of academic excellence at an institutional level. Walters and Misra (2013) noted, "Co-teaching for one semester should give graduate students the opportunity to place emphasis on necessary and practical teaching skills to better prepare themselves for independently instructing a course" (p. 300). Co-teaching relationships offer graduate students the potential of enriched academic careers, in addition to offering faculty and undergraduate student benefits from the collaborative teaching experience.

A number of implications can be drawn from the results of this study. First, co-teaching appears to encourage reflexivity. In addition, if implemented well, co-teaching may present opportunities for increased student retention and enhanced student learning. Finally, power differences and lack of content and pedagogy knowledge by new GTAs must be considered when utilizing co-teaching as a training model for GTAs.

Limitations

This study had limitations that may have influenced the results. One of the limitations was the small sample size. Because GTAs have very limited co-teaching opportunities, it was difficult to find interviewees for the study. However, the GTAs interviewed did offer different perspectives due to their diversity in gender and ethnicity. Another limitation is the limited scope of the study. This study gathered the perspectives of GTAs to fill a gap in the literature on co-teaching. However, it is imperative to gather the perspectives of students in classrooms with GTAs as co-teachers.

Future research

In addition to using a larger sample, future research should examine student perceptions and the impact of co-teaching on student learning. Scholars could examine how the gender, race, and/or experience level of co-teaching instructors influence student perceptions of affective and cognitive learning, for example. Although identity was mentioned by participants in this study, instructor identity was not examined in depth as a factor that contributes to student learning outcomes in co-teaching classrooms.

Additionally, an important variable that emerged from the data was instructor approachability, which relates to immediacy. To understand the impact of instructor approachability on a larger scale, future research could examine verbal and nonverbal immediacy behaviors between co-teaching partners while in and outside of the classroom. This information could be utilized to assess the effects of immediacy use between co-teaching partners on student affective learning.

Future research may also address co-teaching models as a possible avenue for GTA retention and pursuit of degree completion. The retention of GTAs may be partially contingent on the success they experience in their first years of instruction. If training for their graduate assistantship did not provide a valuable foundation for instructional gain, GTAs may choose to end their teaching careers.

Finally, while research on the benefits of co-teaching for GTAs is valuable, it would be even more valuable to use the findings of this study and others on co-teaching to design and implement a training program for teaching assistants. This research is valuable for the personal and professional development of GTAs, but the actual implementation of such models would allow for the benefits to be experienced by students and university departments as well.

Conclusion

The findings of this study suggest that co-teaching offers training opportunities for GTAs that traditional approaches do not. Because of the opportunities for continuous observation and mentoring, GTAs who co-teach are likely more reflexive about their teaching and more conscious of their pedagogical choices. This ultimately benefits students and universities because of the likelihood for enhanced student learning and higher retention rates. However, to be truly effective, co-teaching classrooms must take into account power differentials between co-teachers, and be designed with intention, paying particular attention to the collaborative nature of co-teaching.

Declaration of Interest Statement
We have no conflicts of interest to disclose.

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A STUDY ON THE INVESTIGATION OF LEARNING ORGANIZATION STRUCTURE AND INSTRUCTIONAL LEADERSHIP IN TERMS OF TEACHERS IN SCHOOL

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ABSTRACT
In this study, the relation between learning organization and educational leadership has been searched from teachers' point of view. To this purpose, 94 primary school teachers and 65 high school teachers, actively working in Ankara province, have been included in the study as the sample of the population. The data for the research were collected through literature review, survey, and information sheet. The survey used by Şişman (2004) on school administrators' educational leadership has been determined as the means to gather data in this study. The data have been analyzed through SPSS 20. At the end of the study, it was found that there is a positive correlation between learning organizations and educational leadership from teachers' point of view.
Keywords: school administrator**,** learning organization, educational leadership

INTRODUCTION

Leadership is a field that has been studied for a long time and is pointed out from different ways in each research. Each study takes the leadership in its own way and brings different features to the foreground. There is a lot of difference, in practice, between a political scientist and a psychiatrist's understanding of psychiatric leadership both in content and practice, and this is a natural process. It has become a recognized fact that many more leaders take part at the center of success in organizational structures than the managers. İnan (2013), therefore, says that "leadership is a kind of compass task" (page 55). As in many other areas, the achievements in education are also directly proportional to the leadership qualities of managers (Şişman, 2014, Lashway, 2002). Hodginkson's (2008) definition of managerial power as the ability to reach goals through others can be evaluated in this context.

Considering the definitions made in the daily leadership activities, different definitions of the leadership are seen, by bringing forefront such matters as personal characteristics, exhibited behaviors, the strength of the effects that they leave in other individuals, the way they interact with the individuals in their environment and the roles they play in their environment, the tasks they undertake due to their positions. Leadership is the process of influencing the activities of a person or a group to achieve an aim in a particular situation (Hersey vd., 2008, s. 62).

Leadership is the activity of effectively planning, organizing, managing and transferring people, money, materials, time, place and other resources in order to achieve the task of giving a management to any one's management and constantly checking whether they are achieved or not. The leader will succeed not only with a particular department, person or group of endeavors and work, but with excellent leadership, management, skills and practice (Gürsoy, 2005, s. 10).

Leadership in general framework can be defined as the process by which one person influences and directs others' activities to achieve specific personal or group goals under certain circumstances. So leadership is a process of what the leader has done (Koçel, 2001, s. 465). Although there are many definitions of leadership in the literature, they also have common features.

Bennis's has identified four sub-headings as the areas of competence for leaders in his researches, as meaning management, attention management, trust management, and self-regulation (Akt. Sağlam Arı, 2014). Therefore, the managers who will be taking the leadership role in the schools should have some qualifications as training leaders. Sergiovanni also mentions the leadership roles of school managers in educational, supervisory, organizational and managerial leadership titles (Akt. Aksoy, Işık, 2008).

The main purpose of an educational or in other words instructional leader is to determine the purpose, mission and vision of an educational institution, to set up new and up-to date resources for the continuity of education and training, managing institution and education programs, planning and monitoring in-class and extracurricular activities and to play a role in evaluating and promoting teachers. Indeed, instructional leadership is based on encouraging the development of these activities and the learning process of the student. In other words, the leaders in education and training institutions should first aim to create a quality in the institution and put a vision for the institution in this direction (Phillips, 2004).

When evaluated in terms of our education system; duties, powers and responsibilities of managers are defined in the main objectives and principles of the national education in the regulations of the Ministry of Education as education and training leaders who are primarily responsible for effective and efficient use of all resources, team spirit understanding and management and representation in order to realize the objectives of the school with the general objectives (Çil, 2015).

The most important points that many of the works that have been done show us that it is necessary to visit the classrooms in different periods, closely examine the effects of students, teachers and teaching programs and become an inspection and evaluation factor in the system of educational institutions in order to increase the effectiveness of the leaders. (Can, 2007, Şişman, 2004).

Researchers such as Krug (1992), Andrew and Smith (1989), Gümüşeli (1996) and Şişman (1997) have examined the educational leadership in different sub-dimensions.

Formation and Transfer of Institutional Mission and Vision: Education and training programs should be planned, presented and put into practice on the axis of mission and vision to be established. Institutional leaders are also required to create the objectives of the institution in a clear way in this direction. The whole responsibility of this task belongs to the administrators and leaders of the institutions, especially to the directors. As a result of researches carried out on schools which are successful and have an important position in society, it is obviously viewed that these institutions have a clearly defined mission and vision. In addition, this mission and vision usually aims the success of the student (Şişman, 2004, Aydın, 2005).

Management of Learning Programs and Processes: Curriculum for the educational institutions is of equal importance with a planned work for a manufacturing firm in the service sector. Therefore, managing education institutions can also be called as managing these programs which are applied in these institutions. In education institutions, when it comes to curriculum, many topics come to mind such as distribution and programming of lessons, planning of working hours of teachers, planning of lessons yearly, weekly and daily, activities to be organized, and determination and planning of sportive, social and cultural activities to be organized and involved (Erdoğan, 2000).

Process and Evaluation of Students: It is a process aimed at determining clear aspects of development in order to evaluate and improve the situation of the identified institutional objectives and educational programs (Aydın, 2005). Directors take necessary measures to improve the performance of teachers and students and the quality of teaching in cooperation with committees and teams within the school (Çil, 2015). In other words, the usefulness of the determined processes is detected in the process and if necessary, the interventions are made. We can say that this intervention is in fact an attempt to take necessary measures for the continuity of the institution. Measuring and evaluating student achievement is also an important feature of educational leaders, as it is the responsibility of leaders to ensure the sustainability of institutional success. This is why leaders must be able to master and manage both traditional and alternative assessment and evaluation processes.

Support and Development of Teacher: Education is a lifelong process. Teachers also have great responsibilities for constantly developing themselves because of their active role in the educational process. But without managerial support, this development will always be missing. Therefore, the leader educators, especially those working in educational institutions, should be guide and supporters of teachers in this regard. Otherwise, teachers' inadequacies in their fields are becoming the problem of those teachers together with the leaders and the institution (Açıkalın, 1997). When a director wants to mentor a school he increases his effectiveness within the institution. It can be said that effective leaders are the people who understand the needs of the stakeholders of the school and know the general management structure well (Çil, 2015). One of the most important qualities of the leaders in educational institutions is to add value to teachers' individual and professional development and to encourage them to freely express their thoughts both for themselves and for their institutions (Blase and Blase, 1999). In addition, it is also one of the most important tasks of school administrators to announce the opportunities for professional development to teachers and to organize necessary in-service activities.

Creating the Appropriate Environmental Conditions and the Training Atmosphere for Education and Teaching: Researches have shown that one of the most important values that affect the leadership is the reflection of the atmosphere in which the institution is located and the dominant atmosphere in the institution to the business efficiency. According to Smith and Andrews, the new changing environmental conditions and the mood within the institution can affect the leadership positively or negatively (Akt. Serin, Buluç, 2012). Keeping environmental factors and institutional atmosphere under will increase both the yield to be obtained and the confidence of the leaders in the position they are. It can be said that the atmosphere of educational institutions is the working conditions in these institutions and the effect of these conditions on the individual. The atmosphere of an educational institution has a multidimensional influence on issues such as motivation of individuals, integration with institutions and performance of individuals (Şişman, 2004).

LEARNING ORGANIZATION CONCEPT

In the world that has become a globalized and small town, there are rapid developments and changes in many areas

(Bakan and Karayılan, 2011). I the light of these changes and developments, information has become the main sources for individual and organizational structures (Ayden and Uçcan, 2002). Therefore, there is a need for restructuring for information access, information processing and evaluation for the continuity of life, both on an individual basis and on an institutional basis, in the name of continuous adaptation and development (Bozkurt, 2003).

It is unacceptable for organizations to keep their knowledge of accessing, processing and evaluating information stable in today's conditions, where markets change day by day and different competitive environments occur. To be able to keep up with these changes and in order to strengthen organizational structure, the features such as the ability to keep up with changing conditions, preparation for new developments and crises, to be open to innovation and so on needs to be developed. This can only be achieved with learning organizations (Bakan ve Karayılan, 2011).

The concept of learning organization began with the work of Chris Argyris in the 1960s. In 1990, with the work of Peter Senge, its popularity increased and became widespread (Atak and Atik, 2007). When the concept of learning organization is examined, definitions can be seen in the literature in many ways. All of these definitions focus on the development and changes of individuals within the organization. One of the most comprehensive definitions and the definition made by Şimşek is as follows,

Learning organizations are organizations that create individual environments for individuals to develop themselves, in short, for individuals to turn to themselves, to get out of their own deficiencies, to try to fix themselves without seeking other responsibilities, to look at their place and role in the system, to renew their old knowledge and contribute to knowledge production (Simsek, 2001, p 377). In today's rapidly changing and developing world, it is not enough for someone who thinks for the organization. The idea of one person’s thinking about everything from the top and being followed by the others loses its importance and value now.

The differences between learning organizations and traditional organizations in the literature have been examined many times. For example, in the study conducted by Türemen in 2001, the following two organizational structures were compared with each other and it was revealed how different organizational learning is from traditional learning and organizational structure.

Table-1: Traditional Organizations-Learning Organizations Comparison

Traditional Organizations	**Learning Organizations**
It is a need center.	It is a student-learning center.
It's about finding the problems.	It is aimed at preventing problems.
There is no vision.	Vision is vital.
Complaints are perceived as discomfort.	Complaints are an opportunity to learn.
The role of management is control.	The role of management is sharing values.
It only consists of the management team.	Learning teams are vital.
Procedures and rules are important.	Flexibility is essential.
There are short-term plans.	Plans are long-term.
There is no different mission.	The mission is different.
Learning is individual.	Learning is individual, team and organizational.
Leadership is rank and privilege.	Leader is designer and teacher.
Tasks are individual.	The tasks focus on the team.
Learning depends on the need.	Learning is continuous and long term.
The education unit is responsible without learning.	Everyone is responsible for not learning.

(Türemen, 2001)

There are two views on the main characteristics of learning organizations. The first of them is that was presented by Calvert and his friends (1994) and the main features are as follows;

- Learning organizations are open to learning with team spirit and on different conditions,
- Learning organizations evaluate what they learn and how they learn,
- Learning organizations strive to learn more quickly against the institutions they compete with and gain superiority

in terms of competition by providing specialization,
- Learning organizations transform the acquired information into action in a fast and accurate way.
- Learning organizations have an understanding that they are aiming to increase their motivation by transferring their experiences into learning.
- Learning organizations prevent incorrect learning by recognizing their weaknesses and deficiencies.
- Learning organizations take the necessary risks without endangering their main elements.
- Learning organizations invest in experiential learning.
- Learning organizations support new ideas and projects, groups and individuals who have with the aim of learning and self-development.
- Learning organizations do not punish the sharing of the trainings made, rather adopt extending this practice as an organization policy.
- Learning organizations do not punish the sharing of the trainings made, on the contrary making this sharing the organizational policy.

Some of the different features can be added to these specific characteristics, such as sharing responsibilities, making distributions appropriate to leadership characteristics, creating organizational culture, increasing information sharing, and organizing organizational structure (Öneren, 2008).

A second view on the main features of learning organizations were put forward by Garvin (1993). In this view, there are sub-topics, including systematic problem solving, experimenting with new approaches, learning from past experiences, learning from others' experiences and best practices, and transferring information quickly and effectively. There are no significant differences between these views. We can say that researchers identified the headings in time and then collected them under the main headings.

THE OBSTACLES OF BECOMING A LEARNING ORGANIZATION

Today, while some organizations are on the path of being learning organizations, others insist on not making an effort on this issue (Güney, 2007). It should not be forgotten that organizational structures' not learning can never be a coincidence. Planning and administrative forms of Organizations, individual's learning, thinking and communication styles are the most important issues affecting learning (Senge, 2011). When approaching from this point, the first step that organizations should take is to identify situations that will cause learning difficulties in themselves or prevent them from learning, and remove them (Düren, 2002). Seven different learning disabilities are mentioned in Senge's work (Senge, 2011). These headings can be listed as follows:

- Focusing solely on his / her own task individually and defending against teamwork,
- To think that the problems are entirely outsourced and to blame others by thinking himself/herself being innocent,
- Taking preliminary interventions against possible problems that may arise from others by taking all responsibility on their own.
- Employees', especially administrators's being caught up by a matter and cause other employees to lose their energy for this reason.
- Failure to develop a response to time-spread processes,
- Over-reliance on learning through experience and prognosis of learning in processes,
- Disruption of the boards of directors and management structures and the deterioration of decision-making mechanisms.

In addition, there may be obstacles to learning in organizational structures such as caching information, blocking new knowledge, ideas and thoughts, not focusing on causal relations, failing to learn from the past, and hiding behind the achievements of the past (İşdar, 2006).

The role of leaders and managers in organizational learning can never be denied. For this, the headlines such as leadership and communication styles, support for learning, importance for teamwork, rewarding and vision development strategies of administrators may also be confronted as obstacles against learning. (Altman ve Iles, 1998).

PURPOSE AND SUBGOAL

The general purpose of this research is to evaluate the level of instructional leadership roles of primary school and high school administrators in terms of teacher views within learning organization concept in the city center of Ankara. In response to this general objective, the following research questions were also sought.

1. What is the level of school managers' instructional leadership roles according to the views of teachers with whom they are working?
2. According to teachers working at schools, what is the level of structural learning organization of schools?
3. Is there a relationship between the educational leadership roles of school administrations and being learning organization schools?

METHOD

This research; aimed to determine the instructional leadership roles of official high school and elementary school principals and the organizational structures of schools in terms of teacher opinions. As the research has descriptive qualities, the scanning model is used for this purpose, which is the most appropriate model.

The universe and sample: The nature of the research was created by primary schools and high schools in Ankara city center. 94 primary schools and 65 high school teachers from different branches were sampled to represent the universe.

Collection of Data: The data required for the research were obtained through literature review, questionnaire application, school and manager information form. The questionnaire form used by Şişman (2004) was used as a data collection tool in the research of school administrators about teaching leadership behaviors. This questionnaire has been delivered to the teachers on the internet via Google Drive.

Analysis of Data: The findings obtained in the study were evaluated by using SPSS package program. Tables were prepared by finding the average standard deviation values of school perceptions of frequency, percentage, arithmetic mean and certain behaviors related to the data. Subsequently, Pearson Correlation was applied in order to investigate the relationship between the subheadings of the used surveys.

FINDINGS AND COMMENT

In this part of the study, findings and interpretations obtained by the application of the questionnaire, which is a data collection tool, were included. First, findings related to the personal characteristics of the sampling group were included. Then the results obtained by evaluating the purpose and sub-objectives of the research in turn were tabulated and the data were interpreted.

INFORMATION ON PARTICIPATORY TEACHERS

When we look at the distribution of the teachers according to their genders, it is seen that 114 of them (71.7%) are female and 45 (28.3%) of them are male.

When the distribution of the teachers who participated in the study were examined according to the type of school they worked at, it was found that 94 (59.1%) of the 159 teachers were in primary school and 65 (40.9%) were in high school.

When the distributions according to the seniority of the participating teachers were examined, it has been found that 17 of the 159 teachers (10,7%) have 1-5 years, 16 (10,1%) have 6-10 years, 23 (14,5%) have 11-15 years, 46 (28.9%) 16-20 years and 57 (35.8%) have 21 years and over experience of teaching.

When the distributions according to the branches of the teachers are examined, it is seen that 27 (17%) of the 159 teachers are classroom teachers, 5 (3,1%) are the master class teachers, 20 (12,6%) are Turkish and Literature teachers, 8,8) Science group, 20 (12,6%) mathematics teachers, 17 (10,7%) social science group teachers, 18 (11,3%) foreign language teachers and 38 (23.9%) different branches.

Table 1

Descriptive statistical data of participant teachers

Teacher's		f	%
Gender	Male	45	28,3
	Female	114	71,7
Type of School	Primary School	94	59,1
	High School	65	40,9
Seniority at Work	1-5 years	17	10,7
	6-10 years	16	10,1
	11-15 years	23	14,5
	16-20 years	46	28,9
	21 years and over	57	35,8
Total		159	100

LEARNING LEADERSHIP ROLES OF SCHOOL DIRECTORS

Findings and interpretations about the academic leadership roles of school administrators and teachers, working in primary and secondary schools, takes in this part of the research. Level of Instructional Leadership Performance Level Scale of School Administrator's 5 sub-titles, for which instructional leadership data is collected, will be addressed one by one. The data related to these substances will be examined one by one. Likewise, the Learning Organization Scale data will be examined separately in 5 sub-chapters. Subsequently, the relations between the subheadings of these two surveys will be evaluated and examined by the Pearson Correlation study.

Table.2: *Levels of School Administrators' Determination of School Purposes and Sharing Behaviors in Terms of Teacher Opinion*

Levels of School Administrators' Determination of School Purposes and Sharing Behaviors in Terms of Teacher Opinion	Never		Very Rare		Sometimes		Frequently		Always		X	S
Our School Administrator's Behavior	f	%	f	%	f	%	f	%	f	%		
1. Explaining the general objectives of the school to teachers and students	0	0	8	5	29	18,2	75	47,2	47	29,6	4,01	0,83
2. Leading everyone in the school to share the goals of the school	2	1,3	9	5,7	37	23,3	68	42,8	43	27	3,89	0,91
3. Reviewing the objectives of the school and re-setting it according to the conditions of the day	1	0,6	6	3,8	32	20,1	65	40,9	55	34,6	4,05	0,87
4. Benefitting from the success of students while improving the school's goals	0	0	7	4,4	29	18,2	66	41,5	57	35,8	4,09	0,84
5. Pioneering the harmonization of purpose of the school and the goals of the lessons	2	1,3	6	3,8	29	18,2	76	47,8	46	28,9	3,99	0,86
6. Opening up the goals of the school at board meetings	4	2,5	11	6,9	36	22,6	59	37,1	49	30,8	3,87	1,01
7. Encouraging teachers' works towards the same goals	2	1,3	8	5	25	15,7	71	44,7	53	33,3	4,04	0,90
8. Identifying the objectives for increasing students' present achievements	1	0,6	7	4,4	30	18,9	59	37,1	62	39	4,09	0,90
9. Pioneering the reflection of the	1	0,6	10	6,3	31	19,5	66	41,5	51	32,1	3,98	0,91

aims of the school to the implementation												
10. Encouraging everyone to have high expectations about student success	1	0,6	5	3,1	37	23,3	60	37,7	56	35,2	4,04	0,88
Average	1,40	0,88	7,70	4,84	31,50	19,80	66,50	41,83	51,90	32,63	4,01	0,89

As seen in Table 2, the instructional leadership behaviors that primary school administrators have achieved at the highest level in terms of the determination of school objectives and the ability to have shared behavior are identifying goals to increase the students' present achievements and making use of the student's achievement status while developing the School's aims (X=4,09).

Elementary school administrators are always performing the behavior of observing the school's objectives and re-setting them according to the conditions of the day by X= 4,05, the behavior of encouraging everyone to have high expectations about the student achievement and the behavior of teachers to work towards the same goals by X = 4, 04, behavior of explaining the general purpose of the school to teachers and students by X = 4, 01.

Table.3: *Levels of School Administrators' Educational Program and Instructional Process Management Attitudes toward Teacher Opinion*

Levels of School Administrators' Educational Program and Instructional Process Management Attitudes toward Teacher Opinion	Never		Very Rare		Sometimes		Frequently		Always		X	S
Our School Administrator's Behavior	f	%	f	%	f	%	f	%	f	%		
11. Preparing the annual activity plan for the school's education activities.	1	0,6	8	5	29	18,2	74	46,5	47	29,6	3,99	0,86
12. Caring about the consideration of student needs and expectations in the school program	1	0,6	12	7,5	32	20,1	73	45,9	41	25,8	3,89	0,90
13. Coordinating between the I and II grade teaching curriculums of the school.	7	4,4	13	8,2	43	27	62	39	34	21,4	3,65	1,04
14. Actively participating in the review and selection of program-related materials.	8	5	19	11,9	45	28,3	58	36,5	29	18,2	3,51	1,08
15. Visiting classes to ensure the effective use of classroom teaching time.	1	0,6	11	6,9	25	15,7	66	41,5	56	35,2	4,04	0,92
16. Encouraging extracurricular social, cultural and	2	1,3	14	8,8	31	19,5	64	40,3	48	30,2	3,89	0,98

educational activities in school.												
17. Preventing students to be late for the class and block the lesson.	1	0,6	4	2,5	20	12,6	51	32,1	83	52,2	4,33	0,84
18. Providing timely initiation and completion of courses	4	2,5	12	7,5	30	18,9	69	43,4	44	27,7	3,86	0,99
19. Spending most of the time in the school to make observation and participate in teaching environments.	10	6,3	17	10,7	31	19,5	52	32,7	49	30,8	3,71	1,19
20. Preventing the interruption of classes by means of announcements or class recruitment.	3	1,9	5	3,1	23	14,5	55	34,6	73	45,9	4,19	0,93
Average	3,80	2,38	11,50	7,21	30,90	19,43	62,40	39,25	50,40	31,70	3,91	0,97

As seen in Table 3, the behavior that was fulfilled by the elementary school administrators at the highest level with respect to the behavior of the "managing the education program and teaching process" regarding the teaching leadership behavior was found to be lagging behind the classroom and preventing classroom division with X = 4.33 average.

Elementary school administrators always carry out the behaviors of visiting classrooms to ensure the effective use of classroom teaching time by X = 4, 04 and preventing the interruption of classes by means of announcements or class recall by X = 4, 19.

Table.4: *Levels of School Administrators' Educational Program and Instructional Process Management Attitudes toward Teacher Opinion*

Levels of School Administrators' having Teaching Process and Evaluation of Students' Behavior in Terms of Teacher Opinion	Never		Very Rare		Sometimes		Frequently		Always		X	S
Our School Administrator's Behavior	f	%	f	%	f	%	f	%	f	%		
21. Making interviews with teachers to discuss the success of students.	2	1,3	7	4,4	36	22,6	52	32,7	62	39	4,04	0,95
22. Interviewing with teachers to identify the strengths and weaknesses of curriculum	4	2,5	14	8,8	39	24,5	50	31,4	52	32,7	3,83	1,06
23. Examining the school schedule according to the exam results and making	2	1,3	13	8,2	34	21,4	58	36,5	52	32,7	3,91	0,99

changes when necessary.												
24. Identifying students who are in need of special education and attention according to exam results.	7	4,4	7	4,4	26	16,4	65	40,9	54	34	3,96	1,04
25. Informing students about the success of the school and its students.	4	2,5	7	4,4	34	21,4	60	37,7	54	34	3,96	0,98
26. Informing teachers about the success of the school, written or verbally.	4	2,5	7	4,4	30	18,9	56	35,2	62	39	4,04	0,99
27. Awarding students with outstanding achievement in their school and classroom behavior.	4	2,5	4	2,5	28	17,6	47	29,6	76	47,8	4,18	0,98
28. Explaining important issues to teachers related to teaching after classroom observations.	3	1,9	13	8,2	31	19,5	66	41,5	46	28,9	3,87	0,99
29. Reviewing student's works while assessing the classroom instruction.	2	1,3	9	5,7	37	23,3	65	40,9	46	28,9	3,91	0,93
30. Direct contact with students to discuss school issues.	3	1,9	9	5,7	34	21,4	57	35,8	56	35,2	3,97	0,98
Average	3,50	2,21	9,00	5,67	32,90	20,70	57,60	36,22	56,00	35,22	3,97	0,99

As shown in Table 4, primary school administrators' behavior of awarding students with superior achievement by their attitudes within the school and classroom with X = 4, 18 average, was founded as the role they played at the highest level, regarding the teaching process and the evaluation of the students regarding the teaching leadership dimension.

The attitudes of reporting the school success to the teachers in writing or verbally and conducting interviews with teachers to discuss the successes of the pupils were found to be the instructional leadership behavior always carried out with the average of X = 4, 04.

Table.5: *Levels of School Administrators' Educational Program and Instructional Process Management Attitudes toward Teacher Opinion*

Levels of School Administrators' Educational Program and Instructional Process Management Attitudes toward Teacher Opinion	Never		Very Rare		Sometimes		Frequently		Always		X	S
Our School Administrator's Behavior	f	%	f	%	f	%	f	%	f	%		
31. Encouraging teachers to improve their performance at a high level.	6	3,8	9	5,7	36	22,6	60	37,7	48	30,2	3,85	1,04
32. Complimenting teachers because of their superior effort and success.	4	2,5	10	6,3	37	23,3	68	42,8	40	25,2	3,82	0,97
33. Appreciating teachers in written because of their special efforts and endeavours.	19	11,9	28	17,6	44	27,7	37	23,3	31	19,5	3,21	1,28
34. Organising in-service training for teachers' professional development.	11	6,9	18	11,3	48	30,2	55	34,6	27	17	3,43	1,11
35. Informing teachers about the opportunities that they can improve themselves professionally	11	6,9	9	5,7	35	22	57	35,8	47	29,6	3,75	1,15
36. Supporting teachers who are involved in the development of the profession (participation in in-service training, post-graduate education, etc.).	9	5,7	12	7,5	32	20,1	63	39,6	43	27	3,75	1,11
37. Distributing important articles in newspapers and magazines related to education to teachers.	28	17,6	25	15,7	42	26,4	41	25,8	23	14,5	3,04	1,31
38. Inviting speakers from outside the school to give conferences to teachers.	24	15,1	23	14,5	41	25,8	53	33,3	18	11,3	3,11	1,24
39. Making meetings to share new knowledge and skills acquired	18	11,3	16	10,1	43	27	52	32,7	30	18,9	3,38	1,23

during in-service training studies.												
40. Supporting the usage of new knowledge and skills gained from in-service training activities in the classroom.	13	8,2	13	8,2	35	22	65	40,9	33	20,8	3,58	1,15
Average	14,30	8,99	16,30	10,26	39,30	24,71	55,10	34,65	34,00	21,40	3,49	1,16

As shown in Table 5, teachers indicated that primary school administrators perform at a highest level with an average of X = 3, 85, by encouraging teachers to perform at high levels regarding the “supporting and encouraging the development of teachers" instructional leadership behavior dimension.

Elementary school administrators always perform behaviors of supporting teachers by complimenting them due to their superior endeavors and successes in the developmental direction with an average of X = 3, 85, supporting teachers who are in the developmental struggle (including in-service training, post-graduate education, etc.) and informing them about the opportunities they can develop themselves from the professional perspective with an average of X = 3, 75.

Tablo.6: *Levels of School Administrators' Educational Program and Instructional Process Management Attitudes toward Teacher Opinion*

Levels of School Administrators' Educational Program and Instructional Process Management Attitudes toward Teacher Opinion	Never		Very Rare		Sometimes		Frequently		Always		X	S
Our School Administrator's Behavior	f	%	f	%	f	%	f	%	f	%		
41. Leading the formation of "team spirit" between manager, teacher, student and other staff.	9	5,7	19	11,9	21	13,2	63	39,6	47	29,6	3,75	1,17
42. Supporting teachers so that they can do their job better.	8	5	13	8,2	24	15,1	49	30,8	65	40,9	3,94	1,16
43. Providing the necessary order and discipline for effective teaching and learning.	3	1,9	9	5,7	27	17	61	38,4	59	37,1	4,03	0,97
44. Trying to place a belief that all students in the school can learn and succeed.	3	1,9	11	6,9	30	18,9	59	37,1	56	35,2	3,97	1,00
45. Preparing physical environments in which students and teachers can work with pleasure.	7	4,4	12	7,5	26	16,4	56	35,2	58	36,5	3,92	1,11
46. Leading the social activities that provide the integration between teachers and students.	8	5	7	4,4	32	20,1	65	40,9	47	29,6	3,86	1,05

47. Supporting teachers who raise new and different opinions about education and training.	7	4,4	11	6,9	25	15,7	60	37,7	56	35,2	3,92	1,09
48. Preventing school to be damaged from conflicts between individuals and groups.	3	1,9	8	5	24	15,1	61	38,4	63	39,6	4,09	0,96
49. Prioritizing the issues related to teaching in terms of time and resources related to the work to be done.	3	1,9	14	8,8	24	15,1	67	42,1	51	32,1	3,94	1,00
50. Providing support from the family and environment to the school to improve student achievement.	1	0,6	13	8,2	23	14,5	61	38,4	61	38,4	4,06	0,96
Average	5,20	3,27	11,70	7,35	25,60	16,11	60,20	37,86	56,30	35,42	3,95	1,05

As seen in Table 6, teachers indicated that school administrators' preventing school damage from conflicts between individuals and groups was performed with an average of X = 4, 09 as the behavior of the elementary school administrators that they fulfill at the highest level regarding the regular teaching learning environment and climate formation instructional leadership behavioral dimension.

Elementary school administrators always perform the behaviors of providing support to the family and the school to improve student achievement with an average of X = 4.06 and the necessary order and discipline for effective teaching and learning with the average of X = 4.03.

Table 7: *Levels of Personal Skilful Behavior in Terms of Teacher Views*

Levels of Personal Skilful Behavior in Terms of Teacher Views	Never		Very Rare		Sometimes		Frequently		Always		X	S
	f	%	f	%	f	%	f	%	f	%		
I follow the publications about my profession.	1,00	0,63	2,00	1,26	23,00	14,47	91,00	57,23	42,00	26,42	4,08	0,72
Individuals who want to improve themselves in our institution are valued.	4	2,5	10	6,3	28	17,6	71	44,7	46	28,9	3,91	0,97
There is an incentive environment in my institution to develop myself.	7	4,4	17	10,7	42	26,4	58	36,5	35	22,0	3,61	1,08
Written resources are provided to help me improve myself.	16	10,1	27	17,0	47	29,6	49	30,8	20	12,6	3,19	1,16
Seminar, panel etc. meetings are being held to improve myself in my institution.	18	11,3	25	15,7	50	31,4	50	31,4	16	10,1	3,13	1,15
Average	9,20	5,79	16,20	10,19	38,00	23,90	63,80	40,13	31,80	20,00	3,58	1,02

When the levels of schools having personal mastery behavior in terms of teacher opinions regarding the learning organization structures are examined, the answer "I follow the publications about my profession" has been the most effective behavior with an average of X = 4, 08.

In schools, "Individuals who want to improve themselves in our institution are valued" and "there is an incentive environment in my institution to develop myself are the behaviors that are frequently achieved with an average of X = 3.91 and X = 3.61 respectively.

In schools, written resources are provided to help me improve myself and Seminar, panel etc. meetings are being held to improve myself in my institution are the behaviors that are sometimes achieved with an average of X = 3.19 and X = 3.13 respectively.

Table.8: *Levels of Mental Models Behavior in Terms of Teacher's Views*

Levels of Mental Models Behavior in Terms of Teacher's Views	Never		Very Rare		Sometimes		Frequently		Always		X	S
	f	%	f	%	f	%	f	%	f	%		
I can easily explain my ideas to the people around me.	3	1,9	9	5,7	26	16,4	59	37,1	62	39,0	4,06	0,98
I feel that I am valuable at my institution.	5	3,1	12	7,5	33	20,8	65	40,9	44	27,7	3,82	1,02
Every subject in the institution can be questioned.	11	6,9	20	12,6	41	25,8	51	32,1	36	22,6	3,51	1,17
What my colleagues say and what they do is consistent with each other.	3	1,9	12	7,5	49	30,8	71	44,7	24	15,1	3,64	0,90
I think my institution will succeed in the future.	6	3,8	11	6,9	25	15,7	64	40,3	53	33,3	3,92	1,05
Daily problems can be solved in our institution.	3	1,9	15	9,4	27	17,0	70	44,0	44	27,7	3,86	0,99
Innovations aiming for improvement can be produced in our institution.	3	1,9	11	6,9	44	27,7	65	40,9	36	22,6	3,75	0,95
Average	4,86	3,05	12,86	8,09	35,00	22,01	63,57	39,98	42,71	26,86	3,80	1,01

When the levels of school attitudes of having mind-model behaviors in terms of teachers' views on the learning organization structures are examined, the behavior that is "I can easily explain my ideas to the people around me" has been the highest effective behavior with an average of X = 4, 06.

In schools, "I think my institution will succeed in the future", "daily problems can be solved in our institution" and "I feel that I am valuable at my institution" are the behaviors that are frequently achieved with an average of X = 3.92, X= 3,86 and X = 3.82 respectively.

In schools, "innovations aiming for improvement can be produced in our institution", "what my colleagues say and what they do is consistent with each other." and "every subject in the institution can be questioned" are the behaviors that are sometimes achieved with an average of X = 3.75, X= 3,64 and X = 3.51 respectively.

Table. 9: *Levels of Having Shared Vision Behavior from Teachers' Views*

Levels of Having Shared Vision Behavior from Teachers' Views	Never		Very Rare		Sometimes		Frequently		Always		X	S
	f	%	f	%	f	%	f	%	f	%		
Our opinions are being asked while preparing plans for the future in our institution.	5	3,1	19	11,9	31	19,5	62	39,0	42	26,4	3,74	1,08

Our views are taken into account while preparing plans for the future in our institution.	7	4,4	17	10,7	40	25,2	53	33,3	42	26,4	3,67	1,11
Applications in our institution are carried out after our views are received.	6	3,8	19	11,9	42	26,4	51	32,1	41	25,8	3,64	1,10
The purpose of the institution is clear.	1	,6	10	6,3	21	13,2	65	40,9	62	39,0	4,11	0,91
The objectives of the institution have been determined correctly.	4	2,5	11	6,9	27	17,0	61	38,4	56	35,2	3,97	1,02
The purpose of my institution increases my determination to work.	8	5,0	10	6,3	38	23,9	63	39,6	40	25,2	3,74	1,06
The aims of my instituteion are in harmony with my personal goals.	6	3,8	19	11,9	29	18,2	69	43,4	36	22,6	3,69	1,07
The plans of my institution are in harmony with my personal plans.	8	5,0	20	12,6	27	17,0	64	40,3	40	25,2	3,68	1,13
I would like to work for many years to realize the aims of my institution.	8	5,0	19	11,9	24	15,1	58	36,5	50	31,4	3,77	1,16
My colleagues believe in the purpose of the institution.	6	3,8	18	11,3	38	23,9	67	42,1	30	18,9	3,61	1,04
Plans are carried out before rising of problems, not after emerging of problems.	9	5,7	16	10,1	50	31,4	60	37,7	24	15,1	3,47	1,05
Average	6,18	3,89	16,18	10,18	33,36	20,98	61,18	38,48	42,09	26,47	3,73	1,07

When the levels of schools having shared vision behaviors in terms of teacher's opinions regarding the learning organization structures are examined, the behavior that is "the purpose of the institution is clear" has been highest effective behavior with an average of X = 4, 11.

In schools, "the objectives of the institution have been determined correctly", "I would like to work for many years to realize the aims of my institution" and "the purpose of my institution increases my determination to work" and "our opinions are being asked while preparing plans for the future in our institution are the behaviors that are frequently fulfilled with an average of X = 3.97, X= 3,77 and X = 3.74 respectively.

In schools, "applications in our institution are carried out after our views are received" and "plans are carried out before rising of problems, not after emerging of problems" are the behaviors that are sometimes achieved with an average of X = 3.64 and X = 3.47 respectively.

Table. 10: *Levels of Having System Thinking Behavior in Terms of Teacher's Views*

Levels of Having System Thinking Behavior in Terms of Teacher's Views	Never		Very Rare		Sometimes		Frequently		Always		X	S
	f	%	f	%	f	%	f	%	f	%		
There is the effect of my personal efforts in solving the institution's problems.	2	1,3	13	8,2	66	41,5	51	32,1	27	17,0	3,55	0,91
There are permanent solutions to problems in our institution.	5	3,1	16	10,1	47	29,6	69	43,4	22	13,8	3,55	0,96
Problems in our institution are caused by external factors.	7	4,4	18	11,3	68	42,8	48	30,2	18	11,3	3,33	0,97

Our institution is trying to create tomorrow instead of reacting today.	4	2,5	16	10,1	47	29,6	65	40,9	27	17,0	3,60	0,97
The activities of the Institution are completed without long delays.	3	1,9	14	8,8	35	22,0	71	44,7	36	22,6	3,77	0,96
My colleagues are active participants rather than reactive individuals, shaping their own reality.	4	2,5	15	9,4	45	28,3	73	45,9	22	13,8	3,59	0,93
Detailed studies are being done in our institution to find the source of the problems.	3	1,9	22	13,8	50	31,4	59	37,1	25	15,7	3,51	0,98
Communication channels are open in my institution.	3	1,9	11	6,9	35	22,0	65	40,9	45	28,3	3,87	0,97
In our institution, individuals can see the whole rather than pieces.	0	0	22	13,8	46	28,9	61	38,4	30	18,9	3,62	0,95
Average	3,44	2,17	16,33	10,27	48,78	30,68	62,44	39,27	28,00	17,61	3,60	0,96

When the levels of schools having thought behaviors in terms of teacher opinions regarding the structures of learning organizations are examined, the behavior that is “communication channels are open in my institution” has been highest effective behavior with an average of X = 3, 87.

In schools, “the activities of the Institution are completed without long delays.”, “in our institution, individuals can see the whole rather than pieces.” and “our institution is trying to create tomorrow instead of reacting today” are the behaviors that are frequently fulfilled with an average of X = 3.77, X= 3,62 and X = 3.60 respectively.

In schools, the behaviors that are sometimes fulfilled are “there are permanent solutions to problems in our institution and there is the effect of my personal efforts in solving the institution's problems” with an average of X= 3,55, “detailed studies are being done in our institution to find the source of the problems” with an average of X= 3,51and “problems in our institution are caused by external factors” with an average of C= 3, 47.

Table.11: *Levels of Teaching Behavior in Team in Terms of Teacher’s Opinions*

Levels of Teaching Behavior in Team in Terms of Teacher’s Opinions	Never		Very Rare		Sometimes		Frequently		Always		X	S
	f	%	f	%	f	%	f	%	f	%		
Meetings are held with our colleagues in order to realize the aims of the institution.	4	2,5	19	11,9	34	21,4	70	44,0	32	20,1	3,67	1,01
In our institution, a suitable environment for team work is provided.	6	3,8	13	8,2	33	20,8	72	45,3	35	22,0	3,74	1,02
Activities in our institution are realized by team work.	6	3,8	13	8,2	30	18,9	82	51,6	28	17,6	3,71	0,98
I want to work in a team that can be created.	2	1,3	10	6,3	22	13,8	77	48,4	48	30,2	4,00	0,90
A positive environment is provided for dialogue in the team work carried out in our institution.	0	0,0	14	8,8	36	22,6	66	41,5	43	27,0	3,87	0,91
I enjoy taking part in team work.	3	1,9	7	4,4	27	17,0	67	42,1	55	34,6	4,03	0,93
The discussions in the team work are constructive.	3	1,9	4	2,5	40	25,2	73	45,9	39	24,5	3,89	0,87

In team work all members of the team can come together.	2	1,3	17	10,7	30	18,9	67	42,1	43	27,0	3,83	0,99
Basic dialogue rules are explained when team work is started.	4	2,5	11	6,9	41	25,8	63	39,6	40	25,2	3,78	0,99
Each member of the team work suspends his / her thoughts when necessary to understand other friends.	5	3,1	14	8,8	53	33,3	59	37,1	28	17,6	3,57	0,98
Average	3,50	2,20	12,20	7,67	34,60	21,76	69,60	43,77	39,10	24,59	3,81	0,96

When the levels of having a team work learning behavior in terms of teacher's opinions regarding the learning organization structures of schools are examined, the behavior that is "I enjoy taking part in team work" has been highest effective behavior with an average of X = 4, 03. This behavior was followed by the behavior that is "I want to work in a team that can be created" with an average of X = 4.03. These two behaviors usually emerged as behaviors to be frequently fulfilled.

In schools, the behaviors that are frequently fulfilled are "the discussions in the team work are constructive" with an average of X= 3, 89, "a positive environment is provided for dialogue in the team work carried out in our institution" with an average of X= 3, 83 and "basic dialogue rules are explained when team work is started" with an average of C= 3, 78.

In schools, the behaviors that are sometimes fulfilled are "in our institution, a suitable environment for team work is provided" with an average of X= 3, 74, "activities in our institution are realized by team work" with an average of X= 3, 71, "meetings are held with our colleagues in order to realize the aims of the institution" with an average of X= 3, 67 and "each member of the team work suspends his / her thoughts when necessary to understand other friends" with an average of X= 3, 57.

Table 12: *Correlation Analysis Results toward Relation between Teaching Leadership Sub-Dimensions and Organizational Learning Sub-Dimensions*

CORRELATION										
Variables	1	2	3	4	5	6	7	8	9	10
1. Creation and Transfer of Mission and Vision	1,00	0,829**	0,785**	0,685**	0,788**	0,587**	0,585**	0,637**	0,566**	0,591**
2. Management of Program and Process	0,829**	1,00	0,829**	0,729**	0,800**	0,631**	0,625**	0,674**	0,621**	0,656**
3. Evaluation of the Process and Student	0,785**	0,829**	1,00	0,732**	0,803**	0,656**	0,641**	0,663**	0,578**	0,639**
4. Supporting Teachers	0,685**	0,729**	0,732**	1,00	0,848**	0,813**	0,651**	0,703**	0,672**	0,659**
5. Environmental Conditions	0,788**	0,800**	0,803**	0,848**	1,00	0,732**	0,738**	0,785**	0,693**	0,685**
6. Personal Mastery	0,587**	0,631**	0,656**	0,813**	0,732**	1,00	0,685**	0,734**	0,719**	0,636**
7. Mind-Models	0,585**	0,625**	0,641**	0,651**	0,738**	0,685**	1,00	0,859**	0,815**	0,730**
8. Shared Vision	0,637**	0,674**	0,663**	0,703**	0,785**	0,734**	0,859**	1,00	0,876**	0,803**
9. System Thought	0,566**	0,621**	0,578**	0,672**	0,693**	0,719**	0,815**	0,876**	1,00	0,752**
10. Learning in Team	0,591**	0,656**	0,639**	0,659**	0,685**	0,636**	0,730**	0,803**	0,752**	1,00
** p <0 .01										

As a result of this study, teaching leadership sub-dimensions and organizational learning sub-dimensions were examined one by one and valuable data were obtained. In addition, a correlation study between headings was conducted to examine the relationship between these sub-dimensions. In these studies, positive correlation between p= <, 001 level was found among all subtitles.

The highest relationship rate was 0,876, which was between the level of having the system thinking behavior in terms of teacher's opinions and the level of having the shared vision behavior in terms of teacher's opinions.

The lowest relationship rate was 0,566, which was between the level of having the system thinking behavior in terms of teacher's views and the level of having school administrators determining school objectives and sharing behavior in terms of teacher's opinions.

COMMENTS AND DISCUSSIONS

Instructional leadership behaviors of school administrators were examined in five dimensions and the following comments were made on the findings of all dimensions. The results of the organizational learning study were then examined. The relations between sub-titles were evaluated in the light of the results obtained here and finally some suggestions were made for similar studies.

In terms of teacher's views, when we examine how school administrators have to determine the school objectives and share their behaviors: According to the findings of Şişman's research, the average of the meanings of the teachers' perceptions regarding the behaviors in the dimension of "determining and sharing the school objectives" were mostly found (Şişman, 2002, p.147). According to the findings of the research conducted by Aksoy (2006), the average of teacher perceptions related to the role of "determining and sharing of school objectives" has always been found (p. 56).

Findings obtained from teachers' views on behaviors such as "determining and sharing school objectives" in this study are similar to those obtained by other researches. The research is consistent with the studies in the literature in this title.

When we examine the school administrators in terms of teachers' views and the degree to which the educational program and the educational process have management behavior, it has been found that the behaviors of "education program and teaching process management" have been found mostly in the research conducted by Şişman (2002). In the research conducted by Aksoy (2006), the "educational program and the management of the teaching process" of primary school administrators' instructional leadership has often been found as the role of instructional leadership fulfilled.

In this study, the findings obtained from the views of the teachers regarding the behaviors of the "educational program and the management of the teaching process" are similar to the findings of other researches. The research is consistent with the studies in the literature in this title.

In terms of teacher opinions, when we examine the level of school administrators, teaching process and students' evaluation behaviors: Teacher perceptions were mostly related to behaviors in the dimension of "teaching process and evaluation of students" in the research conducted by Şişman (2002). In the research conducted by Aksoy (2006), "the process of teaching and evaluation of the students" of elementary school administrators was often found as the role of instructional leadership fulfilled.

Findings obtained from teachers' opinions about behaviors of "teaching process and evaluation of students" in this research are similar to findings obtained from other researches. The research is consistent with the studies in the literature in this title.

When we examine the level of school administrators, teachers' support and development behaviors in terms of teacher opinions: Teacher perceptions of behaviors in the dimension of "support and development of teachers" were found occasionally in Şişman's research (2002). It was concluded that in primary schools especially the activities of awarding the teachers, in-service training activity and activities for teachers' professional development were inadequate. According to Çalhan's (1999) study, according to teacher perceptions, school administrators occasionally fulfilled the tasks of providing professional development for teachers.

Findings obtained from teachers' views on behaviors such as "support and development of teachers" in this study are similar to those obtained from other researches. The research is consistent with the studies in the literature in this title.

In terms of teacher opinions, when we examine the extent to which school administrators have the attitudes towards the formation of regular teaching and learning environments and climate: In the survey conducted by Şişman (2002), teachers' perceptions about behaviors in the dimension of "creating a regular learning-teaching climate" were mostly

found. Findings in the research show similarity. Taş (2000) found that school administrators always fulfilled the roles of making the school environment suitable for learning and teaching.

Findings obtained from the teachers' views on behaviors such as "creating a regular learning-teaching climate" in this study are similar to the findings of other researches. The research is consistent with the studies in the literature in this title.

According to the researches conducted by Oktaylar (2003), it is determined that schools have a learning school culture according to the views of administrators and teachers working in general high schools. In the research conducted by Kuru (2007), it was concluded that the academic staff perceives the level of organizational learning of the university as moderate level and the administrative staff perceives the level of organizational learning of the university as the upper level in Muğla University.

According to Şahin's (2010) research results, as the knowledge management skills of school principals increase, the level of schools becoming learning organizations also increases. As a result of the studies conducted by Çandır (2010) in the province of Denizli, the level of the schools being learning organizations is generally found to be positive. In studies conducted by Ulutin (2010), it was founded out that "as the perception of institutional identity can be increased through the increase of organizational learning capacity, a high level of corporate identity will increase individual efforts in the sense of developing organizational learning capacity."

As a result, we concluded that there is a positive relationship between organizational learning sub-titles and instructional leadership sub-titles. From this point of view, it is once again revealed how important the role of the leaders of the schools in organizational learning is. There is parallelism between the many studies mentioned above and the results of this study.

In the light of these results we can make the following suggestions;

1. The most important task for increasing organizational learning belongs to the manager and deputy manager who are in the leadership role in educational institutions,
2. In order to increase the quality of education, these burdens imposed to the managers and deputy managers should be supported by other institutions and organizations, in particular by the Ministry of Education,
3. The establishment of organizational learning processes in schools should be supported by various sanctions and encouraging practices,
4. In the field of organizational learning and educational leadership, in-service training should be given to managers and deputy managers,
5. The situation in our country should be determined by conducting studies in the country at the point of educational leadership and organizational learning,
6. An action plan should be organized by an institution and supported by the Ministry of Education and the universities, and new projects should be carried out.
7. Detailed studies should be done at the new studies in the future, considering the many points (education level, seniority level, working hours etc.).
8. The impact of creating learning school environments on school and student achievement should be investigated,
9. Effective school surveys should be conducted to include all stakeholders of the school, and stakeholders' expectations should be accurately understood by using qualitative research techniques.

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AVAILABILITY OF PHYSICAL FACILITIES FOR IMPLEMENTATION OF UNIVERSAL BASIC EDUCATION IN JUNIOR SECONDARY SCHOOL OF EBONYI STATE, NIGERIA

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ABSTRACT
This study assessed the level of available physical facilities for the implementation of Universal Basic Education (UBE) in junior secondary schools of Ebonyi State, Nigeria. The study adopted descriptive survey research design. The study population comprised all the 221 junior secondary schools in the State. Checklist was used to generate data. The checklist was designed to collect the inventory of available physical facilities in JSS in Ebonyi State. The checklist was face validated by three experts, one from measurement and evaluation, two in Educational Administration of Ebonyi State University which was subjected to test of reliability using Kendal's coefficient of concordance. Data collected were analysed using frequency and simple ratio based on the minimum standard (benchmark) for establishing schools while the research hypothesis was tested using chi-square test of independence. The result of the study revealed that available physical facilities in JSS in Ebonyi State are generally inadequate except staffrooms. However, schools located in urban areas have more physical facilities than schools in rural areas. The study observed that the inadequacy of available physical facilities in junior secondary schools in Ebonyi State hinders the implementation and attainment of the UBE goals. However, the inequality in the allocation of educational resources which favoured schools located in urban areas to the detriment of rural schools implies that students in urban schools will benefit more from the UBE programme and subsequently perform better than students from schools in rural areas academically. Based on the findings, it was recommended that Parent Teachers Association (PTA), non-governmental organizations (NGOs), philanthropists should assist the government in providing physical facilities in junior secondary schools.
Keywords: Physical facilities, Universal Basic Education programme, minimum benchmark, junior secondary school, Ebonyi state.

INTRODUCTION

The federal and state governments are responsible for all educational policies, especially policies governing quality in education, adequacy of staff and equipment, staff discipline, the curriculum, evaluation of learning, financial administration and in general ensuring that the national objectives of education are pursued. In order to achieve the educational objectives, the Federal and State Governments established some parastatals and institutions such as the Universal Basic Education Board (UBEB), National Council in Education (NCE), Joint Consultative Committee on Education (JCCE), Local Education Authority (LEA) among others which are charged with the responsibility for ensuring that educational policies are being implemented at various levels of the educational system. Thus, government policies, intentions and purposes reach down to all pupils, students and adults in the education system.

The Federal Republic of Nigeria (2004) in her National Policy on Education (NPE) in line with the 1979 constitution made education a right for all Nigerians irrespective of class, religion and ethnic origin. In pursuance of the aforementioned objective, the Federal Government, through the Federal Ministry of Education has, from time to time introduced different educational reforms and programmes with the aim of realizing its objectives. One of such programmes for educational reform is the Universal Basic Education programme (UBE).

The Universal Basic Education programme of the Federal Republic of Nigeria was launched by Olusegun Obasanjo on 30th September, 1999 in Sokoto with a view to expand the focus and scope of the Universal Primary Education (UPE) scheme of 1976. Otaru (2015) stated that the UPE was introduced with a view to eradicate illiteracy, inculcate numeracy and life skills. However, it failed to achieve its aims and objectives due to poor implementation among other reasons which resulted in the increase in the rate of drop-outs among pupils. Alutu and Ochuba (2000) argue that Universal Basic Education was born out of the need to make basic education accessible to all and sundry and eradicate illiteracy.

Ehijieme in Okoro (2014) opines that Universal Basic Education in the Nigerian context is a close expression of formal, non-formal and informal approach and mechanism necessary for development of the human potentials. This was further highlighted as Universal Basic Education's mission statement by Adepoju and Fabiyi (2007). Jaiyeoba (2007, p21) stated that "Universal Basic Education covers the first 9 years of formal education that is six (6) years of primary education and three (3) years of Junior Secondary Education and in addition also caters for adult literacy and vulnerable groups through non-formal governmental programmes". Furthermore, Anaduaka and Okafor (2013) stated that UBE is an open and free educational programme aimed at

eliminating any sort of discrimination either political, socio-cultural and environmental that deprives the Nigerian child from acquiring basic education. According to her, UBE is open to all citizens irrespective of ethnic, culture or location.

According to the "implementation guidelines" released by the Federal Ministry of Education in February 2000, as reported by Okoro (2014), the UBE aims at achieving the following specific objectives:

(i) Develop in the citizenry a strong consciousness for education and a strong commitment to its vigorous promotion.
(ii) Provide free, compulsory Universal Basic Education for every Nigerian child of school age.
(iii) Reduce drastically drop-out rate from the system through improved relevance and efficiency.
(iv) Cater for drop-outs and out-of-school children / adolescents through various forms of complementary approaches to the provision and promotion of basic education.
(v) Ensure the acquisition of the appropriate levels of literacy, numeracy, manipulative and life skills (as well as ethical, moral and civic values) needed for laying the foundation for life-long learning.

Ezeonu (2010) reported that the above UBE objectives (i), (ii), (iii) and (iv) had been achieved to a considerably moderate extent while objective (v) is very minimal. He argued that the degree of achievement of the objectives is more realiazable in urban than in rural areas because there is still increase in the number of drop-out and illiterate manpower in the rural areas. However, among the five UBE objectives, only the first objective has been achieved to a large extent in rural areas. In the same vein, Adeniran (2005) noted that the rural dwellers have realized that education and its application (skills) is power but stated that UBE programme is not free to an average villager. According to him, the rural dwellers are poor and have no money to afford learning materials like desk, school uniform and even food among others for their pupils as they must feed well for learning to be assimilated.

Anike and Tari (2011) defined physical facilities as those things that enable the teacher to do his work very well and helping the learners to learn effectively. For example, the chalkboard facilitates imparting information on the learner. The above is in line with Peretomede (2001), who asserts that educational facilities are those materials that gives a good teacher an opportunity to achieve a level of instructional effectiveness. Furthermore, Olagboye (2004:p3) noted that "educational facilities consist of audio and visual aids, graphics, printed materials, display materials and consumable materials, other include physical resources such as land, buildings, furniture, equipment, machineries, vehicle, electricity, and water supply infrastructure while human resources are manpower in the school like teachers, principals and others." Thus, physical facilities are available and accessible resources, useful for teaching, learning and assessment of pupils/students in school which are vital to the achievement of the goals of UBE programme.

Emphasizing on the need for school facilities, Ajayi and Adeyemi (2011) maintains that for standard education in Nigeria to be attained, the Nigerian education system needs sufficient facilities such as classroom blocks, furniture, laboratory, instructional material, libraries and other equipment. According to them, the above facilities are expected to be provided and equitably distributed among the schools irrespective of location for effective teaching and learning to take place.

Prior to the introduction of UBE in 2000 by the Federal Government, Ebonyi State Government had introduced free education to all inhabitants of the state from primary to secondary school level. This was aimed at providing all residents of the state of school age the opportunity to have access to basic education at no cost. The aim was to eradicate illiteracy in the State; equip her citizens with skills to compete favourably with their contemporaries from other States, thereby removing the tag that the State is educationally disadvantaged. This brought about tremendous increase in enrolment of pupils in State public primary and secondary schools (Alumode, 2005). This provided a fertile ground for the Universal Basic Education when it was launched. This laudable venture was sustained by the second Executive Governor, Chief Martins N. Elechi, but it appears that majority of the products and beneficiaries of this programme are not performing as expected.

A cursorily observation shows that there is increasing mass exodus of pupils and students from public schools to private schools despite allegation that that private schools are fertile ground for examination malpractice. It therefore seems that absent/inadequacy of physical facilities in public schools in Ebonyi State is the root cause of this drift. For instance, schools' dormitories, libraries, laboratories, desk and chairs among other teaching and learning facilities are in near absent in most public schools and where available, are in sorrow state. Alluding to this fact, Ebonyi Secondary Education Board (2014) in their report revealed that many well to do parents in Ebonyi State do not enroll their children in public secondary schools, alleging that public secondary schools' educational facilities are inadequate for teaching and learning. Moreso, students from public secondary schools perform poorly in internal and external examination, thus necessitating this study because there seems to exist no empirical study conducted on this in Ebonyi State. This study therefore sought to assess the level of availability of physical facilities and equipment in junior secondary schools in Ebonyi State. Specifically, the objectives were to: find out the level of availability of physical facilities for implementation of UBE in JSS in Ebonyi State; and investigate the extent to which the level of availability of physical facilities and equipment for the implementation of UBE in Ebonyi State depend on school location.

Research Questions

The following research questions guided this study:

1. What is the level of availability of physical facilities for implementation of UBE in JSS in Ebonyi State?
2. To what extent do the level of availability of physical facilities and equipment for the implementation of UBE in Ebonyi State depend on school location?

Hypotheses

The following hypotheses guided the study and were tested at an alpha level of 0.05

HO_1: The level of availability of physical facilities and equipment for the implementation of UBE in Ebonyi State does not depend significantly on school location

Theoretical Review

Extent of Availability of Educational/School Facilities

Availability according to Ibrahim in Asogwa *et al*. (2013) is the condition obtainable or accessible in any given time. Asiyai (2012:p9) defined school facilities "as materials, resources that enhance teaching and learning thereby making the process meaningful and purposeful." It refers to the entire school plant which administrators, teachers, and students make use of, share and utilize for effective administration and efficient management of school for purposeful teaching and learning experience.

In her own view, Emetarom (2004) saw school facilities as that physical equipment that assists and enable teaching and learning in other to enhance results. She noted that such facilities function as the fulcrum for which teaching and learning are pleasurably built. In the same vein, Abdulkareem (2000) defined educational facilities as non-human and non-financial resources that comprise movable and immovable materials that enhance teaching and learning.

Furthermore, Adeyemi and Adu (2010:p23) stated that "school facilities are the materials, resources that facilitate effective teaching and learning in the school." They emphasized that good facilities are very important in education. Aghenta (2000:p17) described UBE facilities as "those teaching materials; some real, some graphic, not solely dependent upon words as a predominant source of meaning for the observer."

Ojedele (2004) identified three components of educational facilities to include physical facilities, instructional facilities and school physical environment. According to him, school infrastructure includes buildings, playgrounds. He noted that instructional facilities include teaching and learning materials, equipment and furniture while physical environment is made up beautification of the school.

Adeyemi and Adu (2010) reported that there was severe shortage of physical facilities in public schools in Ekiti State which is an indication that schools were not physically ready for the UBE programme. This is in line with Okebukola (2003), who maintained that facilities on ground are grossly inadequate for the implementation of UBE programme. Supporting this view, Okpalaoka (2009) stated that structures of most of the schools are worn out and there are visible signs of leaking roofs, inaccessible routes, poor aesthetics, classrooms without windows and doors, dusty floor with little or no desks and chairs. He noted that the infrastructural decay in schools have made the environment not conducive for learning as pupils are seen under trees receiving lessons.

Stating the importance of educational facilities, Edling and Paulson in Muyiwa and Quadri (2012:19) asserts that "facilities enable students to acquire knowledge, skill, attitude which includes graphics, photographic electronics such as tapes or mechanical means of arresting, processing and re-consisting visual and verbal information." Supporting this, Nwagwu, Obanya and Adeyemi in Muyiwa and Quadri (2012) agrees that to realize a strong educational background, the Nigeria educational system needs sufficient facilities such as blocks of classrooms, furniture and so on.

Furthermore, Ohuche in Oruwari (2012) observed that there are several uncompleted structures and damaged chairs, classrooms are devastated, grounds are untidy and lawns are not mowed regularly. Toilet facilities where they exist are inadequate, primary and secondary school teachers do not have comfortable teachers' room or office. This is in line with Ikoya and Onoyase (2008) who assert that despite huge fund annually budgeted and expended on UBE programme in Nigeria, there are indications that several schools are still plagued with inadequate physical facilities for effective implementation of UBE.

Adeyemi in Adeyemi and Adu (2010) emphasized that educational facilities are the major instrument that contribute to students' academic development in schools. These facilities include; school buildings, classrooms, furniture, libraries, recreational equipment and so on. According to them, facilities are the materials and resources that facilitate learning in schools and their importance cannot be overemphasized.

Buttressing this, Fadipe in Adeyemi (2011) stated that the good structure in school environment, which represents some measure of comfort and safety and it enhance the performance of pupils in school. According to him, there should be adequate lightning, ventilation and well-furnished with good desk and seats. In the same vein, Anike and Tari (2011) reports that school facilities required for effective execution of the UBE programme are grossly inadequate especially in rural areas. Anike and Tari (2011) reports that school building in some

communities is in dilapidated state, some de-roofed for years which shows a state of total neglect. Anike and Tari (2011) argued that "majority of the UBE schools have not been equipped with computer which will afford the learner the opportunities for developing manipulative skills that will enable the child to function effectively in the society within the limits of the child's capacity."

Commenting further on the state of facilities in schools, Owuamanam (2005) noted that inadequacy of infrastructural facilities were major problems facing Nigeria educational system. According to him, the school facilities available were grossly inadequate to match the students' population. Supporting this, Asiyai (2012) stated that scholars, researchers, administrators and educational planners confirmed that school facilities in Nigeria schools are inadequate and fall short of international standard. This confirmed Ikoya and Onoyase's (2008) report that only 26% of secondary schools across the country have inadequate infrastructures. Stressing further, Ajayi and Adeyemi (2011) writes that World Bank report on secondary and primary school in Africa shows a sorry picture which Nigeria is one of them.

Consequent on the above state of educational facilities, Anike in Lawanson and Gede (2011) described school facilities as tools of a workman in the hand of a teacher which must be provided and kept in good condition to enhance learning and its absence implies the non-existence of any set up that may be referred to as school. Thus, Ajayi and Adeyemi (2011) emphasized that the probability of the success of any curriculum is very low without the provision of the necessary facilities and other materials such as textbooks and audio-visual aids.

Furthermore, Ememe, Onwuchekwa and Onuigbo (2012) found that there is no significant difference between the mean ratings of teachers in urban and rural schools on the availability of physical facilities in public schools in Abia State. On the contrary, Asiabaka and Mbakwem (2008) reported that only one school located in the urban area had physical facilities such as V.I.P latrines, music equipment and block walled buildings. However, they found out that schools located in rural areas have more farmland/garden for farm demonstration.

Theoretical Framework

The theories review for this study focused on system theory and behaviourial/human relation theory as explained below:

System's Theory

Ludwig von Bertalanffy (1920) is among the proponents of the theory. The system emphasized the science of wholeness. The assumption of the theory is that ''the whole is more than the sum of its parts''. Systems theory is concerned with correlation of input, output and outcomes. This theory believes that what happens in the system is measured by changes observed in the outputs in relations to the outcomes or goals of the system.

Ludwig von Bertalanffy's conception of system's theory was one of organization. According to him system's theory serves as an organizing conceptual framework or meta theory. He saw it as a component part of a larger organism. Thus system's theory is an organizational theory that looks at interactions between systems. Explaining this approach he stated that system's approach to management views organization as a social system or entity composed of interrelated parts acting together as a unitary whole which enables inputs to be converted into outputs. Furthermore, Olagboye (2004) stated that when applied to organization, inputs refer to people, materials, information and finance which are organized and activated such that human skills and raw materials are converted into products, services and other related outputs which are discharged into the environment.

This theory provides a framework for describing and analyzing different parts of organization as well as framework within which to plan and anticipate outcomes in educational organization. Thus, application of this theory/approach will ensure effective coordination and interaction between the government, teachers, pupils, facilities, educational planners and others, which will be measured through the products. It will also provide feedback for improvement so as to achieve the set educational goals in general and UBE goals in particular.

The present study is anchored on the premise that school is a system made up of the inputs-human and material resources. These resources include teachers, funds, pupils, school facilities among others. The duties and functions of these resources are correlated and interact to effect teaching and learning in school which produce outcome in form of graduates of the UBE programme. The graduates are expected to have acquired basic skills, competences and change in behaviour to enable them contribute to the growth and development of the country. The result of the synergy is measured by the product which is the learner (graduates and products of the UBE).

METHODOLOGY

The research design adopted for this study was descriptive survey. This study was carried out in Ebonyi State of Nigeria. The State is bounded on the West by Enugu State, on the North by Benue State and on the South by Abia State and Cross River State. Ebonyi State is made up of three Education Zones, namely: Abakaliki, Afikpo and Onueke zones. The indigenes are predominantly farmers, traders and civil servants. Ebonyi State has been classified among the educationally disadvantaged States. Hence, the need for this study to

establish in practical terms, what has been done and what needs to be done in order to realize the set objectives of UBE in the State.

The population of this study comprised all the 221 public Junior Secondary Schools in Ebonyi State and the data was collected from 221 Vice Principals (Planning, Research and Statistics Department (PRS), Ebonyi State Universal Basic Education (UBEB) Abakaliki, 2013). The entire public junior secondary schools in Ebonyi State were used for the study. Thus, there was no sampling because of the smallness of the population (221). Therefore, the 221 junior secondary schools in the State were used in this study.

The checklist was used to collect data from the 221 junior secondary schools for this study. The check list has two parts. Part A dealt on the data of the schools while part B contained the items that were adopted from the minimum standard for establishing schools. Frequency count was used to collect data on the available number of physical facilities and equipment based on subjects covered in the public junior secondary schools. The minimum benchmark of the Ministry of Education was used in designing the instrument so that the level of availability (adequacy) of physical facilities could be easily ascertained.

The face validation of the instrument was done in the Department of Educational Foundations and Department of Science Education (Measurement and Evaluation) in Ebonyi State University. Two experts from Educational Administration and one expert from measurement and evaluation scrutinized the instrument and made important and useful suggestions on the instrument. Afterward, modifications were made in line with the recommendations of the specialists.

To ensure consistency in the data collection with the checklist, four research assistants were engaged and trained on the use of the checklist. In addition the consistency of the raters (research assistants) were determined using an inter rater reliability procedure. Specifically the Kendal's Coefficient of Concordance was adopted in this study. The ratings of schools were collected, ranked and subjected to Kendal's Coefficience of concordance. Summary of the inter-rater consistency test indicates that the checklist yielded inter rater reliability index of 0.90, which shows high internal consistency. Research questions were answered descriptively using frequencies and simple ratio while the null hypotheses were tested at 95% confidence level using the Chi-Square test of independence.

RESULTS

Research Question 1: *What is the level of availability of physical facilities for implementation of UBE in JSS in Ebonyi State?* The data collected on the above were analysed based on the minimum benchmark. Summary of result is presented on Table 1.

Table 1: *Level of Available Physical Facilities for Implementation of UBE in JSS in Ebonyi State*

S/N	Physical facilities	No. of physical facilities available	Present Enrolment of pupils	No. of schools	No. of teachers in post	Bench mark	Observed ratio	Decision
1.	Classrooms (9m x 12m x 3m)	1389	75397	221	2429	1:35 pupils	1:54	Inadequate
2.	Staffrooms	210	" "	221	2429	1:1 school	1:1	Adequate
3.	Library	55	" "	221	2429	1:1 school	1:4	Inadequate
4.	Tables & chairs	1527	" "	-	2429	---	1:2	Inadequate
5	Laboratory	6	" "	221	2429	2:1 school	1:36	Inadequate
6	Workshops	12	" "	221	2429	2:1 school	1:18	Inadequate
7	Desk	1083	75397	-	2429	1:1 pupil	1:70	Inadequate
8	Recreational facilities	239	-	221	2429	2:1 school	1:1	Inadequate
9	Sources of water supply	73	-	221	2429	---	1:3	Inadequate
10	Convenience	13	-	221	2429	4:1 school	1:17	Inadequate
11	School clinic	8	-	221	2429	1:1 school	1:27	Inadequate
12	Electricity/ Generator set	18	-	221	2429	---	1:12	Inadequate

The result on table 1 above reveals that only available staffrooms in JSS in Ebonyi State is adequate at a ratio of 1:1 school while the following physical facilities were available at the ratios shown below: classrooms – 1:54 pupils, library – 1:4 schools, tables and chairs – 1:2 teachers, laboratory – 1:36 schools, workshop – 1:18 schools, desk – 1:70 schools, recreational facilities – 1:1 school, sources of water supply – 1:3 schools, convenience – 1:17 schools, school clinic – 1: 27 schools and electricity/ power generating set – 1:12 schools.

These showed that the available physical facilities were inadequate because the ratios revealed above did not meet the minimum benchmark.

Research Question 2: *To what extent does the level of availability of physical facilities for the implementation of UBE in Ebonyi State depend on school location*? Data collected on this were separated for urban and rural schools which were analysed based on the minimum benchmark. Summary of result is presented on Tables 2-11 for the various facilities and equipment.

Table 2: Classrooms

Location	Enrolment of pupils	No. of classrooms	Benchmark	Observed ratio	Remark
Urban	10300	319	1:35	1:32	Adequate
Rural	65097	1041	1:35	1:62	Inadequate

The result on Table 2 above revealed that schools located in the urban areas have 319 classrooms at a ratio of 1:32 pupils, which is adequate while schools located in the rural areas have 1041 classrooms at a ratio of 1:62 pupils/students. This is above the stipulated benchmark of 35 students per a class and is inadequate.

Table 3: Staff Rooms

Location	No. of staff classrooms	No. of schools	Benchmark	Observed ratio	Remark
Urban	15	15	1 per school	1:1	Adequate
Rural	195	206	“ “	1.1	Adequate

The result on Table 3 above revealed that schools in the urban areas have 15 staffrooms at a ratio of 1 is to one school while schools in the rural areas have 172 staffrooms at a ratio of 1 is to 1 schools. This facility is adequate in schools in urban and rural areas.

Table 4: Library

Location	No. of library	No. of schools	Benchmark	Observed ratio	Remark
Urban	15	15	1 per school	1:1	Adequate
Rural	40	206	“ “	1:5	Inadequate

The result on Table 4 above reveals that schools located in the urban areas have 15 libraries at a ratio of 1:1 while schools located in the rural areas have 40 libraries at a ratio of 1:5 schools. The schools located in rural areas have inadequate libraries.

Table 5: Tables and Chairs

Location	No. of tables	No. of teachers in post	Benchmark	Observed ratio	Remark
Urban	525	483		1:1	Adequate
Rural	1002	1931		1:2	Inadequate

The result on Table 5 above showed that schools located in the urban areas with 525 teachers have 483 tables and chairs at a ratio of 1:1 while schools in the rural areas with 1931 teachers have 1002 tables and seats at a ratio of 1:2 teachers.

Table 6: Laboratory

Location	No. of schools	No. of laboratories	Benchmark per school	Observed ratio	Remark
Urban	15	04	2:1	1:4	Inadequate
Rural	206	02	2:1	1:103	Grossly inadequate

The result on Table 6 revealed that schools located in the urban areas have 04 laboratories with a ratio of 1:4 schools while those located in the rural areas have 02 laboratories at a ratio of 1:103 schools which is inadequate.

Table 7: Workshops

Location	Workshop	No. of schools	Benchmark	Observed Ratio	Remark
Urban	10	15	1:1	1:1.5	Inadequate
Rural	2	206	1:1	1:103	Inadequate

The result on Table 7 revealed that schools located in the urban areas have 10 workshops at a ratio of 1:1.5 schools while those in the rural areas have 2 workshops revealing a ratio of 1:103shools which is inadequate.

Table 8: Desk

Location	Enrolment of pupils	No. of desk	Benchmark	Observed ratio	Remark
Urban	10300	80	1:1	1:129	Inadequate
Rural	65097	1003	1:1	1:65	Grossly inadequate

The result on Table 8 revealed that schools in the urban areas have 80 with a ratio of 1:129 pupils while schools in the rural areas have 1003 desks at a ratio of 1:65 pupils which is grossly inadequate. It was observed that majority of the pupils have personal lockers and seats provided by their parents/guardians.

Table 9: Recreational Facilities

Location	No. of schools	No. of Recreational Facilities			Bench mark	Observed ratio	Remark
		Football pitch	Volleyball court	Tennis tables & batons			
Urban	15	15	15	3	2:1	2:1	Adequate
Rural	206	206	10	-	2:1	1:1	Inadequate

The result on Table 9 above revealed that schools in the urban areas have 15 football pitchs and footballs, 15 volleyball courts and 3 table tennis tables + batons at a ratio of 2:1 and is adequate while those located in the rural areas have 206 football pitchs and 10 volleyball courts and 185 footballs at ratio of 1:1, which is inadequate.

Table 10: Source of Water Supply

Location	No. of pipeline/ taps	No. of Borehole	Streams	Well	No. of schools	Bench mark	Observed ratio
Urban	-	8	-	-	15	-	1:2 schools
Rural	-	55	40	10	206	-	1:955 schools

The result on Table 10 above revealed that in the urban schools there are 8 boreholes in use while in the rural schools 55 boreholes, 10 well and 40 streams were used as sources of water. In accordance with the bench mark, the approved sources of water are boreholes, well and pipe borne water. Hence, the available sources of water is at a ratio of 1:2 schools and 1:955 schools in urban and rural schools respectively. None of the schools have functional pipe borne water supply.

Table 11: Conveniences

Location	No. of Water VIP/ cistern	Benchmark VIP/W cistern	Students enrolment	Observed ratio	Remark
Urban	8	1:50	10300	1:1288	Inadequate
Rural	5	“ “	65097	1:13019	Inadequate

The result on Table 11 above revealed that schools in the urban areas have 8 water cisterm toilets at a ratio of 1:1288 pupils while schools located in the rural areas have 5 toilets at a ratio of 1:13019 pupils which is inadequate.

Table 12: School Clinic

Location	No. of schools	No. of clinic	Benchmark	Observed ratio	Remark
Urban	15	5	1:1	1:3	Inadequate
Rural	206	3	1:1	1:69	Inadequate

The result on Table 12 revealed that schools in urban areas have 5 school clinics at a ratio of 1:3 schools while schools in the rural areas have 3 school clinics at a ratio of 1:69 schools, which is below the required benchmark ratio of 1:1 and is inadequate.

Table 13: Electricity/Power Generating Sets

Location	No. of power generating sets	No. of schools	Observed ratio	Decision
Urban	10	15	1:1.5	Inadequate
Rural	8	206	1:26	Inadequate

The result on Table 13 revealed that schools in the urban areas have 10 power generating sets at a ratio of 1:1.5 schools while those in the rural areas have 8 power generating sets at a ratio of 1:26 school. It was that schools located in the urban areas have access to electricity but majority were disconnected due to none payment of electricity bills while majority of the schools in rural areas do not have access to electricity.

Hypotheses

HO$_1$: The level of availability of physical facilities and equipment for the implementation of UBE in Ebonyi State does not depend significantly on school location. Data collected on this were based on school location (Urban and Rural) and subjected to chi-square test of independence at an alpha level of 0.05.

Table 14: Chi-Square Test of Independence of the Level of Availability of Physical Facilities for Implementation of UBE on School Location

Location	Classrooms	Library	Tables/Chairs	Laboratory	Workshops	Desks	Recreational Fac	Sources of Water	Conveniences	School Clinic	Hostels	Staffrooms	X^2calculated	alpha	X^2Critical	Decision
Urban	319 (303.60)	15 (12.27)	525 (340.77)	04 (1.34)	10 (2.68)	80 (241.68)	30 (54.89)	08 (16.29)	08 (2.90)	05 (1.79)	10 (4.02)	15 (46.86)	387.04	0.05	19.68	Reject Null Hypothesis
Rural	1041 (1056.49)	40 (42.73)	1002 (1186.23)	02 (4.66)	02 (9.32)	1003 (841.32)	216 (191.10)	65 (56.71)	05 (10.10)	03 (6.21)	08 (613.98)	195 (163.14)				

Summary of data analysis presented on Table 14 shows that the Chi-Square calculated value is 387.04 while the critical value at 95% confidence level is 19.68. The decision rule is to reject the null hypothesis when the calculated Chi-square value is greater than the critical value. Based on this the null hypothesis was rejected and concludes that the level of availability of physical facilities and equipment for the implementation of UBE in Ebonyi State depends significantly on school location.

DISCUSSION

Adequacy of Available Physical Facilities

Tables 1, 2-13 and 14 provided answers to research questions 1, 2 and hypothesis which sought to determine the level of availability of physical facilities and their adequacy for the implementation of UBE programme and whether the availability is dependent on location. The result of this study revealed that JSS in Ebonyi State have staff rooms that is adequate for the implementation of UBE based on the bench mark ratio. However, other facilities like classrooms, libraries, tables and chairs, laboratories, workshops, desks, recreational facilities, sources of water supply, conveniences, school clinics and power generating sets were available but not adequate for the implementation of UBE programme.

Furthermore, the analysis revealed that available staff room, tables and chairs, classrooms and libraries were adequate in schools located in urban areas only, but inadequate in schools located in rural areas, while the

following facilities laboratory, workshops, desks, recreational facilities, source of water conveniences, school clinic and power generating set were inadequate in both urban and rural schools.

The above facilities were available in JSS in the State at a ratio which is lower than the stipulated minimum standard of Ministry of Education (benchmark) from which the basis for the decision was derived. This implies that the available ones are grossly inadequate for the present enrolment of pupils/students in the schools. Moreso, it was observed during this study that some of the available facilities were old and dilapidated. It was also observed during this study that due to inadequate available desks, pupils/students have personal lockers and seats provided by their parents/guardians.

The above scenario appears to reveal government inability to provide the needed physical facilities for the implementation of UBE programme in the State or it could be due to poor maintenance of the facilities by the schools principals, teachers and students. It may also be as a result of underestimation of the expected population of pupils into the free and compulsory UBE programme in the State. The above findings are in line with Mbakwem and Asiabaka (2007) who emphasised on the unhealthy nature of the uncompleted, old and antiquated, sometimes dilapidated buildings, overcrowded and unconducive classrooms, unsightly and unhygienic toilets, inadequate laboratories and workshops.

The result is therefore in tandem with Asiyai (2012) whose study revealed that school facilities in public secondary schools in Delta State are generally in a state of disrepair. Asiyai however, noted that those in the South senatorial district being in a more terrible state than others. This result is in line with Adeogun (2007) who reported that facilities in public schools in Ekiti State were in a state of disrepair.

Buttressing the unhealthy nature of available physical facilities, Ikoya and Onoyase (2008) had reported that only 26% of secondary schools across the country have infrastructure in adequate quality and quantity. He also stated that scholars, researchers, administrators and planners have continued to maintain that school facilities in Nigeria schools are inadequate and available ones are being over-utilized due to astronomical increase in school enrolment.

It is not surprising therefore that Garuba (2003) stated that the Nigerian teacher operates from a deficient environment where teaching and learning is seriously unpremeditated especially in the rural communities. Nwafor (2012) stated that in some rural schools learning is still carried out under shades. She noted that the migrant farmer's schools at Ekwegbe-Agu and Oboma-Enu in Enugu State have school blocks made of palm leaves, which is a hinderance to the implementation of UBE. Moreso, Ossai and Nwalado (2012) stated that inadequate provision of infrastructure (class rooms) chairs/desks for the benefit of the people has caused over-crowding in the schools and as a result, sickness and ill-health are transmitted easily making the students not to benefit from the programme. In the same vein, Igboanugo (2004) stated that some athletes have dropped out of training because some facilities are either non-existent or inadequate, thereby frustrating the efforts to catch them young and prepare them as future champions.

Conclusion

Based on the findings, the study concludes that the existing physical facilities available for implementation of Universal Basic Education (UBE) programme in junior secondary schools in Ebonyi State were grossly and generally inadequate. Consequently, the noble goals and objectives of UBE programme in Ebonyi State have been seriously constrained by the absence of physical facilities. The study advocates aggressive provision of physical facilities to effectively enhance the implementation of UBE programme in the State. This would help to reverse the declining academic performance of students and ensure conducive environment for teaching and learning in junior secondary schools in Ebonyi State and Nigeria in general.

Recommendations

(1) The observed non-existing and inadequate physical facilities should be provided by the government if the objectives of UBE programme must be achieved. This will facilitates effective implementation of the UBE programme.

(2) The PTA, NGOs and philanthropists should assist the government in the provision of physical facilities as a way of facilitating effective implementation of UBE programme.

(3) The vice principals and teachers in junior secondary schools should imbibe maintenance culture so as to prolong the durability of available physical facilities in the schools.

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EFFECTS OF GRAPHING CALCULATOR ON LEARNING INTRODUCTORY STATISTICS

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ABSTRACT
Graphing calculators have been beneficial for teaching and learning statistics. Graphing calculators help students to visualize concepts, deal with real world data, and obtain accurate results promptly. However, heavily relying on the technology may hinder students' conceptual understanding and lead to misconceptions. In this study, we focus on the effect of using graphing calculator on students' performance of normal probability calculations and hypothesis testing, student' conceptual understanding of normal distribution and p-value, and students' retention on these concepts.
Key words: Graphing calculator, Hypothesis testing, Normal distribution, Introductory statistics curriculum

Introduction and Theoretical Perspectives

Graphing calculators have been widely used in statistics classrooms when the inferential statistics capabilities had been developed around the1990s (Dunham and Dick 1994, Garfield, 1995, Burrill, 1997). From then, graphing calculators became a portable and economical tool in learning statistics. The College Report of the American Statistical Association's Guidelines for Assessment and Instruction in Statistics Education (GAISE) project (2005) recommended the use of technology for developing concepts and analyzing data in a statistics curriculum, and the graphing calculator was one of the technologies recommended.

The benefits of using a graphing calculator in teaching statistics have been noted from several research studies. It was found to be easier to teach introductory statistics with a graphing calculator (Idris et al., 2003, Krishnan and Idris, 2013). Graphing calculators helped students to solve computational intensive problems, such as solving rate of change and derivatives, etc. (Roorda et al. 2016). With the use of a graphing calculator, instructors were able to spend more time on explanations of concepts and interpretations of analysis results, rather than focusing on complex computations (Garfield et al. 2000, Chance et al. 2007). The use of a graphing calculator allowed instructors to teach with real data rather than small made-up data and connect course materials to daily life (Lazari and Goel 2003; Chance et al. 2007). Graphing calculators offered the visual representations to help students better understand concepts (Sara et al., 2001, Kor and Lim, 2003, 2004, Graham et al., 2008). Griffith (1998, pp. 76) stated that "it may well be the case that technology does not help or hinder students in the memorization of facts, but technology does help students to develop conceptual understanding and problem solving abilities".

Specifically, there have been studies that quantitatively compared students' performance with and without using a graphing calculator in statistics courses. Tan (2012) compared students' performance on solving questions related to random variables, Poisson distribution, binomial distribution, and normal distribution with and without using a graphing calculator. He found that the graphing calculator approach significantly improved students' performance. Lazari and Goel (2003) compared two approaches: teaching introductory statistics using a TI-83 graphing calculator, versus, teaching the same course with the traditional method of not using a graphing calculator. The research showed that students' average final exam score was significantly higher when teaching with a TI-83 than when teaching without using a graphing calculator.

There are limitations to using graphing calculators. There have been issues of using graphing calculators with the partial view of graphs, not compiled with other statistics software files, and the graphical output with no labels and scales. Sometimes, these limitations can lead to students' misconceptions about graphs (Cavanagh and Mitchelmore, 2003, Chance et al. 2007). It has been reported that graphing calculator has some constraints within the classroom practice (Doerr and Zangor, 2000).

There are studies that had shown issues related to the effectiveness of using a graphing calculator on students' learning (Kharuddin and Ismail, 2017, Parrot and Leong, 2018). Collins and Mittag (2005) found that the use of a

graphing calculator did not give students apparent advantages in their performance when solving statistical inference related questions in exams. Adam (1997) studied the effects of using a graphing calculator on students' understanding of functions and concluded that "They must have a basic understanding of the concept in order to understand the reasoning behind the operation of the graphing calculator. Otherwise, the student will see the graphing calculator as a machine for doing mathematics instead of a tool for learning."

Graphing calculators have the advantages for teaching and learning, but also have the disadvantages of prohibiting students' understanding of concepts if instructions were not given appropriately. In this study, we focus on the effects of using a graphing calculator on students' learning of normal probabilities and hypothesis testing. We investigated whether the use of graphing calculators in an introductory statistics course gave students an advantage in calculating normal probabilities and performing hypothesis tests, whether it helped students' conceptual understanding of normal transformation and understanding of one-sided and two-sided p-values, and whether it helped students' retention on understanding normal transformation and p-values, and performing hypothesis tests.

Methods

Study Design and Course Overview

The study was performed in a four-year university. Students who participated in the study were enrolled in four sections of an introductory statistics course. The students in the introductory statistics course were from a variety of majors, as this course is a required course for most of the majors. The class size of all sections were around 30 students. Students' consents were obtained at the beginning of the semester with a protocol approved by the Human Subject Review Board.

The four sections of the introductory statistics course in this study were taught by two instructors, both from the Mathematics Department. Each instructor taught two sections. Both instructors used the same textbook, *The Practice of* Statistics by Starnes et al. (2010), and similar teaching methodologies, including Microsoft PowerPoint slides, in-class group discussions, quizzes, one course project, and homework assignments from the textbook. Each instructor taught one section using a TI calculator (referred to as calculator section) and the other section without using a TI calculator (referred to as non-calculator section). Whether or not using TI calculator to teach was referred as pedagogy difference. The non-calculator sections were taught using the standard normal distribution table to find normal probabilities on a normal distribution, using formulas to calculate the test statistics and using graphing calculator to find p-values for a hypothesis test. The calculator sections were taught using TI calculator functions, *normalcdf* and *invnorm*, to calculate normal probabilities on a normal distribution, and using TI calculator functions, *1-PropZtest*, *2-PropZtest*, *T-Test*, *2-SampTtest*, and χ^2*-Test*, to perform hypothesis tests. The calculator and non-calculator sections had the same homework assignments, exams, and project from each instructor. But the two instructors had different homework assignments, exams and projects.

Assessments and Data Collection

The demographic survey was given at the beginning of the semester to investigate whether there was a difference in students' background, such as age, enrollment status, primary language and prior statistics classes taken between the calculator and non-calculator sections.

Two quizzes were created to test students' learning outcomes of the normal probabilities and hypothesis testing: quiz one was given after introducing the normal distribution; and quiz two was given after introducing the two-sample Z test. Three common questions from the final exam were used to investigate students' short-term retention of their knowledge of normal distribution, p-value and hypothesis testing. The structure of the data collection is shown in Figure 1. The two quizzes and final exam were given to the calculator sections and non-calculator sections in class during the same week.

The questions in the quizzes and final exams included both multiple choice questions and calculation questions. Quiz one included one multiple choice question testing students' conceptual understanding of the standard normal transformation, and two calculation questions testing students' ability to calculate normal probabilities and the endpoints under a normal distribution. Quiz two included one multiple choice question testing the conceptual understanding of difference between one-sided and two-sided p-values and a calculation question to evaluate students' ability to carry-out a hypothesis test. In the final exam, two multiple choice questions were given to test students' retention of their understanding of the normal transformation and one-tailed and two-tailed p-values, and one calculation question to test students' retention of performing a hypothesis test. The two multiple choice questions in the final exam were similar to the two multiple choice questions in quiz one and quiz two. The hypothesis testing question in quiz two was a two-sample proportion test, and the hypothesis testing question in the final exam was a one-sample mean test.

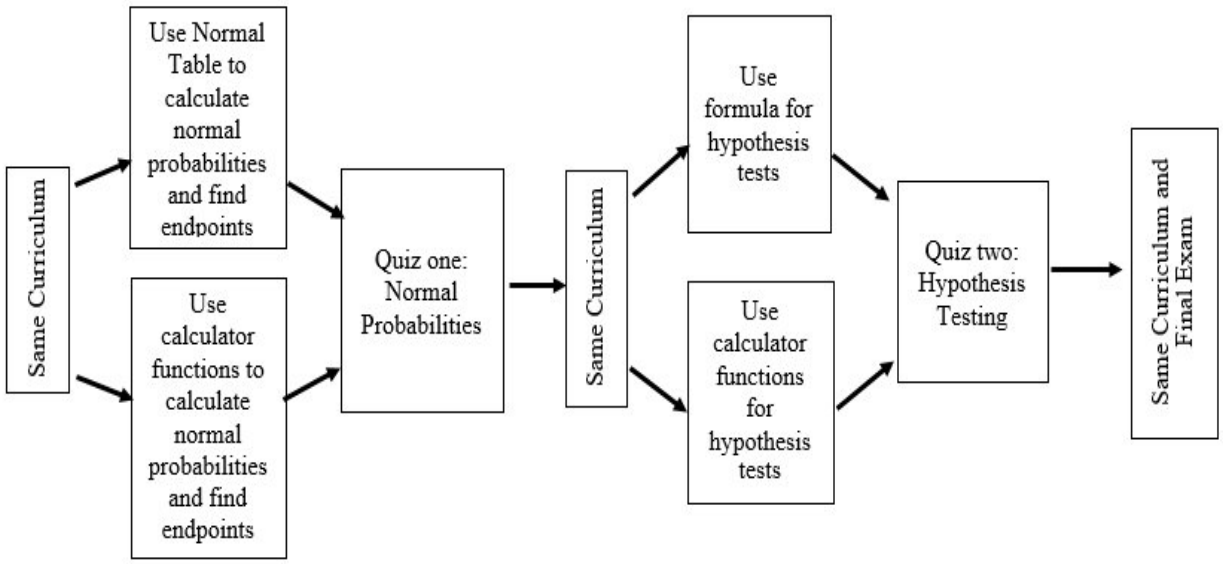

Figure 1. Assessment schedule of calculator and non-calculator sections.

Grading

All assessments were graded by their respective instructors according to a predetermined rubric. Each multiple choice question was worth one point and marked either correct or not correct (1 or 0 points). The calculation questions were worth different points according to the number of steps needed. Students' scores for each calculation question were converted into the percentage of possible points received for each question.

Statistical Analysis

The multiple choice questions and calculation questions were analyzed separately for each quiz and exam. A categorical analysis was used for multiple choice questions and a 2 (pedagogy) by 2 (instructor) analysis of variance (ANOVA) was used for calculation questions. Summary statistics were calculated for the calculation questions and the percent of correct responses were calculated for multiple choice questions.

For each multiple choice question, a Mantel-Haenszel procedure was performed. The correctness (1 or 0) was the dependent variable, pedagogy with two levels (calculator and non-calculator use) was the independent variable, and instructor with two levels (instructor one and two) was the strata. The Mantel-Haenszel procedure was used to determine if there was a significant association between the correctness and pedagogy with the consideration of instructor effects. The Mantel-Haenszel procedure contained two steps: the homogeneity of odds ratio test to detect whether there was an instructor effect, and the test of conditional independence to determine whether there was a significant correlation between the correctness and pedagogy.

For each calculation question, the dependent variable was the average percentage points and the independent variables were instructor with two levels (instructor one and two) and pedagogy with two levels (calculator and non-calculator). The 2 by 2 ANOVA was performed to detect the significant mean differences between the calculator and non-calculator sections and between the two instructors. All statistical analyses were carried out at a 0.05 significance level. All analyses were performed using JMP® Pro 9.0.2 and IBM Statistics SPSS 22.

Results

Analysis of Demographic Survey

Ninety-nine students agreed to participate in the study: 52 were in calculator sections and 47 were in non-calculator sections; 53 were taught by instructor one and 46 were taught by instructor two. Almost all of the students were between the ages of 18 and 40 years (87%); and 13% of the students were over 40 years. Almost three-fourths of the students (73%) were primarily English speakers. More than half (59%) were enrolled as full-time students. Nearly 20% of the students had taken a previous statistics class. As shown in Table 1, there is no difference in the students' demographics between the calculator and non-calculator sections.

	Instructor one		Instructor two	
	Calculator (n=27)	Non-calculator (n=26)	Calculator (n=25)	Non-calculator (n=21)
Age:				
18-40	21	22	24	19
41+	6	4	1	2
Primary Language:				
English	21	19	18	14
Other	6	7	7	7
Enrollment Status:				
Full-time	12	15	18	13
Part-time	15	11	7	8
Previous Statistics Class:	2	2	4	9

Table 1. Summary Statistics for Demographic Survey

Quiz One Results

The first question in quiz one tested students' conceptual understanding of a standard normal transformation. From the Mantel-Haenszel procedure, the homogeneity of odds ratio test revealed there was no significant instructor effect ($\chi^2(1, N=93) = 0.198$, $p=0.66$), indicating the association between the correctness and pedagogy was not different between the two instructors. A significant association between the correctness and pedagogy was detected in the test of conditional independence ($\chi^2(1, N=93) = 4.68$, $p=0.03$). Examination of the proportions of correctness showed that the calculator sections had 61.22% correct responses and the non-calculator sections had 36.36% correct responses. Figure 2 shows the percentage of correct responses by instructor for each pedagogy level.

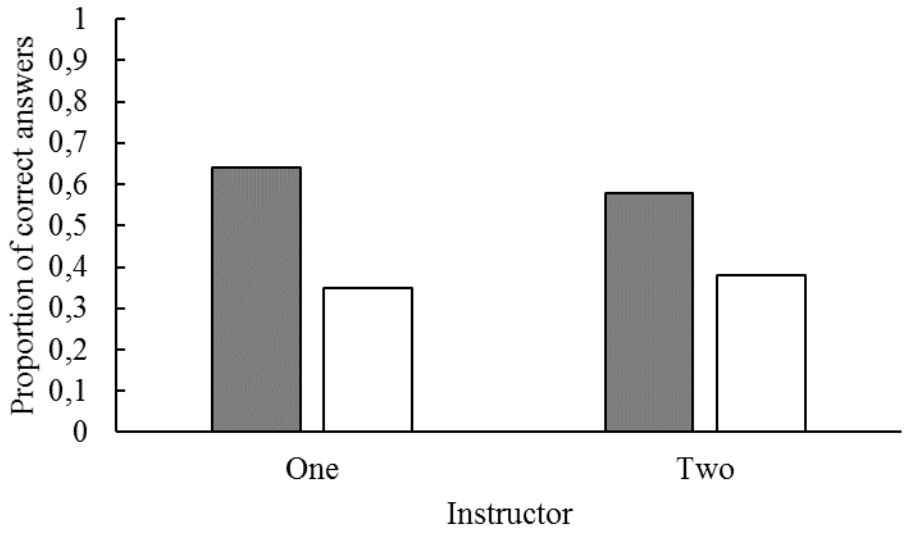

Figure 2. The proportion of correct answers for the multiple choice question testing normal transformation in quiz one. The grey bars represent the proportion of correct answers for calculator sections and the white bars represent that for non-calculator sections.

The two calculation questions in quiz one evaluated how to find the normal probabilities and how to find the endpoint for a given normal probability. The scores of the two questions were combined in the analysis. The 2 (pedagogy) by 2 (instructor) ANOVA showed that there was no instructor effects ($F(1, 89) = 0.067$, $p=0.80$). The mean score of the calculator sections was significantly higher than that of the non-calculator sections ($F(1, 89) = 6.94$, $p=0.0099$). There was no significant interaction between instructor and pedagogy ($F(1, 89) = 0.067$, $p=0.80$). The mean score for the calculator sections was 82.65 (SD=27.28, CI = [74.82, 90.49]) and the mean score for the non-calculator sections was 66.67 (SD=30.71, CI = [57.33, 76.00]). Figure 3 shows the 95% confidence interval for mean score by instructor for each pedagogy level.

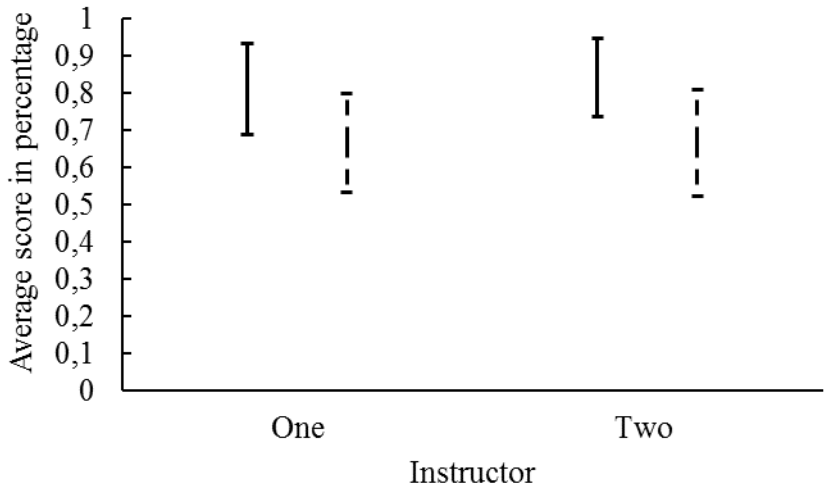

Figure 3. Average score of calculation questions testing normal probabilities and end points in quiz one. The solid bars represent the 95% confidence intervals for the calculator sections, and the dashed bars represent that for the non-calculator sections.

Quiz Two Results

The multiple choice question in quiz two tested students' conceptual understanding of one-sided and two-sided p-values. The homogeneity of odds ratio test in the Mantel-Haenszel procedure showed no instructor effect (χ^2 (1, N=88) =1.05, p=0.31), meaning the association between correctness and pedagogy was not significantly different between the two instructors. The test of conditional independence revealed a non-significant association between correctness and pedagogy (χ^2 (1, N=88) <0.001, p=0.99). The proportion of correct responses was 44.90% for the calculator sections and 43.59% for the non-calculator sections. Figure 4 shows the percentage of correct responses by instructor for each pedagogy level.

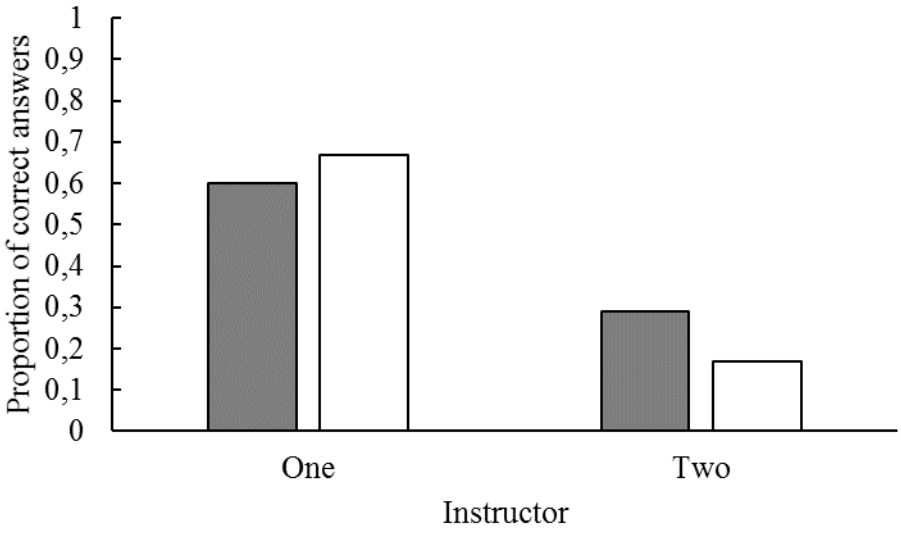

Figure 4. The proportion of correct answers for the multiple choice question in quiz two. The grey bars represent the proportion of correct answers for calculator sections and the white bars represent that for non-calculator section.

The calculation question in quiz two tested students' performance of a hypothesis test. The 2 (pedagogy) by 2 (instructor) ANOVA showed there was a significant effect from pedagogy (F (1,83)=10.49, p=0.0017), there was a significant effect from instructor (F(1,83)=7.53, p=0.0074), and there was a significant interaction between pedagogy and instructor (F(1,83)=9.83, p=0.0024). The mean score from instructor one's calculator section

(M=90.00, SD=18.84, CI= [82.22, 97.78]) was significantly higher than the mean score from instructor one's non-calculator section (M=57.81, SD=31.67, CI= [42.99, 72.63]). The mean score from instructor two's calculator section (M=88.02, SD=18.61, CI= [80.16, 95.88]) was not significantly higher than the mean score from instructor two's non-calculator section (M=87.5, SD=23.87, CI= [75.63, 99.37]). Figure 5 shows the 95% confidence interval for the mean score by instructor for each pedagogy level.

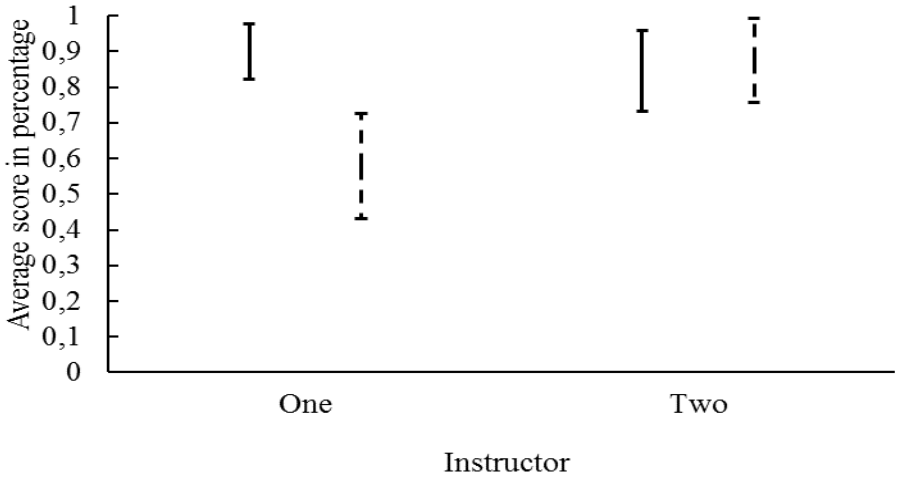

Figure 5. Average score of hypothesis testing question in quiz two. The solid bars represent the 95% confidence intervals for the calculator sections, and the dashed bars represent that for the non-calculator sections.

Final Exam Question Results

The first multiple choice question in the final exam tested students' retention of their understanding the normal transformation. The Mantel-Haenszel procedure revealed there was no significant instructor effect ($\chi^2(1, N=90) =2.07$, $p=0.15$), and no pedagogy effects ($\chi^2(1, N=90) =0.60$, $p=0.44$). That being said, there was no significant association between the pedagogy and proportion of correctness. The proportion of correct responses was 92% for the calculator sections and 85% for the non-calculator sections. Figure 6 shows the percentage of correct responses by instructor for each pedagogy level.

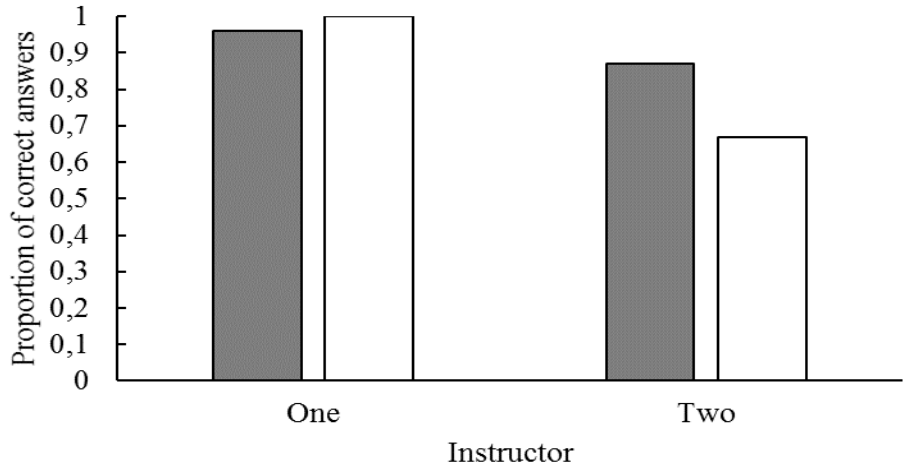

Figure 6. The proportion of correct answers for the normal transformation question in final exam. The grey bars represent the proportion of correct answers for calculator sections and the white bars represent that for non-calculator sections.

The second multiple choice question tested students' retention of their understanding of the one-sided and two-sided p-values. The homogeneity odds ratio test in the Mantel-Haenszel procedure revealed significant instructor effect (χ^2 (1, N=90) =4.26, p=0.039), meaning the association between correctness and pedagogy was significantly different between the two instructors. The test of conditional independence revealed a non-significant association

between correctness and pedagogy (χ^2 (1, N=90) =2.15, p=0.14). The proportion of correct responses was 57% for the calculator sections and 64.5% for the non-calculator sections. Figure 7 illustrates the proportion of correct responses by instructor for each pedagogy level.

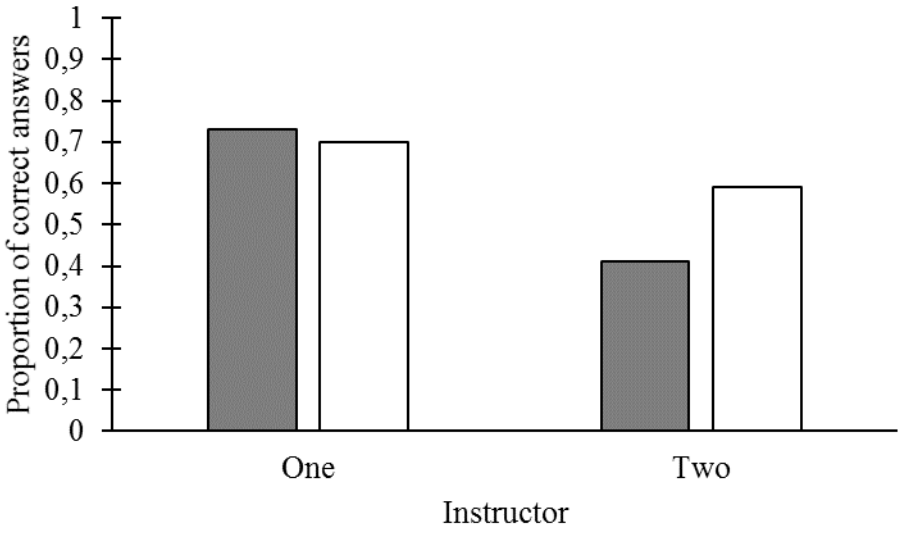

Figure 7. The proportion of correct answers by instructor and by pedagogy for the second multiple choice question in final exam. The grey bars represent the proportion of correct answers for calculator sections and the white bars represent that for non-calculator sections.

The analysis of the hypothesis testing question in the final exam showed that there was a significant difference between the calculator and non-calculator sections for instructor one, but no significant difference between the calculator and non-calculator sections for instructor two. The mean score was significantly higher for the calculator section (M=78.40, SD=19.02, CI= [70.87, 85.92]) than for the non-calculator section (M=62.39, SD=33.71, CI= [48.78, 76.01]) of instructor one. The mean score for the calculator section (M=70.22, SD=27.91, CI= [58.70, 81.74]) was slightly lower than that for the non-calculator section (M=72.78, SD=29.83, CI= [58.82, 86.74]) for instructor two. Figure 8 shows the 95% confidence interval for the mean score by instructor for each pedagogy level.

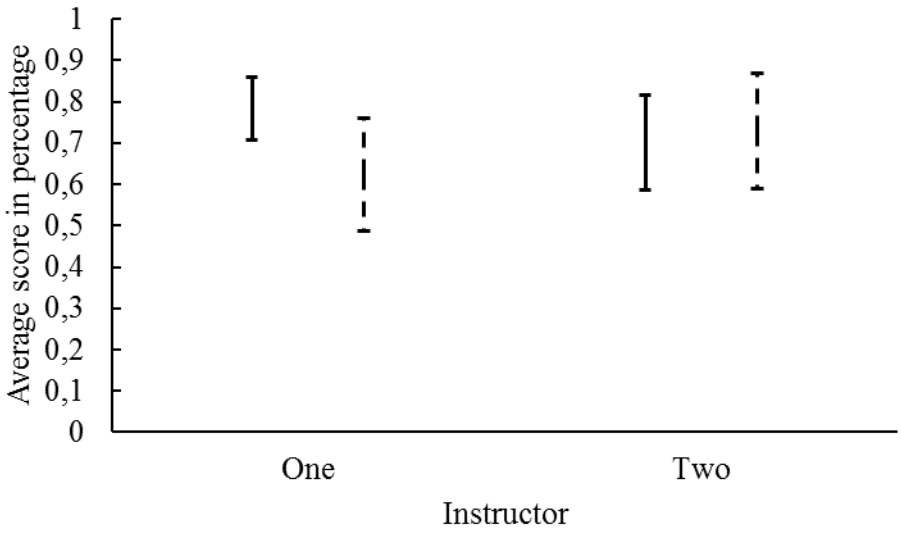

Figure 8. Average score of hypothesis testing question in final exam. The solid bars represent the 95% confidence intervals for the calculator sections, and the dashed bars represent that for the non-calculator sections.

Conclusion and Discussion

In this paper, we investigated whether using TI calculators in an introductory statistics course would help with students' performance for calculating normal probabilities and conducting hypothesis testing, and whether that would facilitate students' conceptual understanding of normal transformation and the difference between one-tailed and two-tailed p-values. Based on our analysis, the graphing calculator clearly helped students to calculate normal probabilities and perform hypothesis testing, although there were little discrepancies between the two instructors on the results of hypothesis testing. The instructor effects may due to the difference in the students' prior knowledge and the course schedule difference. For instructor one, the number of students who had previous statistics courses in calculator section was the same as that in non-calculator section. But for instructor two, the non-calculator section had twice as many students with previous statistics classes than the calculator section. For each week, instructor one's calculator section was scheduled after non-calculator section, while instructor two's calculator section was scheduled before non-calculator section. After teaching one round, the instructor may be more familiar with the materials, hence the learning of the later section may be more effective than the earlier section. That may create some advantages for the non-calculator section of instructor two. Our results showed that the use of TI calculators significantly helped with students' conceptual understanding of the normal transformation when that concept was first introduced, and significantly helped with students' performance of normal probability calculation and hypothesis testing. The study did not show any advantages or disadvantages of using graphing calculators on students' conceptual understanding of the one-tailed and two-tailed p-values.

Limitations

There was instructor effects for this study when testing students' performance of hypothesis testing and the understanding of p-value. The instructor effects may be due to the different between student populations, different prior knowledge, or different teaching methods.

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E-PORTFOLIOS, COURSE DESIGN, AND STUDENT LEARNING: A CASE STUDY OF A FACULTY LEARNING COMMUNITY

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ABSTRACT
The purpose of this case study was to investigate faculty perceptions of participating in a Faculty Learning Community (FLC) and how the FLC contributed toward their pedagogical use of e-portfolios. The researchers were also interested in faculty perceptions of the potential impact of e-portfolios on student learning. An online survey and focus group were used to collect data for this study. Results suggest that the FLC, as a professional development experience, enabled faculty at different levels of e-portfolio adoption, to learn from their peers, become more confident instructors, reflect on course design, and plan for changes in the instructional use of e-portfolios. Faculty reported that changes in instructional design through the intentional inclusion of e-portfolios can have a positive impact on student learning. Implications for practice are discussed.
Keywords: Faculty learning community, e-portfolio, faculty professional development, course design, student learning

Introduction

Faculty are hired to be content experts. As a result, a terminal degree has historically been viewed as a license to teach at colleges and universities (Lowenthal, Wray, Bates, Switzer, & Stevens, 2013). However, an increasing number of colleges and universities are now expecting faculty to be experts in teaching as well as their content area. The problem with this is that most faculty have had very little training or coursework on how to be an effective teacher (Oleson & Hora, 2014) because teaching is not often addressed in doctoral education (Greer, Cathcart, & Neale, 2016; Maynard, Labuzienski, Lind, Berglund, & Albright, 2017; Rinfrette, et al., 2015). In addition to this, faculty are also expected to integrate technology into their classrooms. While restructuring doctoral programs to focus more on teaching and technology might address this problem, another possible solution is for centers of faculty development to use faculty development workshops to develop these skills in faculty (Amin et al., 2009; Berkman, Silverstone, June Simmons, Volland, & Howe, 2016; Jiandani, Bogam, Shah, Prabhu, & Taksande, 2016). In this paper, "Centers of Faculty Development" or "faculty developers" are used as generic phrases to include all of the various types of professional development programs, and faculty and staff involved with such programs, at colleges and universities.

One of the many problems faculty developers face is that even though 60%, if not more, of a faculty member's job is dedicated to teaching, getting promoted, and attaining tenure are still disproportionately dependent on excelling at traditional forms of scholarship (Colby, 2015; Swihart, Sundaram, Hook, DeWoody, & Kellner, 2016); faculty therefore often place less emphasis on teaching than they do on research (Brownell & Tanner, 2012; Cadez, Dimovski, & Zaman Groff, 2017; Phaneuf, Lomas, McCutcheon, John, & Douglas, 2007). This creates a culture where faculty, at many colleges and universities, have very little free time to attend faculty development opportunities focused on improving their teaching. This, in turn, causes faculty developers to focus all too often on offering short, one-off, workshops that can fit into faculty members' busy schedules (Khan, Khan, Dasgupta, & Ahmed, 2013; Lowenthal, 2008). A problem with this approach is that short workshops often fail to make lasting changes in one's teaching; instead, more sustained faculty development is needed for long-term changes in practice (Lee & Le, 2013; Stains, Pilarz, & Chakraverty, 2015). Therefore, while faculty developers are fully aware of the limited time and motivation many faculty have to focus on improving their teaching, an increasing number of centers have begun creating longer faculty development programs, whether that be multi day, weeklong or even semester or academic year long programs, to help faculty improve their teaching (see Khan, et al., 2013; Nadelson, Shadle, & Hettinger, 2013).

A Faculty Learning Community (FLC) is one example of this type of faculty development program. A FLC, according to Cox (2004), is a:

> cross-disciplinary faculty and staff group of six to fifteen members (eight to twelve members is the recommended size) who engage in an active, collaborative, yearlong program with a curriculum about

> enhancing teaching and learning and with frequent seminars and activities that provide learning, development, the scholarship of teaching, and community building. (p. 8)

FLCs can help foster a sense of shared purpose and vision (Blessinger, Cozza, & Cox, 2015; Lightner & Sipple, 2013) and thus "transform faculty from isolated subject matter experts into collaborative instructional leaders" (Blessinger et al., 2015, p. 132). This bridging of silos might be especially useful in higher education institutions that hire a large number of non-tenure track instructors to meet their teaching needs (Banasik & Dean, 2016). While FLCs are not a panacea, research suggests that even in cases where instructional practices are not substantially changed, participating in a FLC may still have a "priming effect, preparing participants for the longer-term process of conceptual change and internalization of reformed teaching practices" (Nadelson, Shadle, & Hettinger, 2013, p. 115) as well as increase job satisfaction (Wagner et al., 2015). Despite the purported benefits of FLCs, there is relatively little research on faculty perceptions of taking part in a FLC. Given this, the researchers decided to investigate faculty perceptions of taking part in a FLC.

While there are numerous ways in which faculty can enhance their teaching and students' learning, during the past few years, there has been an increased interest in the pedagogic use of e-portfolios (Kabilan & Khan, 2012; Skiba, 2005). An older, yet still relevant definition of e-portfolios describes e-portfolios as a "digitized collection of artifacts including demonstrations, resources, and accomplishments that represent an individual, group, community, organization, or institution" (Lorenzo & Ittelson, 2005, p.2). E-portfolios have been found to support students in their reflection (Panos, 2015; Roberts, Maors, & Herrington, 2016), peer review, development of technology skills (Wakimoto & Lewis, 2014), increase subject-matter knowledge (Chang, Liang, Tseng, & Tseng, 2014), writing performance (Nicolaidou, 2013) and formative assessment (Fuller, 2017; Hooker, 2017). E-portfolios have also been used to measure learning outcomes for general education courses in higher education (Hubert, 2016).

Interest in the use of e-portfolios has been fueled by a number of factors, such as the need to engage students in active learning environments, the desire to have students create original content, and the need to authentically assess student learning (Reynolds & Shaquid Pirie, 2016) in an era of increased accountability (Clark & Eynon, 2009). The need to demonstrate greater integration in learning across disciplines and finding connections between educational, professional, and personal life experiences, has also helped increase faculty interest in e-portfolios. Perhaps, most importantly, research suggests that e-portfolios can "help students unify and make meaning out of their educational experience" (Gambino, 2014, p. 6) while also providing a structure for developing "reflection and integrative thinking" (Takayama, 2014, p. 1).

There are also administrative benefits of using e-portfolios. For instance, e-portfolios can be useful for course and program level assessments (Barbera, 2009; Gülbahar & Tinmaz, 2006; Hubert, 2016; Oehlman, Haegar, Clarkston, & Banks, 2016; Ring, Waugaman, Brackett, & Jackson, 2015). Students can use e-portfolios to collect representative examples of their work which can later be used for job applications, to create "a professional online identity" (Oehlman et al., 2016, p.13) and in turn help students transition into the workforce (Bennett, Rowley, Dunbar-Hall, Hitchcock, & Blom, 2016; Boulton, 2014). Students often find e-portfolios to be more efficient for demonstrating their skills and abilities when searching, applying and interviewing for jobs, compared to more traditional paper-based portfolios (Feather & Ricci, 2014).

However, in order to leverage the benefits of e-portfolios, faculty need to be trained and supported in how to use e-portfolios in their courses and/or programs, through effective professional development (Eynon & Gambino, 2016). Therefore, the purpose this study was to explore faculty perceptions and experiences taking part in a FLC and specifically to explore how participating in a FLC impacted faculty pedagogical use of e-portfolios and, in turn, perceptions of how this use impacted student learning. In the following paper, the results of this study and implications for research and practice are reported.

Background

FLCs are typically cohort-based or topic-based (What is a Faculty Learning Community?, n.d.). Cohort-based faculty learning communities usually last an academic year and are designed to include faculty interested in broad areas related to teaching and learning (e.g., scholarship of teaching and learning, inclusive/diverse teaching and learning environments, early career faculty); topic-based faculty learning communities, however, usually focus on a specific topic. Western State University has offered topic-based FLCs on the following topics: mobile learning, Open Educational Resources (OER), e-portfolios, and Universal Design for Learning (UDL).

Given the possible pedagogical benefits of using e-portfolios in teaching and learning, Western State University piloted an e-portfolio program in Spring 2013. After vetting available e-portfolio platforms, Digication was determined to be the most appropriate e-portfolio platform, primarily due to its ability to support program assessment as well as be a platform to showcase student learning. The University Foundations (General) Studies Program at Western State University was the first program to use Digication for program assessment as well as to

showcase student learning. All incoming freshmen taking University Foundations courses needed to demonstrate their learning using a Digication e-portfolio. Gradually, instructors from other programs like English First Year Writing, Engineering, History, Anthropology, and Art started using e-portfolios in their courses.

As the use of e-portfolios increased, instructional designers in the Instructional Design Educational Assessment (IDEA) Shop (a division of the Center for Teaching and Learning) believed that there was an opportunity to both broaden the use of e-portfolios across campus as well as improve how faculty were using e-portfolios for teaching and learning. Therefore, in Spring 2016, a topic-based FLC was created around the use of e-portfolios in the classroom. The goals of this FLC were for faculty to:

- Engage in a community with peers to share pedagogical and technical implementation experiences with e-portfolios;
- Gain knowledge of how to create a professional-level e-portfolio;
- Apply instructional design principles to redesign existing courses that incorporate e-portfolios;
- Evaluate whether or not e-portfolios are a good way to achieve course-level learning objectives; and
- Analyze ways in which e-portfolios can enable students to reflect upon their learning.

Each FLC organized by the IDEA Shop, regardless of topic, is administered in the same way. All instructors are eligible to participate--including adjunct faculty, lecturers and tenure-track faculty; but the number of spots in each FLC is limited each semester. While FLCs at Western State University are usually limited to eight participants, at the time of this study, the e-portfolio FLC was limited to a maximum of ten participants. Each semester faculty must apply to join a FLC. Two FLCs (one in Fall and one in Spring) are offered each academic year. The FLC under consideration for this study was a semester long FLC offered during the Spring 2016 semester.

When faculty apply to participate in a FLC, they are asked to describe their plans--which for this FLC included describing their current level of e-portfolio adoption, how they plan to incorporate e-portfolios into their teaching, when they plan to start using e-portfolios, in what courses, and with how many students--and their ability to attend monthly cohort meetings and hands-on sessions. Each faculty member at Western State University receives a stipend of $300, paid as supplemental salary, to participate in a FLC. Seventeen faculty members applied to participate in the e-portfolio FLC; ten of the seventeen were selected to participate based on the quality of their applications.

During the Spring 2016 semester, participants of the e-portfolio FLC attended four (each an hour long) face-to-face cohort meetings as well as four webinars (each an hour long). The face-to-face meetings were held bi-weekly; in these meetings, faculty discussed and shared with their peers their experiences using e-portfolios in teaching and learning. Some topics discussed during these meetings included using e-portfolios for reflection, assessments, peer-review, feedback, experiential learning, and job applications.

The webinar sessions were held on alternating weeks; during these sessions, faculty met face-to-face at a campus location and watched webinars created by Digication--the e-portfolio application used at Western State University; they then discussed the topics covered in each webinar. Some of the webinar topics included training on effective uses of the Digication platform, templates, customized e-portfolios, and demonstrations of how Digication e-portfolios were used in other higher education institutions across the United States.

Two instructional design consultants (IDCs) from the IDEA Shop facilitated all cohort meetings and webinars. One of the IDCs was a researcher for this study while the other IDC was a staff member of the IDEA Shop, unconnected to this study. The IDCs facilitated discussions, showed relevant e-portfolio examples, and provided hands-on training on how to use Digication. Although specific examples using Digication were used, the goal was to discuss the general utility of e-portfolios as pedagogic tools.

Method

The purpose of this study was to investigate faculty perceptions of participating in a FLC and how it contributed toward the pedagogical use of e-portfolios. The researchers were also interested in faculty perceptions of the potential of e-portfolios to improve student learning. More specifically, this study sought to answer the following research questions:

- RQ1. What are faculty perceptions and experiences of participating in a FLC?
- RQ2. What are faculty perceptions and experiences of how participating in the FLC impacted their pedagogical use of e-portfolios?
- RQ3. What are faculty perceptions of the potential impact of e-portfolios on student learning?

The sample for this study included nine out of the ten faculty members (three lecturers, one adjunct, three assistant, one associate, and one full professor) who participated in the Spring 2016 semester FLC on e-portfolios. The disciplines represented in the FLC were – Art, Physics, Multidisciplinary Studies, English, Communications, Business Management, General Education, Kinesiology, Applied Sciences, and Nursing. While the Business Management faculty member participated in the FLC, the faculty member chose not to participate in this study.

Participants of the study were predominantly female (78%), teaching undergraduate courses with an average of 25-30 students per class (see Table 1). Six (67%) out of the nine participants of this study were already using e-portfolios in their courses, while others were at the early stages of adoption where they were simply investigating how they might use e-portfolios in their courses.

Table 1
Faculty Participants in E-portfolio FLC of Spring 2016

Gender	Discipline	Level	Current e-portfolios users
Female	Applied Sciences	Undergraduate	No
Female	Art	Undergraduate	Yes
Male	Physics	Undergraduate	No
Female	English	Undergraduate	Yes
Female	Communications	Undergraduate	Yes
Female	General Studies	Undergraduate	No
Female	Nursing	Undergraduate	Yes
Female	Kinesiology	Undergraduate	Yes
Male	Multidisciplinary Studies	Undergraduate	Yes

To answer the research questions, data was collected using two instruments: (a) an online survey, and (b) a semi-structured focus group. Nine out of the ten (90%) FLC members agreed to participate in the study. The data collected from the online survey was anonymous; the focus group data, though, due to its nature, was not anonymous. However, the researchers de-identified the responses, summarized, and reported the data anonymously. Using two different forms of data collection enabled the researchers to triangulate the data, using the "broad numeric trends from quantitative research and the detail of qualitative research" (Creswell, 2003, p.100). The survey included seven Likert-type scale questions and seven open-ended questions; it took approximately 25 minutes for the participants to complete the online survey. The focus group question protocol contained seven open-ended questions and it took 45 minutes to complete; the focus group took place in a secure campus location, it was facilitated by one of the researchers, and it was recorded using a mobile device.

The survey and focus group questions were created by a subject matter expert, and one of the researchers of this study, to align with the research questions guiding the study. Face validity of the instruments were established by two external subject matter experts not involved with the study.

The data from the online survey was exported into a spread sheet. Frequencies and descriptive statistics were calculated. Due to the sample size of this study (and in turn the lack of statistical power) as well as our overall goal to investigate a case rather than generalize findings to a larger population, inferential statistical analysis was not conducted (Nadelson, Shadle, & Hettinger, 2013). The qualitative data from the open-ended questions was put into a separate file; the data was coded using an open coding approach and grouped into themes. The focus group data was transcribed and later coded using the same approach.

Results

The results of our inquiry are described below. Results were separated by research question and then by emergent themes. Data from the focus group addressed RQ 1, RQ 2, and RQ 3, while data from the survey addressed RQ 2 and RQ 3. The data collecting instruments, research questions and emergent themes are listed in Table 2 to present an overview of the results.

Table 2
Themes Emerging from Data Related to Research Questions

Data collection instrument	Research question	Emergent themes
Focus Group	RQ1	• Theme One: Change in level of teaching confidence • Theme Two: Relevance of topics included in the FLC • Theme Three: Support from fellow FLC cohort members • Theme Four: Support from FLC facilitators
Focus Group, Survey	RQ2:	• Theme One: Transitioning to e-portfolios • Theme Two: Assessment and e-portfolios • Theme Three: Impact on course design • Theme Four: Re-thinking course goals, learning objectives, activities, and assessments. • Theme Five: Teaching and learning strategies
Survey, Focus Group	RQ3	• Theme One: Impact on student learning though e-portfolio enhanced course design

RQ 1. What are faculty perceptions and experiences of participating in a FLC?

Several themes addressing RQ 1 emerged from the focus group data.

Theme One: Change in level of teaching confidence after participation in the FLC. Most instructors reported an increase in teaching confidence after participating in the FLC. The FLC helped increase their teaching confidence by providing them with knowledge of tools and strategies to implement e-portfolios in their courses. Instructors who were not currently using e-portfolios also felt an increase in teaching confidence simply from knowing that the technology existed and that peers were using it. Here are some of the comments on how teaching confidence was impacted:

- "One of my colleagues already uses them [e-portfolios], and feedback from students was positive. That's kind of what encouraged to me to start but without this FLC, I would not have felt confident to implement it. This really gave me the tools to start using it in my course."
- "I am thinking of using it at the 300 level and also increasing the value of it for students because now I feel like I am comfortable and ready to do that effectively. Without this support, I would have been intimidated even if I wanted to try it. This has been really helpful for me."
- "I had one student at the very beginning who was bitterly complaining and she was really struggling and her e-portfolio was the best one. She had taken every piece of advice anybody had given her, gone back and reorganized everything. This gives me a whole bunch of confidence for the future. Students were learning the process and were better in the end than the beginning."
- "It [confidence] is definitely higher. Just knowing that the technology exists, increases confidence, just knowing what's possible is always really beneficial. Even if I don't use some of the features, at least I know they are there. What is the range of things available, [sic] so definitely confidence is much higher."

Theme Two: Relevance of topics included in the FLC for teaching, learning, and course design. While most faculty reported that the topics discussed at the FLC were relevant to their pedagogic goals, a few mentioned that certain topics covered during the webinars were not relevant to their current teaching. Some of the comments were:

- "If we are not there yet [sic] some of the videos don't make sense yet. It becomes relevant but at the time you may think not."
- "There was an overview of possibilities. In the Physics department there is a reticence [sic] oh I have to learn another thing? They are keen on using Google Sites. To them, that makes sense for whatever reason, open source or whatever. People have strong opinions. Hearing things from a Digication perspective was still very good."
- "The topics covered were pretty relevant to me. There was one that I thought I would never use, assessments [sic]? There were bits of it that I liked, but there were others that I would never use."
- "I was pretty familiar with Digication and already have it in the two courses I teach, so the webinars and meetings didn't really change my course design or teaching."

Theme Three: Impact of support from fellow FLC cohort members. In general, participants felt supported by their fellow FLC members. Faculty who were already using e-portfolios in their courses as well as faculty who were just exploring the possibility of its use, found the peer discussion, sharing of ideas, and troubleshooting at the FLC to be helpful. These were some of the perceptions reported:

- "Having the support of the cohort group was refreshing because I would come in here and hear that everybody else was going through something similar and some potential solutions that I could take back to my students. So that was reassuring."
- "I really liked coming and seeing that we were not the only people considering using it, there was more widespread thinking about it, so it would not be just my students who are the only students. I did not get a lot of specific kinds of support but just the idea of seeing how many other people were interested in it, which was good."
- "There were times I had a question and it would be answered by someone in the cohort as well as the facilitator. Sharing experiences of how they have done it. Sharing ideas is always helpful. Combination [sic] of peers and a facilitator was useful."
- "My talk to other people on how they use it was also helpful. I always like that part of these learning communities. It may not make you do something totally brand new but it has given me some different perspectives and ways of thinking about things that I am already doing in my class."

Theme Four: Impact of support from FLC facilitators. Participants reported that they valued the support they received from the facilitators of the FLC outside the FLC meetings. This support came in various forms such as email communication, providing additional digital training materials, and having long-term consultations with faculty. Some of the comments made by faculty were:

- "I got good support. My emails were answered if I had a question. You [sic] made it clear that you were there to schedule appointments, answer emails, if we needed additional support more than what we were getting in the cohort."
- "I liked that you [sic] had thought ahead and made help videos, and you were willing to make videos for the students. It was really useful that you added yourself to my course, so that you could see what students were doing, in case there was a question. So I thought that was a little concierge approach to learning."
- "There was lots of support from the facilitators, that part is pretty strong, not only during the semester talking with them but now I know I can get their help during the summer and after. No hesitation in reaching out for help [sic] help me help me! Now I know my resources."

RQ 2. What are faculty perceptions and experiences of how participating in the FLC impacted their pedagogical use of e-portfolios?

Data from both the survey and the focus group helped answer RQ 2. The survey included five point Likert-scale-type questions as well as open ended ones, while the focus group had only open ended questions. Five themes emerged out of the survey and the focus group data. report Data from the survey is reported first, followed by that from the focus group.

Survey Results

The researchers wanted to know how participating in the FLC impacted faculty's pedagogical use of e-portfolios (Table 3). A majority (89%, *M*=3.50) of faculty either agreed or strongly agreed that participation in the FLC made them more knowledeable on how to transition from a paper portfolio to an e-portfolio. Similarly, 89% (*M*=4.50) of faculty felt their experience in the FLC made them knowledeable on using e-portfolios for assessment, and 56% (*M*=3.50) thought that after participating in the FLC, they knew how to assess an e-portfolio. Faculty also reported that they were more knowledgeable on how to include team-based assignments (67%, *M*=4.0), meaningful activities (78%, *M*=3.0), and social learning (78%, *M*=4.50) in their course design. Overall, 56% (*M*=3.0) of faculty felt that attending the FLC led to changes in how they designed their courses which had or will likely have a positive impact on student learning.

Table 3
Perceptions of Impact of FLC Participation on Pedagogic Use of e-portfolios

Degree of agreement with statement	[Strongly Disagree-----Strongly Agree]					M	SD
	1	2	3	4	5		
More knowledgeable of transition strategies from physical to e-portfolios	0	0	1	1	0	3.50	0.70
More knowledgeable of using e-portfolios for assessment	0	0	0	1	1	4.50	0.70
More knowledgeable of assessing e-portfolios	0	0	1	1	0	3.50	0.70
More knowledgeable of designing team-based assignments using e-portfolios	0	0	1	0	1	4.0	1.41
More knowledgeable of designing meaningful activities using e-portfolios	0	0	2	0	0	3.0	0
More knowledgeable of designing social learning using e-portfolios	0	0	0	1	1	4.50	0.70
Changes in course design will positively impact student learning	0	0	2	0	0	3.0	0

The responses to the open-ended survey questions indicated the emergence of the following themes. Examples of comments under each theme are provided:

Theme One: Transitioning to e-portfolios. Some faculty worked in departments like English and Art where physical portfolios were still in use. For them, learning how to effectively transition to e-portfolios was important. Some comments about transitioning from physical to e-portfolios were:

- "I plan to continue to apply [sic] replacing sketchbooks with e-portfolios to expand the types of process work students can include in this traditional component of a studio art course. One strategy I will use more is to include incremental process assignment deadlines, to have students continuously work on their e-portfolios."
- "Because a paper portfolio is physically cumbersome, I never asked students to include prior drafts or evidence of drafting (they only included the copies I commented on). I focused on asking students to think and build their portfolios all semester long rather than waiting until the end, thus documenting along the way."

Theme Two: Assessment and e-portfolios. After participating in the FLC, faculty had learned ways to use e-portfolios to meet course and program level learning objectives. The following are some comments on how faculty thought e-portfolios could be used for assessment of course and program level learning objectives:

- "Bachelor of Applied Sciences (BAS) Program Learning Objectives (PLOs) will be assessed in [sic] the e-portfolios. Template will include PLOs, and artifacts from the students' academic careers will be uploaded into the e-portfolio to demonstrate meeting PLOs."
- "I like the fact that you can attach a grading rubric to an assignment in Digication, and also leave feedback through the Conversations tool."

Responses were mixed, though, with regard to whether participating in the FLC helped faculty learn how to assess e-portfolios in terms of their overall design and how to use e-portfolios to provide direct feedback to learners. Some comments about knowledge of assessing e-portfolios included:

- "Good with respect to individual elements. Harder to say wrt [sic] overall design."
- "It is helpful because I can directly place the comments about the student work in the e-portfolio. Normally I am filling out a grade sheet about a sculpture project. I have to spend a lot of time explaining what about [sic] the work I am discussing and hope they understand it. E-portfolios close that gap."
- "I don't know if I will use the e-portfolios to provide feedback or still use printed rubrics. I am indecisive."

Theme Three: Positive impact on course design. After participating in the FLC, faculty reported that they learned how to design courses to effectively integrate e-portfolios. For instance, faculty learned how to use e-portfolios to design team-based assignments, include meaningful activities, and engage students in social learning through peer review. Here are some of the comments made by faculty on how they plan to enhance course design using e-portfolios:

- "I am considering creating e-portfolios for group projects. i.e., students use one portfolio for their project. I think this would be an effective way to encapsulate their group experience and its outcomes."
- "I plan to possibly include self-reflection essays in e-portfolios in the future."
- "Peer feedback on presentation development."
- "I want to build on the social elements for my online course to help build community."

Focus Group Results

The focus group results were separated by emergent themes. Under each theme, representative comments made by participants are provided.

Theme Four: Re-thinking course goals, learning objectives, activities, and assessments. After participating in the FLC, faculty perceived themselves to be more knowledgeable about the various pedagogic benefits of using e-portfolios. Consequently, they reviewed their current course design in the light of how they could include e-portfolios to help students showcase learning, engage in peer interaction, review, learn incrementally, and reflect. The following were some comments made by participants:

- "Frankly, e-portfolios can be used as a employment/career development kind of tool for physics majors. Often times for physics majors it can be a personality thing. It can be a strange degree. Slightly weird degree for some employers. We think of black holes all the time, why would I want to hire you? It has made me think a lot about the activities and assessments, specifically in the CID and FF [sic] courses that we would do, and to some degree the course goals for those two classes."
- "For studio art courses, one challenging thing is that there is a heavy dependence on oral discussion in a group setting in a critique format, so this can operate as an alternative, if I started to enable the discussions and commenting functions. I think it could lend itself well to that."
- "I am thinking is how might they look at what they have learned holistically, what have they learned about each other in the different kinds of majors and doing a reflective piece."
- "I always liked the idea of portfolios and since mine is a writing course I like the idea of revision. What I have done in the past is given them chances to revise but that really gets cumbersome for me. And then I was like OK I am going to try e-portfolios cause [sic] I think I will be more effective, paper portfolios are a big mess, it is hard for me to set it up and structure for them."

Theme Five: Teaching and learning strategies learned at the FLC. Faculty reported making a variety of gains as a result of participating in the FLC in terms of gaining a different perspective on things they were already doing in their teaching. They also learned specific pedagogical strategies like the use of reflection, group work, peer reviews, and spaced assignment submission deadlines. Some of the comments made about teaching and learning strategies learned at the FLC were:

- "Being in an FLC may not make you do something totally brand new but it has given me some different perspectives and ways of thinking about things that I am already doing in my class"
- "I learned about creating communities for an entire program, allowing for program learning objectives assessment."
- "I learned about using e-portfolios for group projects."
- "I learned about the Conversations tool and I am planning on implementing it as a way for students to give peer feedback on e-portfolio design."

RQ 3. What are faculty perceptions of the potential impact of e-portfolios on student learning?

One of the goals of this study was to know faculty perceptions on how inclusion of e-portfolios in teaching would impact student learning. The summary of data from the focus group and open-ended questions from the survey revealed the immergence of a predominant theme which addressed RQ 3. Data from the survey is presented followed by that from the focus group.

Survey Results

Theme One: Impact on student learning though e-portfolio enhanced course design. Faculty in this study reported that the changes they made in the design of their courses, after completing the FLC, would bring about positive changes in student learning. They also believed that students using e-portfolios would engage more with course materials through reflection, peer review, and independent learning; as well as that students may begin to identify ways in which an e-portfolio can showcase their learning and research for job applications and presentations. Some of the faculty comments in response to open-ended questions in the survey included:

- "I did add a journal assignment to my Spring course asking students to reflect on how they might use e-portfolios outside of the course. The training on how to customize e-portfolios will definitely help students think about that issue and hopefully take the e-portfolio with them after they graduate."
- **"**I hope to help students engage in my course more often, through thoughtful reflection because of e-portfolios. Sculpture is very facility centered so usually students do not think about my course outside of

class. I hope that e-portfolios can help them be more engaged more frequently, especially in developing their concepts."

- "I hope for students to understand the lifelong application of e-portfolios, that this is a skill that translates directly to their workplace."

Focus Group Results

Faculty responses in the focus group indicated that e-portfolios was seen as a platform where students can showcase their research and learning to potential employers, take ownership of learning, and engage in continued learning beyond graduation. The following were some comments made by faculty:

- "One thing that seemed rewarding for them is that really it is their own space. They really took ownership of it in a nice way and I think that added to the quality and it gave me faith that perhaps it can be an effective tool for independent studies and internships and things with less contact hours, where then [sic] I can actually see the students' progress and understand how much they have been working. Literally how often they are evidencing their work on the portfolio, rather than have just a finished product at the end of the semester and not know how much went into it."
- "My goal is to encourage students to use their e-portfolios beyond their time at Boise State. At this point, I have added an assignment that asks students to think about how they can use their e-portfolios outside of the academic setting."
- "I read this article about making assignments real. Writing for an audience is so different from writing for the instructor. By putting up assignments in the e-portfolio, you are putting it up for a potential employer."
- "Students may be able to represent their physics research through e-portfolios even though it is not a publication. Maybe we will get to the point one day where instead of presenting their poster they would present their e-portfolio."

Faculty comments seems to indicate that participating in the FLC increased their teaching confidence, knowledge of relevant pedagogic topics, engagement with peers and FLC facilitators, knowledge of using e-portfolios for better assessment, course design, and teaching.

Discussion

In this case study, the researchers set out to investigate faculty perceptions of participating in a FLC and how it contributed toward learning specific skills like the pedagogical use of e-portfolios. The researchers were also interested to know faculty perceptions on what the potential impact of e-portfolios would be on student learning.

The results of our inquiry suggest that participation in the e-portfolio FLC had a variety of perceived impacts on faculty. Most participants reported an increase in teaching confidence after participating in the FLC and planned to or were already making changes to their course design, so as to make best use of e-portfolios. This is in keeping with findings from earlier studies where faculty experienced greater empowerment, motivation, desire to innovate in teaching (Trust, 2017) and increased job satisfaction (Wagner et al., 2015) after participation in faculty learning communities. Participation in the FLC also encouraged most faculty to re-think their course goals, learning objectives, activities and assessment plans.

Faculty learned many pedagogic strategies at the FLC on how to productively include e-portfolios in their teaching and students' learning. This is similar to earlier studies, where faculty reported experiencing greater understanding of discipline specific knowledge, desire to implement changes to curriculum and instruction (Natkin & Kolbe, 2016), as well as greater willingness to use innovative pedagogy as a result of participating in FLCs (Furco & Moely, 2012).

Similar to earlier studies, some faculty in this study reported having actually experimented with teaching methods and improved on existing course learning objectives, after participating in the FLC (Addis et al., 2013). Participants gained through discussion with peers and received timely, quality support from the FLC facilitators. Learning though peer interaction and support was also reported in earlier studies on FLCs (Lundberg, 2014), when faculty perceived to have made professional development gains, through engagement with colleagues across disciplines (Jackson, Stebleton, & Laanan, 2013). Since the FLC in this study included faculty at different points of the e-portfolio adoption scale, slighlty advanced users were able to help less advanced peers by sharing their expertise with each other.

A little more than half (56%) of the faculty thought that changes in course design after their participation in the FLC, would bring about positive changes in student learning. In the past, students of faculty who have participated in FLCs, have also reported a variety of perceived learning gains, which differed across disciplines (Wicks, Craft, Mason, Gritter, & Bolding, 2015).

While, such findings regarding FLCs are not unique, this particular FLC was unique in that it accepted faculty who were in a variety of stages of e-portfolio adoption. A few were already using e-portfolios in currently taught courses, while others were merely testing waters before considering adoption. Advanced users served as role models for novice users and helped them troubleshoot technical and pedagogic aspects of implementation. Also, faculty had varying reasons for joining the FLC. Some faculty belonged to programs, which mandated use of e-portfolios for program assessment, while others were more flexible and wanted to use it for showcasing student learning, with no mandated program level goals. The FLC was designed to meet the needs of both groups of faculty.

There were some limitations of this study. First, the FLC in this study was only a semester long; this short timeframe may not be long enough to identify lasting changes. Future research needs to be conducted on FLC's that last longer than a semester. Another limitation of this study was that it only included only self-reported data and did not include any classroom observation, syllabus, course design analysis, or student interviews to corroborate participant perceptions.

Despite these limitations, some implications for practice were identified. These implications may be useful to faculty developers as well as faculty who want to know about the benefits of learning communities for teaching and learning:

- Teaching Confidence: FLCs can increase teaching confidence. Faculty often hear about pedagogial good practices from colleagues and other sources but lack the resources and confidence to implement them in their classrooms. Purposeful professional development in the form of FLCs can help faculty achieve this confidence.
- Peer support: Teaching can be isolating (Erdem, 2014; Hennick, 2015; Gunning, White, & Busque, 2016). However, FLCs can help faculty learn the power of peer support and help dissolve the silos that faculty often experience in higher educational institutions.
- Reflection on current pedagogy and improved course design: Participation in a FLC can give faculty an opportunity to introspect, reflect, and re-evaluate their current courses and to consider how new methods of teaching may best be used to achieve their course learning outcomes. Learning from peer experiences may be helpful in this process of reevaluation and change. The implication for higher education is the suggestion that professional development models like faculty learning communities, have the potential to encourage faculty to bring about substantial changes in teaching practices and course design by enabling purposeful reflection on current practices.
- Perceived impact on student learning: FLCs can potentially help faculty to bring about changes in course design through inclusion of new tools and methods of teaching that may have a positive impact on student learning, provided faculty make actual changes in course design and teaching practices.
- A learning community may consist of faculty at different stages of adoption: Faculty at different stages of adoption of pedagogical practices and educational technology may be able to benefit by participating in a FLC. Often an FLC becomes a space where faculty can overcome the barriers of institutional silos, to engage in peer instruction and help each other problem solve.

Conclusions

The results of this study suggest that participating in a FLC focused on e-portfolios can increase faculty members teaching confidence, knowledge of relevant pedagogic topics, engagement with peers and FLC facilitators, as well as knowledge of how to use e-portfolios for better assessment, course design, and teaching. In addition, participating in a FLC can help faculty see how the integration of technology into their classrooms can help improve student learning. Thus, a FLC is not only a time-tested way to introduce and engage faculty with pedagogical strategies and educational technology but also a space where faculty at different adoption levels may learn from each other and in turn improve how they teach and ultimately student learning.

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EVALUATION OF CHARACTER AND MORAL EDUCATION IN ELEMENTARY SCHOOL

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ABSTRACT
The best time to start formal character and moral education is at elementary school. Character and moral education become guidelines for elementary school students to build a foundation for themselves when they have to face the future. Character and moral education in Indonesia has long been implemented, but evaluation is rare. It makes the program of character and moral education not done perfectly. This study aims to describe and evaluate the implementation of character-moral education in primary schools in Indonesia. There are three schools that are evaluated with teachers and principals as informans. Evaluation model used is evaluation of context, input, process, and output (CIPO). This model is considered best suited to the implementation of educational programs in schools. Evaluation results show that the three schools are able to apply character and moral education well in context, but there are still some obstacles to program input. It's like there is no government funding, poor school facilities, and uncertified teachers. In the process, the implementation of character and moral-based education can be clearly seen in co-curricular, extracurricular, literacy activities, and school-specific programs. Suggestions for related parties that need synergy between the school, parents, and community so that the values of character and morality can be consistently internalized in students.

INTRODUCTION

Character and moral education is one way to make students behave well. As a philosopher, Heraclitus puts it, the internalized character values that are capable of bringing good fortune. Internalizing character and moral values is not an easy task. Forming characters does not automatically work. Therefore evaluation is needed. Innovative need and thought. It is done so that the outcome of character and moral education can last a long time.

One of the priority agenda of human development in Indonesia is strengthening character and moral education. Since the beginning of independence, until now many steps have been taken to implement character education with different names and concepts. Now the government is trying to revolutionize the nation's character through education policy. It is like rearranging the national education curriculum by prioritizing the aspect of civic education, placing proportionally the aspect of the nation's ideological education, the teaching of the history of nation-building, patriotic values and the love of the country, the spirit of state defense, and the manners in the Indonesian education curriculum (Ministry of Education Indonesia, 2015). The thing that needs to be underlined is the government's effort to revive character and moral education in Indonesia's education curriculum. It becomes the government's great plan to prevent and overcome moral problems.

The Indonesian Ministry of Education (2015, p.24) outlines some of Indonesia's problems, one of which is the waning symptoms of students' morale and national identity. Character education has a high urgency because now a lot of students who began to degrade morale. It became one of the important issues that Indonesia is facing today. Moral degradation such as loss of respect for others, crime, and other similar cases can happen to the learner. The Indonesian Child Protection Commission (KPAI, 2016) publishes survey data and media reports that within 6 years (2011-2016) children's case against the law (crime) is the most common case in children age 8-18 years) that is equal to 34.8% with the number 7698 cases.

It shows that character education and morale that has been running has not maximized to form the character of the child. Not that this becomes completely a mistake of formal education in school. Character and moral education is the responsibility of the whole community. It should be implemented in schools, communities, and families. These problems are also caused by the family environment. Family and parenting issues are ranked second in terms of cases affecting Indonesian children. The Bank's Data Data KPAI (KPAI, 2016) shows that as much as 19.4% of Indonesian children have problems in the family and care. On the other hand, the evaluation of the implementation of character education is so poor that the result of education is less than the maximum.

One of the research recommendations mentioned that the implementation of character education as a whole and whole as in the model of self-school in pioneering schools (Sutjipto, 2011). This will strengthen the school culture that is increasingly conducive to individual growth within the educational unit community. The recommendations are followed up by the government with the implementation of character and moral education (strengthening character education). This program is expected to strengthen the benefits of character education that has been running since 2011 and develop the character of students as a whole. There should be follow-up to find out how far the strengthening of character education program is able to strengthen the character of students. Reflecting on Beets et al's (2009) study, the results of his longitudinal studies show that the implications of social development and the character of primary school programs in Hawaii prevent students from malicious behavior, sexual activity, and drug use, especially for students who have been in the program for three years.

Zuchdi (2012, p.32) analogizes characters as software in human beings capable of activating various hardware (behaviors), then when part of the software is damaged then the hardware automatically cannot function. Character education has a high urgency in the development of human resources and development of Indonesia. Therefore, it is necessary to describe and evaluate the moral character education program to see how far the implementation of the values of internalized character in the students.

LITERATURE REVIEW

1. Character and moral education

Character refers to a series of attitudes, behaviors, motivations, and skills. It's all as a manifestation of value, ability, moral capacity, and hardness in the face of adversity. Character and morals contain good values. This value is self-embodied and manifested in behavior. Character is the ability of the individual to overcome his physical limitations and his ability to dedicate his life to the virtues of goodness that benefit both yourself and others. Coherent characters radiate from the thoughts, feelings, sports, and strength of one's soul (Muslich, 2011). While morals refer to positive attitudes and virtues so that common morality is universal and constant (Hodges & Sulmasy, 2013). Character and moral definitions have similarities in virtues of goodness, good behavior, and positive attitudes.

Character and moral education is a system of cultivating the values of moral character (goodness) to students which includes the components of knowledge, awareness, and actions to implement those values. The value is done for God, self, fellow human, environment, and nationality (Qomaruzzaman, 2011). Character education in schools is a vital need for future generations to be equipped with basic skills that not only can make life-long learners one of the most important characters to live in a global information age, but also able to function with positive positive role as individuals, as family members, as citizens, as well as citizens of the world (Zuchdi, Prasetya, & Masruri, 2010). Character education system must be humanist, which positions students as human beings and community members who need help in order to have an effective habit so there is a harmonious harmonious between knowledge, skills, and desires.

Lickona (1992) in his book Educating for Character states that "character education is the deliberate effort to help people understand, care about, and act upon core ethical values". Character education is a deliberate effort to help people understand, care, and act on core ethical values. Lickona further states that "When we think about the kind of character we want for our children, it's clear that we want them to be able to judge what is right, care deeply about what is right, and then what do they think to be right-even in the face of pressure from without and temptation from within ".

The value of the character is formed through several stages, Meaning (2013, p.16) describes some general value gains through an empirical logical gateway doorway. Knowledge is obtained through the process of sensing, followed by attitude, then giving birth to belief, and followed by consciousness. Knowledge that has reached the level of consciousness, the knowledge is equivalent to value. The purpose of this value is as a reference and belief in determining abstract choices. the embodiment of the nature of the value itself can be a norm, ethic, rule, law, custom, religious rule, procedure, and other referrals that have a price and are felt valuable.

2. Context, Input, Process, Output (CIPO) evaluation model

The CIPO evaluation model was adapted by Scheerens (1990) on school development evaluation activities and research on the effectiveness of educational programs. Scheerens developed the CIPO evaluation model of the CIPP evaluation model found by Stufflebeam. The early CIPO model was developed by. The CIPO evaluation model which stands for Context, Input, Process, and Outcome (in some outcome interests can be preceded by output) modified from the CIPP evaluation model (Context, Input, Process, and Product).

The CIPO evaluation model is also a decision-oriented evaluation approach structured, just like CIPP. This model is based on the view that the success of educational programs is influenced by various factors, such as the characteristics of learners and the environment, the purpose of the program and the equipment used, the procedures and mechanisms of the program's own implementation. The evaluation of this model aims to compare the performance of the various dimensions of the program with a number of specific criteria, to finally come to the description and judgment of the strengths and weaknesses of the evaluated program. Stufflebeam (1971) sees evaluation objectives as first, determining and providing useful information for assessing alternative decisions; second, to help the audience to assess and develop the benefits of educational programs or objects; third, to assist the development of policies and programs. The stages in the CIPO evaluation model are.

2.1. Context evaluation

"Context evaluations assess needs, problems, and opportunities as defining goals and priorities and judging the significance of outcomes" (Stufflebeam, 1971). Context evaluation is a description and specification of the program environment, unmet needs, population characteristics and samples of the individuals served and program objectives. Context evaluation helps plan decisions, determines the needs be achieved by the program and formulates the program objectives. Contextual evaluation by Arikunto (2009, p.102) was conducted to answer the questions (a) needs not yet met by program activities, (b) the suitability of the program with the educational context in schools, (c) the easiest or most difficult to achieve goals.

2.2 Input evaluation

"Input evaluations assess alternative approaches to meeting needs as a means of planning programs and allocating resources" (Stufflebeam, 1971). Evaluation of inputs helps to manage decisions, determine existing resources, alternatives to achieve goals, how work procedures to achieve them. The components of input evaluation include: (a) human resources, (b) supporting facilities and equipment, (c) funds/budgetsand (d) how procedures and rules are required.

2.3 Process evaluation

"Process evaluations assess the implementation of plans to guide activities and later to help explain outcomes" (Stufflebeam, 1971). Process evaluation is used to detect or predict the draft procedure or implementation plan during the implementation phase, provide information for program decisions and as an archive of procedures that have occurred. Process evaluation includes collection of assessment data that has been determined and implemented in the implementation practice of the program. It basically evaluates the process to find out to what extent the plan has been implemented and what components need improvement.

2.4. Output or Outcome evaluation

Kaufman & Thomas (1980) stated that outcome is a social impact resulting from the educational process. The social impact in question is when the program is able to influence the behavior and education players. This outcome also consists of evaluation of results or products.

"Product evaluations identify intended and unintended outcomes both to help keep the process on track and determine effectiveness" (Stufflebeam, 1971). Evaluation of the product conducted an assessment to measure success in achieving the goals that have been set. Thus, outcome evaluation is used to determine the achievement of goals and the impacts generated by the program as a whole. The outcome stage may be preceded by an output evaluation. It is based on the needs and objectives of the evaluation to be achieved. An output evaluation is an assessment of the output generated by the program. The output may be a particular product or service that is expected to be generated by an activity of available input, to achieve the project or program objectives. An output evaluation can be a combination of context, input, and process evaluation results.

RESEARCH QUESTION

The main problem in this evaluation is the urgency of the implementation of character and moral education amid the degraded state of the student's morale. The formulation of the problem in this evaluation is as follows

1. What is the context of the implementation of character and moral education in primary schools?
2. What are the inputs from the implementation of character and moral education in primary schools?
3. What is the process of implementing character and moral education in primary schools?
4. What is the quality of the implementation of character and moral education in primary schools?

METHODOLOGY

1. Empirical methods

This research is an evaluation research using descriptive approach. Evaluation model used is evaluation model Context, Input, Process, Output (CIPO). This evaluation model is suitable for evaluating ongoing educational programs. In education programs that have been implemented for a long time, it is necessary to add evaluation outcome. The character and morality education program evaluated has been implemented for a year in a particular school, so that the evaluation is only up to the evaluation of output. The scope of the output evaluation is narrower than the outcome evaluation.

2. Evaluation object

Participants from this study were three principals and ten teachers from three primary schools. The study sites were chosen based on geographical location, the first school in center of city, the second school in rural area, third school in urban area. All three schools have A (excellent) accreditation. It is the object of evaluation that is context, input, process, and output of character and moral education program in elementary school. Object of context evaluation is the value of character and morals that develop in school. The object of input evaluation is the quality of facilities, infrastructure, school facilities, human resources, and funding. Object evaluation process is the implementation of character education programs and moral in learning. Object quality evaluation of the implementation of character education is the result of evaluation context, input, and process. If the results of the evaluation context, input, and process indicate the success of the program, then the evaluation of output is said to meet the quality. However, if the results of one of the evaluation contexts, inputs, and processes indicate the lack of a program, then the evaluation of the output is said to have not met the quality.

3. Data collection technique

Semi-structured interviews were conducted to gain more in-depth information. This interview was conducted for 10 teachers who had attended character and moral education training and 3 principals. The time and place of the interview are determined by agreement between the researcher and the resource person. In addition to interviews, observations are conducted from Monday to Friday in selected school environments. Observation when learning is only done on high-class students. Data collection techniques such as checking documents are intended to obtain information on school vision and mission, curriculum, annual program, semester program, syllabus, lesson plan, and other learning tools.

4. Data analysis

The results of interviews in the form of recording are analyzed by making transcripts of the conversation. Then the transcript is interpreted and coded answer to know the points that have been achieved. The results of the observations are analyzed by way of description and marked on the points of achievement of the program. While the results of checking the documents are analyzed with a checklist. All the results of the data analysis are described and interpreted in accordance with the actual situation.

RESULT

1. Context of implementation character and moral education in elementary school

Context evaluation is done by interviewing teachers and principals. The program is considered successful if the school has the potential value of the character that has grown. Based on the evaluation results, all schools already have potential character values. The first school has an open-minded and competitive character value, the principal explains that students, teachers, and all school staff should be able to accept new things as innovations in education. In addition, students are taught to be competitive and competitive during the learning process. The value of the character is considered appropriate to the culture of this school. Some of the evidence that this school has character value is easy to access to researchers, open teachers to accept instructional innovations, there are boards in each class, and students have a high passion for learning outcomes. One teacher said that the goal of character and moral education that is difficult to achieve in this school is to apply the value of the character of cooperation. One of the problems that teachers face is that some students do not want to work with some other students. That's because students already have a gap or a certain group in its class.

Teachers and principals from the second school in rural area admit that the school has the potential value of religious character and integrity. This school includes the values of Islamic teachings in the learning program. As for students who are not from Islam can obtain the meaning of the doctrine of universal goodness. One proof that this school has a value of religious character and integrity is the presence of a "canteen of honesty". The canteen does not have a

cashier, so students must be honest when paying. The goal of character and moral education that is difficult to achieve in this school is the teachers who are less able to accept technology as an educational innovation.

The third school in the urban area, has the potential value of the character of curiosity and independence. In this school, no parents are allowed to wait for their children around the school grounds. This, educate children to be more independent in school. This school has a narrow land. That made the teachers take the initiative to plant plants in pots, then the plants were stored along the school aisle. The goal of character and moral education that is difficult to achieve in this school is almost the same as the first school, that is, most students have gaps or certain groups. In addition, some of the students in this school have gadgets. It makes it difficult for students to communicate with each other and students are more pleased with "their own world".

Table 1: Achievement of Context Evaluation

No.	Context Evaluation Indicators	First School Achievement (City area)	Second School achievement (Rural area)	Third School Achievement (Urban area)
1	Teachers and principals can identify potential values of character and morale that have developed in schools	Open minded, competitive, and sportive characters are already internalized	Religious character and integrity have already begun to be internalized, though not all students have such characters	The character of curiosity and independence has begun to be internalized
2	Teachers and principals can identify the objectives of character and moral education that are difficult to achieve	Character of cooperation among students is difficult to achieve	Open minded characters among teachers are difficult to achieve	Character of cooperation among students is difficult to achieve

2. Input of implementation character and moral education in elementary school

Input evaluation is done by interviewing, checking learning documents and observation of school facilities. The results of input evaluations in all three schools are similar. Input or preparation in all three schools is not too different. The most different is the cost of school between schools in rural areas and schools in the city.Here is a table of the results of input evaluations in all three schools.

Table 2: Achievement of Input Evaluation

No.	Input Evaluation Indicators	First School Achievement (City area)	Second School achievement (Rural area)	Third School Achievement (Urban area)
1	The principal has a basic understanding of character and moral education	Based on interview results, the principal is able to explain the vision, mission, goals, and programs about character and moral education	Based on interview results, the principal is able to explain the vision, mission, goals, and programs about character and moral education	Based on interview results, the principal is able to explain the vision, mission, goals, and programs about character and moral education
2	The teacher has a basic understanding of character and moral education	Teachers are able to explain very well	Teachers are able to explain well	Teachers are able to explain well
3	Qualifications of teachers teaching in primary schools	There are still teachers who do not have educator certificates	There are still teachers who do not have educator certificates	There are still teachers who do not have educator certificates
4	The school has a clear allocation of funds for character and moral education programs	The allocation of funds comes from parents and students	The allocation of funds comes from parents, students, and school staff	The allocation of funds comes from parents and students

5	School infrastructure supports the implementation of character and moral education programs	Complete school facilities, ranging from school infrastructure, ample school grounds, clean toilets, adequate classes, infocus, and instructional media	The school facilities are incomplete, the school has no infocus and the learning media is incomplete, but the school grounds are wide.	Incomplete school facilities, narrow school grounds and less-than-complete learning media. But this school has an infinity in every classroom.
6	The school has clear written rules	Yes, schools have clearly written rules	Yes, schools have clearly written rules	Yes, schools have clearly written rules
7	The school has an operational standard of character and moral education	Yes, schools have operational standards of character and moral education	Yes, schools have operational standards of character and moral education	Yes, schools have operational standards of character and moral education
8	The media in the school environment supports the implementation of character and moral education	There are wall magazines and posters	There are wall magazines, posters, and student work	There are wall posters and magazines
9	The media in the classroom supports the implementation of character and moral education	There are wall magazines, student work, and infocus	There are wall magazines, posters, and student work	There are student works and posters
10	There is character and moral value in learning planning	Yes at least two character values	Yes at least two character values	Yes at least two character values
11	There are character and moral values in the syllabus	Yes at least five character values in one semester	Yes at least five character values in one semester	Yes at least five character values in one semester

3. Process of implementation character and moral education in elementary school

Process evaluation is done by observation of co-curricular and extracurricular activities in school. The cocurricular activity consists of learning activities in the classroom, learning activities outside the classroom, and student activities during break times. Meanwhile, extracurricular activities are carried out after completion of learning or at home from school. In learning activities, character and moral education programs can be seen at the beginning of learning activities. All three schools are implementing the same early learning activities. Before entering the class, the teacher checks the students' cleanliness and tidiness. It reflects a clean character and discipline. After that, students and teachers pray together according to their own religion. The majority of students in public schools have Islamic religion, habituation activity at the beginning of learning after praying is by reading Asmaul Husna (good names for God) and reading some verses of Al-Quran (Book of Islam). The activity reflects the religious character. Furthermore, students together with teachers sang Indonesian national anthem and national anthem. It reflects the nationalist character. In the first school, after singing students and teachers do pat the spirit and pat moral value. Before starting the core activities, teachers do apperception and motivate students. Apperception activities are conducted by asking about student experiences and linking students' answers to learning topics.

In the core activities of learning, character and moral values are more integrated with the theme of social learning. The learning in these three primary schools, no longer using the subject term but using an integrated thematic approach. At the end of the learning, the teacher reflects on learning and gives moral messages to the students. Implementation of character and moral education in other cocurriculer activities is the movement of reading the book at recess or performed simultaneously every Friday.

Implementation of character and moral education in extracurricular activities that is scout. This activity is mandatory by students. First grade students up to sixth grade must attend this activity. This activity is held every Saturday. Scout activities are more often done outdoor. Many character and moral values are taught in scout activities. As with ceremonial activities, students are trained to be patient and disciplined when marching. Every three months, classes four, five and six camp out at school. Camping activities can educate students to become more independent.

Some typical courses of character and moral education are implemented in all three schools. The first school has a program of cultural festivals and art world. Every teacher and student learn cultures from different worlds. The lessons were implemented in the form of food festivals, traditional dress, class decor, and art.

the second school has a program to celebrate the religious day of Islam and other religions. This celebration is conducted in schools involving parents, students, and teachers. There are at least five religions celebrated together: the celebrations of Islam, Hinduism, Buddhism, Protestantism, and Catholicism. Although the majority of students are Muslim, in this school there are students who have other religions. The third school has an Adiwiyata program or a green school program. The school often invites nature-loving organizations to share knowledge about the importance of protecting the environment.

Table 3: Achievement of Process Evaluation

No.	Process Evaluation Indicators	First School Achievement (City area)	Second School achievement (Rural area)	Third School Achievement (Urban area)
1	Implement character and moral education in classroom learning activities	The school has conducted preliminary activities in accordance with government directives on character and moral education	The school has conducted preliminary activities in accordance with government directives on character and moral education	The school has conducted preliminary activities in accordance with government directives on character and moral education
2	Implement character and moral education at rest (carry out the book reading movement)	Some students play their gadgets at rest, while others play ball, and read books	The reading activity do very well, almost every observed student fills their free time by reading	Almost all students play the gadget while at rest
3	Implement character and moral education on extracurricular activities mandatory scout	Scouting activities went so well, all the students followed.	Scouting activities went very well all the students followed.	Scouting activities went very well all the students followed.
4	Implement character and moral education in school programs (other than extracurricular and cocurricular)	This school has an inter-class competition and inter-class creation program	This school has a Sunnah prayer program together and the head charity program of the orphanage every semester	The school has a green environmental program, so each student has a schedule to care for the plants at school

4. Output of implementation character and moral education in elementary school

Output evaluation of the implementation of character and moral education programs is implemented by looking at achievements incontext, input, and process evaluation.

Table 4: Achievement of Output Evaluation

No.	Context Evaluation Indicators	First School Achievement (City area)	Second School achievement (Rural area)	Third School Achievement (Urban area)
1	Context	All indicators are achieved	All indicators are achieved	All indicators are achieved
2	Input	One indicator has not been reached	Two indicators have not been reached	Two indicators have not been reached
3	Process	One indicator has not been reached	All indicators are achieved	One indicator has not been reached

The results of the best evaluation obtained by the first school in urban areas, while the second and third schools have the same moral character education quality. It shows that the geographical location and state of the school environment have an influence on the implementation of moral character education.

DISCUSSION

Context evaluation shows that all schools are able to identify potential values of character and morale that have developed. Character and moral education have long been contained in the Law on national education, starting from the 1946 Act that prevailed in 1947 until the National Education System Act No. 20 of 2003. Until in 2011, character and moral education does not yet have clear technical guidelines (Julaiha, 2014). Based on these facts, each school develops a character value that is appropriate to the school culture. There are some character and moral values that tend to be difficult to achieve in each school, it is because the formation of the character focuses on personal trends and school context with the surrounding environment. (Shield, 2011) This is reasonable because the environmental conditions of each school vary. Contextually, character and moral education are appropriate for any primary school by considering the needs of schools, regional characteristics, and school culture.

Evaluation of inputs at each school varies. There are schools that have complete facilities and supported by technological advances, but there are also schools that are less supported by technology facilities. There needs to be more attention from the government to involve technology in every learning activity in school. It can motivate the teacher as a facilitator, guide, co-learner, and co-worker manager in order to work better. Teachers should be able to change schools or classrooms as a workplace where students learn independently in collaboration with tools (Devkota, Giri, & Bagale, 2017). The presence of technology is very important to support the implementation of character and moral education in the era of 21st-century education. That's because technology and character education can motivate students to have skills such as critical thinking, problem-solving, knowledge application, creativity, flexibility, communication, interpersonal, collaboration, leadership and, global and cross-cultural awareness (Kayange, 2016).

In the evaluation of the process the way each school implements character and moral education differs in spite of the same context. In 2011, character and morals education was first implemented in schools although not clearly listed in the learning tools and curriculum. Now character and moral education are clearly listed in the learning tools and curriculum so that the implementation is more effective. It was in line with previous research suggestions that various character plans and programs of education would not be effective if they were not clearly written and integrated in the curriculum (Sally, 2011). Typical character and moral education programs owned by each school are different, but still show the value of the character globally and involves intercultural activities. It is very appropriate to make the students character because of the impact of intercultural education on cooperative learning, prejudices reduction and stereotypical behavior has been very well documented, as has been studied on social justice equity pedagogy (Vassallo, 2016).

One of the obstacles in the implementation of character and moral education is the bad influence of gadgets and the internet, while older teachers are not open to technology. Inequality between the way teachers teach with something that students need to be inhibiting the implementation of character education. Now almost every student has a gadget. The pattern of education has changed considerably because technology has changed the educational system and therefore a teacher is obliged to know the development of science and technology (Isman, 2003). On the other hand, development technology is a balance between the progress of the times and the practice of education. Altiney et al (2016) in his research explained that education technology has an important role in digital management, improving school culture, and school management. With technology, content can be accessed and used by users only gets positive information.

Overall results of context, input, and process evaluation show that the three schools are conducting character and moral education well. The things that need to be investigated further is the outcome of character and moral education. It's like the attitude and behavior of students after mixing in the community. However there is recognition from teachers and principals that almost all students are able to accept and understand character education. Even other research results show that students who are given lessons on moral education have a perspective on moral values better than students who are not given moral education materials (Hu, 2010).

CONCLUSION

Evaluation of character and moral education in elementary schools using the CIPO evaluation model (context, input, process, output). Context evaluation aims to see the potential of the school in implementing the program. The potential of each school is different. In the city, students are more competitive and difficult to work well together. In

the rural area, students can already distinguish between bad behavior and good behavior. Students are also easier to work together. In the rural area, most senior teachers are not too open-minded. In urban areas, students are encouraged by high curiosity but students begin to have difficulty working well together. The constraint of most students in the city and urban areas is difficult to cooperate with other close friends. Learning with a cooperative approach must be done more often so that students are accustomed to working with anyone.

Evaluation of inputs explains the preparations in school for implementing character and moral education. Primary schools in the city prepare school facilities very well because they get greater funding support from the government and parents. Unlike some schools in rural and urban areas that have limited facilities. Teacher preparation for character education in each school has been prepared because the government accommodates character education training for teachers throughout Indonesia.

Process evaluation to describe program implementation. In the process, each school has its own way of carrying out character education. That is because it is adapted to the characteristics of the school environment and students. Some programs that implement character education such as class competencies, creations between classes, religious and charitable programs, and programs to protect the natural environment. Character and moral education are integrated in classroom learning activities. Teachers convey moral values and goodness to do in everyday life. That can be done with fairy tales, biographical stories, group assignments, and in citizenship learning.

Character and moral based education evaluation in elementary schools are complete and comprehensive. Starting from planning, program context, program input, implementation process, and student quality. But to see the character and enthusiasm of students requires a long time and a valid measuring instrument. In practice, character and moral education can be seen clearly in co-curricular and extracurricular activities such as scouts. Most of the programs on character and morally based on co-curricular are carried out in accordance with the guidelines given by the government. In the co-curricular activity, the role of teachers is very large to create an atmosphere of learning that can internalize the values of character and morals in students. Today's students who enjoy using internet and gadget facilities make teachers better understand the use of technology, especially in instilling character and moral values. Not only that, character-based and moral education requires synergy between schools, students, parents, and the community. Not all schools are willing to initiate activities that bring them together. Therefore, the government needs to provide a budget for the school to hold activities to strengthen social control of students.

LIMITATIONS TO THIS STUDY AND FUTURE RESEARCH

Research in the field of social behavior has many limitations. One of them is it takes a long time to prove the data obtained credible. Therefore, the need for longitudinal research to find out the outcome of the implementation program based on character education and moral in primary school. Research relationship between evaluation results is also needed to know the correlation and correlation between variables evaluated. Suggestion for subsequent research that is add amount of evaluation object so that evaluation result can be representative.

ACKNOWLEDGEMENTS

Thanks to all those who have provided material and non-material assistance. Grateful thanks and honor to the Indonesia Endowment Fund for Education (LPDP) that has funded this research, teachers, and head principals. Heartly thank you to Prof. Dr. Fahriye Altinay who has been willing to review this article and Thank you also to Prof. Dr. Aytekin İsman as editor-in-chief. Hopefully this article useful for anyone who read it.

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EXPERIENTIAL LEARNING AND UNDERSTANDING DUALITIES IN REFLECTING LIFE EVENTS

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ABSTRACT
This paper shows the intertwining of experiential learning, reflection of life events and motivation. It also reveals that crucial to reflection is being able to see the 'two selves' in the way memory recall transpires, which affects ones interpretation. Through the narratives of selected women leaders of a national women's organization in the Philippines, the dualities of self-meanings in ones self- reflection were clarified, which when deciphered, leads to better decisions and solutions to problems. The role of motivation is integrated as a significant push for action.

INTRODUCTION

Reflecting on experiences and learning from them has been a general process and a usual track in education – informal or formal. Similarly and connectedly, experiential learning becomes part of the whole process. Experiential learning has always been associated with adult education, lifelong learning, self-directed and informal learning based on practical occurrences in life. Valuable lessons can be derived from all these. In fact, experiential learning has been a well-trodden area of research in adult education and community organizing. Adult experiences are most often shared through story-telling. Our childhood, whatever our nationalities are, somehow contains stories told by grandparents and/or older people we have encountered. In the Philippines, there is what is called, *"Mga Kwento ni Lola Basyang"* – translated as, *The Stories of Grandmother Basyang*, where at certain time of the day, children in the neighborhood would gather around the grandmother to listen to her stories. Stories are narrated as they are and as they come when conditions permit among adult friends, children, neighbors and relatives.

Stories, being sources of knowledge, when re-told can be part of learning, if we know how to make use of them. Beyond learning, they become community wisdom and village history. Stories and narratives go through reflections, remembering, recalling past experiences and most often end in extracting and culling out what lessons have been gained. It has become a pattern of inquiry in qualitative research to make respondents re-tell events, notice highlights, and cull out life lessons. Narrating life events legitimizes experiences as sources of knowledge and lay down kaleidoscopic visions of shared memories. Narratives vary depending on the specific focus in life we want to know. This article puts to fore narrations of women community leaders referred to here as the learners.

The study used the results of a SWOT analysis workshop and leadership orientation cum interview and narration and first-hand data put together as the data sources (DALUYONG, 2015). These were culled out basically through reflections. During the workshops, the community women leaders were allowed to do reflection, deep recall and consultation with their peers. The researchers aimed to explore these narratives, to get into their thoughts, impressions, and self-assessments of their experiences.

The paper, specifically, aims to:

1. Understand how DALUYONG (a national organization of rural women) women leaders see themselves, the transformation process from being homemakers to community leaders;
2. Weave and make sense of these narratives towards deciphering what make up for their happiness and well-being (which from the narratives could be two different things); and
3. Share a community/national development model that may provide some energy and insights for a more inspired and reconfigured work of DALUYONG.

ON EXPERIENTIAL LEARNING: NARRATION, DUALITIES AND REFLEXIVITY

This section sets the theoretical and conceptual underpinnings of the study. Some themes are highlighted to show how they influence the analytical framework.

Learning is a process -

When one narrates, the subject undergoes a process of reflection. For Fenwick (2001), this puts the subject as the main actor in the process of life recall and making meaning of life events. In here, memories are surfaced and given new meanings based on ones interpretation, how they were able to see those experiences in the now context. Through reflection, the subject recalls and tries to remember events that occurred in one's past. Part of it is weighing or valuating the importance of what transpired and gauging the effect of those events in ones overall life situation. As reflection takes place, one cannot avoid recalling memories beyond ones own. Aside from self, families, friends and relatives, organizational and workplace memories come out as well.

Fenwick considers experiential learning as a "process of human cognition" (Fenwick 2001). She further defines 'cognition' as broadly similar to 'learning.' She sets the question then for us to think 'what manner of learning can be conceived that is not experiential.' Because Fenwick avers experience can be through deep thought (reflective) and awareness of body movements (kinesthetic), both conscious and unconscious, and overall dynamics of life events of the subjects.

Learning by Doing -

It creates new knowledge emanating from action-interactions of people (Dewey 1938). As early as 1938, John Dewey already broached the idea of 'learning by doing.' Linking experience and education, he believes in the 'hands on' approach and experiences can be sources of learning, but also avers that not all experiences educate. In order for learning to take place, the experience must have *continuity*, where the learner must know how to connect certain aspects of the new learning with what she/he already has. Secondly, there should be *interaction.* The learner should be actively engaging with his/ her environment checking lessons gained. This is Dewey's idea of coherence of experiences.

In Vince and Reynolds (2007), learning from organized groups can be managed. As one reflects, the possibility of encountering two levels of reflections and outcomes can appear. While one is reflecting on one's personal life, the group or organizational dynamics where the learner is involved, surface as well (Vince and Reynolds, 2007). The incorporation of reflecting on the organization provides the possibility of finding or discovering untapped unconscious, even emotional forces which the subjects never realized were part and parcel of the influencing factors in their lives.

In Gherardi and Poggio (2009), very clearly the stance of feminism as an approach to research is through narration of stories. They sat with women managers and allowed them to talk about the dynamics inside the organization they are in. As a tool of expression, narrative was very effective. The women participants in retrospect rolled out their stories, recalling, analyzing the past events related to their work, thought out the meanings for them of their respective experiences. For Gherardi and Poggio (2009, page 56) Narrating is a way of "re-appropriating experience," recalling and reconstructing to put together past events in one's life. By recalling, the subjects are given the opportunity to a renewed projection, interpretation, and making meanings. In essence, it becomes a "practice of transformation, reflection, reconstruction, recognition and re-structuration of the self" (Gamelli, 1995 in Gherardi and Poggio, 2009).

Fenwick (2001) likewise, inquires into how life experiences are understood. Gherardi and Poggio (2009) see this as the learner's interpretative perspectives. What they see, how they see them, inevitably entails meaning configurations of their own reflections.

Introspection during narration can result in deepening analysis of organizational dynamics, thus under covering grounded and hidden conflicts. These conflicts may not be the learner's own personal experience, but that of the organization's operational settings, possibly finding out organizational flaws. Recounting 'signs and traces' of events are pieces of puzzles that when put together by the narrator can give a complete picture. Findings of conflicts, pose threats and uncertainties. But on the other hand, these findings can commence a re-direction of how the organization will be run.

Learning and gendered leadership -

Leadership has been associated with the male functions, roles and competencies. But taking off from a feminist perspective of experiential learning, narration and reflexivity, we ensue experiences of women as not just personal and organizational roles. In learning by doing, gaining experiences with new knowledge, skills and

attitude, the female narrators are actually 're-designing their self-esteem' (Piccardo 1998 in Gherardi and Poggio, 2009) as a person with value added to note. This new form of leadership is relational and constructive. It veers away from the 'inborn' nature of a leader. Rather, it considers leadership to possibly emanate from amongst co-workers, co-participants, co-members. Leadership in this way is something interpersonal, not individualistic.

Leadership is also a situated practice, meaning, it cannot be taken out of context. There has to be interactions, both verbally (whatever the language is) and physically. Interactions are not simply 'transactional', which mostly male leaders do, but 'transformational' where relationality is given weight, to promote positive interactions, trust, and collective ends. Gendered leadership shares power, exercises control by the group, not control over the group. Chodorow (1978 in Gherardi and Poggio, 2009) avers that women gained this capacity to relate and enhance affective skill thru primary socialization and communication with others whereby they are exposed to attending to listening, sharing stories and experiences, and expressing concerns naturally. These activities, across time, have become society's expectations and socially-created assignments to women (e.g., child-rearing, physical and psychological family care, negotiating, settlement of conflicts and even finding building block solutions to problems. However, at the societal level, even organizational, they rarely practice these capacities, as most often, men are identified as leaders. The lack of opportunity to employ formal authority in an organization, for example, led women to adapt the strategy of feeling their way thru, as they anticipate reactions from others they relate with.

In some societies though, women leadership was more associated with spirituality and being religious leaders (like the *babaylans* in the Philippines). But the *babaylans'* capacities overflowed beyond spirituality when they were also recognized as healers, shamans, seers, and community 'miracle workers.'

Contradiction in realities in learning experiences -
Britzman (2003) explains the 'contradictory realities' in learning. She specifically used teaching as the direct experience observed and analyzed. She theorizes that when teachers teach, they are 'shaped by their work' and 'shaping their work' at the same time. Applying and associating this with other types of work, we can similarly say that the contradiction is in - how the processes of the work affect the worker ('express something about the subjectivities of the worker'), and how the worker construct their working identities. Put in a different light, Britzman (2003) pursues that 'learning to teach is like teaching itself' - one transforms in the process of teaching, the 'teachers construct themselves, while they are being constructed by others.' It is like a process of becoming: a time of 'formation and transformation.'

When we teach, it is not rooted on producing and imparting knowledge alone, but we are projecting a public image of ourselves. One is expected to be custodians – enforcing school's rules, communicates textbook knowledge, gives grades to students, and manages discipline norms. Unseen are – the ways teachers translate the contents and their experiences, their creativity in innovating facilitation of understanding the subject matter, culling out and working out students' concerns, and balancing the requirements of the curriculum and the teacher's desire to impart 'what it means to know' (Britzman, 2003).

Adding our insights on Britzman's thoughts, we would refer to this as *reflexivity in teaching* or the *dialectics of teaching*, where teachers undergo the spiraling process of teaching-learning-theorizing-teaching – and learning again, but as they undergo the spiral process, they elevate their status in terms of quality – in the way/s of teaching, the ways of being teachers, the content/s or substance of knowledge learned and shared.

ENGAGING OUR TWO MENTAL OPERATING SYSTEMS
In TED Talk 2010, Daniel Kahneman talked about 'our two selves.' This was of great interest to the researchers particularly in linking it with experiential learning, narratives and reflections. In his presentation, Kahneman surfaced the concepts of 'the experiencing self' and 'the remembering self.'

In recalling one's life story, one can talk of the 'experiencing self' which is re-living the present. One can also talk of the 'remembering self' that keeps the record of the story of his/her life. The remembering self tells the story through our memory. In telling a story, Kahneman (2010) emphasizes three elements that define it – *changes, significant moments* and *endings.* For him, endings are very important because they dominate the story, they are usually retained, hence, most remembered.

Kahneman in his book, Thinking Fast and Slow (2011), also talks of two mental operating systems which were originally proposed by two psychologists, Keith Stanovich and Richard West. System 1 operates much quickly,

with not much effort and sense of control. System 2 is done with more mental effort, like doing complex mathematical computations requiring more concentration before making a choice.

Juxtaposing them with the experiencing self and the remembering self, Kahneman views them as 'System 1 relates with the experiencing self'; and 'System 2 relates with the remembering self.' System 1 is quick to express what it thinks is. As Kahneman would say, the experiencing self answers the query: "Does it hurt now?" On the other hand, associated with the remembering self, System 2 is not as quick to decide what is or how is, but it takes more effort to recall carefully what transpired, goes back to the stock of memories of the past, and answers the question: "How was it, on the whole?"

Juxtaposing further, when people try to recall past experiences, i.e., community engagements as an organizer, one's life as an educator, a community development manager, a human resource specialist, an education development specialist, they recall in two ways, the 'remembering self' and the 'experiencing self.' The *remembering self* is the 'story-teller' when one recalls past experiences. Remembering entails narrating stories. What defines a story? For Kahneman, a story contains changes, significant moments, and endings. Emphasizing further, the importance of 'endings' in a story, when we recall thru our remembering self, we value much the 'endings.' This is the one that we remember, hence, the one that makes decisions.

Our insight on the matter, by linking it with experiential learning, memories recalled include what have been done and the learning from them – good or bad. But learning most often come in positive notes. Aware of the not so good experience, we try to cull out our learning from it and learning always comes as positive effects on one's life. The 'learning' is realized as the 'ending.'

The 'experiencing self' has no voice when we choose what decision to take. According to Kahneman (2010), "We don't choose between experiences. We choose between memories of experiences." To remind, it is the 'remembering self' that takes stock of memories.

So applying this to perceptions of 'happiness', Kahneman further clarifies, 'the experiencing self' sees 'happiness' as the moments of the experience, complications across process, how happily a person has lived and emotions felt over time. While 'the remembering self' talks about 'how satisfied and pleased the person is when she/he recalls their lives.' Hence, to emphasize Kahneman, we have to critically learn to decipher the distinction between '*happiness of the experiencing self*' and the '*satisfaction of the remembering self*,' if we need to use them for policy decision-making.

A STUDY OF LIVED EXPERIENCES OF RURAL WOMEN COMMUNITY DEVELOPMENT WORKERS

This paper uses Kahneman's 'two selves' in analyzing the experiences, learning, happiness and satisfaction of certain organized rural women leaders in the Philippines. The women's organization is called DALUYONG. It was organized in 2003 by the Philippine Rural Reconstruction Movement (PRRM), one of the oldest and biggest non-government organizations in the country, so far. Its scope cuts across 13 provinces, 58 municipalities/towns with 5,146 members.

Table 1. Scope of operations of DALUYONG

13 Provinces	Members	58 Municipalities (Towns)
Ifugao	302	3
Nueva Vizcaya	223	4
Nueva Ecija	106	5
Bataan	1,210	4
Cavite	201	4
Albay	18	5
Camarines Sur	450	6
Camarines Norte	300	4
Quezon	520	6
Marinduque	232	5
Camiguin	250	5
Negros Occidental	242	3
North Cotabato	1,092	4
TOTAL	5,146	58

Why study DALUYONG and look into its experiences –
The inclusion of DALUYONG in the study posits a form of theorizing, which is the 'search for or making meanings' emanating from real life experiences. This is a combination of critique, constructivism, and interpretative forms (Britzman, 2003). It is done largely thru narration of experiences, viewed as an advantage because even if lived experiences are not recoverable, they can be re-told thru ethnographic narratives (Brodkey, 1987). As Brodkey says, 'ethnography is the study of lived experience.'

DALUYONG is eighteen (18) years old. It laid its foundations across thirteen (13) provinces, covering 58 municipalities, with 5,146 members. The expanse and extent of women organizing are amongst – farmers, fishers, traders, local and small entrepreneurs. After 18 years, the researchers wanted to know if the leaders (Executive Committee representing the provinces) are satisfied with their accomplishments and experiences, as a whole; and specifically, are they happy as women leaders.

The researchers sat down with seven (7) of the Executive Committee leaders (2 were absent). To start and reflect on their journeys, the participants were asked the question: Are you happy now as a woman – within the family, the organization, and the community and/or the country? This was done to sort of give the women leaders brief time to reflect on their journeys as community leaders.

In summary, the answers expressed were:
(1) Empowered women - 'Yes' they are happy as 'empowered women' compared to when they were not members of DALUYONG. Now, they have broader and deeper knowledge about life in different aspects – socio-cultural context of women's oppression and gender inequality; the complexities of the political situation of the country and its governance; and the economics of resources a country has, its usage and equitability of benefits to affect the poverty situation they are in, plus the others in similar case.
(2) Awareness of women's rights - They are now aware of their rights as women, in the context of their respective households, local-based organization, and the community.
(3) Confident of their capacities - They are more confident of what they can do, especially as members and officers of their organization, representing their respective provinces to the Executive Committee. Most of them have been with DALUYONG for over 10 years. It is in DALUYONG that they have become more learned in terms of public speaking, engaging with officials in the local government when they have to raise their local issues in the community, and dealing with other organizations. They are now positive influence on others; a realization of how much their minds can reach (comprehensively), and able to link and synthesize multi-concerns like: poverty, environmental integrity, abuse of natural resources, corruption in governance, etc.
(4) Citizenship - Contributing to the community in terms of identifying problems, finding solutions, e.g., family health and nutrition, food security; gender relations and counseling; coordinating with the church, school, youth and senior citizen-support activities.
(5) Community recognition - Gained the respect and recognition of people in their respective barangays and other organizations.
(6) Resource mobilization - They learned to make/write project proposals to start up social enterprises for DALUYONG members.

MEETING THE TWO SELVES –
Kahneman's theory of the two selves and Brodkey's search for meaning/s approach can be used in understanding the narratives from each woman-leader based on recalled experiences and how *Saemaul Undong* (South Korea's successful community development model) served as inspiration and motivation.

In telling the story of looking back at past experiences, Kahneman explains that what we recall are memories of our experiences which the storyteller narrates. He emphasized the point that what really defines or gives identity and meaning/s to a story are: changes, significant moments and endings. These elements are found in the 'remembering self' rather than the 'experiencing self' because it is the former that holds the stock of memories. The latter is more aware of what exist in the present yet can recall the past.

The 'remembering self' and satisfaction –
So when asked if they are happy, the women leaders recall the memories of the changes that transpired in their lives – from being ordinary, not-so-knowledgeable housewives (according to them), or simply a farmer's wife and mother to their children, extending unpaid labor, helping out in the farm to augment family food on the table, or a fisher's wife selling fishes. If not sold, she dries and salts the fish for longer shelf life adding value to them. The recollection focusing on the transformation/changes in their lives were significant moments. From being silent, learning how to teach and organize other women, discussing community issues, engaging the local government, negotiating their needs, and tapping resources for community projects.

All the expressed themes mentioned above (i.e., empowerment, awareness of women's rights, confidence in one's capacities, citizenship, community recognition, and resource mobilization) are enormous changes and very significant moments in the women leaders' lives. It was their '*remembering self*' doing the recall. They were just happy to narrate the memories they had, like trainings, meetings, orientations, the knowledge and skills learned, the feelings of elation from getting recognition in their communities, and the feeling of empowerment.

But there seems to be a hanging question in their mind. Were they satisfied? Following Kahneman further, another element that defines a story is the ending. For these women, at the outset, empowerment could be the ending. As part of experiential learning, this ending dominated in their narratives.

The 'experiencing self' and happiness -
But is it really the end? Or is there something more for these women leaders? Apparently, we observed and looked deeper into the recent SWOT (strengths, weaknesses, opportunities, threats) results previous to the narration session. Noticeable are expressions of 'dissatisfaction' despite 'happiness.' Happiness and satisfaction are the expressed realities from stock memories of changes in the women's lives. These are their achievements. These are significant moments of being recognized in the community, memories of places they have been to, people they have met and projects they worked on, which contributed to economic gains. Despite expression of happiness of their past lives, there is dissatisfaction when they thought of the here and now. It is the experiencing self conveying this feeling.

In DALUYONG's case, happiness and satisfaction is experiencing and seeing solutions resolving existing concerns. Hence, the ending is yet to be realized. The ending seems to be never-ending because it is a moving target continuously rolling out. This is what the 'experiencing self' encounters in the present. In other words, one can be happy with good memories but may not yet be satisfied.

In matters of public welfare, banking on Kahneman's thought, "we should not mistake happiness as a substitute for welfare" (2003). DALUYONG's strategic goals of sustained growth and development and better quality of life are something for the 'experiencing self' to get. Decisions on social and public welfare, he is saying, should be based on what the 'experiencing self' sees.

In summary, the SWOT results were:
STRENGTHS: The national council and executive committee regularly meet; 85% of local formations still operating; strong links with local government units (LGUs); active in issue advocacy and lobbying; participating in conferences, seminars, trainings; has operating social enterprises but yet to enhance packaging and marketing aspects; accredited by the municipal and provincial government; can participate in LGU decision-making thru the local development councils.

WEAKNESSES: Wearing out of membership expansion; ageing leadership; no ready second-liners; low spirit and enthusiasm of some members; some field chapters stopped regular meetings; some members are unreachable (no more contact and update from DALUYONG chapters in the provinces of Negros Occidental, Cotabato, Camiguin, Ifugao, Nueva Vizcaya); overlooking the potential of resources available in the areas; certain policies need revisions, still weak in product promotion and market sustaining.

OPPORTUNITIES: access to participation in open planning and budgeting from barangay to regional levels thru the bottom-up-budgeting (BUB); passing into law of the Magna Carta for Women; chance to develop more gender and development champions; presence of financial network supportive of women's advocacies and projects (e.g., councilors, *barangay*/village captains, mayors, governors).

THREATS: non-readiness to climate change that can hit farm crops, properties and other resources; bureaucratic system that could deter processes of engagements with government; changes in administration may not favor flagship projects; negative effects of ASEAN integration.

DISSATISFACTION AND THE MOTIVATIONAL ELEMENTS
DALUYONG leaders are hoping for 'better quality of life' for their communities. However, there is a part in their overall reflection that spurs the 'low spirit and enthusiasm' causing frustrations and dissatisfaction as a result of unrealized goals and objectives. At this point, South Korea's Saemaul Undong (SMU), a successful community and national development model, was narrated to the women leaders. Infusing the Saemaul Undong's spirit of diligence, self-help and cooperation, in the context of South Korea's history of recovery from ground zero after the Korean War, the immediate response was remarkable.

Saemaul Undong (SMU) is one classic approach to rural development which first unfolded in South Korea, during the presidency of Park Chung Hee in the 1970s. Saemaul Undong is a New Village Movement launched by President Park in the 1970s. It is a community-driven development (CDD) program which highlighted people-centeredness. It harnessed people's participation with shared vision, shared burden, working together, making sure women participated. SMU's overall aim is to overcome endemic rural poverty in Republic of Korea (ADB 2012).

"The spirit of diligence is to promote healthy work ethics and to emphasize one's voluntary and active involvement in development activities. The spirit of self-help means choosing one's own work and taking responsibility of one's own life. The spirit of cooperation stimulates a sense of community which necessitates harmony and mutual help, not to mention its contribution to increased work efficiency" (Chung 2009).

The leaders responded with heightened interest and enthusiasm that led them to immediately pilot Saemaul Undong learning session in a *barangay* (village) in Marinduque province. The women in that village who participated in the session, inspired by the SMU sharing, immediately requested for a practical learning session on natural farming.

Reconnecting with the 'experiencing self', the intervention was the element to recharge, recoup the strength and dwindling spirit of women leaders, to search for that feeling of satisfaction from their community development efforts. It made them reflect and digress from a 'high-headed' to a 'down-to-earth' mindset, one of which is to return the savings culture among the members, as savings can be the seed of growth of the local economy.

The South Korean SMU experience posed as the lynchpin to the leadership's revival of spirit. The sharing on SMU was an 'aha' moment. It showed the leaders that their goals are achievable and provided valuable insights on the how-tos. The SMU gave them hope and encouragement

CONCLUSION

DALUYONG women leaders in their ten years of service have learned a lot from their experiences. They conveyed that they felt happy when they remembered their experiences as community leaders because there have been positive changes and significant moments in their lives where they gained knowledge, skills and respect from their communities. According to Kahneman's 'two selves', the 'experiencing self' expressed happiness felt at that moment.

On the other hand, DALUYONG women leaders also expressed some frustration and dissatisfaction when they reflected on their experiences because the realization of their organization's goals (i.e., improving the lives of their members and communities) have not yet been significantly addressed. The 'remembering self', according to Kahneman, keeps and recalls experiences as a life story which has three elements that define it – changes, significant moments and endings. The endings are very important because they dominate the story and are usually retained and most remembered. The story of DALUYONG women leaders says experiences which transpired still cannot provide the satisfaction they are looking for because the ending that they desire (i.e., realization of DALUYONG's goals) is still unrealized.

The SMU intervention served to motivate the weakening spirit of some DALUYONG members, which pushed them to commit more, regain their footing as they see clearer direction for the organization and achievability of DALUYONG's goals.

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IMPACT OF GLOBAL ENGLISH TO FORM THE IDEAL L2 SELF AND MOTIVATION OF ASIAN RURAL L2 UNDERGRADUATES

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ABSTRACT
This study examined the key contribution of global English to motivate the L2 undergraduates in two rural Asian contexts. A 49-item adapted motivation questionnaire was used to collect the data from 362 Sri Lankan and 60 Malaysian rural undergraduates. Dornyei's L2 Motivational Self System was utilized as the major theoretical framework of the study. In order to find the relationship between the motivation and ideal L2 self of the undergraduates Pearson correlation analysis was run. Interestingly there was a significant positive correlation between the motivated learning and the ideal L2 self in both groups. Further, the ideal L2 self of these learners highlighted the timely need of global English to reach their future goals.
Keywords: Global English, L2 Motivation, Ideal L2 Self, Rural Asian L2 Learners

Introduction

Globalisation has created the inescapable need of global English for the all L2 learners, because global English directly impact on the educational policy, curriculum provision, and language pedagogy (Ushioda, 2013). In the globalised world, global English has become the necessary communicational tool and educational skill (Graddol, 2006). Hence the motivation to learn global English increases in the L2 world.

Dornyei (2009) initiated the movement of defining L2 motivation based on the L2 learners' needs of acquiring global English to gain the global identity. Dornyei's theorisation of L2 motivation was beyond the traditional integrative motivation (Gardner, 1985) which aspires the psychological attachment with the target language community. It is much more practical for the globalised world, because with the expansion of the globalisation English has become the global language and specially the language of Asia. In fact, the ownership of English has shifted to the L2 speaking world particularly Asia (Kachru, 2011). Within this context integrativeness has become an inacceptable concept in Asia (Islam, Lamb, & Chambers, 2013;Prasangani & Nadarajan, 2015; Taguchi, 2013;Taguchi, Magid, & Papi, 2009).

Motivation Studies on Global English

Dörnyei, Csizer and Nemeth (2006) propelled movement of L2 motivation related to the global English by examining the motivational aspects of language learning of Hungarian English learners with reference to the globalisation trends. In their longitudinal large scale Hungarian study, they found interesting changes of language learning motivation between world language learning and non-world language learning. They emphasised the marginalised position of non-world language learning, including German which is the traditional regional lingua franca of Hungary and high learning tendency of world language of English. These changes in Hungary signified the influence of contextual and social factors for L2 learning motivation due to the spread of globalisation.

This "Global English" movement became an unavoidable factor of change for L2 learning motivation, because global English has become the medium for globalisation to reach the international community. As the members of the global community L2 learners motivated to learn English to build their international identity and relationship via global English (Yashima, 2009).

As a result, "integrativeness" was further questioned in L2 learning motivation (Coetzee-Van Rooy, 2006; Lamb, 2004) because English has become the global language (Crystal, 2003), a necessary educational skill (Graddol, 2006) and international lingua franca (Jenkins, 2012). Thus, the integration or psychological attachment with the L2 community was not reliable anymore due to the global ownership of English.

Dornyei (2009) recognised the need for change in the L2 learner's motivation process and considered the globalisation effects for L2 motivation and took stock of the confusion that arose out of the integrativeness principle and redefine the L2 motivation according to the globalisation period, because with the spread of globalisation learners' motivation on English learning seemed to be beyond the integrative and instrumental perspective. Dornyei's longitudinal study on Hungarian learners (Csizer & Dornyei, 2005) further supported the identification of the inadequacy of integrativeness and helped refine the L2 learner's motivation process. Thus, Dornyei (2009) helped develop a new conceptualisation of the L2 Motivational Self System with the help of

"Possible Selves" (Markus & Nurius, 1986). L2 Motivational Self System redefines the integrativeness as ideal L2 self and ought to L2 self due to its close attachment to the learner's external (instrumentality) and internal (attitudes towards L2 speakers) selves. In the L2 Motivational Self System central focus was given to the ideal L2 self which refers to the attributes that learner ideally would like to possess (e.g. future aspirations, hopes and dreams of learning English). The ought to L2 self refers the attributes that learner ought to possess to overcome the future negative outcomes (e.g. obligations, responsibilities, duties for the family, parents, teachers and etc.). Added to that Dornyei (2009) added a third component to the L2 Motivational Self System as L2 learning experiences which refers the situation specific motives related to the immediate learning environment and experiences (e.g. language teacher, peers, syllabus, facilities available and etc.) (Dornyei, 2014).

At present L2 motivation researchers have moved on to further examine the L2 Motivational Self System because of its central concern on the learner self. This has become more pertinent due to the spread of global English in the world and L2 and FL learners are increasingly being seen as members of the global English community. In fact, L2 Motivational Self System proves more meaningful in the L2 motivation research field when addressing the emerging needs in the globalised world (Ushioda & Dornyei, 2012).

In 2012, Lamb pioneered a study in Indonesia by focusing on both urban and rural EFL learners. The results of the study proved the development of learner ideal L2 self to be heavily based on regional differences of learners, because rural learners show a weak ideal L2 self compared to urban learners due to the lack of exposure to the globalisation and the need of global English. This is parallel with You and Dornyei (2014) where they found urban L2 Chinese learners as the highly motivated group compared to the rural group due to the importance of global English to reach the needs of globalisation. The value of global English not only enhances the motivation to learn global English but also the imagination of the L2 learners as the speakers of global English (Munezane, 2013; Prasangani, 2015).

It must be noted that recent motivation studies found the strong motivation of the urban learners to reach their future goals via global English. However, few motivation researchers have been able to focus on the rural L2 learners' motivation and they consistently have shown the weak L2 motivation of the rural L2 learners. This indicates a need to understand and investigate the rural L2 learners' motivation to learn global English to reach their future goals.

The purpose of this paper is to examine the L2 motivation of the rural L2 learners to learn English. This study focuses specially to examine the motivation to learn English of rural L2 learners in Sri Lanka and Malaysia by focusing following research questions.

1. What is the nature of the relationship between the three components of L2 Motivational Self System with the motivation?
2. What is the contribution of ideal L2 self to the global English?

Methodology

Participants of the study are non-English major Sri Lankan and Malaysian L2 learners of English who are studying in government universities. In total 362 Sri Lankan and 60 Malaysian students volunteered to participate in the current research. The participants' motivation was examined by collecting quantitative data, using an adapted motivation questionnaire. A 49 item Likert- scale questionnaire was distributed to each participant to complete and submit to the researcher directly. The questionnaire consisted with the questions of motivated learning, ideal L2 self, ought to L2 self, and attitudes towards learning English (See Table 1).

Table 1:Categories of the Motivation Questionnaire

Motivated learning	Measure L2 learners' intended learning effort to improve English at university and outside the university by themselves. Adapted from Taguchi et al., (2009); Lamb, (2012); and Islam et al. (2013).
Ideal L2 self	Measure future vision of the L2 learners related to communication and future career. Adapted from Taguchi et al. (2009), Lamb (2012), and Islam et al. (2013).
Ought to L2 self	Measure the importance of L2 learners' parental and academic influence to learn English. Adapted from Taguchi et al. (2009), and Lamb (2012).
Attitudes toward learning English	Measure the help of L2 learning experiences. Adapted from Taguchi et al. (2009), and Lamb (2012).

In order to assess the suitability of motivation questionnaire in Sri Lankan and Malaysian contexts, the reliability test was run separately in the both contexts. In accordance with the results obtained the wording of the

questionnaire was changed. The modified questionnaire was used to collect the data. The collected data were subjected to SPSS 22.0 for the statistical analysis. Pearson correlation analysis was conducted between the variables to examine the nature of relationships as the major data analysis method.

Results

Table 2 shows an overview of the participant profile of the study. As shown in the table majority of the Sri Lankan participants were from Rathnapura and majority of the Malaysian participants were from Sarawak.

Table 2: *Participant Profile*

Sri Lanka		Malaysia	
District	Percentage %	State	Percentage %
Ampara	5	Sarawak	34
Anuradapura	7	Kelantan	20
Badulla	12	Sabah	8
Batticaloa	1	Terengganu	8
Hambantota	7	Kedah	1
Jafna	17	Pahang	10
Kilinochchi	1	Perak	10
Mannar	1	Melaka	4
Monaragala	4	Perlis	4
Mullaitvu	1	Negeri Sembilan	1
Nuwara Eliya	4		
Polonnaruwa	3		
Puttalam	4		
Rathnapura	25		
Trincomalee	2		
Vauniya	6		
Total	100	Total	100

Nature of relationship between motivated learning and L2 Motivational Self System

Table 3 compares the correlation between the motivated learning and the ideal L2 self of the Sri Lankan and Malaysian participants. What is interesting in the correlation data is that ideal L2 self has the highest significant correlation with the motivated learning of the both L2 groups. The most striking result to emerge from the data is that for the Sri Lankan rural undergraduates ideal L2 self is the only significant factor to motivate their English learning, because there is no significant correlation between motivated learning and ought to L2 self, and attitudes towards learning English.

Table 3: Correlation of the Variables with the Motivated Learning

Scale	Motivated Learning	
	Sri Lanka	Malaysia
Ideal L2 self	.564**	.733**
Ought to L2 self	.277	.471
Attitudes towards learning English	.328	.655**

Anyhow, there was a significant correlation between the motivated learning and attitudes towards learning English among the Malaysian L2 learners. Interestingly, ought to L2 self has no significant correlation between the motivated learning of the Malaysian L2 learners too.

Table 4: *Ideal L2 Self Descriptive Analysis*

Questionnaire item	Sri Lanka Agree %	Malaysia Agree %
I can imagine myself studying in a Malaysian university where all my courses are taught in English and spoken in English.		73%
I can imagine myself studying in a Sri Lankan university where all my courses are taught in English and spoken in English.	80%	
I can imagine myself writing e-mails/letters fluently in English.	70%	66%
The things I want to do in the future involve English.	88%	74%
I often imagine myself as someone who's able to speak good English.	77%	74%
I want to be the kind of Malaysian who speaks English fluently.		78%
I want to be the kind of Sri Lankan who speaks English fluently.	89%	
I see myself one day communicating in English with western speakers.	84%	78%
Studying English is important to me because I would like to become close to L1(US/British/Australian & etc) speakers of English.	64%	66%
Studying English is important to me because I would like to become close to L2 (Malaysians, Indians, Sri Lankans, & etc) speakers of English.	71%	74%

As can be seen from the Table 4 majority (89% and 78%) of Sri Lankan and Malaysian L2 learners want to be fluent English speakers by protecting their national identity. Added to that they highly preferred to improve English to communicate with the western speakers, their future activities, be good English speakers and study in the English medium. It is apparent from this table that they lack the preference to learn English to be close to the L1 community and they prefer to learn English to become close to the L2 community.

Discussion

What is the nature of the relationship between the three components of L2 Motivational Self System with the motivation?

The current study found that ideal L2 self as the highest significant correlated factor for the English learning motivation of the Sri Lankan and Malaysian rural undergraduates. However, the finding of the current study do not support the previous studies of Indonesia (Lamb, 2012), and China (You & Dornyei, 2014), because they found the weak ideal L2 self among the rural Asian learners. There are several possible explanations for this result. One possible explanation for this might be the exposure and learning environment of English in Indonesia and China, because they learn English as a foreign language (FL). On the other hand Sri Lankans and Malaysians learn English as their second language (L2) and they do have a long history of formal English learning form the colonial period onwards (Kirkpatrick, 2011;Prasangani, 2014). In addition, due to the long history of English education English has become a dominant language of the country and education. More than that it has become a weapon of demarcation between the rural and urban (Kandiah, 1984). Thus, English is a compulsory need for the rural community to uplift their social and economical status. Furthermore, the expansion of the globalisation and the role of English as a global language has created a necessary requirement of learning English to learn and work (Muftah & Rafic-Galea, 2013; Schiffman, 2005). In accordance with the need of English has become a dream of their inner self and the need of speaking in English, learning in English, and working in English have become innate desires of the rural learners in these two L2 contexts to tackle the emerging requirements of the country and the world.

It is somewhat surprising the weak correlation between the motivated learning and the ought to L2 self. This finding corroborates the studies of Islam et al. (2013), Lamb (2012) and You and Dornyei (2014). The reason for this may be the weak impact of parental influence for the rural learners' English learning, because rural parents have no enough English knowledge to support their children (Lamb, 2012).

Another important finding was the significant correlation of attitudes towards learning English or learning experiences and motivated learning. Surprisingly, the relationship was significant only among the Malaysian L2 learners. It seems possible due to the learning experiences learners gain from the classroom, peers, and other sources. Sri Lankan rural L2 learners may have lack of positive learning experiences compared to the Malaysian rural L2 learners. This data must be interpreted with caution, because the sample of Malaysia is small.

What is the contribution of ideal L2 self to the global English?

One unanticipated finding is that both Sri Lankan and Malaysian L2 learners ideally want to be fluent English speakers by keeping their national identity. That is again confirm the validity of global English rather than the validity of colonial English, because with the spread of globalisation, the local varieties of English gave more

confidence for the L2 leaners to stand among the global community with their own cultural identity. As well as L2 learners became more comfortable with their own variety (Mesthrie & Bhatt, 2008).

Furthermore, these L2 learners ideally want to be fluent speakers in English. This is because communication in English has become an essential requirement of globalisation and English has become the mode of communication (McCrum, 2010). They realised the importance of global English to face their future challenges.

Conclusion

The present results of this study are significant to identify the ideal L2 self of the rural L2 learners in Asia. The most striking finding of the study was the significant correlation between the ideal L2 self and the motivated learning. Interestingly their ideal L2 self is highly related to the need of global English to tackle their future challenges. However, the weak correlation between ought to L2 self and motivated learning suggesting the need of revisiting the component in future research. Apart from that, attitudes toward learning English should investigate further. However, more research on rural L2 learners in different Asian contexts to be undertaken to have a broad understanding about the ideal L2 self.

Limitations and Future Research

Although this research has achieved its goals, there are some limitations to address in the future research. This study has used the quantitative data to imply the results,but aualitative data also needed to have a balance picture. In fact, it is better to follow mixed method in the future research. Further, correlation analysis is not enough to see the strong picture of the rural L2 learners. Added to that sample size is not adequate to generalise the findings. Finally, there is a great need of L2 motivation studies in the rural Asian contexts.

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RELEVANCE OF LEARNING SCIENCE THROUGH INQUIRY BASED PARTICIPATORY ACTION RESEARCH IN BASIC PUBLIC SCHOOLS OF NEPAL: A PROPOSAL

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ABSTRACT
Participatory action research (PAR) is a methodological stance based on the critical interpretivist philosophy. Classroom-based PAR offers a platform by which science teachers act as co-researchers, can contribute to the co-creation of knowledge and its production through classroom teaching and learning strategies. The purpose of this study is to transform the traditional science classroom pedagogy (chalk and talk approach) into inquiry based science teaching through meaningful students engagement activities in the school garden, hands-on activities by the improvisation of low-cost and no-cost materials and the use of information and communication technology (ICT) in the basic level public school system in Nepal. The research design is the PAR approach that will support for transformative learning. PAR advocates the ideas of critical reflection which means that it helps of being reflexive that helps to co-create the learning to ensure the participation of students, teachers and parents. It also attempts to answer the question: What role can PAR play in facilitating inquiry-oriented learning in the basic level schools in Nepal? It will help policy makers to incorporate inquiry-based pedagogy by the participation of students and teachers.

Key words
Co-creation, meaningful engagement, participatory action research, school garden

INTRODUCTION

The objective of this review paper is to provide comprehensive understanding of inquiry-based learning supported by the PAR approach through the development of higher-level sequential thinking involved in the co-creation of knowledge in science among the students of basic level schools in Nepal. Learning science at the basic level schools may have lots of challenges leading to monotonous teaching learning activities leads to culture of silence. This practice has established a central role in the basic school system in Nepal, which is the main hindrance of inquiry-based learning and teaching. In this connection, Williams, (2013) argues "higher-order learning skills such as asking questions, critical thinking activities and developing metacognitive skills can be developed through inquiry". Question asking practices in the basic level science classrooms provide an opportunity to collaborate, deliberate, communicate and co-create the new knowledge with peers. Usually, it provides an opportunity to learn science by doing it i.e., hands-on activities and sometimes learning science occurs by minds-off and hands-on. According to Wright (2015: 25), "PAR process can be exercised as a pedagogical strategy to promote representative, collective decision- making in which students contribute to an input in the direction of their learning". Wright (2015:

45) argues "the mapping activity highlights how learning was situated in the student researchers' lived experiences; students owned their expertise about their communities through the activities" (ibid).

According to National Curriculum Framework (NCF, 2007), "one of the goals of science education at the basic school system in Nepal is to provide students with the ability to formulate arguments, reasoning and critiquing in a scientific context". Understanding and progress in the development of scientific skills among the students is partially based on arguments, discourse and cause effect relationship. Williams (2013) states, "formulating arguments is a particular genre of discourse in which a central epistemological framework is formed as a result of scientific actions". Schensul (1999) argued, "it is reasonable to assume that imparting the meaning of scientific content and the essence of developing a scientific concept would be a way to formulate arguments". Similarly, Mayer (2004) argues, "concept of science is based on arguments; therefore, students should be provided with opportunities to talk science". In this aspect, as a co-researcher, I believe that the process of reasoning systematically in support of an idea and action in a scientific context should be an integral part of inquiry science learning thorough PAR approach.

The Vedic education system is still very popular in Nepal. In the Vedic system of education, science teachers ask questions and expect accurate answers (Acharya, 2016) and immediately evaluate the students' replies (Lott, 1983). But, now the paradigm has changed from the Vedic education system to student-centered learning in which the students work in small groups (especially 5 to 6 members), in which the students are exposed to scientific tasks (cause and effect relationship), ensuring them with an opportunity to become involved in a debate (collaboration) and to be supported or rejected by their arguments (falsification of the arguments with evidence). In this practice, sometimes with the teacher's intervention, the students have an opportunity to construct individual as well as group knowledge. This sort of co-creation of knowledge can be achieved by applying the PAR approach in classrooms in the context of Nepal. In this connection Vygotsky (1978) argued, "formulating knowledge in the collaboration of people is an example of constructivist socio-cultural knowledge". Students' meaningful engagement in the inquiry-based learning involves active participation in the learning process (Acharya, 2016); establishes their claims (Shrestha, 2009); adopt student-centered learning (Acharya, 2016); acts as a role model regarding the way they verify their claims, support the development of understanding the nature of knowledge among students, and adopt learning strategies through inquiry (Mayer, 2004) and gets them to participate in an authentic problem solving approach which will require the students to learn by inquiry. In this line, I argue that the students need to be reflective of their knowledge and understand how it was embedded in the brain box and reveal how it differs.

BACKGROUND

Active learning process always demands students' engagement in an active way that begins by asking queries, putting problems in front of peers and teachers but it does not simply present the established knowledge or facts by moving in a linear way to get knowledge. According to Lott (1983), this process can be assisted by a facilitator. In the inquiry based PAR approach, the facilitator is the science teacher as a co-researcher. In this connection, Mayer (2004) claims, "inquirers will identify research issues and questions to develop their knowledge for the solutions". Acharya (2016) further adds, "inquiry-based learning includes problem-based learning and is generally used in small scale investigations and projects, to do a piece of research from the ground level to understand the phenomena". Then my position is that, because inquiry-based instruction in science aims at developing psychomotor skills in the learners. At the same time, inquiry-based science helps in developing thinking skills. Basic level students have a wide range of interests in evidence-based reasoning and creative problem-solving ideas to reach a conclusion and thus it finally leads to inquiry-based learning science.

As a science teacher at a school in Nepal for relatively a long time, I believe that inquiry-based teaching attempts needs to focus on moving students beyond the general curiosity into the realms of critical thinking and understanding. For this, the science teacher needs to encourage students by asking questions and support them through the investigation process, understanding when to begin and how to structure an inquiry activity. In this connection, Williams (2013) argues, "we can run inquiry-based learning by applying case studies as well as group projects"; Acharya (2016) also claims that, "research projects and field visits provide unique ideas of the real field that help to understand science lessons", and these activities help to develop creativity in the learners.

The epistemology of inquiry-based science learning is tooted in an approach to teaching and learning science which reflects an understanding of how students learn science and the concepts as well as content to be learned. Matthew, K., Kirby, S. L., Greaves, L. B. and Reid, C. (2013) adds to this aspect of inquiry based leaning that the "belief of child centered pedagogy is important to ensure that students truly understand what they have learned" and not simply learn to "repeat content and information" (Freire, 1993). Moreover, the hands-on activities provide support for the development of higher order learning skills associates with the learners psychomotor abilities

based on observation, plan an experiment, ask relevant questions and hypothesis formulation and "analyzing experimental results at the end" (Colella, 2000).

Science teaching learning activities demand inquiry to explore the natural phenomena that can be linked to classroom activities. "Inquiry helps to identify and research issues and questions to develop the knowledge of students", (Diakidoy & Kendeon, 2001). This statement is in line with educationists like Jean Piaget, John Dewey, Vygotsky and Paulo Freire. Experiential learning advocated by John Dewey is linked to the active engagement of students to gain authentic experiences for meaning making and thus make meaning from it. It is also linked with Torbert (2003) who says "inquiry can be conducted through experiential learning", it is because inquiry through learning activities, inquiry engages students in learning concepts. In this approach, students try to solve questions by developing creativity through higher order thinking. It can be done by engaging students in the garden (Lisa, C., Martin, N. & Adams, O., 2015), laboratory and especially during the excursions.

In this context, Torbert (1981: 145) states:

…..knowledge is always gained in action i.e. linked in interactive classroom practices. This might lead a question to answer the validity of science ……., not how to develop a reflective science about action, but how to develop genuinely well informed action and how to conduct an action science.

Inquiry learning does not take place unless there is students' participation in an activity (Acharya, 2016). Meaningful engagement is necessary to inquire the learnability of students. So, PAR is needed to involve students in participation. Collaborative inquiry learning, emancipatory research activities, action learning through experience and contextual action learning are the forms of participatory action research as pointed out by Voss and Wiley (2006). I believe that the main focus of motivating pupils in inquiry based learning is to get students to understand the real world. Students learn best and participate more in the work when the opportunities are provided to them. Providing opportunities to the students in doing work in group activities inspire them to gain first-hand experience. As far as the concern of PAR is concerned, science teacher as a co-researcher acts and performs in a real-world i.e. at the community level, which helps to reach the aims to solve real problems. At the end, learners as the research participants make a schemas of open space to transform the preexisting knowledge with the new thought. By linking it with the literature, Wadsworth (2001) states, "action research is learning by doing that is when a group of students identify a problem, do something to resolve it and finally reflect". It provides the reflectivity as well as reflexivity among the learners for further learning cycles.

Basic level students'' failure in meaningful classroom activities for academic success has always been a worry for science teachers in Nepal, mainly because this 'lag' as an obstruction to 'passing the examination'. However, to my knowledge, there has been no research into students' meaningful participation in science classes in the context of Nepal. The major failure is due to the failure in consideration the cognitive aspect of learning (Acharya, 2017). Again, Acharya (2016) remarks "student fail to understand the content of science to develop science process skills without engaging them in their work. Then in such a situation, students naturally find classroom tasks in science classes difficult and against their interest. As a result, engaging in deeper cognitive processing resulting in meaningful understanding becomes hard to approach for them (Colella, Borovoy & Resnick, 1998).

In this connection, Duschal (2003: 16) states:

…..classroom teaching and learning focus on cognitive and behavoural aspect of science. Science teachers are compel to deal authoritative manner as they assigned the duty to teach but not as a facilitator to make students upgrade the grades,……satisfy their parents,…get higher scores in the documents……..and finally getting the job in the market.

LITERATURE REVIEW

Philosophical bases of PAR and its Epistemology

PAR is primarily based on action research which basically involves a cycle consisting of three elements: planning, acting and reflecting. But in PAR, the researcher acts as a research participant or simply a co-researcher participating in a mode the activities which is not accepted by action research. Master (1995) points out that authors such as Holter and Schwartz-Barcott (1993), Kemmis nad McTaggert (1998), Zuber-Skerrit (1992) have extended the scope and meaning of action research which was first initiated by Lewin.

Similarly, as McKernan (1988 as cited in McKerman (1991:8) claims action research originated in the last century can well be traced back to the "Science in Education" movement that took place in the late nineteenth century. In the mid-1940s Lewin theorized action research and characterized it as consisting of planning, action and evaluation in the form of a spiral of steps describing the result of the action (as mentioned in Kemmis & McTaggert, 1990). Literature indicates that Lewin's theory of action gradually gained it status as a widely acceptable method of inquiry which emphasized an active involvement of the real practitioners (McKerner, 1991). Thus, action research

has now come to the position as a widely accepted method of inquiry mainly among social scientists and practitioners doing some form of social practice.

advocated by Treleaven (2001) in the line of sharing power in the community, community-based PAR holds conventional research methodology on its head. PAR has certain some key commitments and values in its endavour which Graesser and Olde (2003: 151) describe as "beginning with the ontological possibility of a real popular science". PAR is the transformation of the teacher as the co-researcher that presents challenge in which the teacher needs to share his power among the students. It also helps to advocates local voices, local realities and local wisdom in the course of completing all the cycles. These key characteristics of PAR are in line with Bell (2001) and Lott (1983). In this line, McNeill, O., Lizotte, Krajcik, and Marx (2006: 12), "connection of participatory research movement with emancipatory social change at broader levels, and thereby, with goals to which all social research should aspire". PAR, according to Soloway, N., Kishbaugh, C. & Hayes, J. (1999), "democratic practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview". The history of PAR traced back to Lewin (1970 revised 1993) and then to Hall (1981) who characteristized PAR as an integrated activity combining with social inquiry and education with particular a focus on the oppressed. Lott (1983) noted, "rhetoric of community involvement with risk of co-option and compared this to authentic participation, where communities control the research process".

The first concept of PAR was used by McNeil, M., Nann, R. J. and Hawkins, J. (2006), "participatory action research to emphasize both authentic participation and relevancy of actions". PAR is practically referred by such terms as community cooperative inquiry, emancipatory work, appreciative open inquiry, and community-based participatory research (Graessser & Olde, 2003). Scholars like Wadsworth (2001) should be credited for "emancipatory practice"; "the life world" for Grasser and Olde (2003).

In law, PAR has set up and established a culture in which improvement in social and educational activities are sought through sharing with the oppressed and empowering them for decision making.

PAR CYCLE AND KEY COMPONENTS

The PAR cycle is based on the inquiry approach to co-creating knowledge that consists of continuous and reflective observation, reflexive co-researchers planning, immediate action and again reflexive observation, sharing with the participants, inner understanding of the phenomena in a dynamic way throughout the completion of the cycle. The cycle consisting of planning, acting, reflecting and observing helps to understand the different steps and the activities in the PAR process rather than implying a linear sequence necessarily occurs from one to another. It is because school is a complex adaptive institution having many socio-cultural factors associated with it. Multiple cycles within the cycle is the exploration in reflexively attained goal of the PAR cycle.

Meaningful Engagement: In teaching and learning, student motivation is paramount. Motivation manifest itself in such forms as curiosity, personal and collective interest, passion and attention. When this kind of environments it is best to assign tasks suitable for their level of proficiency. This helps to explore the degree of motivation needed for the hands-on activities. According to Matthew, et al. (2013), "it is believed that the concept of student engagement is predicated on the belief that learning improves when students are inquisitive"; "when students show interest in activities" (Acharya, 2016) yet it is negatively affected when students feel bored (Matthew, et al., 2013). The culture of impassioning in the work, disaffecting by the dialogic process tends pupils to back-gear from understanding science. Meaningful engagement in learning for sustainable change is one of the basis of the PAR approach to teaching and learning science. According to (Dong, E., Delgado, R. & Steferius, J. 2017), "students are engaged when they are involved in their work", and "take visible delight in accomplishing their work" (Marino, O., Bar-Gill, O. & Warren, E. 2010). Students' engagement of willingness, urge of doing work, desire of accomplishment and compulsion to participate develop higher order thinking. Alonzo and Steedle (2009) characterize PAR as "successful in the learning process promoting higher level thinking for enduring understanding" as cited in (Matthew, et al., 2013). In this connection, Acharya (2016: 3) depicts the Nepalese scenario as:

teaching science is based on the problems found mostly in the practice book and in the prescribed textbooks. Most of the teachers start their lessons with a problem from the exercise text book and select one of the problems, usually the first, as a model and show how to do a particular type of problem and demonstrate its solution showing how to solve it. Science text books are designed for a dogmatic approach resulting in the repetition of the same style of problems.

Co-researcher as insider: I envisioned my role in PAR as a co-researcher as an insider in the working community. In the PAR process and cycle, the researcher as insider has a direct involvement with the research" (Robson, 2002).

Knowledge co-creation through PAR contrasts with traditional notions of scientifically sound research in which "the researcher is an objective outsider studying subjects external to his/herself" (Denzin & Lincoln, 2003). According to Suri and Clark (2009), "outsider cannot do real research in PAR". But to be an insider, co-researcher needs to respect the knowledge (Skelly & Bradley, 2007), values (ibid), priorities and language and norms (Ozer, 2006) of the people on which the PAR is undertaking. PAR aims at producting knowledge from the social positions enacting social realities (Suri & Clarke, 2009) and connecting emotions by the co-researcher to generate knowledge (Skelly & Bradley, 2007).

Lived Inquiry: Research in PAR always demands a lived inquiry with the students, parents and community people. A lived inquiry is a social process that has the aim of augmenting knowledge by collaboration, resolving doubt by dialectical approach to solve a problem. In this regard, Acharya (2016) states, "inquiry-based learning is a form of active learning that starts by posing questions"; discussing on the problems not merely presenting "established facts or portraying a smooth path to knowledge" (Shrestha, 2006). PAR makes it easier for basic level students to solve problem by identifying learning possibilities and the issues and questions of research. Thus, leariong based on inquiry in the PAR process, usually small-scale projects, exists to get solutions to problems, and thus is also very close to thinking skills. According to Willams (2004), "inquiry is any process that has the aim of augmenting knowledge" and inquiry learning helps to solve problems (ibid) and also includes learning through experience and praxis (Dewey, 1938)**.** Parents experiential learning in school gardening (Lazonder & Harmsen, 2016), community people in life skills (Klahr & Nigam, 2004), teachers in increasing interest (Kuhn & Phelps, 1982) and head teachers in free of corporal punishment (Lazonder & Harmsen, 2016).

Authentic Listening: Draw the attention of the research participants for lived inquiry is one of the major components of PAR process. "Listening is to give one's attention to sound or action", (Willams, 2013). Listening is a technique that involves complex minds-on (cognitive), hearts-on (affective) and hands-on (psychomotor) processes. Effective processes include motivation by the teacher co-researcher to attend to others such as students, teaches as well as parents; cognitive processes include attending, understanding, receiving, and interpreting the classroom and social phenomena; and behavioral processes include responding with verbal and nonverbal feedback. In PAR, attentive listening is used rather than listening. Suri and Clarke (2009) states, "authentic listening is different from listening in relation with meaning within the meaning". Authentic listening in the PAR process proceeds with a chain of successive steps, one after another, in a logical form, listening attentively to what the other person is saying without interrupting; "feeding back the understanding of what s/he is feeling", (Suri & Clarke, 2009); checking with partner (co-researcher) to confirm that you have understood him or her correctly (ibid). According to Willams (1013), "authentic listening means genuine listening", in which the co-researcher will gain the reality from the participants.

Reflective Practitioner: In conducting PAR, the co-researcher and the participants need be reflective and reflexive in their work. The teacher as a co-researcher is a practitioner in the classroom activities. The reflective practitioner is different from a practitioner in the sense of the "ability to reflect on one's actions so as to engage in a process of continuous learning," (Write, 2015). As a PAR co-researcher and a teacher at the university, I envisioned that reflective practice is the experience not necessarily leading to learning but rather deliberation of reflection of the teachers and community people where experience is essential. In this respect, Miller (2007) says, "reflective practice is the ability to reflect on one's actions so as to engage in a process of continuous learning". The skill of listening develops the habit of the technique of critical engagement to the experiential knowledge, skills and embedded values, by examining practice reflectively and reflexively. This item leads to "developmental insight in completing the PAR process" (Skelly & Bradley, 2007).

Knowledge Co-construction: Co-construction in learning is a distinctive approach to PAR pedagogy in which the researcher acts as a co-researcher and emphasis is on collective engagement in a collaborative environment. In this line, Write (2015) adds, "partnership working among the pupil helps to co-create new insights". Knowledge creation is possible through the dialogue session in the problems during teaching learning practices. Collaboration needs the partnership among the teaching staff, parents and students so that creative learning environment can be developed at school. "Co-construction of learning deepens relationships and understanding between all learning partners and can lead to improve school" (Williams, 2007). In the PAR process, "identification and authentication of new knowledge through the participatory action research can be evolved" (Torbert, 2001). As a co-researcher in PAR, I believe that knowledge can only be reflected by the collaboration among the stakeholders.

Experiential Knowing: The knowledge gained through experience is called experiential knowledge. According to Lisa (2015), "experiential education is a philosophy of education that describes the process that occurs between a teacher and students that infuses direct experience with the learning environment and content". The experience of the farmers in school gardening; teachers in classroom activities; and students in collaborative learning help to apply the knowledge of the real field experience to transform classroom pedagogy from the chalk and talk method of inquiry based learning. In an inquiry-based learning classroom both educators/teachers and students purposefully involve themselves in gaining direct experience. In this connection, Olson, Key and Eaton (2015) focused "reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities". As a co-researcher, I will try to apply this knowledge to transform the pedagogy in learning science in the basic school system in Nepal.

Co-operative Inquiry: In my understanding, each student brings to with his/her some information, which he/she alone possesses and can add it to the collective knowledge base, used to solve a problem critically. Co-operative learning can develop a more positive attitude towards learning. I think in cooperative classrooms, teaching is more enjoyable for students and they joyfully can learn by fun. In this regard, Cunningham (1998) says, "facilitate effective and meaningful learning in science and encourage group work for the development of social attitude". This makes teaching more enjoyable rather than monotonous. It also develops positive attitude towards science and its use in daily life activities. Cooperative inquiry creates inquisitiveness among learners while completing the research cycle including four types of knowing. The first is the "propositional knowing" (Singer, J., Marx, R. W., Krajcik, J. & Chambers, J. C. 2000); "practical and experiential knowing" (Dewey, 1980); and "presentational knowing" (Duschal, 2003). These stages deepen and deepen in the experience among the research participants to co-create knowledge.

Transformative Pedagogy: Transformation is a process of complete change for the betterment. In the schools of Nepal, the traditional cultural practice of teaching learning exists. As a science education expert as well as PAR co-researcher, I believe that I have some roles to transform the lecture method of teaching to students centered method by engaging students in a meaningful way. Learning by changing of the self and the other is the key component of PAR. In this line, different researchers possess different understandings. "Transformative learning is the expansion of consciousness" (Loren, O. Warren, E. 2012); "transformation of the basic worldview and specific capacities of the self" (Cunningham, 1998); "transformative learning is facilitated through consciously directed processes" (Merizow, 1978). Jack Merizow developed transformative learning theory the first time. His theory provides a comprehensive but complex framework describing how students contrast and validate when they learn. Reflecting on the researcher's experience is due important in the PAR process. Changing the mental schemes like belief system and attitude, one should be very conscious throughout the PAR process.

Reflective Critique: Reflecting myself as a co-researcher in conducting PAR to transform pedagogical practices in the basic schools in Nepal, I may face unexpected problems webbed as chaotic networks in the school. It needs to learn how to cope with complex environment of the school and to take action in a participatory way. The matter of concern is to engage teachers and students into dialogical action, capable of nurturing knowledge and change among them. This can be achieved by creating space for collaborative dialogue between the students and science teaches as well as with the co-researchers and supplementing it with the integration of reflexive writing practice. This forms the basis for sustaining participation and learning at individual and collective strata.

In the PAR approach to change our inner self and the community people it is necessary that we are reflexive. This leads to developmental insights. "Reflective practice experience alone does not necessarily lead to learning" (Herbert, 2018); then what is essential is deliberate reflection (Deway, 1980). Regarding reflexive practice, Graesser and Olde (2003z: 9) remark:

…….a person who reflects throughout his or her practice is not just looking back on past actions and events, but is taking a conscious look at emotions, experiences, actions, and responses, and using that information to add to his or her existing knowledge base and reach a higher level of understanding.

According to Lisa, et al. (2015), "reflexivity in PAR focuses on change". I believe that people participate to improve an understanding the world for changing in themselves. Reflexivity "emphasis on collaboration" (Miller, 2007). In the cycle of "research, action and reflection", reflexivity is a must (Olson, et al., 2015). PAR seeks to liberate participants to have a greater awareness of their situation in order to take action, although for some researchers the emphasis on liberation will be tempered (Morris, 2008).

METHODS AND METHODOLOGY

The research methodology of this study will be participatory action research (PAR) approach (Bhana, 1999) for transformative learning (Freire, 1970; Taylor, 2009). PAR emphasizes critical reflection so that ensures the participation of students, teachers and parents for co-creation of learning. Reason and Bradbury (2008) argues in the favour of the critical and inclusive engagement of stakeholders' major role in conducting PAR. All participants will be equally participating in the process. I, as a teacher-and-co-researcher, will be backing and ensuring the students to realize their abilities of understanding the situation. In this way, they will be taking the ownership of their own learning by finding solutions to the problems on their own.

According to Ahmad, (2016: 74),

…..when the participants control the process of knowledge production from problem definitions to creation of solutions, they are more likely to develop capacities that influence their future actions (Gaventa & Cornwall, 2001).Thus, raising critical consciousness among the stakeholders is important for community transformation (Freire, 1970). ….. used transformative learning perspective as a meta-theoretical lens to explore the extent to which the process provided participants with a chance to examine, question and review their perceptions and experiences.

It is to my expectation that the PAR activities that I plan to conduct in a few public schools in Chitwan and Nawalparasi districts will create an environment in which the stakeholders will develop abilities for co-creating knowledge in the form of inquiry by means of meaningful engagement, mutual learning, ownership and confidence.

In the course of my research, dialogue reflections will follow dialogue conferences. This will ensure sharing experiences and ideas (Ahmad, et al. 2016). This kind of practice is believed to provide as platform for development of an action plan addressing a democratic interaction between stakeholders. Some my strong foundations of my proposed practice will be under Deway's education as life itself, Kolb's (1984) experiential learning and Freire's (1970) 'harmonizing education'.

RESULT AND DISCUSSION

Transforming Traditional Science Teaching through PAR

A science teacher, I reflect that an essential facet of inquiry-based science learning is the importance of self-critical reflection. Morris (2008) points out that "critical reflection is granted too much importance for affective learning". I believe that enough attention by collaboration in learning activities helps to create significance difference in school going children. My worldview will be as a science teacher as a facilitator (co-researcher in PAR) among the students and the teacher. McNeill, et al. (2006) draw own attention to the fact that, after Reid, Zhary, and Chen, (2003: 103) critical reflection can only begin once emotions have been validated and worked through. The cognitive dimensions of critical reflection would be more active once the initial affective responses to the disorienting dilemma have validated and have begun to be explored by the facilitator's assistance with others and through reflective writing. Students would have transformed in activities such as self-reading, discussion, argumentation and conclusion of the studies matter in science (Acharya, 2016). They want to be engaged in designing and implementation of improvised instructional materials to learn science. This way transformative students' learning can reflect the deeper level of learning (Singer, et al. 2000).

As a result of literature review in this article, I have come to believe that in its most productive form empathy between teacher-researcher and students that energizes both teaching and learning in ways that are conducive to transformation for all involved is very significant. As a result of this review, the value of encouraging me and the co-researchers to write reflectively has emerged as an important dimension of transformative pedagogy. Developing a reflective attitude to learning especially through encouraging co-researchers to write reflectively, maximizes the likelihood that they will recognize the need for transforming limited frames of reference in favour of new ones. Conditions conducive to transformative learning may be fostered through fostering emancipatory learning environments and encouraging strategies such as keeping a reflective note.

Discovering the benefits of close reflection on my own practice, for my own professional development and for my students was one of the major personal outcomes of the literature review. Yet if reflective practice is to become a key dimension of professional development and transformation in the basic level schools, the need for teachers to dialogue with one another about their personal teaching experiences and to engage in collaborative inquiry should also be recognized.

My reflection on literature review and the process of engaging in the research process have led me to conclude that learning contexts based on interactive communion are ideally suited to fostering transformative learning in students. The realization of the essential nature of transformative learning has transformed my personal conception of what it means to be a science teacher. To teach is not so much to do, as to be, and to encourage and others to be courageous, authentic individuals, capable of exhibiting meaningful self-reflection and lifelong transformative learning.

In connection with the above lines, I as a PhD student with an inner sense of commitment to PAR. I seek to overcome its drawback: PAR is too long and takes long to complete many cycles to reach the reflection in the co-creation of knowledge. As a co-researcher, there is a need for the development of PAR research competencies in terms of methodology and approach, identify a research query through a baseline survey, need assessment as well as inland survey in the community prior to actively engaging among all the stakeholders. "The partnership with community people, teachers and the students is a must in PAR" (Ugwu & Soyibo, 2004). As a student and the co-researcher involved in the PAR approach at Tribhuvan University, I am planning to us a PAR by engaging students and teachers before implementing an actual research plan. After the intervention in the classroom pedagogy through the medium of science teacher training, I will engage myself as a participant to facilitate in the meaningful engagement of students in learning. After the observation and reflection in the transformation of science learning from the traditional chalk-talk approach to inquiry based engaging activities, intervention will be conducted by the use of information, communication and technology (ICT). My act of reviewing the PAR literatures has enabled me in terms of my reflections of knowledge and experience, assessment of my roles as a research participant to gain reflection of knowledge and experience, examine my roles as a research participant to gain awareness of the principles, ethics, and approaches along with my underlying assumptions and beliefs. I hope, I will be able to mitigate all sorts of shortcomings in me needed for the inquiry process.

My focus will be on emphasizing real participation and worthy action at the community level to conduct the PAR process throughout the cycles. Bell (2001) defines "combining social investigation, educational work and action" is related to my cooperative inquiry. My research is an exploration of inquiry-based science learning through meaningful participation of all the stakeholders for the co-creation of knowledge to transform classroom pedagogy in the basic schools in Nepal. Sharing this knowledge with all the co-researchers is to create "innovation and transformation is collective action" (Minner, Levy & Contusy, 2010). From my experience as a primary level science teacher to a university teacher and as a researcher in science education, I have come to know the significance of the PAR approach in conducting research to transform classroom pedagogy in the rural villages in Nepal.

In this connection, Siedel and Furtak (2012) claim, "cooperative inquiry begins with own look, think, and action cycles". Therefore, I would apply my knowledge gained through practical experience to new learning and discovery. Thus, I will act both reflexivity (insider) and reflectivity (outsider) in the inquiry process. Being reflexive as an insider in the local community and as a science teacher seeking transformation my interests lay within me to know participants collaborate and how communities participate in collaboration.

As a university science education teacher for relatively a long time, I came to appreciate the possibilities and challenges of science learning activities, the capabilities of students and the barriers in collaboration and the burden of low achievement of students in science. However, I know, as a member of an academic community I am transforming myself as academic scholar processing science education. Collela (2000) argues, "I am learning to see the world beyond local experience, opening up to broader perspectives", and I as a co-researcher try to find new ways to take up engagement. My query begins with classroom teaching and learning, to improve the situation by engaging students, parents and community people who have vital roles to complete the PAR cycles to transform from traditional to inquiry-based classroom. Being reflective as a participant, collaboration, teamwork and sharing power among all the stakeholders will the major concern. Torbort (2000) emphasizes, "deep kind of participative knowing, where the co-researcher is grounded in their experience as co-researcher". As a co-researcher within this inquiry based science learning context, drawing on my experience as a catalyst (reflective co-researcher) to inquiry-based science learning I will be an insider working with the students, teachers, parents and community people, thus co-creating knowledge in science education. This is how I intend to transform science classroom pedagogy in the basic schools in Nepal.

CONCLUSTION

PAR is a systematic inquiry to learn science and an action research methodology undertaken by the co-researcher which focuses on transformative changes in classroom pedagogy. PAR, as part of qualitative research, aims at fostering participants' collaboration and enables the co-researchers to co-create knowledge across practice together. Thus, PAR empower and supports capacity development building students (preferably basic level), teachers, parents and community people who participate. PAR is an educational process and an approach to investigate and a way and taking action (intervention) to address the problems and issues in (the basic level) schools. To transform science pedagogy in the basic level schools in Nepal, the use of the PAR approach is expected to be a useful paradigm to improve the situation of engagement in lived experience that may help to improve the curricula and science teachers' professional development, system planning and policy development at the national level. "PAR liberates research from conventional prescriptive methods and seeks to decentralize traditional research"

(Alonzo, & Steedle, 2009). In fact, it offers a dynamic and radical alternative to the process of gaining knowledge in a collective and self-reflective inquiry for improving or empowering a community situation through the modification and transformation of classroom pedagogy. It is because students and the schools are a messenger for transforming knowledge in society. I believe that the first step of social transformation starts with the classroom pedagogy.

ACKNOWLEDGEMENTS

This review paper grew out of the insights gained in course of my PhD pursuit which was:

i. registered with the Graduate School of Education, Faculty of Education, Tribhuvan University.
ii. inspired by the fellowship for PhD student awarded by NORHED-project, Norway.

Therefore, I would like to acknowledge both of the institutions as well as my PhD thesis supervisor Prof. Dr. Chitra Bahadur Budhathoki (Post doc. fellow- NORAD project), co-supervisor Assot. Professor Dr. Birgitte Bjonness (Norwegian University of Life Sciences), Prof. Dr. Rajani Rajbhandary (Chairperson, Subject Committee- Science and Environment Education), Professor Dr. Bhimsen Devkota (lead programme coordinator, NORAD project) and Assot. Prof. Kamal Kumar Poudel for their insightful guidance and encouragement.

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SYSTEMATIC REVIEW OF THE CHECK-IN/ CHECK-OUT COMPONENTS AND THE EFFECTIVENESS FOR STUDENTS WITH CHALLENGING BEHAVIORS

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ABSTRACT
The purpose of this systematic literature review was to summarize the outcomes of the Check-In and Check-Out (CICO) intervention components and the effectiveness of the intervention for at risk students with challenging behaviors across multiple grade levels. School-wide Positive Behavior Supports (SWPBS) is a system of evidence based interventions that are implemented on a continuum to reach academic and behavioral success for all students. CICO is a tier 2 behavioral intervention package that promotes positive reinforcement, social skills training, frequent feedback, and home communication. The findings indicate that the CICO procedures contain similar components and that it is an effective Tier 2 intervention for problem behaviors.

Introduction

An extensive amount of school districts within the United States utilize a three tiered prevention model for behavioral needs of students. According to pbis.org, "School wide positive behavior support (SWPBS) is an empirically supported approach that is implemented by more than 10,000 schools in the United States to support student and staff behavior." SWPBS consists of three tiers. Tier 2 focuses on providing students who do not respond to Tier 1 interventions (school-wide practices) with more specialized and intensive support. Eighty percent of students in this model fall within the Tier 1 range that is targeted by school-wide behavior supports. Some students (approximately 5-15% of the student population) will need additional behavior support that can be provided by Tier 2 behavior interventions (Crone, Hawken, & Horner, 2010; Hawken, Adolphson, MacLeod, & Schumann, 2009). Students who do not respond to Tier 2 interventions, move into the Tier 3 range. This affects about 5% of students overall. These students require significant behavioral interventions and supports including a functional behavior assessment, or an individualized behavior plan.

Check-In/ Check-Out (CICO)

Check-in/Check-out is an effective and commonly used Tier 2 intervention. According to Hawken (2014), "CICO is one of the most widely implemented Tier 2 interventions, with over 3,000 schools across the country currently using the CICO-SWIS database to document progress for students receiving the intervention." However, this number is not a current reflection of the number of districts utilizing the CICO procedure due to the various behavior databases used to track the effectiveness.

According to Campbell and Anderson (2008), CICO has shown to be an effective intervention for elementary and middle school aged students. The CICO intervention is commonly utilized to reduce various problem behaviors, both internalizing and externalizing. Gresham & Kern (2004) found that "externalizing behaviors are those behaviors that are directed outwardly and are considered under controlled. These behaviors include aggressive behaviors, conduct problems, disruptive behaviors, hyperactivity-impulsivity, opposition/defiance, and acting out." The study by Gresham & Kern (2004), also defined internalizing behaviors as "behavior patterns that are directed inwardly at the individual and are considered to be over controlled. This includes social withdrawal, somatic complaints, poor self-esteem, negative self-thoughts, depression, and anxiety." Crone, Hawken, & Horner (2010) validate that CICO is an effective intervention for externalizing behavior problems. On the other hand, CICO was also found to be an effective intervention for reducing internalizing behaviors (Hunter, Chenier, & Gresham, 2014).

The components of the CICO procedures may vary between school districts; however, according to Everett, Sugai, Fallon, Simonsen, & O'Keeffe (2011pbis.org), the CICO daily activities include the following and provides a reference to the "traditional" CICO procedure.

- Check in with a CICO coordinator (or their homeroom teacher) in the morning.
- Carry a point card that is based on school-wide expectations.
- Receive frequent and regular feedback on their behavior from adults throughout the day.
- Review their goals with the coordinator (or their homeroom teacher) at the end of the day.
- Take their point card home for parent signature and positive feedback.

Review Purpose

The purpose of this review was to determine the necessary Check-In/Check-Out components and the effectiveness of this intervention with students considered "at risk" or in the Tier 2 range. The following research question has been developed to guide the present review: What components of the check in/ check out system are essential to the effectiveness of the intervention?

Method

Inclusionary Criteria

A systematic review was done in order to collect data on the CICO components utilized within various published studies. A database search was conducted on Educational Resources Information Center (ERIC). Sixteen articles were found in the initial search using the keywords check-in/check-out intervention. A strict set of inclusionary criteria was put in place to review the articles. The criteria required the following items:

- Peer reviewed journal
- Check In/ Check Out Intervention
- Study had to be conducted between the years 2007-2017.
- Article required to have at least one participant that was considered at risk (Tier 2)
    - Students were not receiving any special education support for behavioral needs
- Participants had to be within a general education setting
- The study had to be a single-subject design
- The participants had to display emotional/ behavioral characteristics
    - Inability to build or maintain satisfactory interpersonal relationships with peers and/ or teachers
    - Internalizing Behaviors/ Externalizing Behaviors

Based on the inclusionary criteria, seven articles met all expectations needed to conduct this systematic review. Within these seven articles, there were twenty-three participants that met the inclusionary criteria.

Coding Procedures

Graduate students coded the seven eligible studies according to the following characteristics: article title and year of publication, participants, grade level, school placement (general education), target behavior, CICO components mentioned within the study, baseline data, intervention data, and overall results. A checklist was completed in order to document all of the CICO components that were used in each study. The components of the CICO procedures varied between each of the articles. Although many articles utilized similar or the "traditional" components, some studies mentioned using additional components. Therefore, additional columns were added to the spreadsheet in order to depict the specific elements that were mentioned within each article.

Coder Reliability

All seven articles were coded by two reviewers to verify the components found. The articles were found to have between 66%-100% agreement when reviewed a second time. The IOA was calculated by the number of items coded divided by the number of items coded the same way plus (+) differences. Overall, the mean percentage of agreement for coding items was 87%.

Results

CICO Component Results

Each article coded listed multiple components used in the Check-In/Check-Out intervention process. The findings show that all seven articles included giving the participant a point card to track progress, a morning check-in, and an afternoon check-out. Six of those seven articles required parental involvement of some kind (sent home with student/required parent signature daily). Multiple check ins throughout the day and the process of setting a goal

for the participant was discovered in five articles. In four of the articles, multiple scorers were used throughout the intervention process. Additionally in those four articles, an incentive was given for those participants who reach their set goal. Three of the seven articles discussed how the CICO procedure followed school-wide PBIS expectations, and implemented some form of teacher training sessions. In two articles, there was a requirement for the student to approach the teacher for feedback about daily progress and fill out the point card. Only one article mentioned additional components in the CICO process such as: the participant earning bonus points for having homework done, being prepared for class, having the teacher review and sign point card, social skills training, and functional based adaptations. (See Table 1).

CICO Effectiveness Results

There were a total of 23 participants within the seven articles. Each of the participants were enrolled in grade levels ranging from kindergarten to eighth. The participants were chosen for the check in/ check out intervention based on their identified target behaviors, both internalizing and externalizing. Common target behaviors of participants included internalizing behavior (social withdrawal, negative self-thoughts, anxiety), disruptive behavior (out of seat, talking out of turn, impulsivity), defiant behavior (refusal, non-compliance), and physical aggression.

All twenty-three participants started with the traditional CICO procedure (had components noted in the pbis.org daily activities). Seventeen of those participants showed decreasing levels of challenging behavior. The other six participants needed additional supports for CICO procedure to be effective. Once these supports were added, those six participants also showed decreasing levels of challenging behavior. Therefore, some form of the CICO procedure was noted to be effective for all twenty-three participants based on decreasing levels of problem behavior and increasing levels of prosocial, appropriate behavior.

The "traditional" CICO was not found to be effective for six of the participants. Four of the participants who did not respond to the "traditional" CICO procedure required a social skills component. The social skills component took an average of 15 minutes each day and involved explicit instruction on identified social skill gaps, modeling, and guided practice of skills within social environments. Once a social skills training component was added to their CICO procedure, all four participants showed an increase in positive social engagement and a decrease in negative social engagement behaviors (i.e. teasing, gossiping, etc.). Two of the participants that did not respond to the "traditional" CICO and required an addition component/ consideration be added to their daily CICO. Two of the participants were given a function based adaptation. A functional analysis was done during baseline of this study and the function of the students behavior was considered after the "traditional" CICO was found to have little to no effect on problem behaviors. Once a function based adaptation was implemented, their problem behavior was observed in significantly less intervals.

Discussion

The purpose of this review was to determine the essential components of the CICO Tier 2 intervention and the effectiveness it holds with students considered "at risk." Results indicated that all participants experienced success with some form of the CICO process. The findings show that methods used in the "traditional" CICO procedures were effective for 74% of the participants reviewed in this study. 17 out of 23 participants responded to the "traditional" CICO. The other six participants required an additional, individualized component in order to find success with the CICO procedures. After the additional components of social skills instruction and function based adaptations were added to their CICO procedures, the intervention appeared to be successful as documented by a decrease in problem behaviors and an increase in positive social engagement. Therefore, the CICO procedure was successful for 100% of the participants within this systematic review given that the procedures were individualized and additional components were added as needed to address skill deficits and the function of behavior. Multiple studies agreed that "CICO can be modified to address different behavioral needs, such as students who require more frequent check ins throughout the day or students whose behavior is sensitive to contingencies other than adult attention" (Fairbanks et al., 2007; March & Horner, 2002).

Many different dependent variables were evaluated across all studies included in this review. Of all of those dependent variables, three were consistently identified in all articles reviewed. In order to be considered a Check-in/Check-out intervention within the Tier 2 model, participants must be given a point card, and have one morning check-in and one afternoon check-out. Additional components that were found to be successful include parental involvement, multiple check-ins throughout the day, setting a goal, and providing an incentive for achieving that goal. These, along with other components can be provided to the participant based on his/her identified needs.

Limitations

Although the Check-in/ Check-out intervention was found to be effective for all of the participants within the articles reviewed, there are some limitations that should be kept in mind. "Research indicates that CICO is less effective for students whose problem behavior is hypothesized to be maintained by avoidance of instructional activities" (March & Horner, 2002; McIntosh, Campbell, Carter, & Dickey, 2009). Our research supports this hypothesis due to the fact that the articles utilized in this systematic review does not include any participants demonstrating escape or avoidance as a function of problem behaviors. Secondly, only three of the seven articles that were reviewed mentioned some form of training for CICO coordinators and other staff members. It is unclear as to what the protocols are regarding the training process, or the criteria necessary to be an implementer of the CICO intervention. There was also no mention of how long the training process was or if the implementers would need continuing courses to validate fidelity. Lastly, fading and maintenance procedures were not noted or identified within the articles reviewed.

Table 1

Article Title	Participant/ Grade Level	AM Check In	PM Check Out	Point Sheet/ Card	Parent Signed/ Report	Multiple Check-Ins	Goal Setting	Multiple Scorers	Incentive	PBIS	Teacher Training	Student/ teacher feedback	Additional Components Noted
Addressing Task Avoidance in Middle School Students: Academic Behavior Check-In/ Check-Out (2014)	Toby (8th) Katie (7th) Nick (6th)	X	X	X	X				X			X	*Bonus Points for being prepared for day, having homework in AM, and having homework to go home, and teacher reviewed and signed homework
Check-In Check-Out + Social Skills: Enhancing the Effects of Check-In Check-Out for Students With Social Skill Deficits (2015)	Emily (5th) Olivia (5th) Lucida (3rd) Sarah (3rd) Tom (1st)	X	X	X	X	X	X	X			X		*Social Skills training needed for Emily, Olivia Lucida, and Sarah
Enhancing Effects of Check-in/ Check-out With Function-Based Support (2008)	Joe (4th) Kyle (4th)	X	X	X	X	X	X	X	X	X		X	*Function Based Adaptation
The Effects of a Targeted Intervention to Reduce Problem Behaviors (2008)	Chad (1st) Kendell (2nd) Eric (K)	X	X	X	X	X		X		X			
Check-In/ Check-Out: A Systematic Evaluation and Component Analysis (2011)	Kyle (2nd) Mike (5th) Nick (5th) Paul (5th)	X	X	X	X	X	X		X		X		
Evaluation of Check In/ Check Out for Students With Internalizing Behavior Problems (2014)	Patrick (4th) Chris (4th) Caroline (4th) Jeff (4th)	X	X	X	X		X		X				
Using a Changing-Criterion Design to Evaluation the Effects of Check-In/ Check-Out With Modifications (2016)	Kaiya (7th) Tina (7th)	X	X	X		X	X	X		X	X		

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THE IMPACT OF ELECTRONIC FEEDBACK ON STUDENTS' WRITING QUALITY

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ABSRACT
The purpose of this study was to investigate the effectiveness of electronic feedback on second year English college students' writing quality. LMS as the educational technologies are growing creates a broad spectrum of ways in which technology can be integrated into classroom instruction. Electronic feedback is defined as feedback in digital (described as information, image, audio, video, and etc) that is recorded or broadcast using computer technology. This study adopted quasi experimental methods to investigate the impact of electronic feedback on students' writing quality. The researcher conducted a experimental design with second years students at one of the private university in Jombang regarding their usage and perceptions of E-Feedback in Schoology. The result of this study indicate that the ineffectiveness of e-learning caused by the differences of students' learning style and the first thing to do before the implementation of e-feedback is to provide good facilities and infrastructure.
Keywords: Electronic Feedback, Schoology, EFL Students, Writing Quality

Introduction

English has become increasingly important to be taught in universities. This is because university graduates need to have certain level of English proficiency. Murray (2011) defined language proficiency to consist of proficiency, academic literacy and professional communication skills. Thus, English is included in university curriculum. The proficiency is 'a general communicative competence in language that enables its users to express and understand meaning accurately, fluently and appropriately according to context, and which comprises a set of generic skills and abilities' (Murray 2011, p. 305). Compared to three other skills in English (i.e. listening, reading, and speaking) writing is considered to be more complex since as Brown () stated it has to be learnt and taught.

Despite, in the fact that writing is very complex due to its process which requires recursiveness and multiple draftings (Amelia, 2016: 1), the previous studies have shown that interest in the area pertaining to writing composition can bring a change in which students become efficient at generating and organizing creative ideas (Nasir, Naqvi & Bhamani, 2013: 27). Furthermore, they explained if the teachers would be aware of the writing process, this would help in applying appropriate strategies in teaching and that would also improve the writing abilities of students in education environment. Subconsequently, learning to write is important for the students as it enables students to express their thoughts, knowledge and feelings efficiently.

Therefore, the present study concerns the following research question: Do students who are given electronic feedback have better writing quality than those who are not given electronic feedback? The assumption in this study is "There is a different impact on writing quality between students given electronic feedback and those who are not given electronic feedback". Then, the provisional answer of the research question in this study, called as research hypothesis is "Students who are given electronic feedback have better writing quality than those who are not given electronic feedback".

Literature Review

E-Feedback: Definition and its' impacts

Feedback is viewed as crucial for both encouraging and consolidating learning and this significance has also been recognised in the area of foreign language writing. Amelia (2016: 3) deemed feedback as a way of responding to the students' writing. Indeed, feedback is a key component of second language writing programs around the world, by employing product, process and genre approaches a central part of their instructional repertoires (Hyland & Hyland, 2006: 15). It makes the students see others' responses to their writing and learn from the responses, then get the messages in order to revise their writing to be better at gaining a high quality writing.

The rapid pace at which educational technologies are growing creates a broad spectrum of ways in which technology can be integrated into classroom instruction . Electronic feedback (e-feedback) has drawn researchers' attention and interest (Prins, Slujismans, Kirschner & Strijbos, 2005; Tuzi, 2004; Chen, 1997; Snyder, 1996) for more than two decades. Electronic feedback is defined as feedback in digital—(described as information, image, audio, video, and etc. that is recorded or broadcast using computer technology)—written

form and transmitted via offline or online—transfers the concepts of oral response into the electronic arena (Tuzi, 2004: 217); automatic computer-generated feedback (Chen (1997) & Snyder (1996), in Allah, 2008: 2) , and electronic assessment of writing (Prins, Slujismans, Kirschner & Strijbos, 2005 in in Allah, 2008: 2), the results investigation showed that e-feedback had a greater impact on revision than oral feedback, in other words, e-feedback might be more useful. In addition, it is claimed that e-feedback helps L2 writers focus on larger writing. Thus, the L2 writer may use e-feedback to create macro revisions.. The focus of this study, however, is the way in which electronic feedback can help not only overcome traditional feedback problems but also, more importantly, improve students' writing quality as well, as the ultimate goal of the writing classroom. In addition, it also investigates the different modes of feedback: teacher/peer feedback and electronic feedback. The rationale behind the sequence of explanation is the movement from non-electronic feedback to electronic feedback. Therefore, the present study concerns the following research question: Do students who are given electronic feedback have better writing quality than those who are not given electronic feedback? The following paper begins by explaining the research methodology, and the reports on the result followed by a conclusion of the research.

Research methodology

Research design

In order to answer the research questions mentioned, the present study used a quasi-experimental design, particularly posttest only. This design deals with comparing groups through random selection. The other consideration why this present study used quasi-experimental design is due to the sample selection. The two groups, both experimental and control groups, because it was possible to select the sample randomly (Charles, 1995 in Latief, 2012: 95). Consequently, the researcher selected two groups out of all the existing classes that had equivalent competence, particularly in English writing. One group which utilized electronic feedback (X1), is the experiment group and another group, which utilized written feedback (X2), is the control group (Latief, 2012: 96). The feedback is the independent variable (X), while the EFL Students' writing quality are the dependent variable (Y). Each group will be measured at the same time with equivalent materials during the treatment. Next, the first control group (A) while used teacher written feedback based on the teacher comment on their essays. The experimental group (B) used teacher electronic feedback on the schoology platform based on the teacher comment on their essays. To collect the data, the post-test will be conducted after the treatment to reveal whether the independent variables really have impact on the dependent variable, the students' writing performance. It will be measured by means of the writing test.

The researcher considered taking only the students of the second year of English Department who has passed English writing course 1 and writing course 2. During the implementation of the research, the research subjects were in the middle of finishing writing course 3. The writing course 3 was divided into two classes: Class A with 47 students as the control group and Class B with 34 students as the experimental group, altogether were 81 students second year English majors, all the students' language proficiency ranged from GPA beyond 2,75 based on the end of the third semester and, which means the GPA were obtained, while the students were finishing Writing course 2.

Data Collection

There were two groups of participants for this experimental study. The first group, the control group, was given teacher written feedback on their writing drafts while the second group, the experimental group, was given electronic feedback on their writing drafts. The data collection procedure consisted of two types of writing tasks and each participant was asked to write argumentative essays within approximately one hour. This study used two research instruments namely, writing test (WT) and questionnaire. Writing test is use to analyze the impact of electronic feedback based on students writing score. The writing test must be completed in 90 minutes and the text produced should be approximately 250-300 words in length. The researcher asked for advice to the writing lecture who is experts in writing to validate it used scoring rubric. The scoring rubric consists of fifth components namely: content 30%, organization 20%, vocabulary 20% and language 20%, and mechanics 10%.

Data Analysis

In order to score the students' composition, the analytic scoring rubric was selected, used as the classroom learning evaluation. Moreover, the analytic scoring rubric can provide a higher reliability and more construct validity (Latief, 1991: 102; Weigle, 2002: 121). In other words, the holistic rubric is appropriate for the aspect of L2 writing and can provide detailed diagnostic information. Furthemore, the analytic rubric used the central elements of written argument into: content, organization, vocabulary, language and mechanic (Sulistyo,

2015: 168-172). Based on the goal of writing 3 courses, writing tests were made to measure students' ability in writing argumentative texts. Students were asked to complete the essay in two writing made: using Schoology with electronic feedback response and; using paper with written feedback. The students in this particular course are familiar with having in-class writing assignments of a similar variety so none of them request to write for an hour in class. The essay structures are; introduction paragraph, opinion that consists of reason and examples, then conclusion. The procedure of data analysis of the this study were undertaken the following order: Scoring, Tabulation, Descriptive Statistical Analysis, Fulfillment Statistical Assumptions, Statistical Hypothesis and Its Testing, Criteria of Acceptance, of The Statistical Hypothesis and Procedures of Testing The Hypothesis.

Findings

The present study tried to investigate whether there was a difference impact on writing quality between students given electronic feedback and students given written feedback. It was aimed to answer the research question: "Do students who are given electronic feedback have better writing quality than those who are not given electronic feedback?". To answer and investigate the different impact on students' writing quality, the comparison of the mean scores of experimental group and control group and the Independent Sample t-test are presented further below.

All students listed in the attendance list in the experimental (n=32), the control (n=38), groups were involved to join the posttest in this study. The result of scoring all the students' essay can be seen in Appendix 5b for the control group and Appendix 5c for the experiment group. To give more vivid picture of the result of the post-test, the scores are illustrated in the form of the histogram on Figure 3.1.

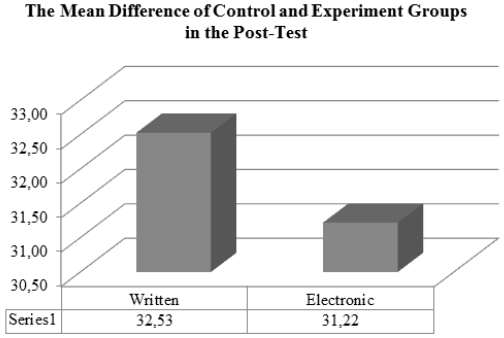

Figure 3.1 The Mean Difference of Control and Experiment Groups in the Post-Test

The descriptive statistical analysis results of both the written feedback group and the electronic feedback group are displayed in this sub-chapter in one section in order to see the different results from both groups. Besides, it is also important to see the results before coming to the hypothesis in this study. Table 3.2 on the next page displays the summary of the posttest results.

Table 3.1 The Descriptive Statistical Analysis of the Posttest in the Control and the Experimental Groups

Descriptive Statistics					
Feedback	N	Minimum	Maximum	Mean	Std. Deviation
Written	38	29	37	32,53	2,544
Electronic	32	28	37	31,22	2,296
Valid N (listwise)	32				

Table 3.1 shows that the means between written groups and electronic groups are statistically different. The findings show that the mean score for written groups is 32,53, which is higher than, the mean score of electronic group which is only 31,22.

The next step after doing all the test was the hypothesis testing. It was used to verify whether or not the null hypothesis was rejected. Referring to the mean of written feedback and electronic feedback, it could be revealed that the mean of written feedback is higher than that of electronic feedback. Then according to the basis of decision making in the Independent Sample t-test, Ho is rejected. See Table 3.8 to know the summary of the Independent Samples T-Test of the Written Feedback Group and the Electronic Feedback Group.

Table 3.8 Comparison of Writing Quality of the Written Feedback Group and the Electronic Feedback Group

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
Nilai	Equal variances assumed	2,690	,106	2,239	68
	Equal variances not assumed			2,259	67,649

Independent Samples Test

		t-test for Equality of Means		
		Sig. (2-tailed)	Mean Difference	Std. Error Difference
Nilai	Equal variances assumed	**,028**	1,308	,584
	Equal variances not assumed	**,027**	1,308	,579

Based on the output, of the independent sample t-test, the results can be drawn as follows: (1) The probability (the value of Sig. (2-tailed)) that the difference is due to chance is .028 and .027, (2) Since the probability that the difference is due to chance is higher than 0.05, there is no significant difference between written feedback and electronic feedback, (3) The difference between written feedback and electronic feedback is not significant. The result of the analysis of using t-test revealed that the obtained probability was 0.028 and 0.027. It was higher than significance level p = 0.05, it meant that statistically there is no significant difference in writing quality of students getting electronic feedback and those getting conventional feedback or teacher written feedback.

Discussion

The focus of this study was investigating the impact of electronic feedback and written feedback on students' writing quality. Therefore, there were two groups involved in this study, they were electronic feedback group which functioned as the experimental group and the written feedback group which functioned as the control group. Chapter III showed the statistical analysis which by using t-test. The results of the statistical analysis, then, become the empirical evidence related to this study.

Referring to the results of multiple comparisions (ANOVA) of writing aspect in both teacher written feedback and electronic feedback in Chapter III, this study revealed that the result was all of the three writing aspect have significant differences, but the dominant writing aspect in influencing the students' score was content aspect. In relation to the content components of the writing, the students' writing ability is scored based on their competency of the topic development. In other words, students need to show their ability to critically provide adequate information for developing the topic of their writing task. Unfortunately, the students could not be able to develop the content of their writing critically. It is advised that students need to work hard to generate ideas from various sources in order to make their writing clear and free of slang. The quality of writing can be defined as the well-organized writing containing well-developed ideas and clear detail (Needels & Knapp, 1994). Writing quality was considered as the main important output of writing and learning (Bangert-Drowns, 1993; Goldberg et al., 2003; Graham, 2006; Graham & Harris, 2003; Hillocks, 1986). In other words, writing quality and the accuracy of the writing content need to be measured as it can be resulted in writing performance

Writing ability needs to be clearly developed by avoiding ambiguous ideas and eliminating unnecessary words in order to make a reader easy to follow. It means that a writer needs to follow the process of writing namely planning, evaluating, and revising. So, the writing develops a good productive draft by considering its unity and coherence. At the last stage, writing product acts as tool for transferring one's own ideas, experience and knowledge (Bereiter, 1980). Having become more advanced writers, students change their writing performance gradually from "knowledge-telling" to "knowledge-transformation" (Bereiter & Scardamalia, 1987, pp. 5–6).

Knowledge telling means the writing ability of the students is still low although they include the content of their writing. In contrast, knowledge transformation means the students are at more advanced level writers whose ability is used to develop more complex ideas, reasoning, knowledge, philosophical awareness and personal ideas. Referring to the results of the statistical analysis, this study revealed that written feedback is more effective than electronic feedback. This results obtained from the mean score of both groups, experimental and control group. The mean score of control group was 32,, which is higher than, the mean score of experimental group which was only 31,. In other words, the theoretical hypothesis is rejected, then, the statistical hypothesis of this study (H0) is rejected. It also signified that the students who were given written feedback had better writing quality than the students who were given electronic feedback.

These results were actually a bit surprising since they were different from the results of the pilot study. However, it is rational since most students who were given electronic feedback did plagiarism by copying other

source in the internet in their writing. It was one of the disadvantages of applying electronic feedback to the finding in this study. In short, the core factor influenced the bad results of students' writing quality was plagiarism. The copy-paste culture seems to be a common secret among students. Through the easy access to information, it is not a difficult thing to get the material or reference to complete academic tasks. If this continues then it will further enhance the culture of plagiarism. In fact, not a few academics are caught in plagiarism cases. This is one of the negative impacts of technological sophistication because it is not used in accordance with the appropriate manners. Sommers and Sattel (2005 as cited by Strom: 2007; in Hartanto, 2012: 5) suggested that cheating occurs because of behavioral erosion, where students are more concerned with helping their friends in the work and exams. It can also make students accustomed to lying because they are more likely to help a friend in the exam.

Seliem & Ahmed (2009) stated that electronic feedback is proved to be essential in the teaching and learning of essay writin, however, it also produces some disadvantages which gives impact to students' writing results. In addition Allah (2008) also explained that the use of computer and internet in writing class produces a problem like students who are not familiar with electronic feedback are more likely to find the practice difficult and time consuming. Those two reasons above may become the core influence on why the students in the experimental group was not better than the control group in this study.

Furthermore, Hyland & Hyland (2006), contended that written feedback from lecturers still plays a central role in most ESL and EFL writing classes. Another issue raised in the written feedback literature is the extent to which students can understand and use written feedback provided by their lecturers. Leki (1992) emphasized that the written feedback is processed by supporting the author through several concepts of proposed revisions during the writing process rather than the final process. This has a significant effect on finding ideas against revision practices from written feedback. Important for this view is the belief that teacher feedback is most effective when delivered at the intermediate stage of the writing process when students have the opportunity to incorporate the idea of written feedback results into their text. Ellis (2009) mentioned that this is a teacher's strategy to improve their students' surface level errors. Some empirical studies of written feedback produce a term called 'optional typology to correct linguistic errors'. This typology is done by the lecturer by providing direct, indirect or metalinguistic corrective feedback. In theory, written feedback involves teachers identifying linguistic errors and giving students the right idea. In other words it only requires an indication that there is a mistake, from the written feedback the focus of student attention can be drawn to the error by finding errors and revising the writing.

Some facts mentioned that many lecturers are not satisfied unless they have written substantial feedback about their students' papers. In addition, the results of a survey conducted by Leki, 1991, Saito, 1994, suggested that feedback written by lecturers is also highly appreciated by students (Hyland, F, 1998) and became popular. In this study, it was found out that written feedback in the form of comments from lecturers is very effective in improving the quality of students' writing. In the findings of this study, it was found out that the lecturers' tendency to use comments are not understood by the students. The ability of lecturers and students 'ability in responding to comments in electronic feedback becomes a factor that is very influential in the quality of revision results of students' argumentative writing. Correspondingly, Cohen & Cavalcanti (1990), for example, found out that the nature of comment differs by proficiency. For example, the case of low-level learners who received some comments about vocabulary or content. The lecturer chose instead to concentrate his comments on grammar and mechanics.

Conclussion

Based on the research problems and the results of data analysis, a number of conclusions are drawn. The first conclusion is that there is no significant difference between students given electronic feedback and those who are not given electronic feedback. It meant that the results of the study may be assumed that the students' writing quality was improved when the lecturer provides feedback by using written feedback with a clear comment to improve the quality of the revised draft.

Due to the non-significant difference, some reason are put foward. First, dealing with quality, it concludes that schoology as e-feedback has an average good quality, depending on the infrastructure and the Internet access. Second, dealing with disadvantages, it meant that Schoology as e-feedback is good if the facilities and infrastructure were adequate and always connected to the internet. Third, dealing with students' negative response of the e-feedback implementation, there are some advantages about accessibility and timeliness and disadvantages of facilities and infrastructure. It can be concluded that the most influential factors of e-feedback implementation are due to lack of facilities and infrastructure. Some students argue that the ineffectiveness of e-learning might be caused by the differences of students' learning style and the first thing to do before the implementation of e-feedback is to provide good facilities and infrastructure.

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